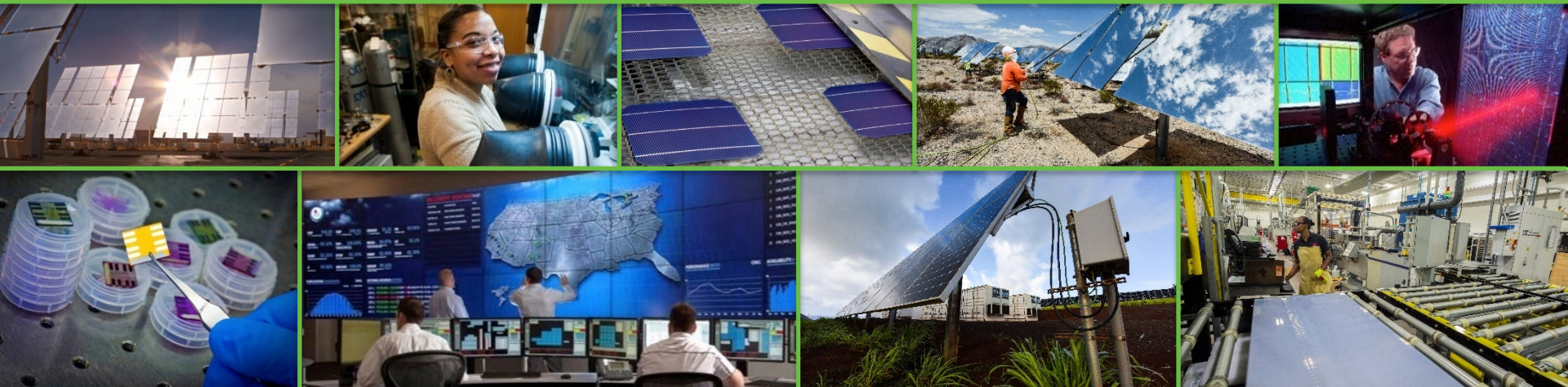


Solar Consumer Protections

Emily Stiever

Contractor to U.S. Department of Energy – Solar Energy Technologies Office – Workforce & Equitable Access Team



Solar Energy Technologies Office (SETO) Overview

MISSION

We 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.

WHAT WE DO

Drive innovation in technology and soft cost reduction to make solar **affordable** and **accessible** for all Americans

Enable solar to support the **reliability, resilience, and security** of the grid

Support **job growth, manufacturing, and the circular economy** in a wide range of applications



What is Community Solar?

DOE defines community solar as any solar project or purchasing program, within a geographic area, where the benefits of a solar project flow to multiple customers such as individuals, businesses, nonprofits, and other groups.

Community solar...

- **Allows households who cannot access rooftop solar to access the benefits of solar energy** (which can be due to barriers such as rooftop suitability, cost, or tenancy).
- Typically, **participants subscribe and receive an electric bill credit** for electricity generated by their share of the system.
- **Can provide meaningful benefits**



Facilitating Meaningful Benefits



**EQUITABLE
ACCESS &
CONSUMER
PROTECTIONS**



**MEANINGFUL
HOUSEHOLD
SAVINGS**



**RESILIENCE,
STORAGE, AND
GRID BENEFITS**



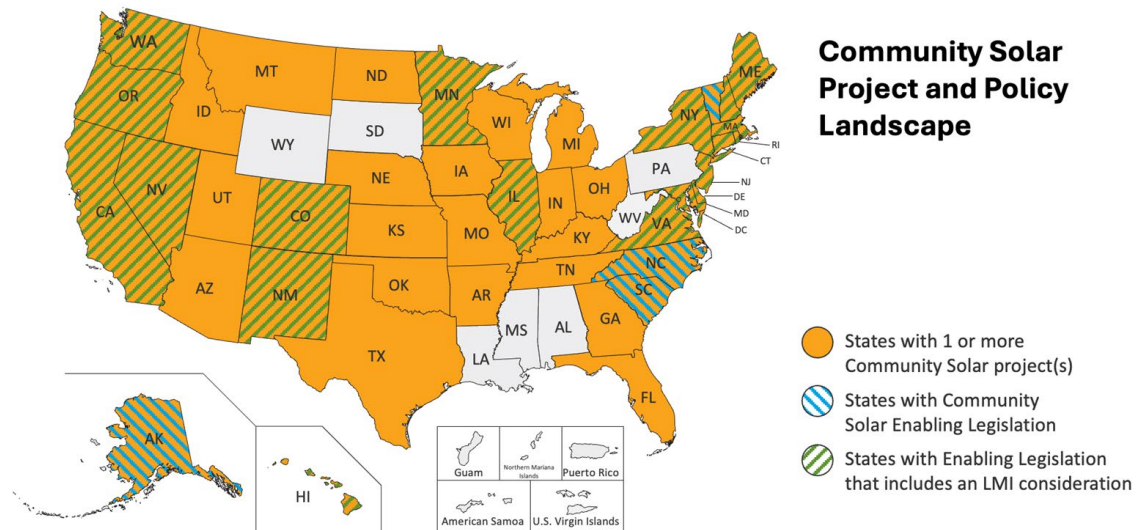
**COMMUNITY-
LED ECONOMIC
DEVELOPMENT**



**SOLAR
WORKFORCE
DEVELOPMENT**

Where is Community Solar available?

- **43 states + DC** have at least one community solar project
- **23 states + DC** passed enabling legislation to encourage or mandate community solar
- **29 states + DC** have policies to facilitate LMI household participation

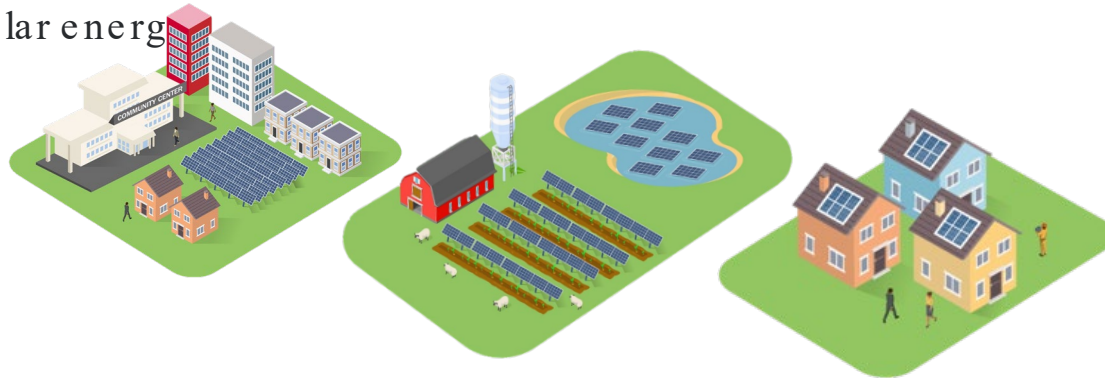


Federal Policies Impacting Solar Energy Deployment

On August 16, 2022, President Biden signed the **Inflation Reduction Act** into law, marking the most significant action Congress has taken on clean energy and climate change in the nation's history.

