



U.S. DEPARTMENT OF
ENERGY

NREL
Transforming ENERGY

 **BERKELEY LAB**



Clean Energy Connector Webinar Update

NREL Webinar

April 10, 2024



Clean Energy Connector: Progress to Date

Nicole Steele, U.S. Department of Energy

Ariel Dreho, U.S. Department of Energy

Haiku Sky, National Renewable Energy Laboratory

U.S. DOE Solar Energy Technologies Office

Our mission is to accelerate the advancement and deployment of solar technology in support of an equitable transition to a decarbonized economy no later than 2050, starting with a decarbonized power sector by 2035.

To achieve this mission, solar energy must:

Be **affordable** and **accessible** for all Americans

Support the **reliability**, **resilience**, and **security** of the grid

Create a sustainable industry that **supports job growth**, **manufacturing**, and the **circular economy** in a wide range of applications

National Community Solar Partnership (NCSP)

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

COMMUNITY-BASED ORGANIZATIONS | STATE AND LOCAL GOVERNMENT | DEVELOPERS | INVESTORS | PHILANTHROPISTS | UTILITIES | CUSTOMERS

Clean Energy Connector

- Developed an online platform that makes **community solar subscriptions with meaningful savings** and consumer protections available to recipients of U.S. government-run low-income energy support programs (i.e., the Low Income Home Energy Assistance Program)
- Developed in partnership between DOE, U.S. Department of Health and Human Services, the National Renewable Energy Laboratory and additional partners
- Began development of program in 2021, based on stakeholder feedback
- Starting in 2022, worked in partnership with CO, DC, IL, NJ, NM, NY and implementing in DC, IL, and NM in 2024



Project Partners



U.S. DEPARTMENT OF
ENERGY



U.S. Department of
Health and Human Services
Enhancing the health and well-being of all Americans



National
Consumer Law
Center



Clean Energy Connector Goals



Protecting the consumer by ensuring strong consumer protections for community solar from enrollment through the life of the program



Lowering electricity bills and high energy burdens for LIHEAP-eligible households over the long-term through community solar program savings



Reducing customer acquisition and management costs of low-income subscribers for community solar developers and subscription managers



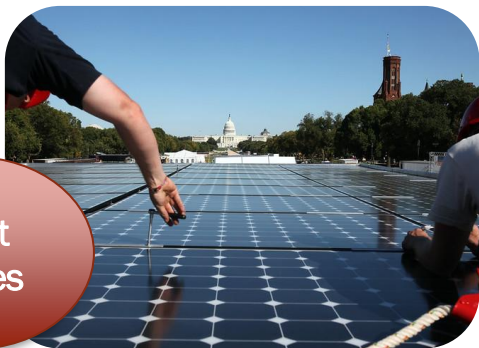
Building investor confidence in low-income community solar programs by minimizing the perceived risk and turnover of low-income subscribers



Expanding the community solar market and solar workforce to reach its multi-gigawatt potential while ensuring income-qualified households have meaningful access to the benefits of clean energy

