



**Project Name:**

Illinois Solar For All Mid-Year Report on Income Verification

**Prepared for:**

Illinois Power Agency

**Prepared by:**

ILLUME Advising

**In Partnership with:**

Verdant Associates, LLC  
Industrial Economics, Inc

# ACKNOWLEDGEMENTS

ILLUME Advising, LLC is a forward-thinking consulting company at the rare intersection of insight and execution. Founded in 2013, the company has quickly grown to include a deep bench of quantitative and qualitative research experts. ILLUME uses cutting-edge research strategies to help build a resilient energy ecosystem to enrich lives, improve global health, and ensure a more secure and sustainable future.

For this effort, we would like to acknowledge, first and foremost, Illinois Power Agency. We would also like to acknowledge Elevate Energy's support in providing information about this program. Additionally, we would like to recognize the dedicated work of Verdant Associates, LLC and Industrial Economics, Inc. Finally, we would like to acknowledge the ILLUME team members Arianna Zrzavy, Andie Gemme, Eileen Hannigan, Sergio Olalla Ubierna, and Mallika Jayaraman.

## PREPARED FOR:

Illinois Power Agency  
180 N Wabash Ave, Suite 500, Chicago, Illinois 60601

## PREPARED BY:

ILLUME Advising, LLC  
440 Science Drive, Suite 202  
Madison, Wisconsin 53711

## IN PARTNERSHIP WITH:

Verdant Associates, LLC  
Industrial Economics, Inc.

## CONTACT:

Mallika Jayaraman  
[mallika@illumeadvising.com](mailto:mallika@illumeadvising.com)  
720.819.5630

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# Executive Summary

As part of the evaluation for the Illinois Solar for All (ILSFA) program, ILLUME prepared a mid-year report focused on approaches to and outcomes from income verification processes used across the ILSFA subprograms and Bright Neighborhoods pilot.

ILSFA makes solar installations more affordable for income-eligible residents whose gross income does not exceed 80% area median income (AMI). ILSFA is administered as four subprograms: Residential (Small), Residential (Large), Community Solar, and Non-Profit/Public Facilities. To date, program processes require prospective participants in the Residential (Small) subprogram and the Community Solar subprogram to provide proof of income eligibility as a step in the enrollment process. Participants can do this through one of several methods (described in the ILSFA Income Verification Approach section).

The Illinois Power Agency (IPA) has received feedback that the income verification process is onerous and might be a barrier to participation in ILSFA.<sup>1</sup> The IPA was interested in learning more about the income verification experience of participants, Approved Vendors (AVs), and other stakeholders within ILSFA. The IPA was also curious to learn how other income-qualified solar and non-solar programs were approaching income verification, particularly regarding the presence and processes of those that use self-attestation. Program participants that use self-attestation do not need to provide proof of income but rather attest that they make a qualifying income to participate in a qualifying program. The IPA is considering implementing a self-attestation model for the Residential Solar (Small) program.

The evaluation team conducted research to address two overarching research questions:

- What are the pain points and challenges of the current income verification processes?
- How do peer solar programs approach income verification?

This research project was limited in scope and included: a) reviewing program materials from other income eligible solar programs and social safety net programs; b) reviewing ILSFA program tracking data; c) interviews with ILSFA program staff; and d) interviews with program staff from two peer programs. We will collect additional insights about the experiences of participants with the income verification process through focus groups and interviews with participants as part of the PY6 evaluation.

Below we summarize the key findings and recommendations from this research with more detail provided in the Conclusions section. Our recommendations highlight opportunities to make the income verification process easier and more transparent for participants. However, we also acknowledge that while these recommendations may ease the burden of income verification for participants, income verification is not the only or the primary barrier to participation.<sup>2</sup>

<sup>1</sup> For example, the Illinois Solar for All Working Group submitted a letter to the IPA discussing these concerns in August 2024. In addition, as we note in the PY4 annual report, stakeholders discussed concerns with income verification during the stakeholder webinar in October 2023 (<https://www.illinoisfsfa.com/wp-content/uploads/2024/06/Illinois-Solar-for-All-Program-Year-4-Annual-Report.pdf>).