The bill contained an estimated **\$370 Billion in clean energy investments** and advanced the President's **Justice40 Initiative**, which committed to delivering 40% of the overall benefits of these investments to communities that have been marginalized, overburdened by pollution, and underserved by infrastructure and other basic services.

The funding comes in the form of tax credits, grants, and loans, many of which will increase the deployment of solar energy.



Images courtesy of the National Renewable Energy Lab

Equitable Solar Adoption



- EPA's Solar for All program:
 - **\$7B** to states, municipalities, Tribes, and nonprofits, covering all states and territories
 - Deployment of rooftop and community solar in low-income and disadvantaged communities over the next **five years**
 - Will enable **900,000 households** who have been historically underrepresented to experience the benefits of solar energy

All selected awardees have committed to delivering at least 20% household savings to all participants

Consumer Protection Strategies

01

Promote resources for effective policy, program design

0

Deploy tools to enable low-cost, low-barrier, protected customer acquisition

0

Conduct data-driven research on the consumer experience

0

Support the development of new industry standards

0

Conduct strategic outreach, engagement, and education of stakeholders

Promotion of Best Practices

01

- NCLC reference guide for states developing or improving community solar programs
- Best practices, challenges, and lessons learned are discussed amongst states in the NCSP+ States Collaborative



General Principles For Protecting Low-Income Community Solar Subscribers

- Meaningful bill savings
- Transparent and reasonable contract terms
- Clear communication in appropriate formats
- No hidden or additional fees
- Accessible complaint mechanism and data disclosure
- Effective evaluation and enforcement process

Community Solar Best Practices Guide: Developing Projects with Meaningful Benefits



U.S. DEPARTMENT OF
ENERGY

Office of
ENERGY EFFICIENCY &
RENEWABLE ENERGY

National Community
Solar Partnership:
States Collaborative

Tools for Customer Acquisition



CLEAN ENERGY
CONNECTOR
U.S. DEPARTMENT OF ENERGY

An online platform to connect income-verified households to vetted community solar subscriptions. Launched in March 2024 in IL, NM, D.C. and addresses barriers to solar adoption by:

- Protecting the consumer
- Lowering electricity bills
- Reducing customer acquisition & management costs
- Building investor confidence
- Expanding the community solar market

<https://connector.nrel.gov/>

Data-Driven Research



- Exploring Consumer Confidence in Residential Solar



1

Research & Analysis

Collect data on consumer experience, complaints, and effectiveness of resources

2

Strategy
Recommendations
Structure the challenges and solutions

3

Information
Dissemination
Case studies and final report

Industry Standards



Standards Development

American National Standards Institute, Solar Energy Industries Association, National Renewable Energy Laboratory

*Establish baseline quality and workmanship standards for solar and energystorage: installation requirements, O&M, **consumer protections***, and environmental, health, & safety*

*including standards for sales practices and financial disclosures

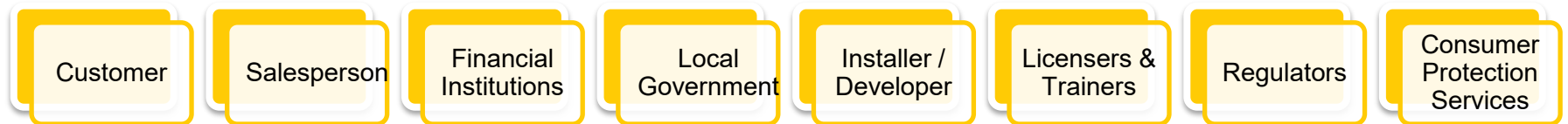
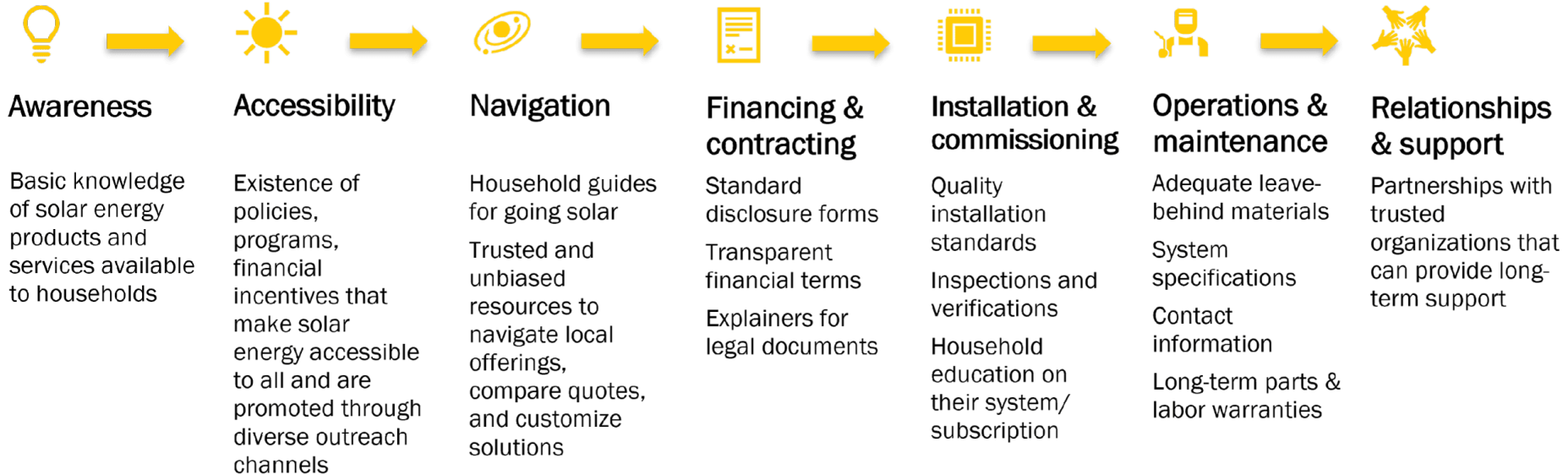
Solar Operations & Maintenance High Road Training Partnership

Amicus O&M Cooperative

Increase equity, safety, and professional quality in solar O&M through new industry standards, credentials, and training programs



Facilitating Consumer Protection at all Stages



Get Program Updates

SETO Newsletter – Stay in Touch!



SIGN UP NOW:
energy.gov/solar-



The SETO newsletter highlights the key activities, events, funding opportunities, and publications that the solar program has funded.

Community Solar: Safeguarding Low-Income Families



Berneta L. Haynes
Senior Attorney, NCLC
December 2024

About NCLC



National
Consumer Law
Center
*Fighting Together
for Economic Justice*

Since 1969, the nonprofit National Consumer Law Center® (NCLC®) has worked for consumer justice and economic security for low-income and other disadvantaged people, including older adults, in the U.S. through its expertise in policy analysis and advocacy, publications, litigation, expert witness services, and training. www.nclc.org.