Pilot and Partner States

Pilot
States



Washington, DC



Illinois



New Mexico

Partner
States



New York

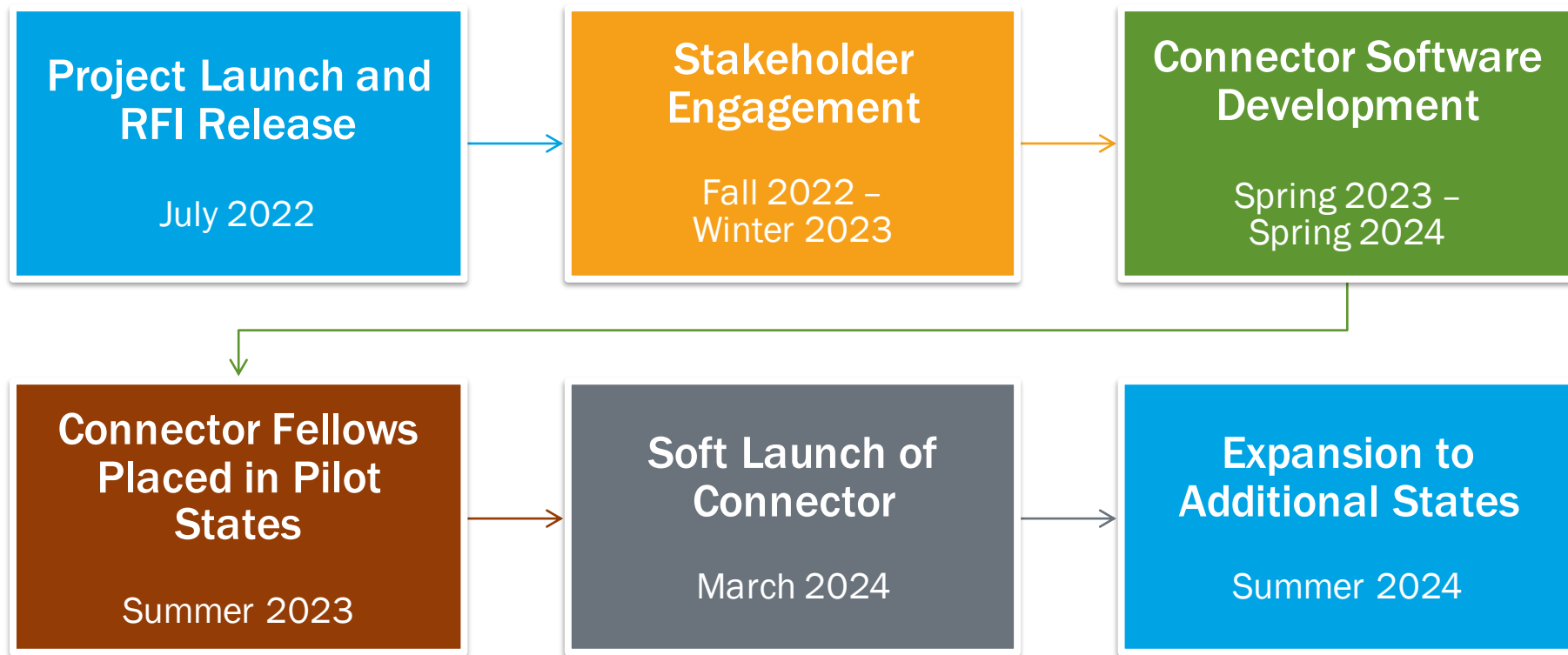


New Jersey



Colorado

Connector Project Timeline

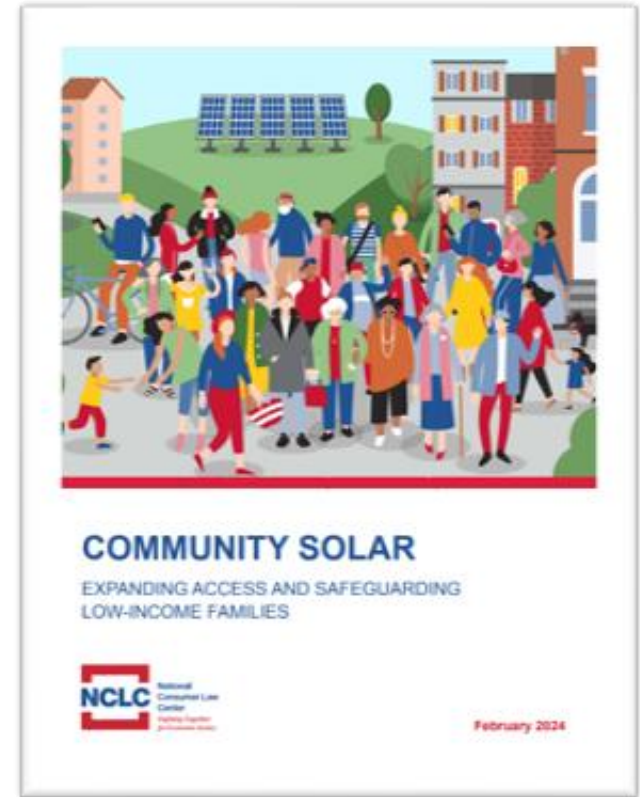


Pilot Launch Timeline

- **March 2024**
 - Officially launched pilot of Connector Software in DC, IL, and NM
 - State Community Solar Program and LIHEAP Program Offices have access to software
- **Summer 2024**
 - Add additional states to Connector pilot stage
 - Conduct stakeholder engagement in pilot states
 - Continue to make updates to the software based on state and stakeholder feedback
 - DC to begin using the Connector to enroll households from LIHEAP to DC Solar for All
- **Fall 2024**
 - IL to begin using the Connector to enroll households from LIHEAP to IL Solar for All