<sup>2</sup> Other barriers are described in: ILLUME Advising. 2023. "Illinois Solar For All Residential Solar (Small) Subprogram – Barriers & Opportunities." Prepared for the Illinois Power Agency. And Illinois Power Agency. 2024. "Bright Neighborhoods Initiative Report:

**Key Finding.** Many of the solar programs included in our peer program research use third-party programs as the primary path to qualify applicants for their program.

**Recommendation.** Continue to leverage third party programs as an income verification method. In addition, to the extent possible and allowed by law, consider expanding the list of programs for single person households to those that provide individual benefits as well.

**Key Finding.** The programs we researched that use self-attestation were not concerned about gaming in their programs. Their goal is to lower the burden of proof and simplify application processes for income eligible customers. While benefits to *residents* in peer programs were similar to ILSFA (bill credits for community solar programs, subsidized rooftop solar for single family homes, etc) the ILSFA model of providing renewable energy credit (REC) payments to Approved Vendors is unique.

**Recommendation.** For the Residential (Small) subprogram, consider including income-eligible census tracts and/or self-attestation methods for income verification.

**Key Finding.** Program staff members report that both Approved Vendors and Grassroots Educators experience difficulties gathering documentation from participants and submitting paperwork promptly. They also report that Approved Vendors and Grassroots Educators sometimes process paperwork for customers who don't qualify for the program. Approved Vendors and Grassroots Educators are both touchpoints for potential participants in ILSFA. One program staff member additionally reported that when participants submit their own documentation, many do not submit complete paperwork on the first try.

**Recommendation.** Increase training for Approved Vendors and Grassroots Educators to streamline income verification processes. Ensuring that these actors understand the income verification process and can explain it to participants who want to do it themselves can make the current income verification processes run smoother.

**Recommendation.** For the Community Solar subprogram, Approved Vendors should continue to use the income-eligible census tract method.<sup>3</sup> This is already the most popular method for Community Solar within the ILSFA program and it is seen as procedurally simpler for Approved Vendors and participants. If there are concerns about increasing the use of this method – namely that there would be non-eligible participants in the program, the IPA and Elevate could design an audit strategy that validates random participants. The program should monitor the geographic distribution of participants over time to ensure that environmental justice communities or other areas of the state are not missing opportunities to participate.

Program Year 2023-2024.” Accessed at: <https://www.illinoisfa.com/announcements/2024/06/illinois-solar-for-all-releases-bright-neighborhoods-report-and-request-for-stakeholder-feedback/>

<sup>3</sup> This form of income verification allows community solar applicants that live in a qualifying census tract sign an affidavit that their income meets the program requirements.

# Introduction and Research Approach

ILSFA helps income-eligible Illinois residents access the benefits of solar power through four subprograms: Residential (Small), Residential (Large), Community Solar, and Non-Profit/Public Facilities. The residential programs make solar affordable for households whose gross income does not exceed 80% AMI. In addition, ILSFA also has a goal of allocating at least 25% of incentives to projects located within Environmental Justice Communities (EJCs). The IPA contracts with a program administrator, Elevate, to implement all subprograms. To date, program processes require prospective participants in the Residential (Small) subprogram and Community Solar subprogram to provide proof of qualifying income as a step in the enrollment process.

In program year five, ILSFA also had two pilot programs to address barriers to participation. 1) The Bright Neighborhoods pilot enabled residents within Housing and Urban Development (HUD) Qualified Census Tracts to sign an affidavit confirming they make less than 80% AMI without needing to provide additional documentation. 2) The Home Repairs and Upgrades program connected potential participants with available funding opportunities to help make any upgrades to their homes so they can be ready for solar panel installation.

The research presented in this report primarily focused on the Residential (Small) and Community Solar programs as well as the Bright Neighborhoods pilot to understand the income verification experience in ILSFA and in peer programs.

This mid-year report addresses several research questions, as described below in Table 1. This project was limited in research scope to primarily secondary research and tracking data analysis supplemented with a small number of interviews with program staff. The PY6 evaluation will provide additional insights from ILSFA program participants and Approved Vendors. We also incorporated relevant findings from completed PY6 Grassroots Educator interviews.