Berneta L. Haynes

Berneta L. Haynes is a senior attorney who focuses on consumer energy policy and medical debt. At NCLC, she recently authored [*Tariff-based On-Bill Financing: Assessing the Risks for Low-Income Consumers*](#) and [*Community Solar: Expanding Access and Safeguarding Low-Income Families*](#). She is also a contributing author to NCLC's *Access to Utility Service* treatise. Before joining NCLC, she served as a director at Georgia Watch, a state-based consumer advocacy organization in Atlanta, where she worked to make energy programs, quality healthcare, financial protection, and civil justice more equitable and accessible for all. At Georgia Watch, she authored policy guides on energy equity (including *Keeping the Lights On* and *EMCs and Energy Equity: Harnessing Your Power*). Previously, she practiced law at Environmental Law and Policy Center in Chicago and Southern Environmental Law Center, where she authored *Solar for All* and other policy papers. She earned her Bachelor's degree in English, Writing, and Psychology from Drury University, her Master's degree in English from University of Iowa, and her law degree from University of Iowa College of Law.



Roadmap

1. The importance of expanding access to community solar with strong consumer protections to low-income households.
2. Existing community solar models, best practices, and state policies that center strong consumer protections.
3. Recommended low-income protection standards for states and community solar developers.

Energy (Un)Affordability Crisis: A Glance

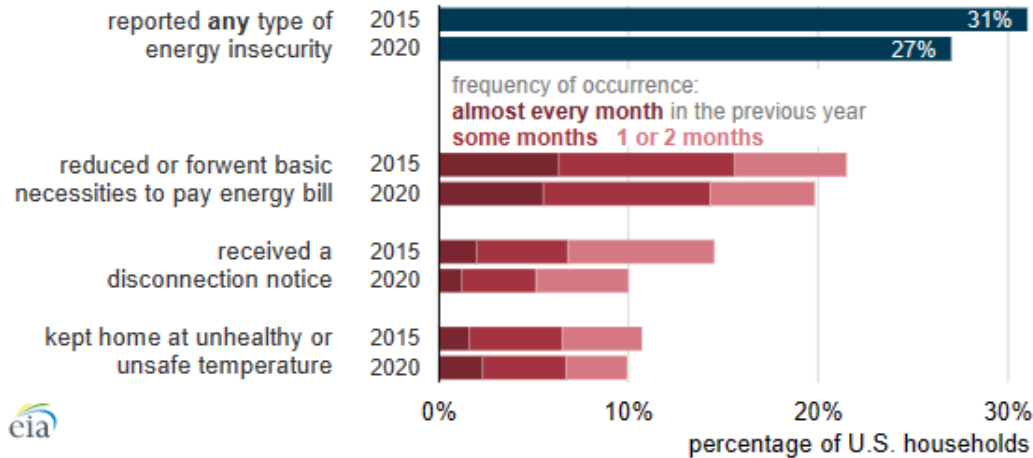
APRIL 11, 2022

In 2020, 27% of U.S. households had difficulty meeting their energy needs

More than a quarter of households struggle to meet their energy needs.

Source: [U.S. Energy Information Administration](#)

U.S. household energy insecurity measures (2015 and 2020)



Source: U.S. Energy Information Administration, [Residential Energy Consumption Survey \(RECS\)](#)

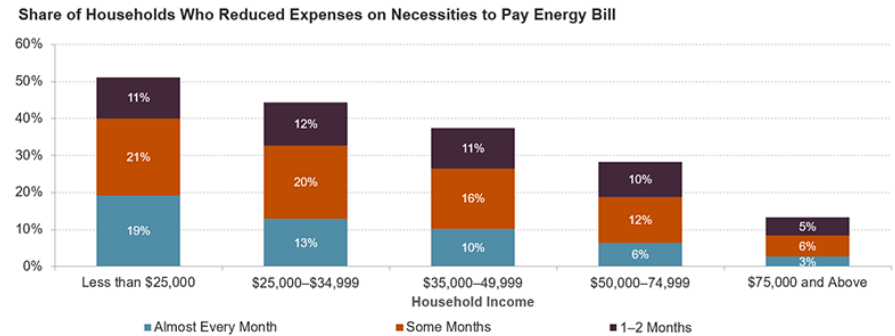
Energy (Un)Affordability Crisis: A Glance

The energy affordability crisis impacts low-income families disproportionately.

The average low-income household spends around 14% of their annual income on energy bills, compared to 3% for higher income households.

Source: [Weatherization Assistance Program \(U.S. Department of Energy\)](#)

FIGURE 1. LOWER-INCOME HOUSEHOLDS STRUGGLED TO PAY ENERGY BILLS AT THE BEGINNING OF 2022



Note: Households reduced expenses on basic household necessities such as medicine or food to pay their energy bill at least once in the year prior to survey. Source: JCHS tabulations of US Census Bureau, Household Pulse Survey, Q1 2022.

Source: [Joint Center for Housing Studies of Harvard University](#)

Climate Change & Extreme Weather: A Glance


Extreme weather conditions and events stemming from climate change disparately impact low-income communities, which are disproportionately people of color.

According [the EPA](#):

- Black individuals are projected to face higher impacts of climate change, compared to all other demographic groups.
- Hispanics and Latinos have high participation in weather-exposed industries, such as construction and agriculture.

These groups have fewer financial and material resources to handle the consequences of extreme weather events due to climate change.

Climate Change & Extreme Weather: A Glance

Climate Change and Social Vulnerability in the United States: A Focus on Six Impacts 

Findings on Disproportionate Risks of Climate Change to Low Income Individuals

This is a one-page summary of findings from EPA's report [Climate Change and Social Vulnerability in the United States: A Focus on Six Impacts](#) related to disproportionate risks of climate change to low income individuals. The report estimates the disproportionate risks to socially vulnerable populations (defined based on age, income, education, race, and ethnicity) associated with six impact categories:

- Air Quality and Health;
- Extreme Temperature and Health;
- Extreme Temperature and Labor;
- Coastal Flooding and Traffic;
- Coastal Flooding and Property; and
- Inland Flooding and Property.


Risks are calculated for each socially vulnerable group relative to its "reference population" (all individuals outside of each group) for scenarios with 2°C of global warming of 50 cm of sea level rise. The estimated risks are based on current demographic distributions in the contiguous United States.

The report finds that low income individuals are more likely than their reference population to currently live in areas with:

- the highest increases in childhood asthma diagnoses from climate-driven changes in PM_{2.5};
- the highest percentage of land lost to inundation;
- the highest increases in mortality rates due to climate-driven changes in extreme temperatures;
- the highest rates of labor hour losses due to extreme temperatures; and
- the highest increases in traffic delays associated with high-tide flooding.

For more information, please refer to the [report and accompanying appendices](#).