Connector Consumer Protections

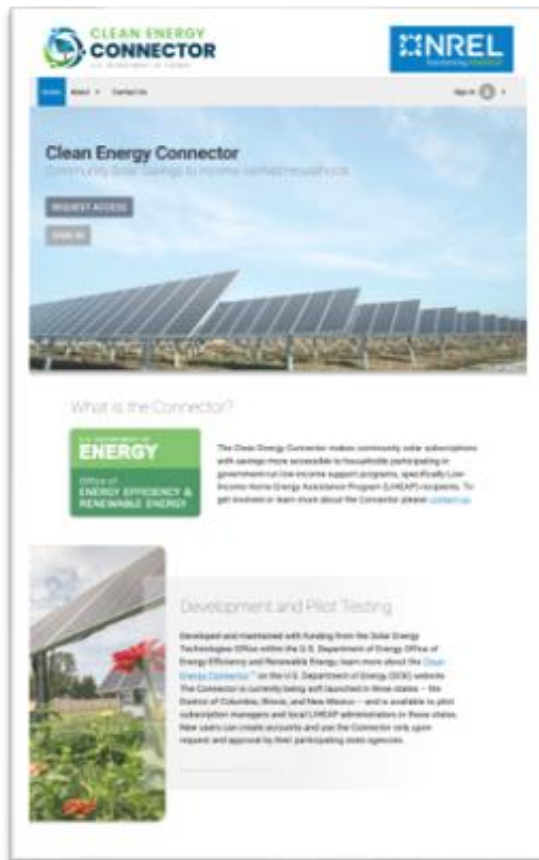
- Partnered with the National Consumer Law Center to develop consumer protections for the Connector
 - Published a report on this topic in February 2024:
<https://www.nclc.org/resources/community-solar-expanding-access-and-safeguarding-low-income-families/>
- Key consumer protections required for the Connector:
 - State program evaluation and complaint mechanism
 - Minimum savings requirement of at least 20%
 - No hidden fees, clear contract terms



Self-Sustaining Funding Model with Equitable Compensation

- Connector includes mechanism to provide equitable compensation to local LIHEAP administrators for their time and effort to educate and enroll households on the Connector
- Built in ability for subscription managers to provide compensation to account for local LIHEAP agency effort and to support the long-term sustainability of the Connector
- States decide on the model that works best in their market and for their stakeholders

Software Development of the Connector



- Web-based application developed by the National Renewable Energy Lab
- Currently available for pilot states (DC, IL, NM)
- Launch publicly announced on March 19

Visit the
Clean Energy Connector
landing page



<https://connector.nrel.gov>

Primary Connector User Types



**State Community Solar
Program Administrators**



**State LIHEAP
Administrators**



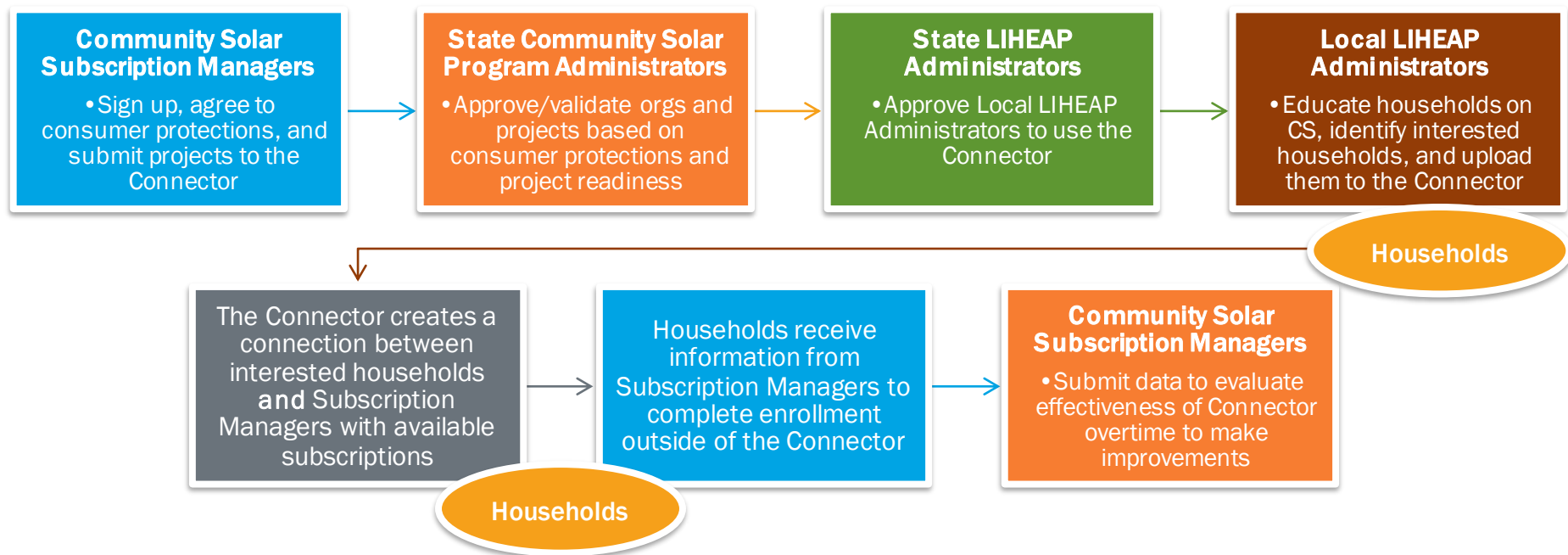
**Community Solar
Subscription Managers**