Table 1. PY5 Mid-Year Report Research Questions

THEME	RESEARCH QUESTIONS	RESEARCH ACTIVITIES
Income Verification Process	How does the current income verification process work in the Community Solar subprogram?	<ul style="list-style-type: none"> <li>• Program materials review</li> <li>• Tracking data review</li> <li>• 1 interview with Elevate staff, 1 interview with Shelton Solutions</li> </ul>
	How does the current income verification process work in the Bright Neighborhoods and Residential Solar (Small) subprograms?	
	Are developers targeting customers in income-eligible neighborhoods to use the simplified census tract process?	
Income Verification Challenges	Where are the pain points and challenges associated with the current income verification process?	<ul style="list-style-type: none"> <li>• Program materials review</li> <li>• Tracking data review</li> <li>• 1 interview with Elevate staff, 1 interview with Shelton Solutions</li> <li>• PY6 Grassroots Educator interviews</li> </ul>
	Where do customers drop out of the ILSFA enrollment process?	
	How does the implementer troubleshoot if customers cannot provide the required documentation for income verification?	

THEME	RESEARCH QUESTIONS	RESEARCH ACTIVITIES
Customer Characteristics	What are the characteristics of customers who use different income verification methods, particularly regarding AMI?	<ul style="list-style-type: none"> <li>Tracking data review and statistical analysis</li> </ul>
Peer Program Processes	How do similar programs (solar, energy efficiency, other services) for income-eligible customers approach income verification, particularly self-attestation?	<ul style="list-style-type: none"> <li>Similar programs comparison secondary research</li> <li>2 interviews with program managers of similar programs</li> </ul>
	How do the benefits and minimum income guidelines for these programs compare to ILSFA? Are there any similar programs using self-attestation?	
	What documentation do programs accept for income verification, and what do they do if the customer loses the letter?	
	Who is doing the income verification in other programs (program administrator, vendors, etc.)?	

As part of this project, we reviewed materials from similar solar programs and interviewed program managers from the Hawaii and New Jersey programs.

We reviewed the following programs:

- California Disadvantaged Communities Single-Family Solar Homes (DAC-SASH)
- California Multifamily Affordable Solar Housing Program (MASH) and Single Family Affordable Solar Homes Program (SASH) (Inactive)
- Connecticut Green Bank/PosiGen Solar for All
- Connecticut Residential Renewable Energy Solutions
- D.C. Solar for All
- Hawaii Green Energy Money Saver (GEM\$)
- New Jersey Clean Energy Program: Community Solar
- NYSERDA Solar for All
- Solarize Philly
- Xcel Energy Minnesota Solar Rewards

Please see “Appendix A. Materials Reviewed” for more information.

# Detailed Findings

## Income-Verification Processes

This section highlights the income verification process as it currently operates within ILSFA, followed by findings from our secondary research and peer program interviews.

### ILSFA Income Verification Approach

ILSFA offers four subprograms: Residential Solar (Small), Residential Solar (Large) (for multifamily buildings), Community Solar, and Non-Profit/Public Facilities. Beginning in program year six, ILSFA also had a pilot program called Bright Neighborhoods that was designed to address barriers to participation in communities underserved by ILSFA across the state. Specifically, in the Bright Neighborhoods pilot, the program administrator conducted customer outreach, marketing, and education and supported customers with the application and income verification processes to mitigate some of the known barriers to participating in the Residential Solar (Small) subprogram. These barriers include customer unfamiliarity with solar power, distrust in marketers, language barriers, and a complex application process. The IPA is also currently offering a Home Repairs and Upgrades pilot designed to address electrical or roof repairs homes may need before installing solar.<sup>4</sup>

ILSFA programs currently use different income verification methods for the four subprograms:

- **Residential (Small)** allows three options for providing income: 1) provide proof of enrollment in a list of qualifying third-party programs;<sup>5</sup> 2) tax transcript verification; and 3) tax return or paystub verification.
  - Those participating in the Bright Neighborhoods Pilot Program can also go through a streamlined income verification process if they live within a HUD Qualified Census Tract and can sign an affidavit confirming they make less than 80% AMI.
- **Residential (Large):** Eligibility can be met by: 1) the property meeting the Affordable Housing definition under the Illinois Affordable Housing Act; 2) submitting tenant rent rolls that show that at least 50% of the units pay rent at or below the HUD Fair Market Rent Prices for the county the property is located in; 3) the property qualified for HUD Project-Based Vouchers, project-based rental assistance, or income-eligible multifamily energy efficiency; or 4) a letter confirming the building is operated by an Illinois public housing authority/agency.
- **Community Solar:** For this subprogram, households can use the same methods described in Residential (Small). In addition, households also have the option to prove they live in a qualifying census tract and sign an affidavit that their income meets the program requirements. ILSFA allows the income affidavit, otherwise known as self-attestation, only for Community Solar participants who live within an income-eligible census tract.

<sup>4</sup> <https://www.illinoisfa.com/program/home-repairs-and-upgrades/>

<sup>5</sup> Current qualifying third-party programs include: SNAP, LIHEAP, WAP, Medicaid, U.S. HUD Project-Based Vouchers, U.S. HUD Project-Based Rental Assistance, Income-Eligible Multifamily Energy Efficiency Programs through Ameren or ComEd, Tax-Subsidized Multifamily programs, Illinois Affordable Housing Act Fair Market Rent.



- Participants referred to ILSFA through the DOE Clean Energy Connector<sup>6</sup> will be verified as eligible through their LIHEAP approval.
- **Non-Profit/Public Facilities:** This subprogram does not currently carry out any income verification but rather conducts either a location verification to confirm the property address is located within either an environmental justice community or an income-eligible census tract, or it verifies the organization is a Critical Service Provider.<sup>7</sup> As we will discuss in a following section, this is a common practice among peer solar programs.

In addition, the qualifying third-party programs that can be used for either Residential (Small) or Community Solar must be household benefits (i.e., Supplemental Nutrition Assistance Program (SNAP), Low Income Heating Assistance Program (LIHEAP)), and not individual benefits (i.e., Supplemental Security Income (SSI), Temporary Assistance for Needy Families (TANF), or Supplemental Nutrition Program for Women, Infants, and Children (WIC)). This section of the law limits which programs can be added to the list of qualifying programs in the future.

The evaluation team conducted two interviews with program staff members involved with ILSFA income verification. From them, the team gained additional insight into how ILSFA’s income verification requirements are carried out. For example, ILSFA participants can work with either Approved Vendors or Elevate (referred to as the “Help Desk”) on submitting documentation for income verification. Participants often submit forms online. While the program permits participants to mail in the income verification documents, Elevate indicated that this hardly ever happens. Additionally, we heard that Elevate prefers not to receive sensitive information from customers and encourages potential participants to work with an Approved Vendor for that reason.

## ILSFA Participant Income Verification Data Review

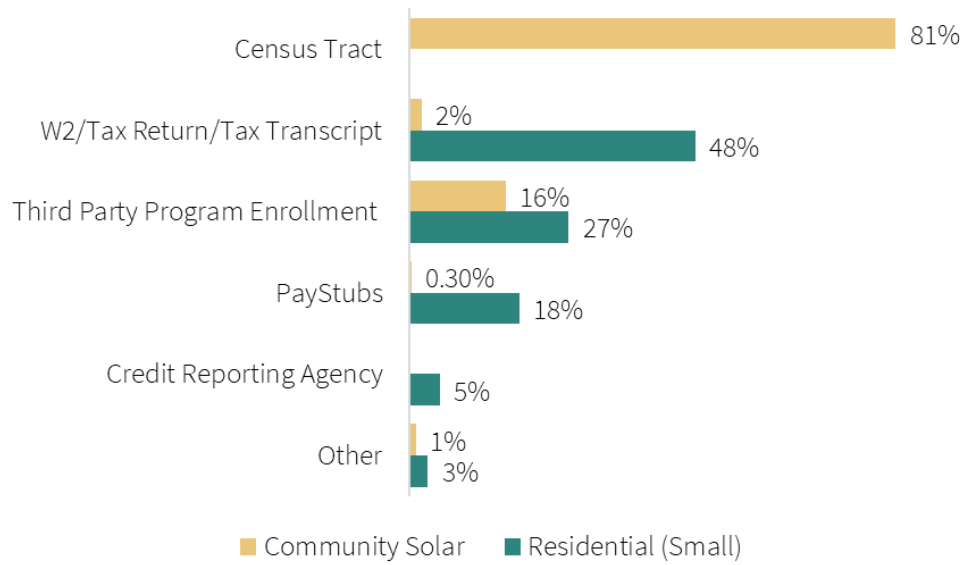
As part of this research, the evaluation team also reviewed anonymized program tracking data from PY1 through PY6 to identify trends in the verification methods and customer characteristics. The most common income verification method for Residential (Small) was W2 or tax return (48%), followed by third-party program enrollment (27%). Community Solar subscribers primarily qualified by living in a qualified or low-income census tract (81%), followed by third-party program enrollment (16%). Income verification is not a factor for non-profit/public facilities projects, which instead refers to the Program’s [Income-Eligible](#) and [Environmental Justice](#) maps while qualifying projects, so those are not included in the data. Similarly, we do not include multifamily projects from the Residential (Large) subprogram as the process for validating those projects is different from the Residential (Small) subprogram.

