SUSTAINABLE SOLAR EDUCATION PROJECT

# U.S. DOE's *Solar in Your Community* Challenge

January 10, 2016

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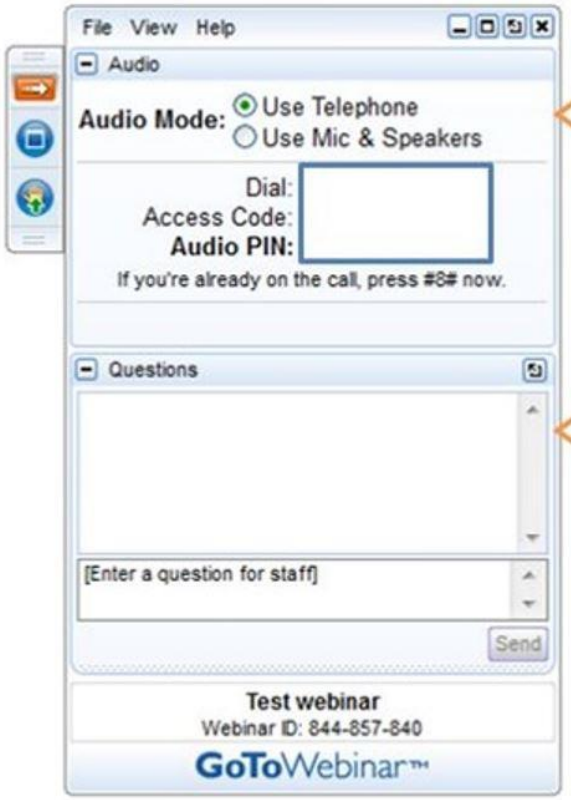
CleanEnergy States Alliance

# Housekeeping




All participants are in "Listen-Only" mode. Select "Use Mic & Speakers" to avoid toll charges and use your computer's VOIP capabilities. Or select "Use Telephone" and enter your PIN onto your phone key pad.

Submit your questions at any time by typing in the Question Box and hitting Send.

**This webinar is being recorded.**

You will find a recording of this webinar, as well as all previous CESA webcasts, archived on the CESA website at

www.cesa.org/webinars

# About CESA


CleanEnergy States Alliance
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New Hampshire PUBLIC UTILITIES COMMISSION
ALASKA ENERGY AUTHORITY
MINNESOTA DEPARTMENT OF COMMERCE
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PRAIRIE ISLAND INDIAN COMMUNITY
NEW HAMPSHIRE DEPARTMENT OF Environmental Services
MassDEP

# 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 CESA and is funded through the U.S. Department of Energy SunShot Initiative's Solar Training and Education for Professionals program.
- Sign up for the Sustainable Solar Education Project mailing list to receive our free monthly newsletter and announcements of upcoming events:

www.cesa.org/projects/sustainable-solar/mailing-list

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# Today's Webinar

Presenter:
**Shubha Jaishankar**

Program Support Specialist

U.S. Department of Energy's SunShot Initiative

Moderator:

**Nate Hausman**,

Project Director, Clean Energy States Alliance

SunShot
U.S. Department of Energy

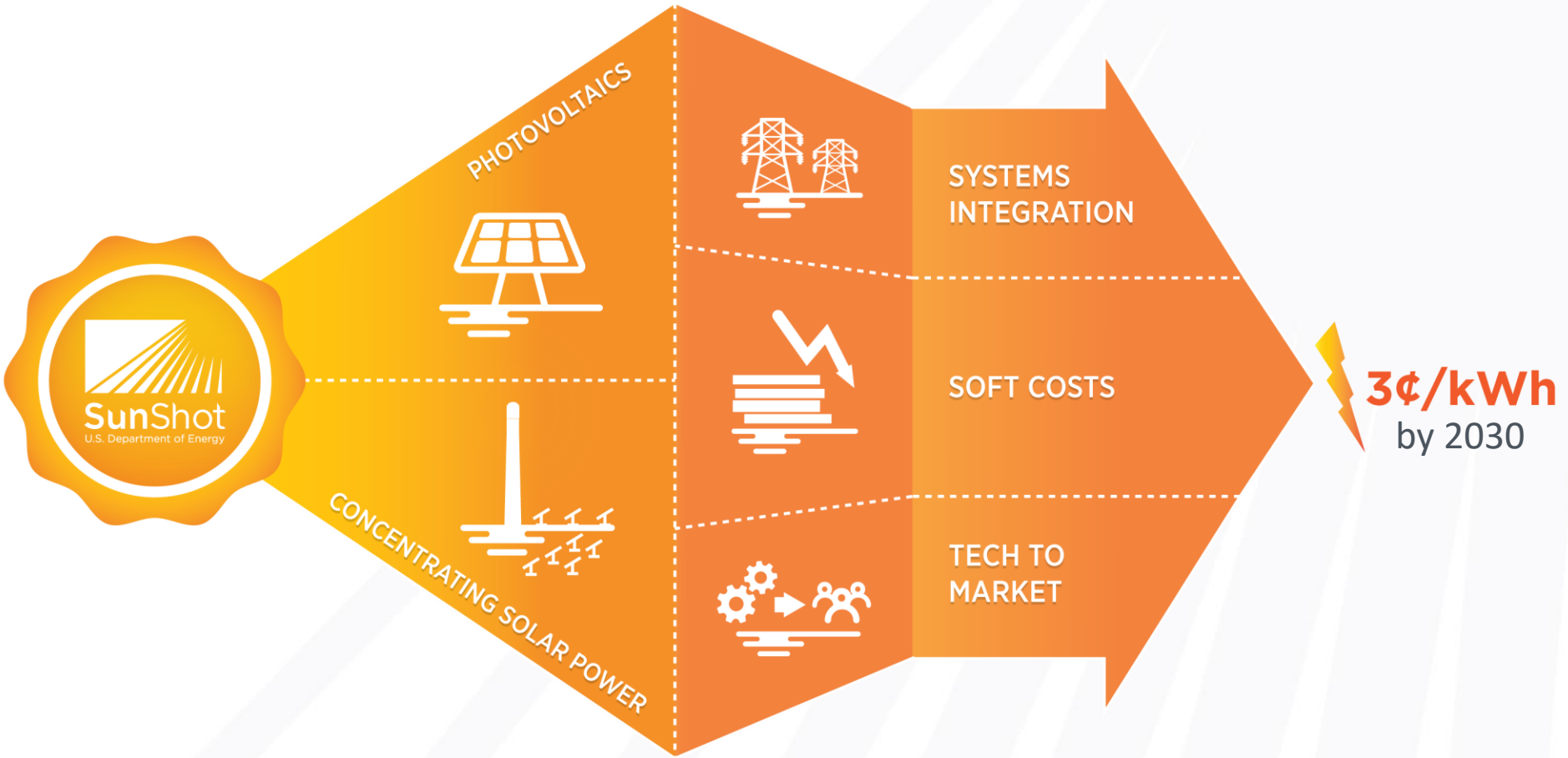
# SOLAR *in Your Community* CHALLENGE

Webinar 1/10/2017

# Agenda

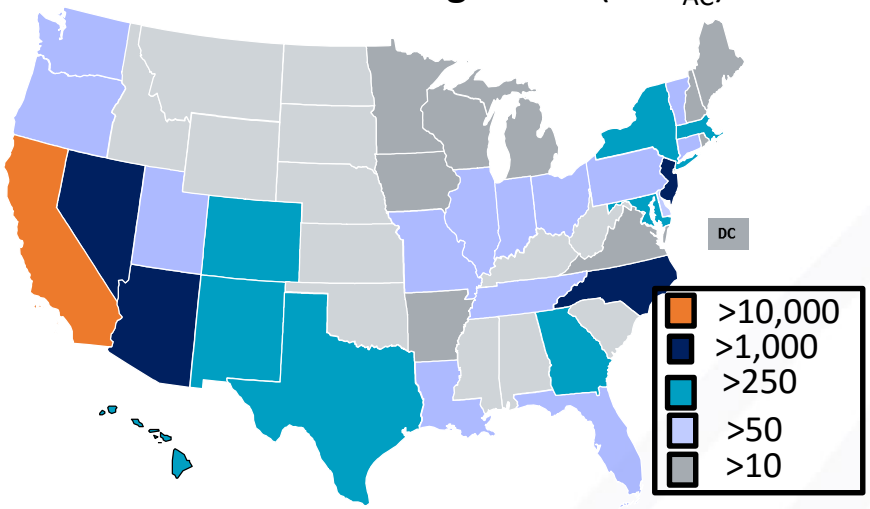
- Background
- Program goals
- Team Structure
- Evaluation criteria
- Application process
- Timeline
- Final Prizes
- Q&A

# SunShot Initiative



# Solar Market's Uneven Growth: Geographic and Demographic

**Cumulative Solar Through 2015** ($MW_{AC}$)




- In 2015, top 5 states represented 72% of market
- >half of the installed capacity is in CA

40% of US households earn <$40,000/yr, but account for <5% of solar installations.
GW Solar Institute

- Solar access remains overwhelmingly skewed toward middle class and affluent households.
- In 2013, most solar installations were occurring in middle-class neighborhoods with incomes $40-$90,000/yr
- Low-income households face a number of barriers to going solar:
  - Less likely to own their own roof
  - Less access to loans and financing
  - More likely to have subsidized utility bills that don't transfer the financial benefits of solar
  - More likely to have lower credit score

# Problem Statement: New Models Needed to Expand Access

## Current Business Models are Limiting

- Nearly half of all rooftops (49% of residential and 48% of businesses) cannot host solar due to insufficient roof space, lack of control over roof (renters, condos), poor roof orientation or shading concerns
- Low income populations face even greater challenges, often due to poor roof condition, inability to make long-term financial commitment on home, lack of access to financing, and lower than average credit scores.
- The Investment Tax Credit (ITC) has grown the solar market, but excludes individuals and organizations with no federal tax liability, including non-profit and governmental organizations, low income individuals, and retirees.

## New Business and Financial Models are Needed

- In order to bring solar to these underserved segments, new and innovative business and financial models are required
