



National Community Solar Partnership

Building with Benefits: Greater Household Savings

May 22, 2023

Housekeeping

- This session **is** being recorded
- Slides and a link to the recording will be made available online after the event
- Please put questions for panelists and moderators in the chat

A two-story house with a dark blue accent wall on the left side and light-colored horizontal siding on the rest. The roof is covered with solar panels. There are several windows and a wooden door with a small porch. A black metal railing is visible in the foreground. The house is set on a green lawn under a clear blue sky.

Welcome & Introductions

In the chat, please feel encouraged to share your name, organization, and why you're joining this conversation about Greater Household Savings

Agenda

Time	Topic	Presenter
2:00 – 2:05	Welcome & National Community Solar Partnership Overview	Anna Balzer, U.S. Department of Energy
2:05 – 2:15	Overview: Greater Household Savings	Taj James, Full Spectrum Labs
2:15 – 2:40	Project & Program Highlights: Implementing Greater Household Savings	Rashad Williams, Groundswell Jennifer Schmidt, Illinois Power Agency Jonathan Abe, Sunwealth
2:40 – 3:10	Panel Discussion and Q&A	Panelists & Moderator
3:10 – 3:15	Closing & Staying Engaged	Anna Balzer, U.S. Department of Energy



National Community Solar Partnership Overview

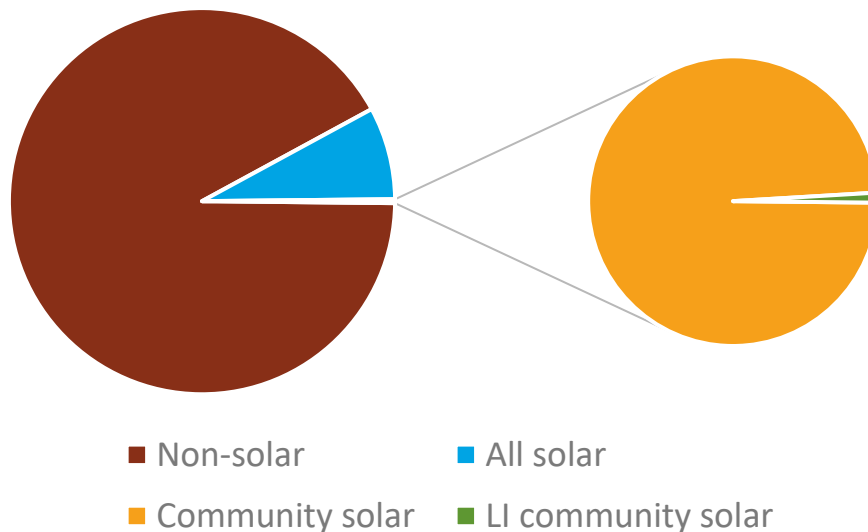
Community Solar Opportunity

- Half of all households and businesses **cannot** host a solar PV system on their roof, due to:
 - Solar Potential
 - Insufficient Roof Space (*e.g., high rise*)
 - Roof Ownership/Tenancy

Across the United States:

- **<10%** of electricity is generated by solar
- **<5%** of all solar electricity is generated by community solar
- **<1%** of all community solar is mandated or incentivized to serve low- to moderate-income households

Community Solar Generation



Sources: EIA, SEIA, NREL, NREL (unpublished)

The National Community Solar Partnership



Pathway to Success Priorities

TECHNICAL
EXPERTISE
AND CAPACITY
BUILDING



STATE
ENGAGEMENT



ACCESS
TO CAPITAL



CUSTOMER
ENGAGEMENT



EDUCATION
AND OUTREACH



**NCSP
TARGET**

5 million households
and \$1 billion in
savings by 2025

Resulting in...