Figure 1 below summarizes the most common income verification methods for the Community Solar and Residential (Small) subprograms.

<sup>6</sup> [https://www.energy.gov/communitysolar/clean-energy-connector#:~:text=The%20Clean%20Energy%20Connector%20\(Connector\)%20supports%20the%20NCSP%20target%20of](https://www.energy.gov/communitysolar/clean-energy-connector#:~:text=The%20Clean%20Energy%20Connector%20(Connector)%20supports%20the%20NCSP%20target%20of)

<sup>7</sup> A qualified Critical Service Provider (CSP) is a non-profit or public entity that offers critical services to income-eligible communities or environmental justice communities.

Figure 1: Most Common Income Verification Methods Across Subprograms (n=5,549)



Note: Census tract is not currently an option for verifying income for small residential customers.

### Income

In the Residential (Small) subprogram those with lower reported incomes used enrollment in third party programs at higher rates than those with higher reported income. There are no substantive differences between reported income and which income verification method customers used for Community Solar since most used a Census tract method. We were unable to draw any strong conclusions from the Bright Neighborhoods pilot data due to the small sample size of participants.

Lastly, while all residents at or below 80% AMI qualify for ILSFA, most participating customers reported incomes much lower, with 71% reporting an income at or below 40% AMI.

### Environmental Justice Communities

Community Solar customers who qualify using the Census tract method are also likely to reside in EJCs. As noted, most (81%) of Community Solar subscribers in our PY1-PY6 dataset used the qualifying Census tract method. Since the program also has an objective to allocate a portion of funds to EJCs, we looked at the overlap between those who qualified based on Census tract and EJC designations. Based on PY1 to PY4 income verification report data (n= 5,127), 62% of customers who used the Census tract method are also in EJCs while only 10% of those who used a different method are also in EJCs.<sup>8</sup>

<sup>8</sup> The evaluation team was not able to attain the income verification report data for PY5 to PY6 in time for the publication of this report. Among the data available, the evaluation team had to exclude 12% of customers due to missing address information.

## Peer Program Incentives and Income Verification Processes

This section contains findings related to the income-verification approaches of other solar programs and includes a discussion on the presence of self-attestation, data collection considerations, peer program incentive structures, and findings from our follow-up peer interviews.

It is important to note that the programs we researched are generally like ILSFA in terms of the product delivered (solar) and the intended customers (low-income households). However, ILSFA is unique among solar programs in its structure and the incentives it provides to program actors, both vendors and participants. In addition, as shown below, ILSFA offers relatively high financial benefits and therefore has more safeguards in place to protect against potential gaming of its program. The result is that it is difficult to make a direct comparison based on attributes like incentives. The following section discusses this further.

### Incentive Amounts

When we compared ILSFA’s incentive amount and structure to existing programs, we found a wide variety. None of the programs we reviewed provided incentives on a \$/REC basis, as ILSFA does. The existing incentive structures included per watt, on-bill savings/credits, per kWh, and grants for solar installation. Some of the on-bill programs had a percent savings requirement of the total overall bill. Table 2, below, summarizes the incentive structure for each program as well as the program type.