- SunShot is calling all entrepreneurs to create, develop, and demonstrate first-of-their-kind models in order to quickly get to scale.
- One example of an emerging business model that can expand access is Community Solar, which allows multiple customers to subscribe to an off-site solar array. However, it has not yet been successfully applied to low income customers at scale.

# National Community Solar Partnership

SunShot's National Community Solar Partnership convened a nationwide conversation around barriers and best practices to expanding access to solar.

**Key Takeaways**

- **Strong interest** in community solar from a broad variety of stakeholders
- But, **growth is limited** to a few areas, and projects are **difficult to finance** and complete
- **Low-income households are left out** of the market

Community and shared solar are the **fastest growing** market sector in solar.

| | |
|---|---|
| **Partners** | 150 |
| 5 | **Workshops** |

# Solar In Your Community Challenge

The **Solar In Your Community Challenge** is designed to overcome barriers to low- and moderate-income (LMI) solar and to catalyze the LMI solar market.

Project Teams will compete for $1 million in Final Prizes, including a **$500,000 Grand Prize**.

In addition to the Grand Prize, selected teams will receive:

- **Small cash awards to seed teams' efforts** ($20,000 - $60,000)
- **Technical assistance** ($10,000 vouchers per team)

40% of Americans are considered LMI, making 80% below area median income.

| | |
|---|---|
| **Seed Prizes:** | $2M |
| **Technical Assistance:** | $2M |
| **Final Prizes:** | $1M |

# Solar in Your Community Challenge

## Program Goals

1. Demonstrate success for new models that expand access to solar
2. Build local capacity to support community-based solar projects
3. Establish a network and a library of resources

**GOAL**

The Solar In Your Community Challenge aims to engage and support a wide variety of teams developing **innovative and scalable business and financial models** that can unlock the LMI solar market.