- ★ An average 20% energy bill reduction
- ★ 700% increase in community solar capacity

Meaningful benefits:

Greater household savings; LMI household access; Resilience and grid benefits; Community ownership; Workforce development and entrepreneurship

Meaningful Benefits of Community Solar



GREATER HOUSEHOLD SAVINGS

- Provide a reduction in electricity bills for residential subscribers to a project

Justice40 Priority 1:
Reduce Energy Burden



LMI HOUSEHOLD ACCESS

- Include subscribers from low- to moderate-income (LMI) households

Justice40 Priority 3:
Increase Clean Energy Parity



RESILIENCE AND GRID BENEFITS

- Include the capability to deliver power to households and/or critical facilities during a grid outage or strengthen grid operations

Justice40 Priority 7:
Increase Energy Resiliency



COMMUNITY OWNERSHIP

- Local community members, subscribers, or local community organizations own or have equity in the project
- Other wealth-building strategies

Justice40 Priority 8:
Increase Energy Democracy



WORKFORCE DEVELOPMENT AND ENTREPRENEURSHIP

- Support prevailing wages and pre-apprenticeship and apprenticeship programming
- Ensure women- and minority-owned businesses have equitable opportunity

Justice40 Priority 6:
Increase Clean Energy Jobs

2022 Sunny Awards for Equitable Community Solar

\$100,000 Prize

Recognize community solar projects and programs that employ or develop best practices to increase equitable access to the meaningful benefits of community solar

Meaningful Benefits Categories

- Greater Household Savings
- Low- to Moderate-income Household Access
- Resilience and Grid Benefits
- Community Ownership
- Equitable Workforce Development
- *Innovation Category: Community Engagement*
- *Innovation Category: Impact*



2022 Grand Prize Projects & Programs provide over \$4.3 million in household savings



2023 Sunny Awards are open now!

Up to \$200,000 in Prizes
Applications due July 14th

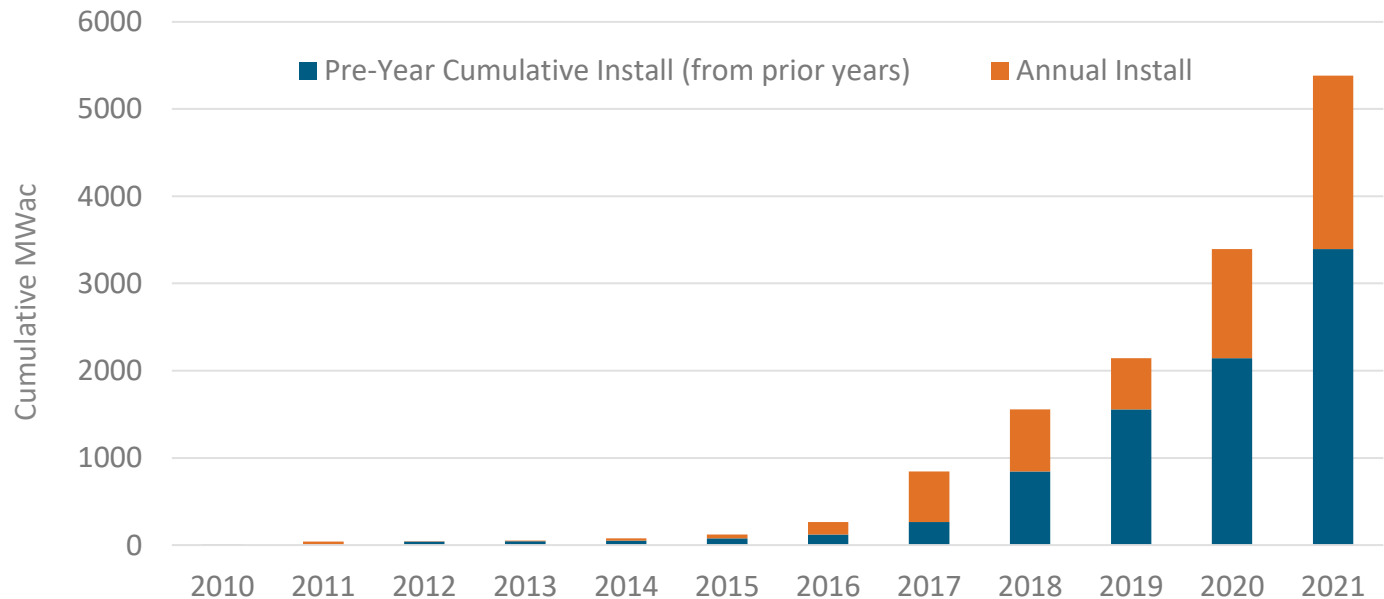


Household Savings Overview

Community Solar Market: Baseline Capacity

Progress on installed capacity

- Cumulative community solar capacity has grown by about 121% year over year since 2010



Data from the National Renewable Energy Laboratory Sharing the Sun: <https://www.nrel.gov/docs/fy21osti/80246.pdf>.