Table 2. Researched Program Incentive Structure and Program Type

STATE	PROGRAM	INCENTIVE RECIPIENT	INCENTIVE STRUCTURE	PROGRAM TYPE
New Jersey*	New Jersey Clean Energy Program: Community Solar	Subscribers	Bill credits: 20% for each subscriber	Community Solar
		Solar developers	\$90 per MW	
New York	NYSERDA Solar For All	Subscribers	Bill credits: \$5 – \$15 a bill, up to \$180/year	Community Solar
Washington, D.C.	D.C. Solar For All Program	End Users	\$/Watt: varies depending on install	Community Solar & Distributed Generation (DG)
Connecticut***	<i>Solar for All</i>		<i>n/a</i>	<i>Small DG</i>
Connecticut	Residential Renewable Energy Solutions	End Users	\$0.3189/kWh, with a \$0.055 low-income adder and a \$0.0275 Economically Distressed Municipality adder.	Small DG or Large Residential (MF)
Pennsylvania (Philadelphia)	Solarize Philly	End Users	Philadelphia Solar Rebate - \$0.20/watt Solarize Philly: grant program for solar installation	Small DG, Large Residential (MF), Community Solar, or Nonprofit/Public Facilities
California***	<i>Multifamily Affordable Solar Housing Program (MASH);</i>	<i>SASH: End User</i>	<i>SASH: \$3/watt; MASH: \$1.90-\$2.80/watt**</i>	<i>Small DG, Large Residential (MF)</i>

STATE	PROGRAM	INCENTIVE RECIPIENT	INCENTIVE STRUCTURE	PROGRAM TYPE
	<i>Single Family Affordable Solar Homes Program (SASH)</i>			
Hawaii*	Green Energy Money Saver (GEM\$)	End Users	Bill credits: at least 10%	Small DG, Large Residential (MF), Community Solar, or Nonprofit/Public Facilities (Commercial)
Minnesota	Solar Rewards	End Users	\$0.03/kWh	Small DG, Large Residential (MF), Community Solar, or Nonprofit/Public Facilities
California	Disadvantaged Communities Single-Family Solar Homes	Project	\$3/watt	Small DG

\* Allows self-attestation.

\*\* MASH was closed after 2015, and thus this incentive may not be representative of the current market.

\*\*\* Italicized programs are no longer active and therefore may have limited available information.

Due to the varied incentive structures, it is difficult to compare the financial benefits of different solar programs. ILSFA provides benefits to both customers/end users and Approved Vendors. End users receive bill credits through net metering but may pay fees to their Approved Vendor up to no more than 50% of the value of their bill's savings. The PY4 ILSFA Evaluation found an average annual bill savings of about \$1,000 for both Residential (Small) and Community Solar customers. If customers retain 50% of those savings, then they will save about \$500 per year on average. New Jersey and Hawaii offer bill credits of 20% and 10%, respectively. Applying assumptions of average electricity use and bills, participants in those programs will save about \$300 annually.

ILSFA Approved Vendors receive payments for 15 years of RECs of up to \$180/REC for the Residential (Small) program and up to \$120/REC for Community Solar. Approved Vendors also benefit from collecting fees of about \$150 per year per household, which would include multiplying the lease payment by the frequency of payments in the first year for a PPA or a lease agreement, loan origination fees, automated clearinghouse fees, or a one-time fee for a Community Solar Energy Sovereignty participant to join the Community Solar facility.<sup>9</sup> However, Approved Vendors must cover all the up-front costs of installation and ongoing operations and maintenance for 15 years.

### Income Verification Approaches

Like ILSFA, we found that peer programs use enrollment in qualifying third-party programs, tax returns, pay stubs, and enrollment in income-eligible multifamily energy efficiency programs. We also found two programs that use self-attestation.

For most programs, we were unable to determine which entity was responsible for collecting and processing income verification paperwork. The Hawaii GEM\$ program applicants are approved or denied by the Hawaii Green Infrastructure Authority, the program implementer.