EPA 430-R-21-003 | September 2021



Air Quality and Health
15% more likely to currently live in areas with the highest projected increases in PM_{2.5} with 2°C of global warming.

Extreme Temperature and Labor
20% more likely to currently live in areas with the highest projected reductions in labor hours due to extreme temperatures with 2°C of global warming.

Coastal Flooding and Traffic
10% more likely to live in areas with the highest estimated increases in high-tide water due to coastal flooding with 50 cm of global sea level rise.

Coastal Flooding and Property
10% more likely to currently live in areas where the highest percentage of land is projected to be lost to inundation with 50 cm of global sea level rise.

Inland Flooding and Property
40% more likely to currently live in areas where the highest projected damage from inland flooding with 2°C of global warming.

Extreme Temperature and Health
7% more likely to currently live in areas with the highest projected increases in extreme temperatures (total deaths) with 2°C of global warming.

The [EPA's report](#) examines six types of impacts, including those to health from changes in air quality and extreme temperature, disruptions to weather-exposed workers, and flooding threats to property.

Low-income families are disproportionately affected in all examined impact categories.

Community Solar: An Equitable Alternative for LMI?

Why expand community solar to low-income communities?

- Community solar can address the energy affordability crisis and reduce greenhouse gas emissions that contribute to climate change.
- Low-income families lack ability to afford rooftop solar.
- Low-income families are more likely to be renters and therefore do not own a roof on which solar can be installed.
- Low-income households should not be left out of the transition to a clean energy economy.



Importance of Community Solar Access

A brief history of our collaboration with the Department of Energy:

- DOE's National Community Solar Partnership, in conjunction with DHHS, begins developing ["Low-Income Clean Energy Connector"](#) and approaches NCLC in 2022 for technical assistance and expertise.
- To support DOE's efforts, NCLC drafted an internal guidance document containing a broad list of consumer protections for low-income community solar. LIHEAP cites the document in its June 2023 memo on [Community Solar and LIHEAP Considerations](#).

Importance of Robust Consumer Protections

Without robust protections, community solar programs could present significant risks for low-income families:

- Disadvantageous contract terms, including hidden fees and unreasonably long terms;
- Predatory marketing, including lack of contract disclosure;
- Potentially adverse effects on LIHEAP enrollment and utility allowances.

Community Solar: Principles for Consumer Protection

Community Solar: Expanding Access and Safeguarding Low-Income Families looks at existing community solar models, best practices, and state policies and examines DOE's effort to advance community solar through a state-managed low-income subscription software. The report highlights examples of key guardrails to protect low-income subscribers or participants and ensure substantial bill savings.



Models for Protection in Community Solar

After a review of community solar programs around the country, we found the programs with the strongest protections for low-income households adhered to these few broad principles.

General Principles For Protecting Low-Income Community Solar Subscribers

- Meaningful bill savings
- Transparent and reasonable contract terms
- Clear communication in appropriate formats
- No hidden or additional fees
- Accessible complaint mechanism and data disclosure
- Effective evaluation and enforcement process

Models for Protection in Community Solar

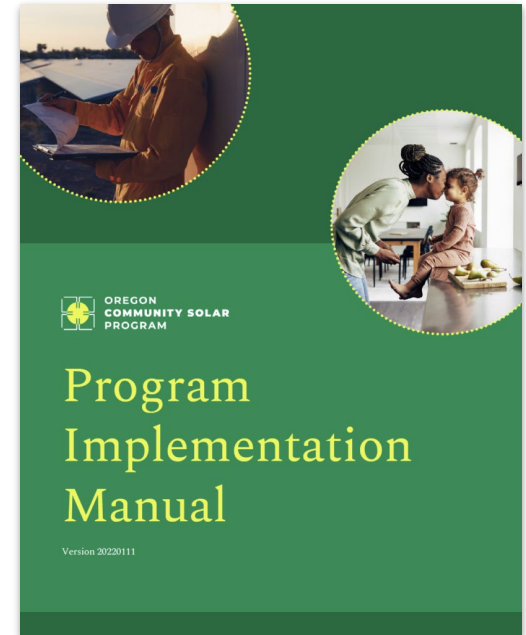
Illinois: Consumer Protection Handbook (Illinois Power Agency)

- The handbook contains language addressing:
 - Unfair and abusive business practices (e.g. “Approved Vendors...shall conduct business affairs with the goal of openness and transparency”)
 - Including prohibited language marketers can use regarding expected bill savings
 - Marketing rules for various channels
 - Required information in disclosure forms

Models for Protection in Community Solar

Oregon: Community Solar Program Implementation Manual

- Monthly cost to participate must not exceed value of bill credits
- No late fees on low-income participants
- No early termination fees for low-income participants
- No adverse impact on a household's LIHEAP benefits



Models for Protection in Community Solar

District of Columbia: Utility Assistance Form

- Combines the application for utility bill assistance and pre-qualification for community solar into one form to capture low-income customers
- Includes the terms and conditions of DC's Solar For All program in the utility bill assistance form

Models for Protection in Community Solar

New Mexico: Community Solar Program Best Practices

- Sales agent training and vetting (e.g. training on all federal, state, county requirements on door-to-door sales, training on ethical sales practices, and more)
- Marketing materials and communications (e.g. accurate estimates of savings, no misleading information, etc.)
- Reporting on subscription levels and more



Recommended Consumer Protections

States should set robust financial, marketing, and compliance requirements for marketers. *Including but not limited to:*

- Ensuring bill savings and providing an exit clause in contracts;
- Prohibiting flat fees, termination fees, late fees, sign-up fees, unreasonably long terms, etc;
- Requiring all documents are available electronically and in paper format before a customer signs;
- Using standardized marketing materials and disclosure forms.

Recommended Consumer Protections

States should commit to robust oversight, standardization, and coordination with existing low-income programs. Including but not limited to:

- Requiring plain language and concise contracts, forms, and marketing materials;
- Establishing a Code of Practice for marketing, especially for door-to-door sales;
- Developing standardized consumer education materials; develop standardized disclosure forms;
- Creating an accessible complaint process or mechanism.

LIHEAP/WAP Recommendations & Cautions

Coordinate with LIHEAP and WAP to streamline community solar eligibility and enrollment.

- State administrators should develop income eligibility processes that are coordinated and/or streamlined with LIHEAP, WAP, and/or other income-tested programs, including developing methods to determine low-income eligibility for low-income folks not eligible for LIHEAP or WAP.
- State administrators should also ensure program compatibility with low-income energy assistance programs, like LIHEAP and HUD-assisted housing, to avoid adverse impacts on low-income benefits and utility allowances

But we do not support using LIHEAP and WAP funds for solar. Advocates and state administrators should keep in mind that the intended priorities of LIHEAP and WAP are bill assistance, crisis energy-related home repairs, and weatherization...not solar.

Federal Efforts: Solar for All & the IRA (1 of 2)

On Aug. 16, 2022, President Biden signed the [Inflation Reduction Act](#), which provides nearly \$400 billion to support clean energy and address climate change.