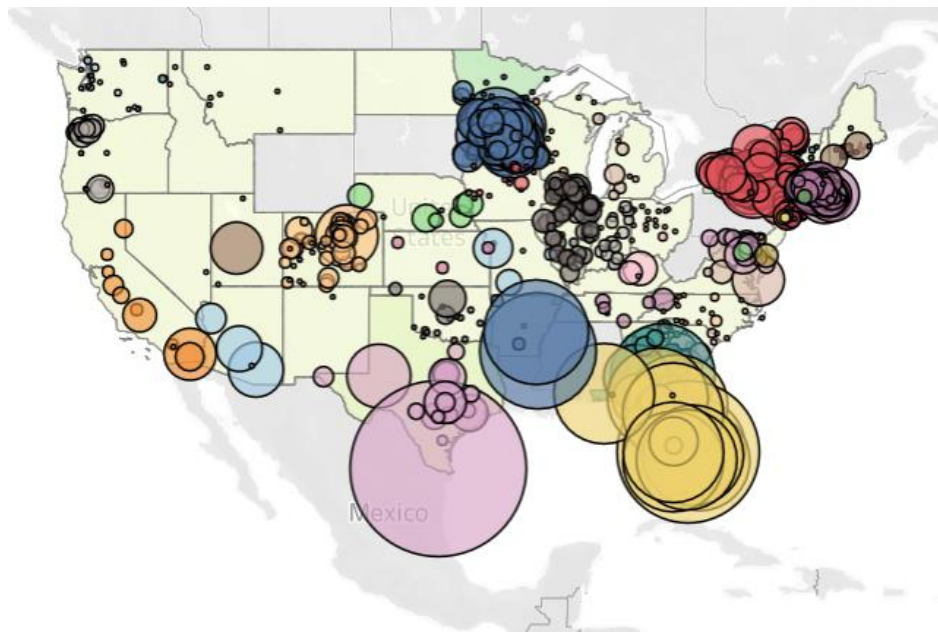
Community Solar Market: Access to Projects

Community Solar Capacity as of June 2022
(MW-AC)

>5.7 GW-AC, and >2,300 projects located in 40 states and Washington, D.C.

About 1.6 GW came online in 2021 alone

>90% of cumulative capacity is located in just 10 states

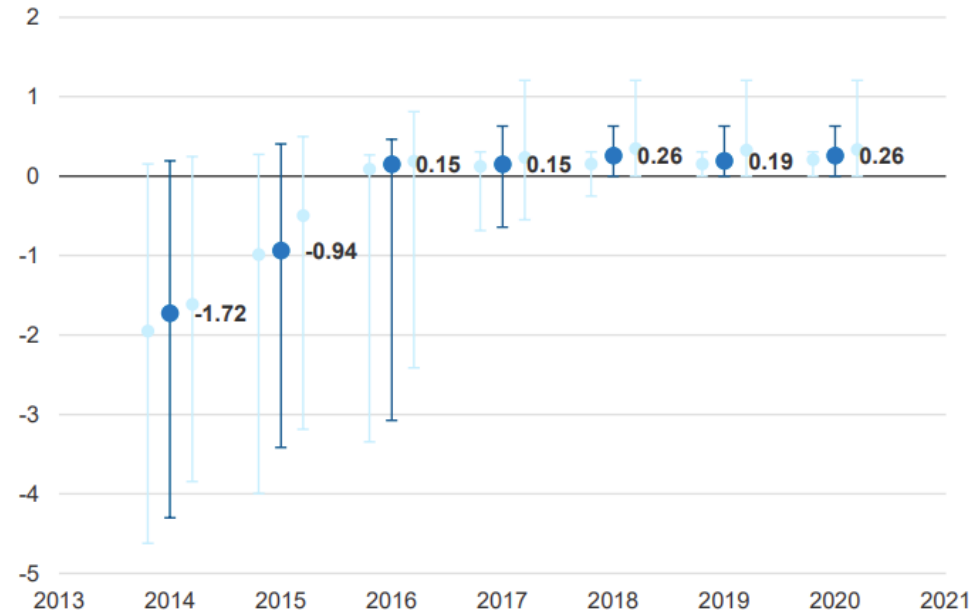


Data from the National Renewable Energy Laboratory Sharing the Sun: <https://www.nrel.gov/docs/fy21osti/80246.pdf>.