<sup>9</sup> [https://www.illinoisifa.com/wp-content/uploads/2023/06/Approved-Vendor-Manual-v-6\\_Final-Version.pdf](https://www.illinoisifa.com/wp-content/uploads/2023/06/Approved-Vendor-Manual-v-6_Final-Version.pdf)

## Enrollment in Income-Eligible Programs

Many of the programs in our secondary research primarily used existing enrollment in programs providing services to income-eligible residents as income verification. For example, the Washington, D.C., Solar for All Program allows customers to submit proof of enrollment of at least one person in the household in any of the following programs. (Programs that ILSFA also accept are indicated by an\*).

- Temporary Assistance for Needy Families (TANF)
- Supplemental Nutrition Assistance Program (SNAP)\*
- Supplemental Security Income (SSI)
- Low Income Home Energy Assistance Program (LIHEAP)\*
- Local assistance programs, including housing vouchers, healthcare plans, etc.\*

Other third-party programs used by other solar programs include:

- Weatherization Assistance Program (WAP)
- Section 8 housing vouchers
- WIC
- Enrollment in other income-qualified utility programs

A report from the National Renewable Energy Laboratory discussed six different pathways for solar implementation through LIHEAP or WAP. One of these pathways included using LIHEAP or WAP infrastructure for intake into an external solar program, including providing low-income verification to a Community Solar subscription manager.<sup>10</sup> This report suggested that LIHEAP participation could act as an automatic income qualifier for Solar for All participation. The IPA currently accepts LIHEAP as a form of income verification, but in counties where 200% of the federal poverty (LIHEAP income guidelines) level exceeds 80% AMI, the IPA requires additional information to verify income. ILSFA is currently piloting a similar approach through the National Community Solar Partnership's (NCSP) Clean Energy Connector program.<sup>11</sup> ILSFA is using this Clean Energy Connector software to find subscribers for the Community Solar program by verifying income for LIHEAP enrollees.

While none of the programs explicitly stated what they require applicants to do if they lose their enrollment letter or proof, almost all included additional pathways for income verification. These additional pathways included:

- Paychecks/paystubs
- Most recent federal tax return
- Social Security statement
- Residency in affordable housing properties
- Enrollment in a utility discount-rate program or income-qualified energy efficiency program

<sup>10</sup> <https://www.nrel.gov/docs/fy24osti/88519.pdf>

<sup>11</sup> <https://www.energy.gov/sites/default/files/2024-04/NREL-DOE-Connector-Webinar-4-10-24.pdf>

## Geographic Requirements

The California Disadvantaged Communities Single-Family Solar Homes (DAC-SASH) program requires participants to live within a DAC and report an income that would qualify them for one of the two statewide discounted rate programs: CARE and FERA.<sup>12</sup> These programs typically use 200% of Federal Poverty Guidelines but are subject to change. To prove income, the program requests a copy of the applicants' most recent federal income tax return from all residents on the property.<sup>13</sup>

## Self-Attestation Presence

Only two programs we reviewed had a clear self-attestation process. The New Jersey Community Solar Energy Program recently introduced a self-attestation form<sup>14</sup> where applicants can either confirm their household income is less than 80% AMI or self-attest that they are enrolled in a list of qualifying third-party programs like the prior list.

The Hawaii GEM\$ program does not require any income verification documentation beyond asking the applicant to report they made less than 140% AMI.<sup>15</sup> However, they do note on their application that they may use personal information to collect additional information from employers, credit bureaus, or other companies and require the applicant's Social Security number. We learned in our interview with that program administrator that they do not have an existing audit process. We will discuss this in more detail in a later section.

## Income Limits

Many of the programs we reviewed used 80% AMI as their eligibility criteria, as ILSFA does. Of the 10 programs we reviewed, five used 80% AMI as their eligibility criteria. Two used 60% state median income (SMI), and one did not have an income qualification but reported that 65% of participants are below median income levels.<sup>16</sup> One program used 140% AMI, and another used 200% of federal poverty guidelines. Table 3 below, summarizes the programs and what income limits they have.