**Local LIHEAP
Administrators**

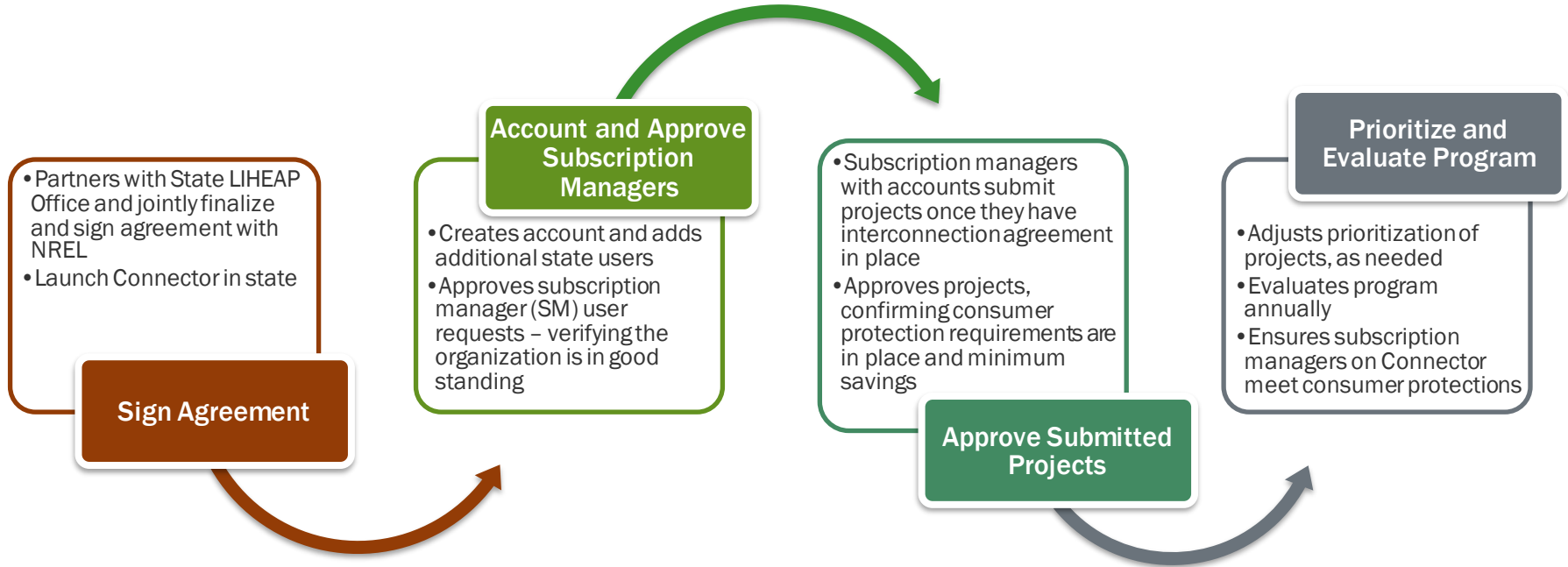
Beneficiaries of the Software
Income-Verified Households