- Section 48(e) offers new access to clean energy tax credits with an emphasis on reaching disadvantaged populations and communities with environmental justice concerns.
- The IRA includes \$27 billion for the Greenhouse Gas Reduction Fund, including the \$7 billion [Solar for All](#) program.

See IRC Sec. 45D(e) and [IRS Notice 2013-17](#). This provision is pending full guidance.

Federal Efforts: Solar for All & the IRA (2 of 2)

The Solar for All program will provide grants to 60 recipients to create new or expand existing low-income solar programs, reaching over 900,000 households in low-income and disadvantaged communities.

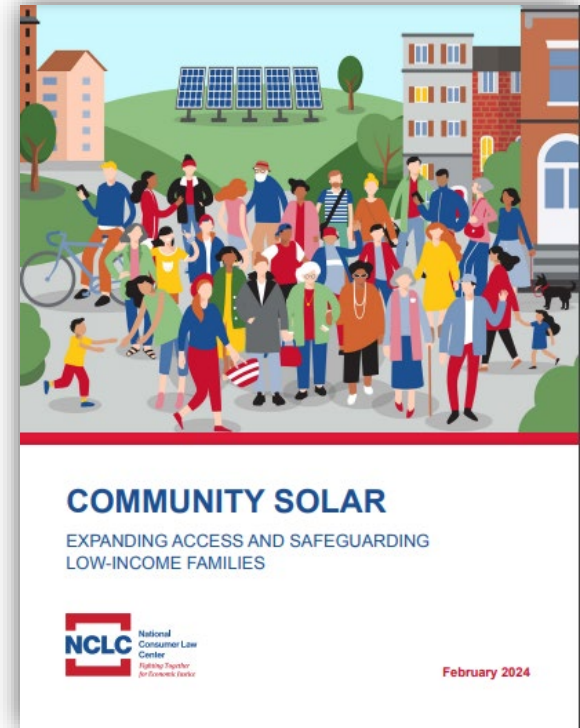
- Among other things, the EPA's Greenhouse Gas Reduction Fund Solar for All Program has set a goal of delivering an average [bill savings of 20% per household](#).

While the 20% savings goal is admirable, it may not be achievable in states that do not have deep subsidies for solar or hard-to-replicate program designs.

Continuing the learning

Check out these resources on solar:

- [Community Solar: Expanding Access and Safeguarding Low-Income Families](#) (NCLC)
- [Rooftop Solar: Consumer Protection Recommendations](#) (NCLC)
- [Community Solar Best Practices Guide: Developing Projects with Meaningful Benefits](#) (DOE)
- [Clean Energy Connector](#) (DOE)
- [Illinois Solar for All](#) (IPA)



Contact Information

Berneta L. Haynes

Senior Attorney

National Consumer Law Center®

(301) 485-6195

bhaynes@nclc.org



National
Consumer Law
Center

*Fighting Together
for Economic Justice*

Since 1969, the nonprofit National Consumer Law Center® (NCLC®) has worked for consumer justice and economic security for low-income and other disadvantaged people, including older adults, in the U.S. through its expertise in policy analysis and advocacy, publications, litigation, expert witness services, and training. www.nclc.org.

Community Action and Our Role in Community Solar



National Community Action Partnership
1020 19th Street, NW
Suite 700
Washington, DC 20036
www.communityactionpartnership.com



What is Community Action?



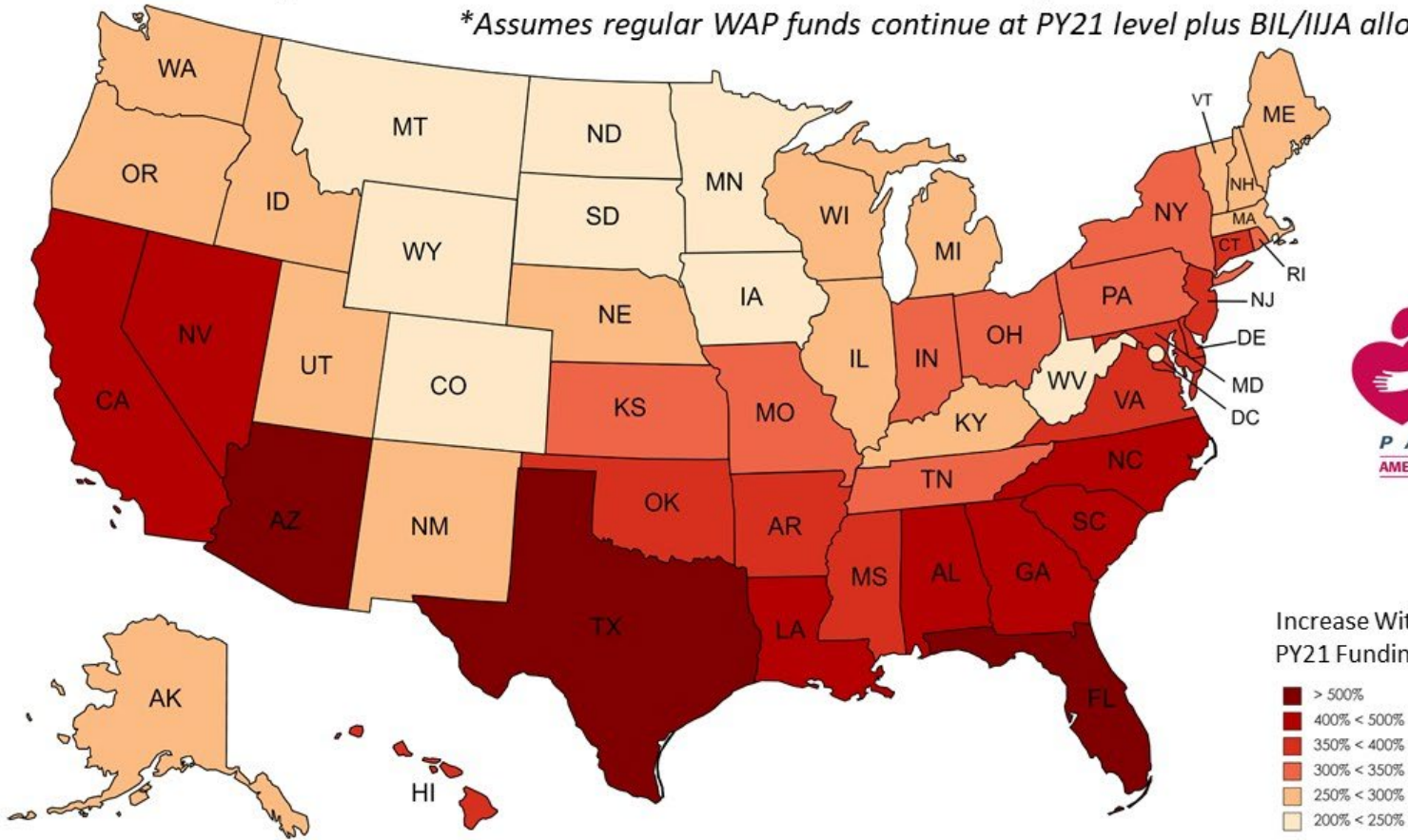
1000+ Agencies | 44 State Associations | 50+ State CSBG Offices | National Partners

More than 15 Million Served

Community Action changes people's lives, embodies the spirit of hope, improves communities and makes America a better place to live. We care about the entire community and we are dedicated to helping people help themselves and each other.