## Program Outcomes

1. **Piloted and demonstrated** dozens of community-based solar business and financial models across the country.
   (e.g. revolving funds, solarize campaigns, affordable housing bill credits, utility programs)

2. Engage hundreds of communities, banks, and utilities in solar.

3. Lay the groundwork to double the solar market and **realize over $16 billion in economic potential** by 2020.

# Participants

## Teams

Everyone is eligible*, but should include multiple stakeholders. E.g. local government entities, non-profit organizations, community-based groups, citizen associations, public housing agencies, for-profits, etc.

## Experts

Experts will provide technical assistance to teams throughout the 18-month challenge by providing the coaching, expertise, and resources teams need to create innovative new business models that work.

### Teams can either:

- Work to develop a portfolio of **solar projects** in their communities
- Create new **solar programs** that expand solar access to LMI households and non-profits

### Experts can either be:

- **Coaches**, who support teams throughout the entire challenge
- **Consultants,** who are subject matter experts

* Organizations must be based in the US

# Teams

# Teams

- Teams will consist of a wide variety of stakeholders, including solar companies and entrepreneurs in partnership with key local stakeholders: utilities, banks, non-profit organizations, municipalities, and community leaders.

- Teams develop:
  - Portfolios of solar **projects (25kW-5MW in size)** that benefit LMI customers, or community-serving non-profit institutions like schools, health clinics, food banks, or community centers; OR
  - **Programs** that enable, incentivize, or support the above types of projects.

# Projects vs. Programs

| Definitions | |
|---|---|
| **Projects:** actual solar power developed and going to targeted customers (25kW-5MW in aggregate size) | **Programs:** initiatives that will enable the creation of solar projects |

The energy and benefits must go to:

20%
LMI households

**OR**

60%
Non-profits, state, local or tribal governments

Image from Energy Sage

# Projects vs. Programs

- Example projects (going to targeted customers):
  - Solar developer partners with corporations to bring PV to 1,000 low-income families; develops innovative, scalable, successful project that is being replicated by others across the US)
  - A for-profit developer pursuing a 5MW portfolio of shared solar projects for LMI subscribers

- Example programs (initiatives enabling future projects):
  - Utility initiative to put solar on local food banks and hospitals
  - Community bank offering new low-interest loans for low-income homeowners to go solar
  - A state-run *Solarize* (group-purchasing of rooftop solar) campaign for public schools

Image from Energy Sage

# Teams – Selection Criteria

**DOE Review** will assess applications to enter the Challenge based on the following:

1. **Impact** *(40%)*
   - Value proposition and replicability of business case or financial model
   - Market potential, based upon the size of the market and the number of possible customers

2. **Innovation** *(30%)*
   - Extent to which evidence is provided that the project or program will implement new and creative ways to overcome existing market barriers; and the extent to which the team is attempting unproven models and approaches

3. **Team** *(30%)*
   - Realistic ability of the team to execute the vision successfully given the team members' experience and partnerships

# Seed Awards and Technical Assistance Vouchers

- DOE will award teams with the following:
  - Up to the top 50 Teams receive seed funding
  - Up to the top 100 Teams receive Technical Assistance Vouchers
  - Remaining eligible teams allowed to compete for Final Prizes, and can access DOE tools and informational resources
- Seed fund availability is based upon the **portfolio size.**
- Seed funds will be distributed **over 18 months** based on completion of milestones.

| Portfolio Size | Seed Funds Available |
|---|---|
| <100kW | $24,000 |
| ≥100kW | $60,000 |

| Distribution of seed funds | | |
|---|---|---|
| After team is selected | 30% | DOE review |
| Permit received | 30% | Milestone 1 |
| Secured financing | 40% | Milestone 2 |
| Customer acquisition complete, >50% LMI | +20% bonus | Milestone 3 |