Community Solar Market: Bill Savings Baseline

- The National Renewable Energy Laboratory (NREL) tracks the **net present value** for community solar subscriptions.
- The median NPV of subscriptions has been **positive since 2016**, when state-legislated programs began to rapidly expand.
- NREL estimates **\$97.4 million in bill savings** from community solar in 2021.

Net Present Value (\$/W)



Error bars show p10 and p90. Light blue bars show high and low sensitivities to rate escalation, inflation, and discount rates

Data from the National Renewable Energy Laboratory Sharing the Sun: <https://www.nrel.gov/docs/fy21osti/80246.pdf>.



Project & Program Highlights



Delivering *Meaningful* Savings and Benefits to LMI Households

Groundswell

OUR MISSION AND VISION:

Groundswell builds community power through equitable **community solar projects**, clean energy **programs that reduce energy burdens**, and pioneering **research initiatives** that help light the way to clean energy futures for all.

Our vision is a clean energy economy that **equitably serves all people**, **diversifies the industry**, and **generates wealth, work, and savings** for all the communities it serves.



SharePower™



SharePower is Groundswell's community solar subscription product designed to distribute the wealth generated by clean energy between market-rate (residential) and Empowered (LMI) customers, while providing mutual benefits to all.

- ✓ Emphasize the **“community”** in community solar by making it possible for market-rate and Empowered customers to subscribe to the same project.
- ✓ Support **energy equity** by directing solar savings where they are most needed.
- ✓ Increase **clean energy access** for historically underserved communities.



SharePowerTM



How it Works: Equitable distribution of savings

Market rate households pay a monthly subscription fee to access locally generated clean energy.



Solar production savings are aggregated and allocated **100% to Empowered households.**



Empowered households received no-cost subscriptions and see their electricity bills reduced by ~50%.

Why it works: all subscribers see benefits

All subscribers

- Fixed kW allocation that offsets about half of avg. household consumption
- Complete removal of barriers such as credit checks and long-term contracts
- SharePower customer dashboard

Market-Rate

- Subscription premiums priced within 5% of the market energy rate
- Social impact value-add
- Donation is tax-deductible

Empowered

- Place-based, respectful enrollment process
- No duplicate bill
- Meaningful savings that are much higher than industry average

SharePower in Action: Friar's community solar project



Friar's Community Solar Project

- Ward 5, Washington, D.C.
- 151.1 kW project capacity
- 38 market-rate subscribers
- 12 Empowered subscribers
- Up to \$500 in annual electricity bill savings for Empowered households



Key Successes in the First Three Years of Operation

- 90% subscriber renewal rate as of May 2023
- Robust waitlist of market-rate subscriptions
- Over \$375 in annual savings delivered to each Empowered household since project inception
- Recognized by DOE's National Community Solar Partnership for delivering meaningful household savings

CONTACT US

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Illinois Solar for All Community Solar

Who is the Illinois Power Agency?



- **Independent State Agency created in 2007**
- **Agency duties include**
 - Development and implementation of procurement plans for electricity supply for residential and small commercial utility customers
 - Implementation of the Renewable Portfolio Standard
 - Development of the strategy for incentivizing renewable energy development (the “Long-Term Plan”)
 - Conduct competitive procurements for utility-scale projects
 - Manage programs for community solar and solar for homes and businesses
 - Conducts competitive procurements of RECs from Utility-scale projects

Solar Incentive Programs under the IPA **IPA**

ILLINOIS POWER AGENCY

Illinois Shines

This state-administered solar incentive program opened for applications in January 2019 and was significantly expanded through the enactment of the Climate and Equitable Jobs Act (Public Act 102-0662). Offers incentives for distributed generation and community solar projects.

Illinois Solar for All

Illinois Solar for All is a state-administered solar incentive program that provides greater access to the clean energy economy for low-income communities through incentives that help make residential solar and community solar installations more affordable and result in measurable savings for participants. Also significantly expanded through the enactment of the CEJA.