Connector Example Workflow

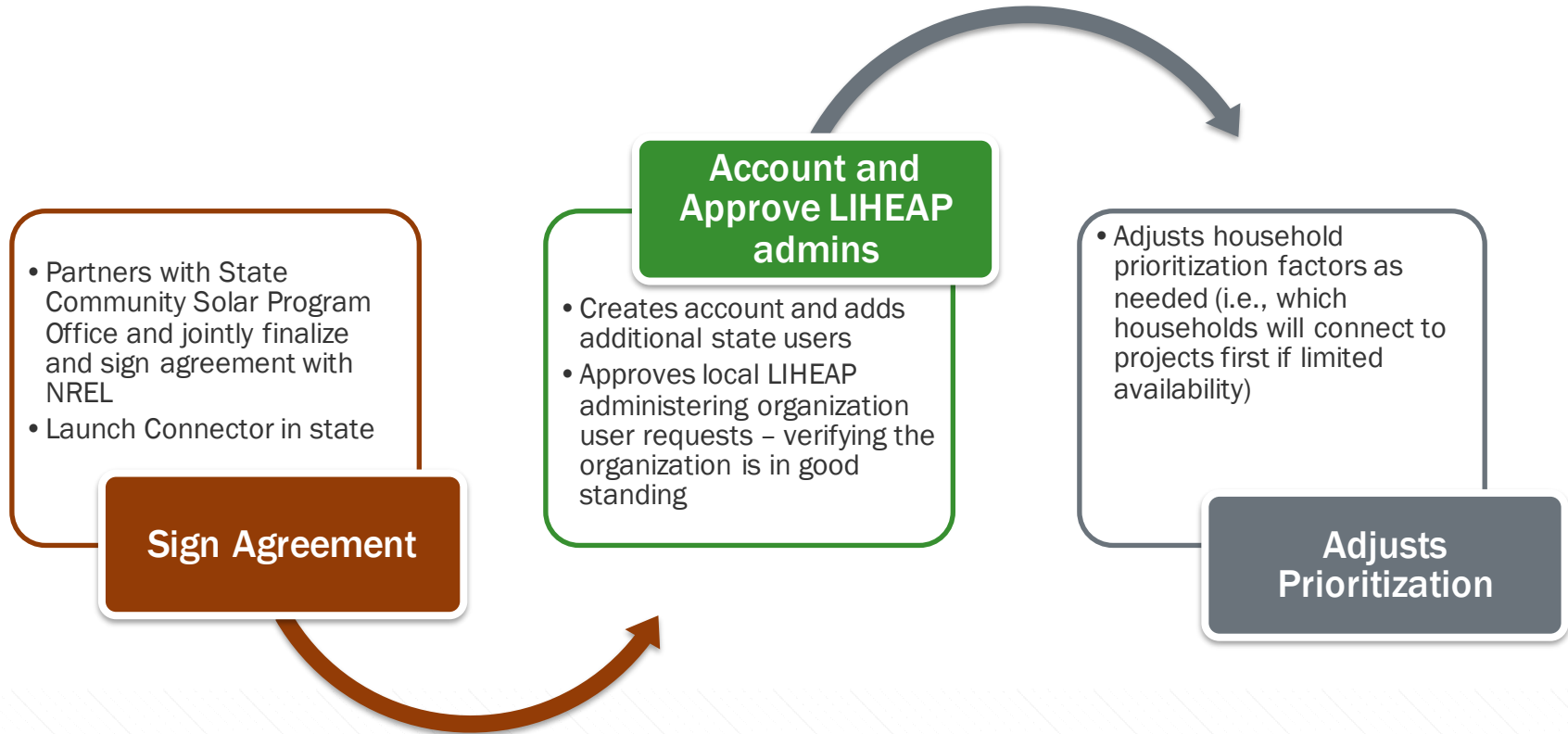


User Process:

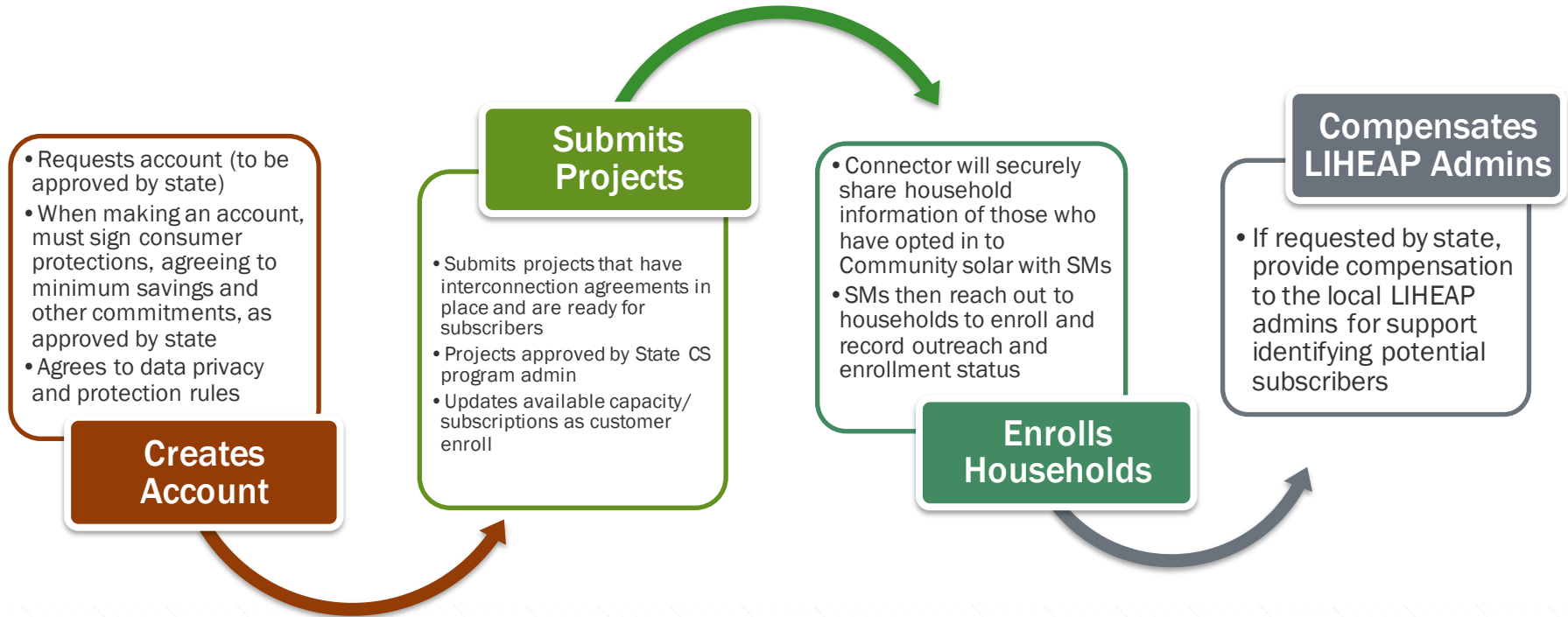
State Community Solar Program



User Process: State LIHEAP Program

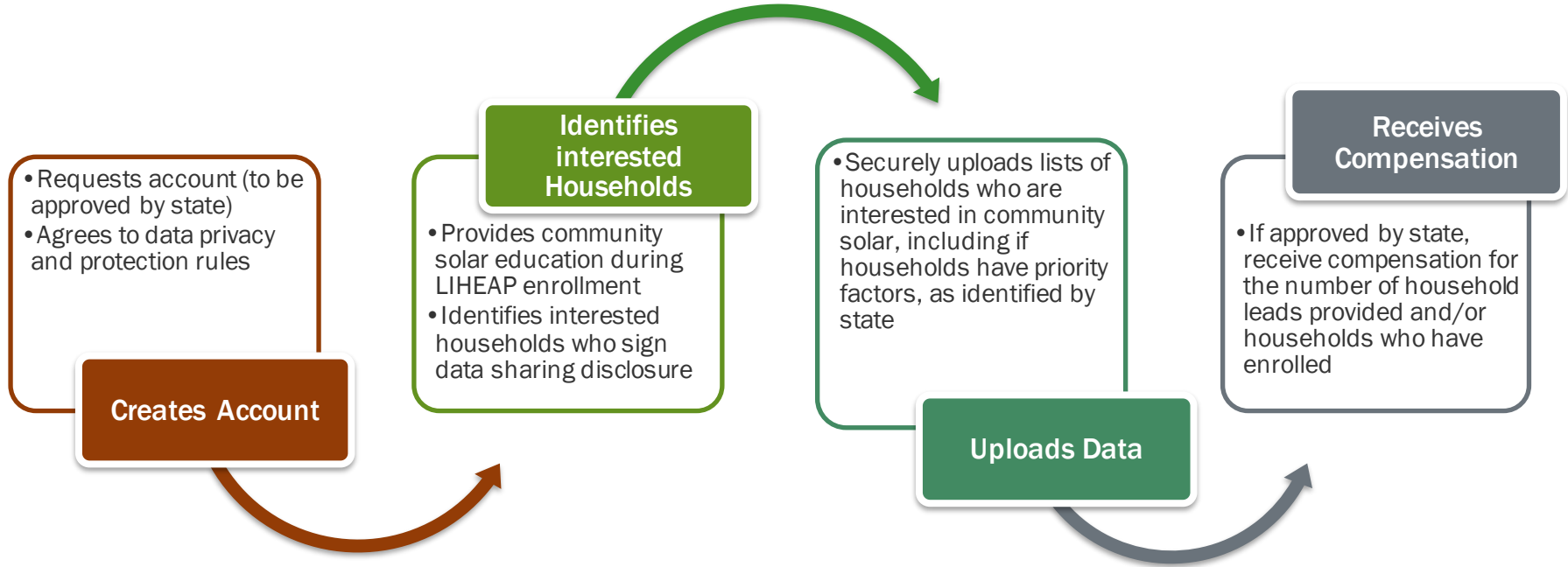


User Process: Subscription Manager



User Process:

Local LIHEAP Administrator





Pilot State Experiences

National Community Solar Partnership Connector Tool Webinar:

DC Community Solar and Low Income Home Energy
Assistance Program (LIHEAP) Connector Tool
Coordination