# Final Prizes

All teams will compete to win $1 million final prizes:

- **$500,000 Grand Prize** for LMI project
- **$200,000 Runner-Up prize** for LMI project
- **$100,000 for best program** serving LMI households
- **$100,000 for best program** serving non-profits
- **$100,000 for best project** serving non-profits

**In addition, DOE will provide non-monetary recognition to selected outstanding teams that have demonstrated innovation and superior leadership.**

# Teams – Selection Criteria

**DOE Review** will assess applications to enter the Challenge based on the following:

1. **Impact** *(40%)*
   - Value proposition and replicability of business case or financial model
   - Market potential

2. **Innovation** *(30%)*
   - Extent to which evidence is provided that the project or program will implement new and creative ways to overcome existing market barriers

3. **Team** *(30%)*
   - Realistic ability of the team to execute the vision successfully

# Experts

# Experts

Prospective technical assistance providers, or **experts**, apply to either help guide teams through the challenge process as ***coaches***, or to provide either general or specialized technical assistance as ***consultants***.

## Consultants

- General TA – providing assistance to all teams via webinars, tools, or reports
- Specialized – provide one-on-one, customized support to specific teams

## Coach

- Support teams through entire challenge by answering questions, assessing team progress, and providing teams with advice

# Technical Assistance

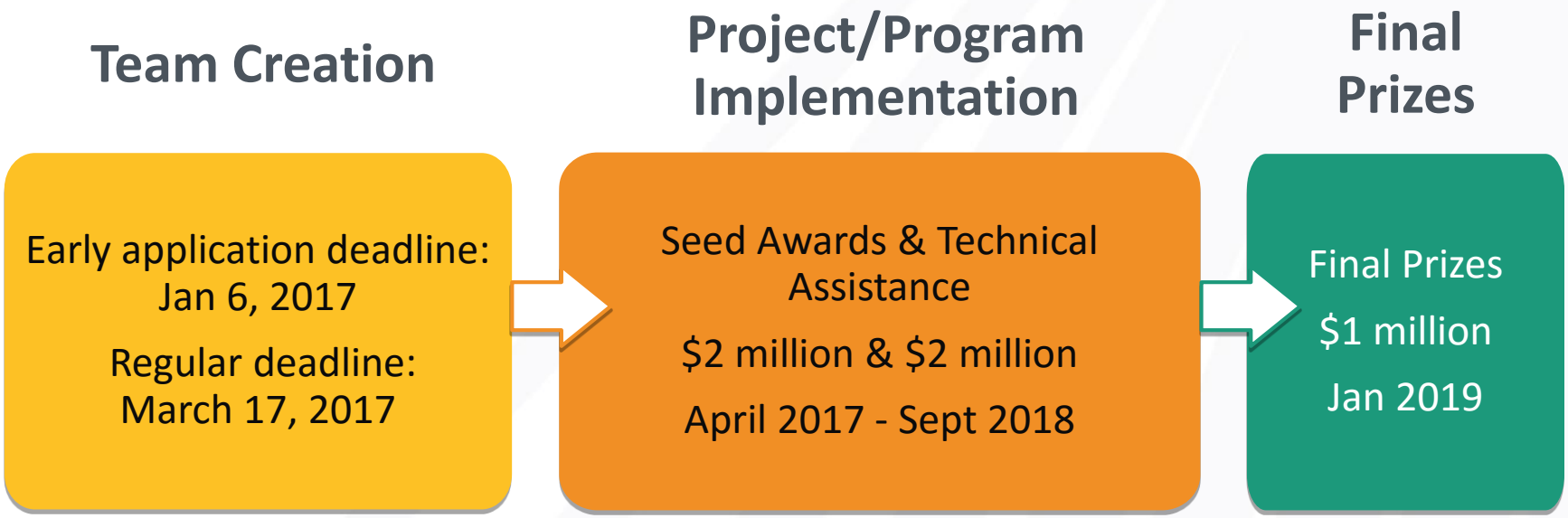
## Experts in:

- ❑ Finance
- ❑ Law
- ❑ Accounting
- ❑ Technology
- ❑ Policy and regulations
- ❑ Engineering
- ❑ Software
- ❑ Project development
- ❑ Community engagement

- Experts are encouraged to provide cost-share or pro-bono assistance to leverage DOE funds
- Supports community solar expertise across the country, and generates a diverse array of low-cost technical assistance options
- Results in a publically available repository of documents, toolkits, webinars, and templates

# How To Apply

# Timeline


Team Creation
Early application deadline: Jan 6, 2017
Regular deadline: March 17, 2017
Project/Program Implementation
Seed Awards & Technical Assistance
$2 million & $2 million
April 2017 - Sept 2018
Final Prizes
Final Prizes
$1 million
Jan 2019

# Teams

- A three-page written application;
- A short video;
- And a short public-facing description.
  - Describe the project or program plan, team members, and the impact your project or program will have, and how it will expand the solar market.
- Find the full list of application requirements at: www.solarinyourcommunity.org/en/page/how-to-en

Interested teams can apply to participate in the Challenge at www.solarinyourcommunity.org.

**Early applications are due Jan 6, 2017.** Applications will be accepted until March 17, 2017.

# Coach

- A 1-page narrative about why you want to coach, your relevant experience, and the impact you plan to have on your team(s);
- At least one letter of recommendation.
- Find the full list of application requirements at: www.solarinyourcommunity.org/en/page/how-to-en

Interested coaches can apply to participate in the Challenge at www.solarinyourcommunity.org.

**Early applications are due Jan 6, 2017.** Applications will be accepted until March 17, 2017.

# Consultant

- A list and overview of the products and services you can offer;
- The price breakdown for using these products and services;
- And case studies, photos, keywords, and other supporting materials.
- Find the full list of application requirements at: www.solarinyourcommunity.org/en/page/how-to-en

Interested experts can apply to participate in the Challenge at www.solarinyourcommunity.org. Applications will be accepted until March 17, 2017.

# How Winners Are Chosen

A team of reviewers will evaluate the team applications' innovations and impact, and will recommend the top teams to receive seed awards, technical assistance vouchers, and a chance to compete for the final prizes.

Final prizes will be determined through evaluation of teams' progress over the 18-month competition, as well as their overall ability to create replicable, scalable, economically-sustainable business and financial models, and the innovation of their approach.

# FAQ

- Can I be on a team and be an expert? No
- If an entity is part of a team, but not a team lead, can it apply as a consultant? No
- Can I be on several teams? Yes
  - You can lead one team (and not participate on other teams)
  - Be a member of several teams
  - Lead a *project* and be a member of a *program* team
- How can seed funds be used?
  - At your discretion. It should be used to achieve the goals of your project or program.

**For more, visit solarinyourcommunity.org→Resources→FAQ**

# Timeline

| | |
|---|---|
| Release of official rules | Nov 18, 2016 |
| **Early application deadline** | **Jan 6, 2017** |
| Application deadline | Mar 17, 2017 |
| Seed funding and technical assistance vouchers awarded | Apr 2017 |
| Technical Assistance Marketplace opens | Apr 2017 |
| Performance period begins | May 1, 2017 |
| Late-start application deadline | Aug 1, 2017 |
| Performance period ends | Oct 31, 2018 |
| Accepting applications for final prizes | Nov 2018 |
| Announcements of final prize winners | Jan 2019 |

# Thank you

Visit www.solarinyourcommunity.org today!