Illinois Solar for All (ILSFA)



Sub-programs:

- Residential Solar (Small) (1-4 units)
- Residential Solar (Large) (5+ units)
- Community Solar
- Non-Profit and Public Facilities

Customer savings

- At least 50% savings on value of energy credits

Eligibility:

- Residents (Residential and Community Solar): 80% AMI
- Non-profits/Public Facilities: Critical service provider and located in environmental justice or low-income community

Job trainee requirements

- Project level
- Portfolio level

Environmental Justice Communities

- 25% of each sub-program incentives
- 60% of Grassroots Education campaign funding

Energy Sovereignty Projects (participant/community ownership)

- 25% of each sub-program incentives
- Incentivized with REC adder for DG projects (Residential Solar and NPPF), selection prioritization for Community Solar projects.

Community and Stakeholder Engagement

- Stakeholder feedback opportunities
- Grassroots Education funding
- ILSFA Advisory Committee

REC Prices-Illinois Shines & ILSFA (example)



Block Category/Size		Group A (Ameren Illinois, MidAmerican, Mt. Carmel, Rural Electric Cooperatives, and Municipal Utilities located in MISO)	Group B (ComEd, and Rural Electric Cooperatives and Municipal Utilities located in PJM)
Traditional Community Solar (20 years)	≤ 25 kW	\$56.23	\$61.54
	>25 - 100 kW	\$59.19	\$64.39
	>100 - 200 kW	\$60.85	\$65.23
	>200 - 500 kW	\$57.22	\$62.09
	>500 - 2,000 kW	\$51.32	\$55.50
	>2,000 kW – 5,000 kW	\$45.50	\$47.78

Illinois Solar for All – Community Solar

System Size	Group A	Group B
≤ 25 kW	\$94.50	\$104.81
>25 - 100 kW	\$98.75	\$109.13
>100 - 200 kW	\$101.09	\$110.76
>200 - 500 kW	\$96.10	\$106.32
>500 – 2,000 kW	\$87.49	\$96.43
2,000 kW – 5,000 kW ⁵⁰¹	\$78.01	\$83.80

ILSFA Sub-Programs



Small Residential (1-4 unit)

- PY5 budget \$11,637,500 (+Rollover)
- Costs and fees won't exceed 50% of value of electricity produced
- No upfront cost to participants



Large Residential (5+ unit)

- PY5 budget \$11,637,500 (+Rollover)
- Costs and fees won't exceed 50% of value of electricity produced
- At least 50% of households must be income-eligible
- Upfront costs allowed



Non-Profit/ Public Facilities

- PY5 budget \$16,625,000 (+Rollover)
- Non-profit or public sector facilities serving and located in income-eligible or EJ communities
- Costs and fees won't exceed 50% of value of electricity produced
- Upfront costs allowed



Community Solar

- PY5 budget \$26,600,000 (+Rollover)
- Income-eligible residents can subscribe
- Costs and fees won't exceed 50% of value of electricity produced
- No upfront cost to subscribers, with exception for energy sovereignty (ownership model)

Consumer Protections

Projects developed
by vetted
Approved Vendors

Projects must
include warranties
and guarantees of
workmanship

Marketing
requirements

Financial
protections

Standard
Disclosure Forms

Cost and savings
requirements
(ILSFA)



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Illinois Solar for All

<https://www.illinoissfa.com/>

Illinois Power Agency

<https://ipa.illinois.gov/>



CASE STUDIES ON LOW-INCOME COMMUNITY SOLAR PROJECTS

Coupling Impactful Low-Income Community Solar with Sustainability

COMMUNITY SOLAR AT BXP'S CITYPOINT

Waltham, Massachusetts

 614 kW DC
SOLAR POWER INSTALLED

 18,838,845 kWh
EXPECTED LIFETIME PRODUCTION

 Massachusetts SMART Program

 13,000+
TONS OF LIFETIME CARBON REDUCED

 ~21
LIFETIME PERSON JOB YEARS

 Boston
Properties





“ We’re an organization [that] believes in breaking cycles of intergenerational poverty, providing a pathway toward a better future for all people, and we know Sunwealth shares that same core value. Actually being able to activate on that held belief is invaluable.”

– **Suzanne Picher**
Chief Development Officer, Heading Home

GENERATING MEANINGFUL SAVINGS

Over 40 low-income individuals and organizations across 15 local Boston neighborhoods and municipalities receive 25% savings from clean energy from this project – the highest savings across MA for low-income community solar or otherwise.

The organizations include Caritas Communities and Heading Home – both of which are nonprofits working to support those experiencing homelessness and provide temporary and permanent housing.