Projected Weatherization Infrastructure Program Growth, 2022-2026

**Assumes regular WAP funds continue at PY21 level plus BIL/IIJA allotment.*



Increase With Infrastructure Funds V.
PY21 Funding Level Only

- > 500%
- 400% < 500%
- 350% < 400%
- 300% < 350%
- 250% < 300%
- 200% < 250%



The Promise Of Community Action

Community Action changes people's lives, embodies the spirit of hope, improves communities, and makes America a better place to live. We care about the entire community and we are dedicated to helping people help themselves and each other.

How We Fit In



- Trusted in our communities
- Streamlined low-income eligibility determination by partnering with WAP
- Have NCAP as a resource to vet potential partners



From the Field



Contact Information

Kendra Baldwin

kbaldwin@communityactionpartnership.com

www.communityactionpartnership.com

Thank you!





Consumer Protections for Solar in Illinois

Sarah Duffy
Deputy Legal Counsel

Illinois Context

- **IPA is an independent state agency created in 2007**
 - **Implement IL's Renewable Portfolio Standard (RPS)**
 - **Incentivize other clean energy activity**
 - **Does not regulate clean energy companies**
- **Illinois has deregulated electric sector**
 - **Any company can build electric generation (not part of utility's monopoly)**
 - **Do not need permit from IPA or ICC**
 - **History of predatory sales tactics by Alternative Retail Electric Suppliers in mid-2000s**



Solar Incentive Programs under the IPA



- *A state-administered solar incentive program providing access to market-rate solar for all Illinoisans and Public Schools.*
- *Community solar, Large and Small on-site projects, public schools, and equity eligible contractors*



- *A state-administered solar incentive program that provides incentives to make solar installations more affordable for income-eligible residents and result in measurable savings.*
- *Large and small residential on-site projects, community solar, and non-profits and public facilities*

ILSFA Community Solar



- **Eligibility:**

- Residents (Residential and Community Solar): **80% AMI**
- Non-profits/Public Facilities: Critical service provider and located in environmental justice or low-income community
- Multi-unit buildings (must pass on tangible benefits): at least 50% tenants are income-eligible
- Demonstrate community engagement through community outreach, education, and recruitment

- **Energy Sovereignty**

- 25% of budget reserved for projects leading to customer ownership

- **Environmental Justice Communities**

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

Partnership between ILSFA community solar, solar developers and LIHEAP programs

- Engaging community 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 verification

Consumer Protection Requirements

Registration of companies

- Good standing, outstanding legal or financial issues
- Affiliation with suspended entities

Minimum offer requirements

- Substantive reqs, e.g., savings reqs,* warranty,* contract reqs
- Marketing guidelines, when, who, how they can make offers
- Sales agent training

Consumer Education

- Disclosure Form
- Grassroots Educators*
- Online resources
- Info brochures

*ILSFA-specific requirement or resource

Consumer Protection Enforcement



Customer Complaints

- Multiple methods for submitting complaints
- PA investigates, mediates, and works to resolve complaints
- Publication of anonymized complaint information

Disciplinary Action

- Multi-step escalation with multiple points for resolution
- PA may issue corrective action or compliance plan, or may issue a warning or suspension
- Option to appeal PA decision to IPA

Limitations

- IPA does not have plenary regulatory authority and does not take legal enforcement action
- May refer complaints to the Attorney General's office

Consumer Protection Trends

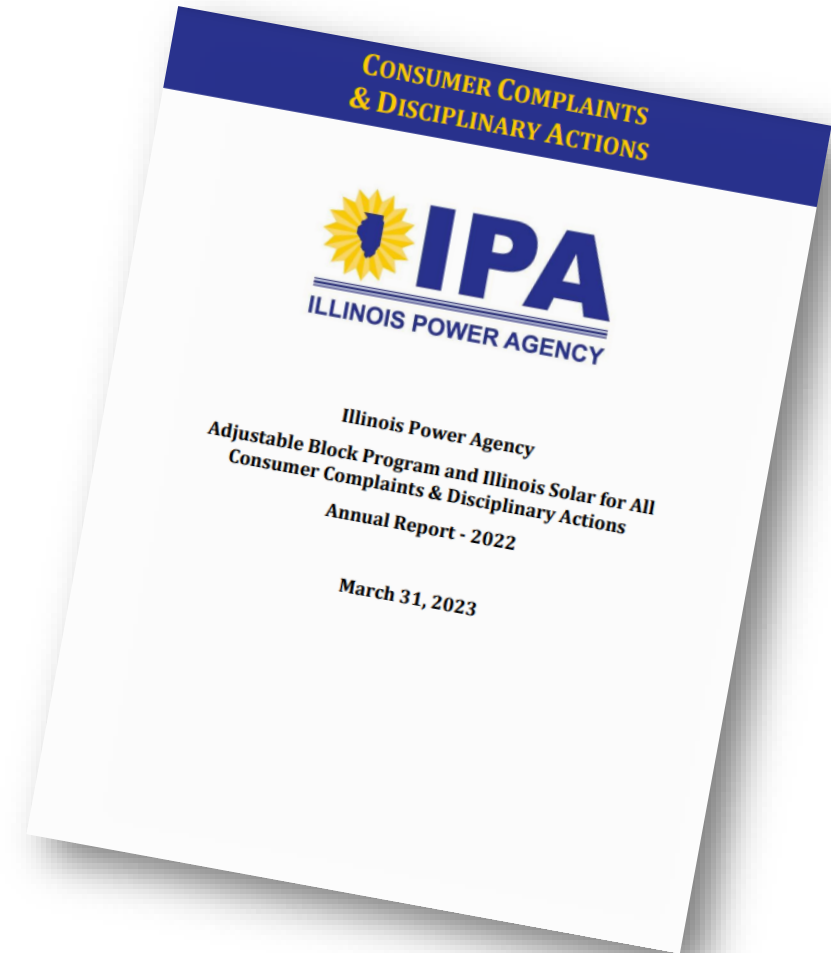
Increasing complaints year-over-year

| | 2019 | 2020 | 2021 | 2022 | 2023 |
|-----------------|------|------|---------|----------|----------|
| Illinois Shines | 28 | 77 | 165 (1) | 259 (22) | 304 (22) |
| ILSFA | 0 | 6 | 7 | 13 (3) | 16 (0) |