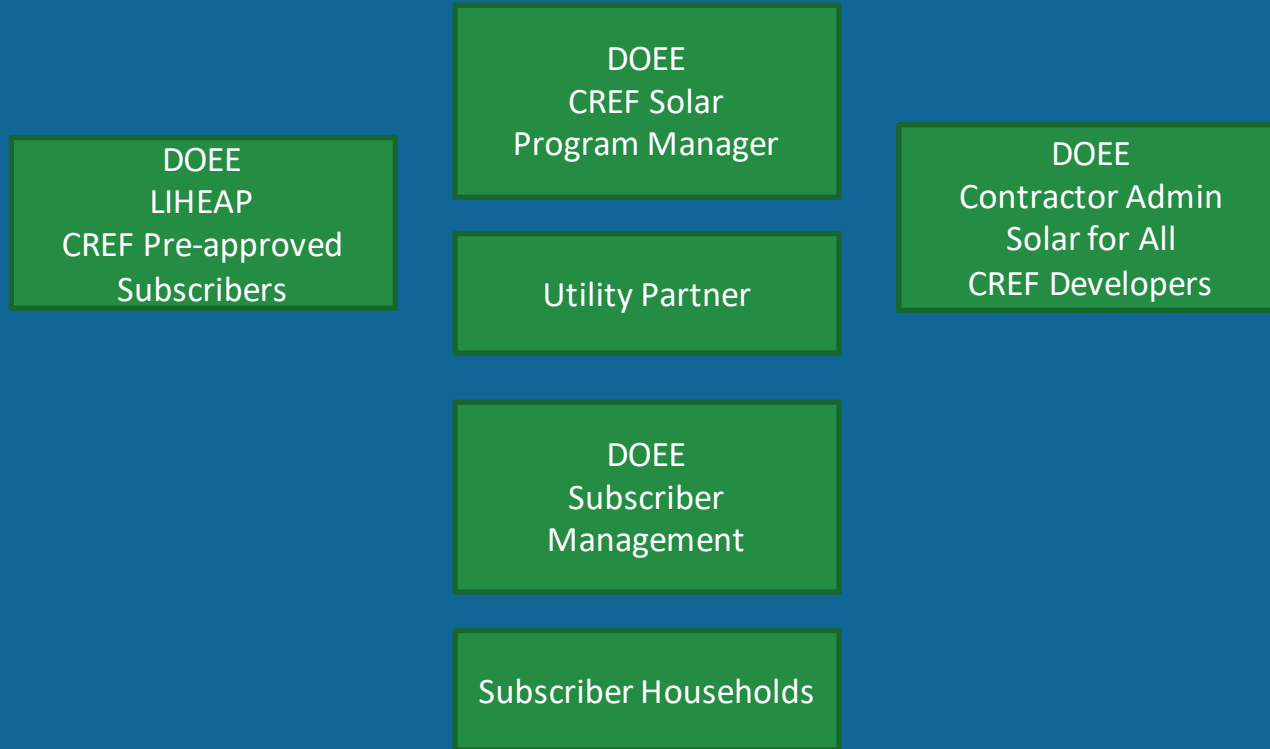
Community Solar Program

Solar for All's overall goal is to provide the benefits of solar energy to 100,000 families with household income at or below 80% of the area median income.



DOEE is partnering with organizations across the District to expand equitable access to solar and provide savings to reduce household electric bills by 50%.

LIHEAP & Community Solar Coordination



LIHEAP & Community Solar Coordination

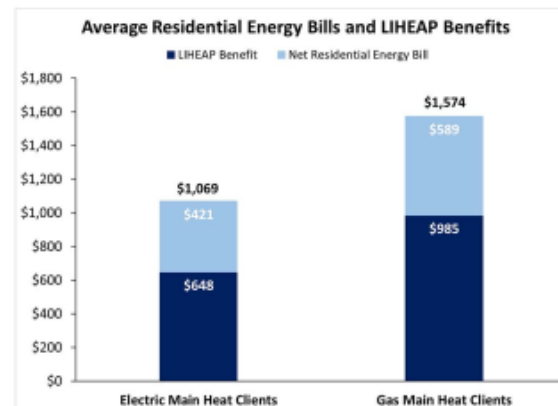
Solar For All Community Solar Program

- 28 MW of capacity installed
- Approximately 7,900 subscriber households
- Approximately \$3,950,000 in electric bill savings annually

Low Income Home Energy Assistance Program (LIHEAP)

- 20,000+ Participants/Year

Figure 1. Average Residential Energy Bill and LIHEAP Benefits by Main Heating Fuel



Lessons Learned

- Policy coordination between Local utilities, regulatory organizations, LIHEAP, Affordable Housing partners, & Community Solar Program
- Selection of project team primary points of contact and aligning priorities across user types
- Community Outreach and Engagement timing and implementation
- Aligning Consumer Protections with program policies within the tool and enforcement strategies
- Leverage technical assistance US DOE team
- Participation in peer to peer discussions
- Technology partners, legal requirements, data access/sharing
- No cost subscription strategy and benefit to low income households



Thank You

Daniel White
daniel.white2@dc.gov
(202) 299-2163





Illinois Solar for All

Illinois Connector Updates

Jennifer Schmidt

Senior Program Manager, Illinois Solar for All

Illinois Power Agency

Illinois Lessons Learned

Partnership between the state administered community solar, solar developers and LIHEAP programs

- Exploring Payment Mechanism
- Engaging Solar Developers and LIHEAP agencies
- Special considerations:
 - LIHEAP application period and funding availability
 - Similarities/differences between LIHEAP and ILSFA income guidelines
 - Participant Prioritization

Lessons learned specifically related to work on the Connector

- Aligning Connector to current community solar program
 - Tracking household subscription
 - Creating verification document to streamline LIHEAP income verification
 - Data validation of CSV file





