U.S. DEPARTMENT OF ENERGY | Office of ENERGY EFFICIENCY & RENEWABLE ENERGY

SOLAR ENERGY TECHNOLOGIES OFFICE

Expanding Solar Access with Community Solar

Solar Energy Technologies Office

U.S. Department of Energy

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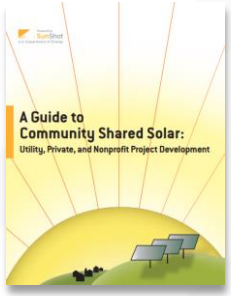
SETO + Community Solar, the Early Years

2012

SETO/NREL Report

"A guide to Community Shared Solar"



2013

SETO-led Workshop

"Community Shared Solar: Getting to Scale"

2014

Funding Opportunity Announcement

"Solar Market Pathways"

2015

NREL report

"Shared Solar: Current Landscape, Market Potential, and the Impact of Federal Securities Regulation"

SETO + Community Solar, More Recently

2015

Funding Opportunity Announcement

"Solar Energy Evolution and Diffusion Studies 2"

2016

National Community Solar Partnership

2017

Solar in Your Community Challenge

2018

Funding Opportunity Announcement

"LMI Solar Models"

&

Lab Agreement

"Sharing the Sun"

2019

National Community Solar Partnership

National Community Solar Partnership (2016-17)

- National conversation with federal agencies, solar companies, nonprofits, state and community leaders, academia, and financial institutions
  - 4 working groups: finance and business models, community building, state best practices, and federal resources

- Key takeaways:
  - Locally driven programming is needed given the patchwork of jurisdictional expertise needed to implement community solar
  - Access to capital an overarching concern, especially for projects serving low income communities
  - Market is lacking data/metrics to determine effectiveness of models
  - National community solar network facilitated knowledge transfer

Solar in Your Community Challenge (2017-19)

- Goal: Engage and support a wide variety of teams developing innovative and scalable business and financial models that can unlock the low- and moderate-income (LMI), nonprofit, and local government solar market
- Contest: Design and deploy scalable local solar projects or programs ranging between 25-5,000 kW in 18-months that serve a minimum 20% LMI or 60% non-profits and local governments
- Prizes:
  - Up to $2,000,000 available in cash seed awards (34 teams)
  - Up to $2,000,000 available in technical support and assistance (121 teams)
  - $1,000,000 in final prizes, including $500,000 for one Grand Prize

Solar in Your Community Challenge Outcomes

- NREL released a report, “Up to the Challenge: Communities Deploy Solar in Underserved Markets” detailing innovative models tested by SIYC teams.
- Some high level takeaways:
  - Team leads: almost even split between for-profit and nonprofit
  - Siting: municipal buildings, single-family homes, and nonprofits most common
  - Finance: variety of mechanisms were used in projects (tax incentives, PPA, loan, demand response, crowd-sourcing, RECs, etc.)
  - Technical assistance: teams needed most help with system design, financing, customer acquisition, and policy/regulatory issues
  - Innovative approaches: leveraging technology integration (e.g. demand response), partnerships (e.g. housing provider), and other (workforce training)

Best LMI Project

- Grand Prize ($500,000) The CARE Project (Denver, CO)
- Runner-up ($200,000) Community Solar for Community Action (Backus, MN)

Best LMI Program ($100,000 prize)

- Kerrville Area Solar Partners (Kerrville, TX)

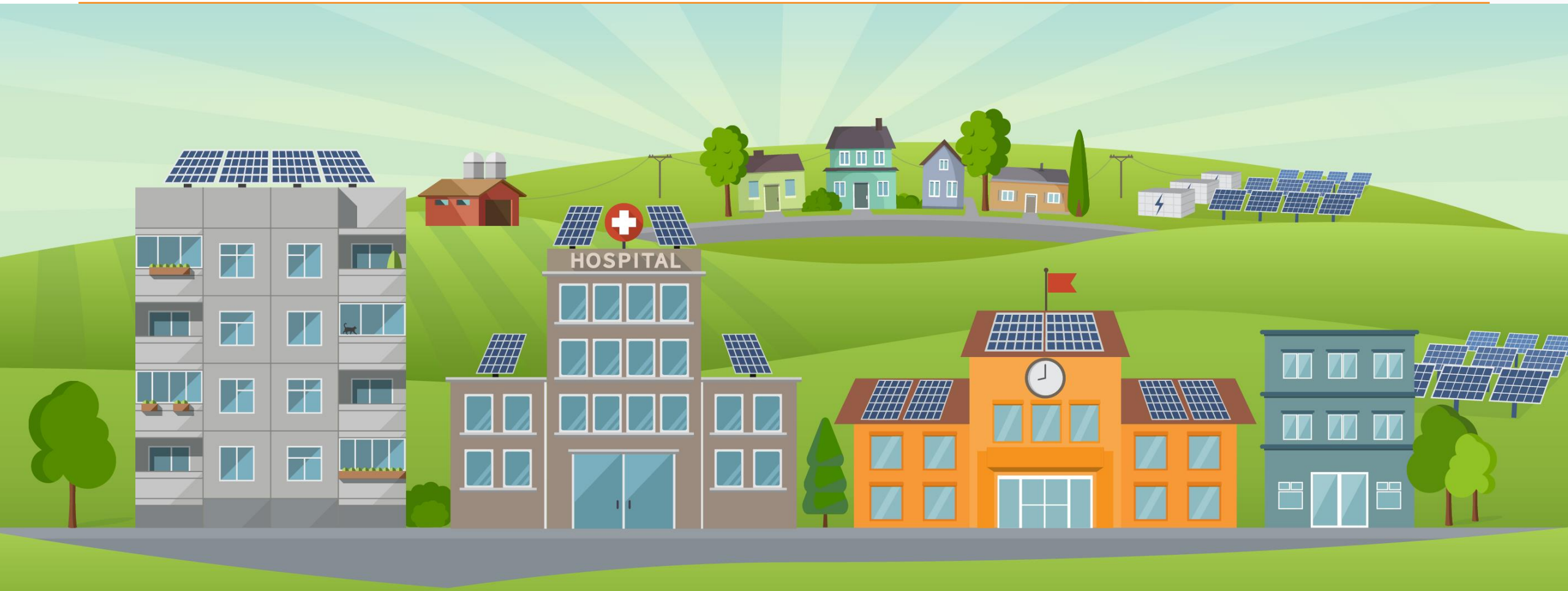
Best Non-profit Project ($100,000 prize)