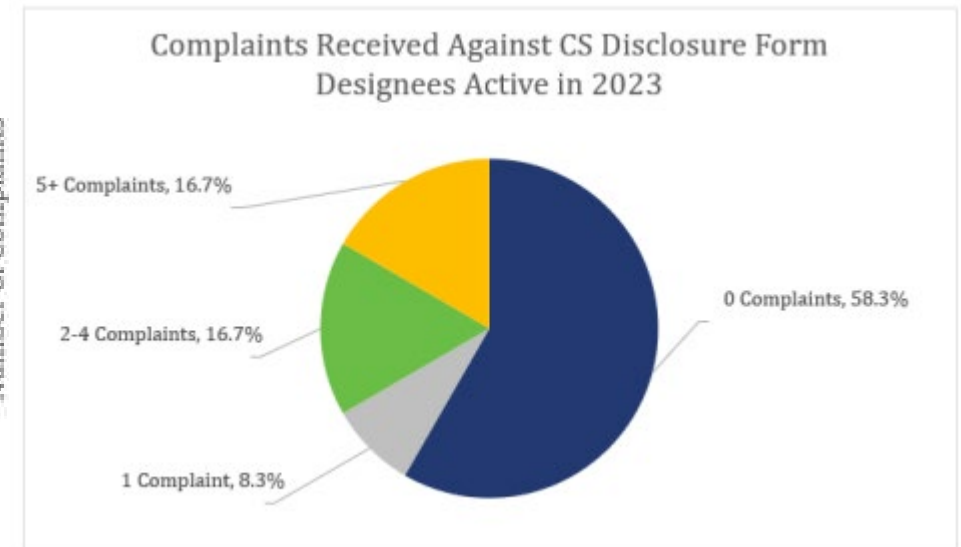
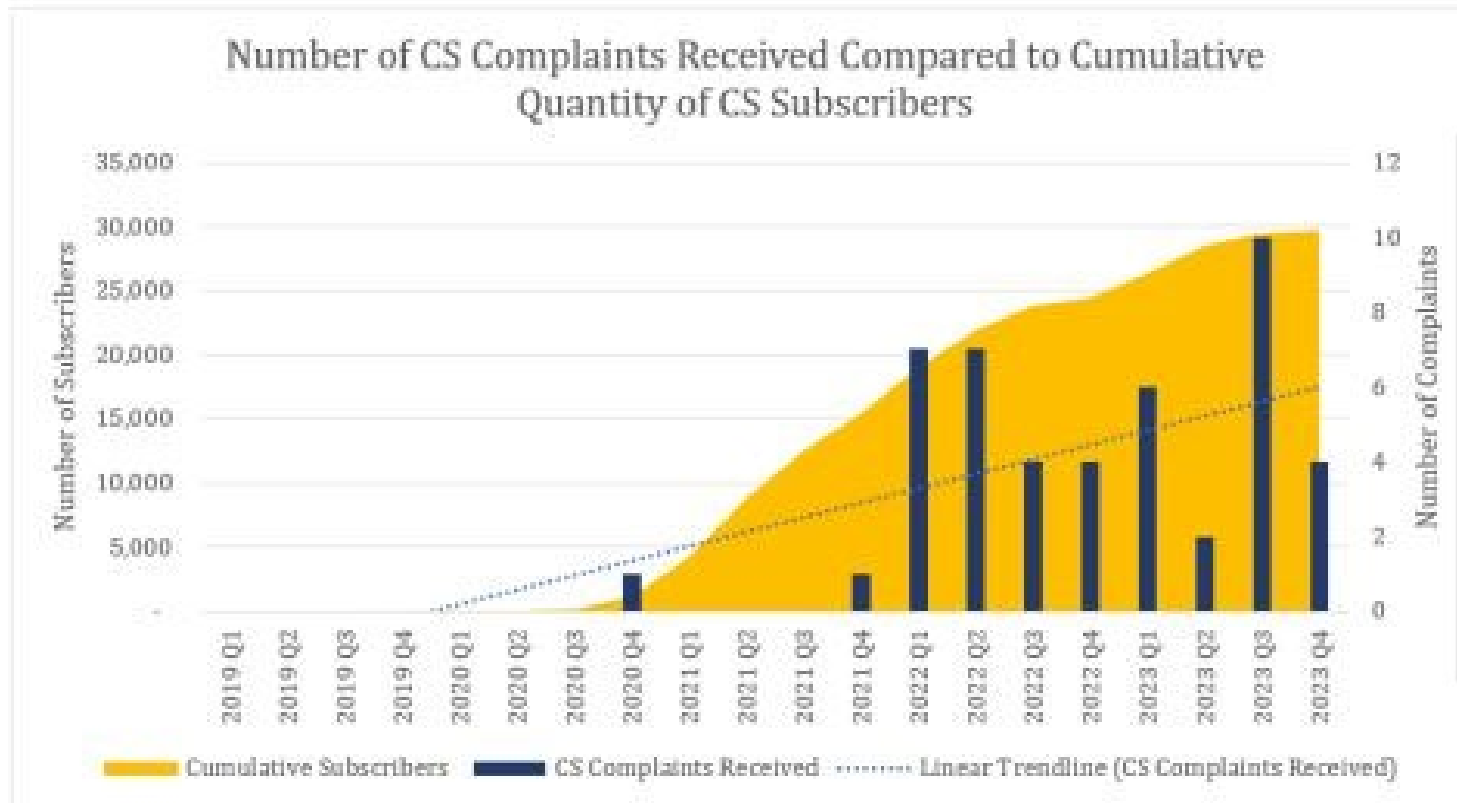
Increasing participation levels

| DG Applications | 2019 | 2020 | 2021 | 2022 | 2023 |
|-----------------|--------|--------|-------|--------|--------|
| Illinois Shines | 10,718 | 16,536 | 6,918 | 11,516 | 25,699 |
| ILSFA | 49 | 106 | 236 | 332 | 1,434 |

| CS Subscribers | 2019 | 2020 | 2021 | 2022 | 2023 |
|-----------------|------|--------|---------|--------|--------|
| Illinois Shines | | <2,000 | ~15,000 | 24,550 | 29,707 |
| ILSFA | | | | | |