Contact us at solar.community@ee.doe.gov


**Shubha Jaishankar**

Shubha.Jaishankar@ee.doe.gov

SunShot Initiative, Solar Energy Technologies Office

# Available Resources

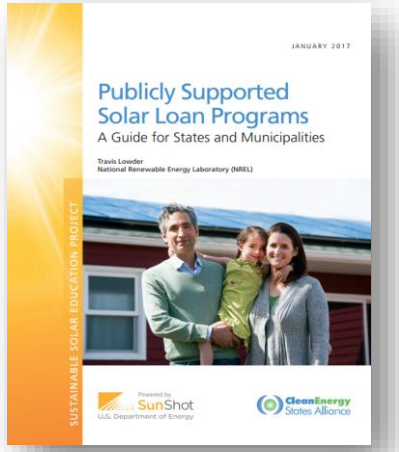
CleanEnergyGroup
Innovation in Finance, Technology & Policy

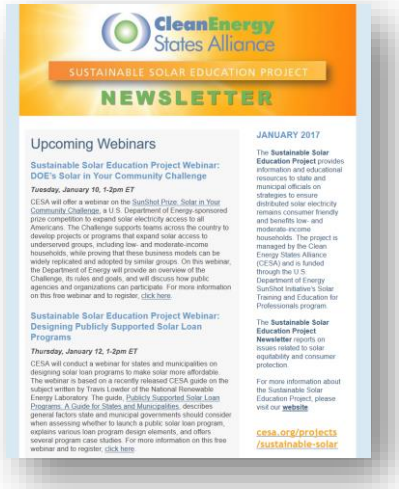
CleanEnergy States Alliance

# SUSTAINABLE SOLAR EDUCATION PROJECT

- **Education & Resource Development**: CESA develops guides, webinars, online course material, and training on solar consumer protection and efforts to bring the benefits of solar to low- and moderate-income communities.
- **Monthly E-Newsletter**: CESA prepares a free monthly e-newsletter with news, resources, and activities related to solar equitability and consumer protection from across the country. Learn more and sign up at:

  www.cesa.org/projects/sustainable-solar

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# Project Guides

**Published Sustainable Solar Education Project guides:**

- *Solar Information for Consumers: A Guide for States*
- *Publicly Supported Solar Loan Programs: A Guide for States and Municipalities*

**Sustainable Solar Education Project guides under development:**

- *Solar Equipment, Installation, and Licensing & Certification: A Guide for State and Municipalities*
- *Solar+Storage for Low- and Moderate-Income Communities: A Guide for State and Municipalities*
- *Programs and Policies to Bring the Benefits of Solar to Low- and Moderate-Income Residents: A Guide for State and Municipalities*
- *Consumer Protection for Community Solar Participants: A Guide for State and Municipalities*

# Project Webinars

**Project Webinar Recordings Available :**

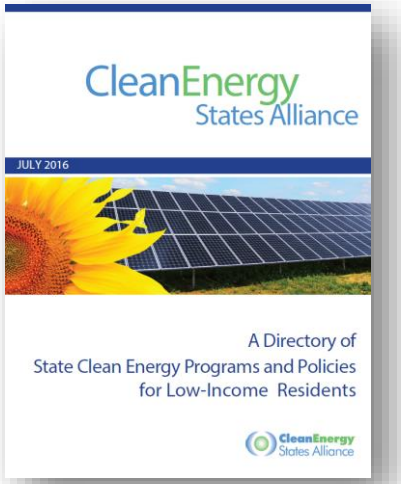
- *Residential Solar Financing 101*
- *Advice for States on Providing Solar Information to Consumers*
- *Solar Consumer Protection*

**Upcoming Webinars:**

- *Designing Publicly Solar Loan Programs*
  —Thursday, January 12, 1-2pm ET
- *Standards and Requirements for Solar Equipment, Installation, and Licensing & Certification*
  —Thursday, February 9, 1-2pm ET

# Other CESA Resources

- *Directory of State Clean Energy Programs and Policies for Low-Income Residents*




- *A Homeowner's Guide to Solar Financing: Leases, Loans and PPAs*

  *Available in English and Spanish*

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# More CESA Resources

- *Private Letter Ruling on the Eligibility of an Individual Panel Owner in an Offsite, Net-Metered Community-Shared Solar Project to Claim the Section 25D Tax Credit*

- *CESA Webinar Recording: Federal Residential Tax Credit Eligibility for Community-Shared Solar Panel Owners*

# Solar Technical Assistance Team (STAT) Network

The STAT Network provides unbiased, time-sensitive technical assistance on solar policies and issues for state and local government decision makers, regulators, and utilities.