\$225,000+

LIFETIME ENERGY SAVINGS FOR LOW-INCOME COMMUNITY SOLAR SUBSCRIBERS

Heading Home 



CITY OF CAMBRIDGE

COMMUNITY POWER: JOBS & SAVINGS FOR LMI HOUSEHOLDS

New York, New York

Solar One was a Grand Prize winner for the solar portfolio at the New York City Housing Authority, which delivers guaranteed electricity bill savings of 20% to 500 low- to moderate-income households.

Local nonprofits worked in multiple languages with community boards, tenant associations, affordable housing and social service providers, and elected officials to build trust and awareness, ultimately helping them subscribe the full project, with a 50-person waiting list.

 1.2 MW
SOLAR POWER INSTALLED

 \$2.8 million+
TOTAL LIFETIME ENERGY SAVINGS

 27,000+
TONS OF LIFETIME CARBON REDUCED

 41
LIFETIME PERSON JOB YEARS

S¹
SOLARone

**GREEN
CITY
FORCE**



BREAKING DOWN BARRIERS TO ACCESS

Community Solar at Sunwealth

Our program intentionally increases access to affordable and reliable solar for low-income communities and organizations.

Sunwealth generates savings and outreach for customers across MA, NY, NJ, and DC, with plans to expand to MD. Our dedicated customer service team works to deliver solar savings for customers and helps enroll them in other energy assistance programs.

- Guaranteed highest level of savings
- No upfront costs
- No penalty for early termination
- No credit checks





Discussion + Q&A

Building with Benefits Webinar Series



GREATER HOUSEHOLD SAVINGS: Monday, May 22nd 2:00 – 3:15 p.m. (ET)

[SLIDES & RECORDING](#)



LMI HOUSEHOLD ACCESS: Wednesday, May 31st 2:00 – 3:15 p.m. (ET)

[REGISTER](#)



RESILIENCE AND GRID BENEFITS: Wednesday, June 7th 2:00 – 3:15 p.m. (ET)

[REGISTER](#)



COMMUNITY OWNERSHIP: Wednesday, June 14th 2:00 – 3:15 p.m. (ET)

[REGISTER](#)



WORKFORCE DEVELOPMENT AND ENTREPRENEURSHIP: Wednesday, July 5th 2:00 – 3:15 p.m. (ET)

[REGISTER](#)



COMMUNITY ENGAGEMENT & INNOVATION: Wednesday, July 12th 2:00 – 3:15 p.m. (ET)

[REGISTER](#)

2023 Sunny Awards for Equitable Community Solar

- NCSP launched the **2023 Sunny Awards** on April 20, 2023 to recognize community solar programs and projects that include meaningful benefits
- Up to five \$10,000 Grand Prize Winners and up to 30 additional \$2,500 Sunny Finalize Awards and up to 15 \$5,000 Meaningful Benefits/Engagement Awards
- **View the recording** of an informational webinar held on May 9th at 12pm ET

Apply by July 14, 5pm ET!



Applicants can receive recognition for programs that include:
LMI access, household savings, resilience and grid benefits, community ownership, workforce development, equitable community engagement, and innovation

Looking Forward

[Apply for the 2023 Sunny Awards for Equitable Community Solar](#)

[Register for 'Building with Benefits' Webinar Series](#)

[Join the Community Power Accelerator](#)



Register to Join NCSP:

<https://ncsp.solarinyourcommunity.org/registrations/groups/39758>

Resources + Follow Up

Links to resources shared during Building with Benefits: Greater Household Savings

- **Join the National Community Solar Partnership:**
<https://ncsp.solarinyourcommunity.org/registrations/groups/39758>
- **Apply for Technical Assistance:** <https://www.energy.gov/communitysolar/technical-expertise-and-capacity-building-0>
- **Read the Sharing the Sun community solar market report and other resources:**
<https://www.energy.gov/communitysolar/community-solar-resources>
- **Apply for the 2023 Sunny Awards:** <https://www.herox.com/2023SunnyAwards>
- **Join the Community Power Accelerator:** <https://communitypower.energy.gov/>
- **Panelist Contact Information:**
 - Rashad Williams, Groundswell: rashad.williams@groundswell.org
 - Jennifer Schmidt, Illinois Power Agency: Jennifer.M.Schmidt@illinois.gov
 - Jonathan Abe, Sunwealth: communitysolar@sunwealth.com