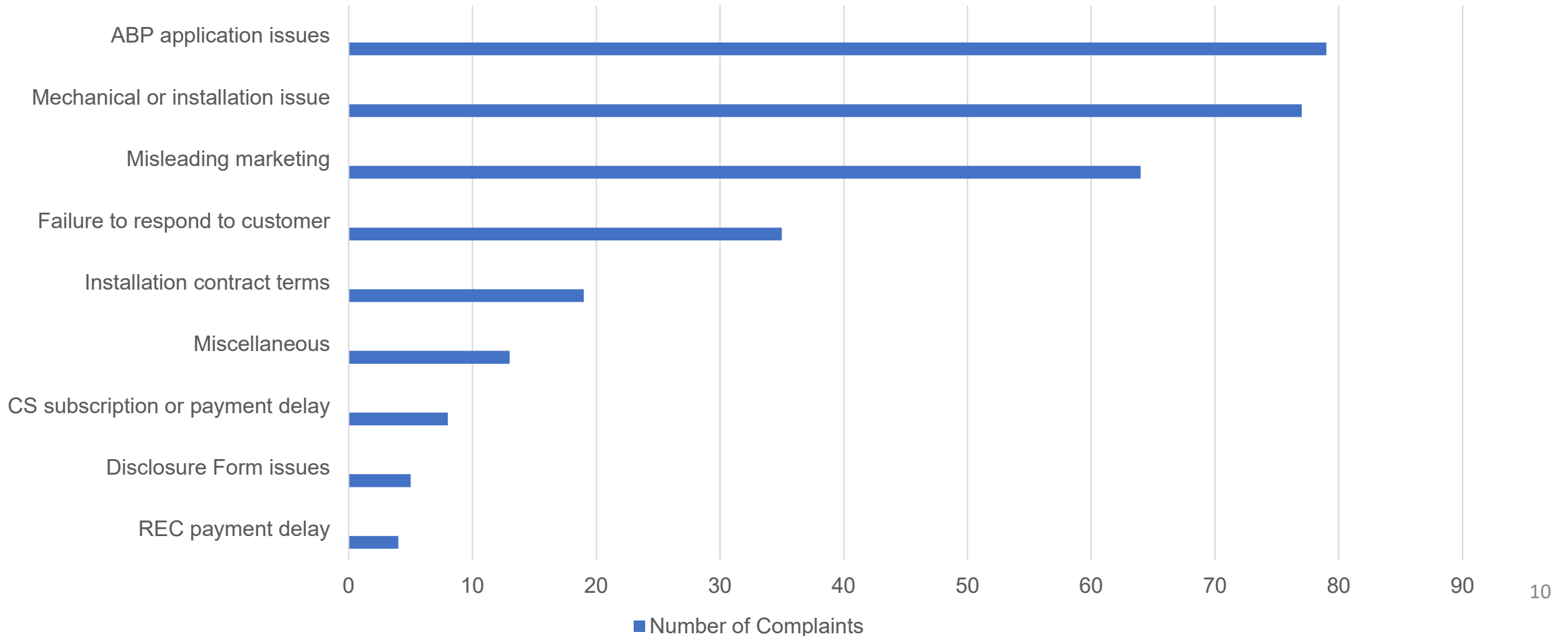


Consumer Protection Trends (Illinois Shines)



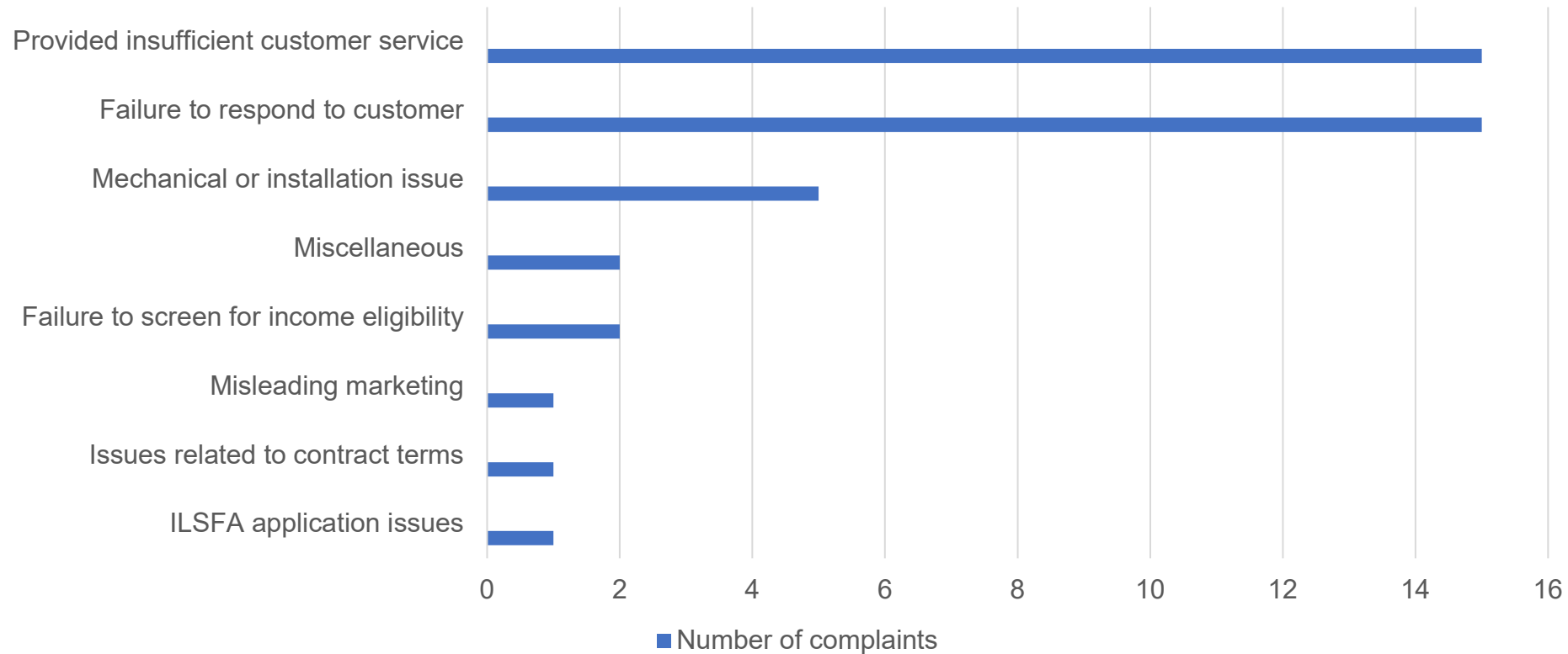
Consumer Protection Trends

Complaint topics for 2023 - Illinois Shines



Consumer Protection Trends

Complaint topics for 2023 - Illinois Solar for All



Consumer Protection Trends

- **Companies going out of business**
 - Developing restitution fund, rolling out a REC adder for “stranded customers”
- **Mechanical / installation issues**
- **Relatively low complaint rate for CS (Illinois Shines & ILSFA)**
- **Misleading marketing**
 - Resolving these can be more difficult, especially when related to in-person solicitation
 - #1 issue for IL Shines CS complaints (8 of 22) in 2022 was misleading marketing
- **Small number of bad actors**
- **Some complaints of abusive behavior from financing entities**

Challenges for Building Consumer Trust

- **History of predatory tactics by ARES in Illinois**
 - Targeting LMI, immigrant communities
 - Low rate in year one, skyrocket in later years
 - Disadvantageous cancellation terms
- **ILSFA CS minimum terms seem “too good to be true”**
 - No upfront costs
 - Minimum 50% of energy credits

Thank you!

Sarah Duffy
Sarah.Duffy@illinois.gov