Staff of state or municipal bodies or the bodies themselves may request state solar technical assistance. For more information, visit: www.nrel.gov/tech_deployment/state_local_governments/stat.html

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RESILIENT POWER

A Project of Clean Energy Group

A project to accelerate market development of clean energy technologies (solar plus energy storage) for resilient power applications that serve low-income communities and vulnerable populations during power disruptions.

- Provide program guidance to policy makers and limited technical assistance funding for project development
- Prepare reports and analysis on resilient power programs and project implementation, finance tools, and best practices

www.resilient-power.org

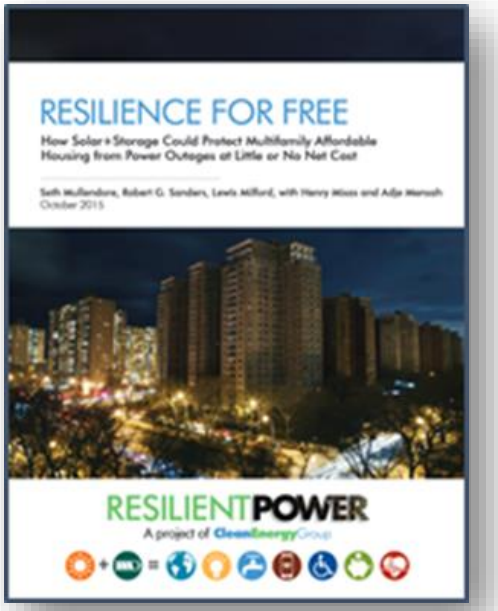
CleanEnergyGroup

Innovation in Finance, Technology & Policy

# Resilient Power Project Resources

CleanEnergyGroup
Innovation in Finance, Technology & Policy

- *McKnight Lane Redevelopment Project Overview*: A net-zero affordable housing project with resilient solar+storage technology for rural tenants
- *Closing the California Clean Energy Divide: Reducing Electric Bills in Affordable Multifamily Rental Housing with Solar+Storage*
- *Energy Storage Procurement Guidance Documents for Municipalities*
- *Solar+Storage Project Checklist*: A checklist to help cities or developers assess whether solar storage battery systems make sense for their buildings




- *Resilience for Free: How Solar+Storage Could Protect Multifamily Affordable Housing from Power Outages at Little or No Net Cost*
- *What States Should Do: A Guide to Resilient Power Programs and Policy*
- *What Cities Should Do: A Guide to Resilient Power Planning*
- *Solar+Storage 101: An Introductory Guide to Resilient Solar Power Systems*

# Resilient Power Project Webinar Recordings

- *McKnight Lane: A Rural Low-Income Resilient Solar+Storage Housing Project*
- *Improving Air Quality with Energy Storage: A New Deployment Strategy for Public Health and Environmental Equity*
- *Energy Storage in Sterling: A Massachusetts Municipal Microgrid*
- *Resilient Power Retrofit: How a Minnesota Nature Center Became a Solar+Storage Community Shelter*
- *Bringing the Benefits of Solar to Affordable Housing - Part 1 & Part 2*
- *The Economics of Resilient Solar+Storage for Critical Infrastructure*
- *Resilient Solar Retrofits: Adding Storage to Existing PV and Making New Installations Storage Ready*
- *Reducing Electric Bills in California Multifamily Affordable Housing with Solar+Storage*
- *Procurement Guidance for Energy Storage Projects: Help with RFIs, RFQs and RFPs*
- *"How-To" Resources for Building Energy Resilient Communities*
- *Financing Solar+Storage with Federal Tax Credits*

# Contact Information

SUSTAINABLE SOLAR EDUCATION PROJECT

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