New Mexico: Lessons Learned from the Connector

Lessons Learned from New Mexico's Experience

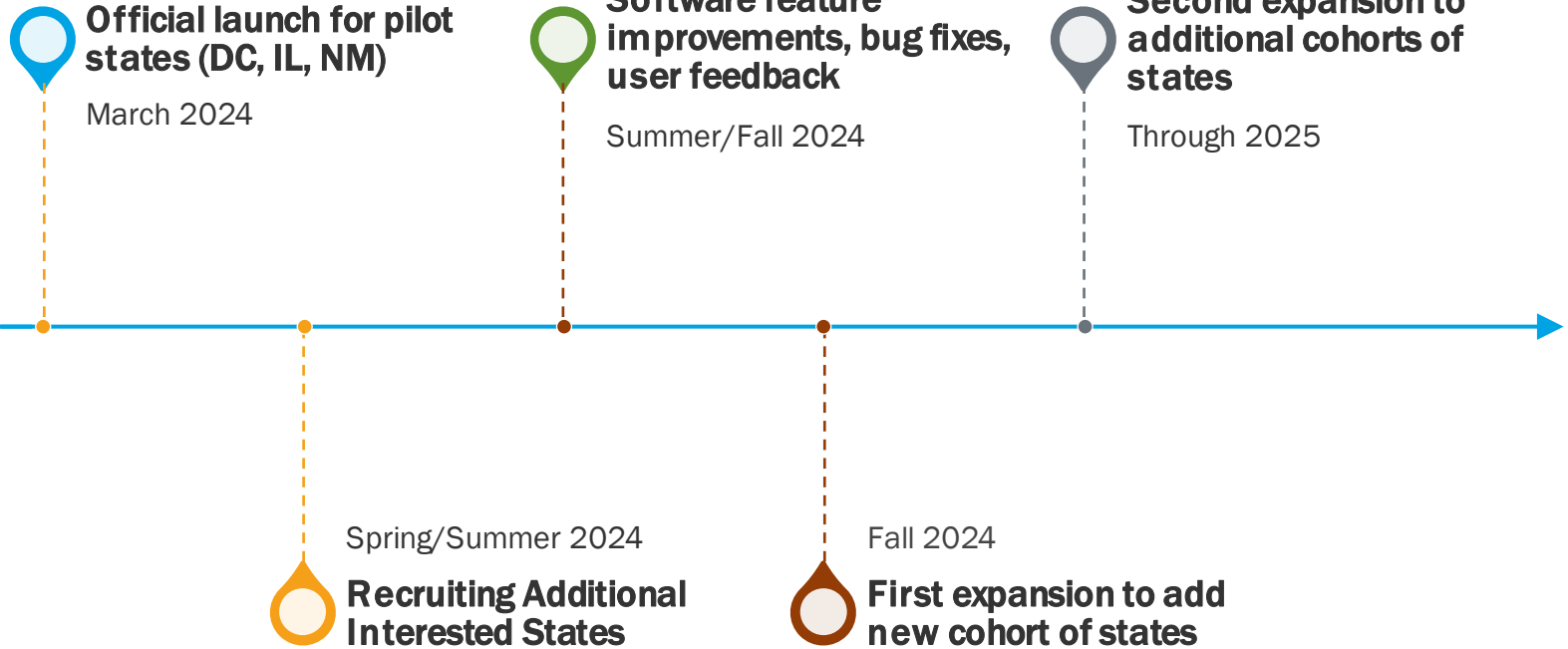
- **Case study for less mature CS programs**
 - CS Implementation + Pilot State
 - Slipping timelines → delayed LI benefits
 - Importance of stakeholder buy-in
 - New rulemaking at PRC
 - States new to CS: get key aspects of program in place before using Connector
- **Integrating Connector into existing systems**
 - System upgrades may be needed
 - Scope and budget timelines
 - Leverage multiple programs or funding sources if possible
- **Cross agency collaboration is important**
 - ORISE Fellows add significant value for resource-limited state agencies
 - Consider: resource allocation, collaboration across agencies, and ability to coordinate efforts



Next Steps for the Connector

Timeline, additional pilot states, and more information about the Connector project

Connector Next Steps



Future Pilot State Requirements

DOE requires states who want to use the Connector to commit to the following:

- **Active community solar program** with specific measures to ensure access for low- to moderate-income households with a minimum savings requirement
- State has **new low-income community solar subscription capacity coming online** and seeking subscribers within the next year
- State has secured **support and collaboration** commitment from both the state community solar and state LIHEAP administering agencies

To express interest having your state become a Pilot State, please email: community.solar@ee.doe.gov

Learn More about the Clean Energy Connector

NREL Connector Landing Page

- <https://connector.nrel.gov>
- Knowledge base tab that provides Q&A for using the Connector software
- Please note that only stakeholders in the pilot states may access the Connector at this time

DOE Connector Landing Page

- <https://www.energy.gov/communitysolar/low-income-clean-energy-connector>
- Frequently Asked Questions section at the bottom of the webpage

Connector Fellowship Overview

- <https://www.energy.gov/communitysolar/low-income-community-solar-and-energy-assistance-fellowship>

Connector Request for Information Responses

- <https://www.energy.gov/communitysolar/summary-low-income-community-solar-subscription-tool-request-information>