- Making Energy Work for Rural Oregon (Portland, OR)

Best Non-profit Program ($100,000 prize)

- Fellowship Energy (based in Burlingame, CA; pilots in Richmond, VA)

National Community Solar Partnership



The National Community Solar Partnership is a coalition of community solar stakeholders working to expand access to affordable community solar to every American household by 2025.

Goals of the Program

- All Americans have a choice and sufficient education to make an informed decision about participation
- Overall energy cost burden does not increase as a result of participating in community solar
- Communities realize supplementary benefits and other value streams from community solar installations, such as increased resiliency and workforce development

Approach

- Network Infrastructure: Partners have access to an online community platform, virtual and in-person meetings, webinars and other tools to engage with U.S. Department of Energy (DOE) staff and each other.
- Technical Assistance: Partners have access to technical assistance resources from DOE, its National Laboratories, and independent third-party subject-matter experts for support on unique local challenges.
- Collaboration: Multi-stakeholder teams of partners form groups around specific goals to address common barriers to solar adoption by learning from each other and sharing resources.

Areas of Interest

- **Inclusive community solar models** that enable market adoption in underserved communities
- Community solar models that reduce energy bills for **multifamily affordable housing** dwellers and owners
- **Utility partnerships** around community solar models to expand solar access in their communities

Interested in Joining the Network?

Visit: energy.gov/community-solar

Email: community.solar@ee.doe.gov

Other Relevant DOE Resources

- **Web Applications / Tools / Datasets**
  - Community Solar Project List is a recently published dataset of attributes of 800 projects totaling more than 1.3 GW-AC capacity
  - Solar For All Data Explorer is a web application to help understand low and moderate income rooftop solar technical potential at the tract level, including overlays for opportunity zones and other geospatial datasets
  - Low-income Energy Affordability Data (LEAD) Tool is a web application to help make data-driven decisions on energy goals and program planning by improving understanding of LMI household energy characteristics
  - Solar Savings to Investment Ratio (SIR) simple comparison spreadsheet tool
- **Recent NREL Reports**
  - Expanding Community Shared Solar in New York City: Analysis of Barriers and Policy Pathways, 2019
  - Design and Implementation of Community Solar Programs for Low- and Moderate-Income Customers, 2018
  - Focusing the Sun: State Considerations for Designing Community Solar Policy, 2018
  - White paper on Opportunity Zones, forthcoming
- **New EE + Solar Resources**
  - Preliminary Assessment Guide for Integrating Renewable Energy into Weatherization
  - Issue Brief: Reducing Energy Burden for Low-income Residents in Multifamily Housing with Solar Energy

Solar Energy Innovators Program

Participants conduct practical research on innovative solutions to the challenges faced by their Host Institution as the levels of solar energy, as well as other distributed energy resources, increase on the electrical grid.

Host Institutions can be:

- An electric public utility commission,
- An electric utility operating in the US, or
- An energy service provider operating in the US (including, but not limited to, independent system operators, balancing authorities, and retail electricity providers).

Note: The applicant to this program is the prospective Innovator. The applicant must identify a Host Institution and potential mentor and submit their commitment letter at time of application. DOE, ORAU, and ORISE do not match Applicants with Host Institutions.

Benefits:

- One-year appointment, renewable for a second year
- Competitive stipend
- Mentorship from DOE officials
- Travel allowance
- Health insurance supplement
- Relocation expenses

Applications are accepted on a rolling basis

VISIT: https://www.zintellect.com/Opportunity/Details/DOE-EERE-RPP-SETO-2019-2100

EMAIL: DOE-RPP@orau.org