Table 3. Income Limits for Solar Programs

STATE	PROGRAM	INCOME LIMIT
Hawaii	Green Energy Money Saver (GEM\$)	140% AMI
New Jersey	New Jersey Clean Energy Program: Community Solar	80% AMI
Minnesota	Solar Rewards	80% AMI

<sup>12</sup> The CARE program, California Alternate Rates for Energy, provides enrolled low-income customers with a 30 – 35% discount on their electric bill and a 20% discount on their natural gas bill. The FERA program, Family Electric Rate Assistance program, provides low-income customers with an 18% discount on their electric bill and is for families whose household income slightly exceeds CARE allowances. Source: <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-costs/care-fera-program>

<sup>13</sup> [https://gridalternatives.org/sites/default/files/DACSASH%20Handbook\\_Final\\_Approved%20via%20Resolution%20E5020\\_9.12.19.pdf](https://gridalternatives.org/sites/default/files/DACSASH%20Handbook_Final_Approved%20via%20Resolution%20E5020_9.12.19.pdf)

<sup>14</sup> <https://www.njcleanenergy.com/files/file/CommunitySolar/FY24/2024%20LMI%20Self%20Attestation%20Form%20-%20English.pdf>

<sup>15</sup> [https://gems.hawaii.gov/wp-content/uploads/2023/09/FAQ\\_June2023.pdf](https://gems.hawaii.gov/wp-content/uploads/2023/09/FAQ_June2023.pdf)

<sup>16</sup> <https://www.ctgreenbank.com/strategy-impact/societal-impact/successful-legacy-programs/solar-for-all/>

STATE	PROGRAM	INCOME LIMIT
Pennsylvania (Philadelphia)	Solarize Philly	80% AMI
Washington, D.C.	D.C. Solar For All Program	80% AMI
California	Multifamily Affordable Solar Housing Program (MASH); Single Family Affordable Solar Homes Program (SASH)	80% AMI
California	Disadvantaged Communities Single-Family Solar Homes	200% FPL
New York	NYSERDA Solar For All	60% SMI
Connecticut	Residential Renewable Energy Solutions	60% SMI
Connecticut	Solar for All	n/a

## Data Collected

For the two programs that do offer a self-attestation option, both still require additional household information from applicants. The Hawaii GEM\$ program requires income and household size, including the number of children and the number of adults and retired adults. The Hawaii program also requests the ratepayer’s Social Security number. The New Jersey program also requests household size from applicants and a signed statement that they either make less than their county’s income limit or that they participate in one of the “Qualifying Programs” they list on the application.<sup>17</sup>

## Hawaii and New Jersey

As a follow-up to the peer program research, the ILLUME team conducted two interviews with program managers of the Hawaii and New Jersey programs. The goal of these interviews was to learn more about the self-attestation income verification that each program uses as well as each one’s successes and challenges. While both programs are structured differently than Illinois Solar for All, their insights on income verification and self-attestation are valuable. We summarize the main points on each program below:

Table 4. Hawaii and New Jersey Solar Programs: More Information

STATE	PROGRAM	PROGRAM STRUCTURE	RECRUITMENT & ENROLLMENT
Hawaii	Green Energy Money Saver (GEM\$)	On-Bill Financing	Conducted through solar vendors
New Jersey	New Jersey Clean Energy Program	Community Solar Subscription	Conducted through Community Solar organizations

Both programs use self-attestation for their income verification and have no system in place to audit or spot-check applications with validation. The New Jersey program manager explained that its program conducted research prior to its full launch on the best methods for income verification and landed on self-attestation because it put the least amount of burden on customers. Neither program has direct outreach efforts by the program administrator; both use their program partners (vendors or Community Solar organizations) to contact participants, so program managers have no insights on customer experiences with the self-

<sup>17</sup> These Qualifying Programs include, but are not limited to: LIHEAP, LIHWAP, SNAP, Medicaid, Supplemental Security Income (SS) or Social Disability Insurance (SSDI).

attestation process. Managers of both programs also said that there are no plans currently to change their processes.

Both program managers felt the risk of fraudulent subscriptions or loans is low as these states' program structures do not provide significant incentives to "game" the system. The incentive for Community Solar in New Jersey is almost the same between low- and medium-income (LMI) households and non-LMI households. For Hawaii, participants must still pay back their solar grants over time regardless of their income (i.e., they do not receive their solar panels for free). Due to small staffs and likely low risk, they are prioritizing expanding participation over validating income.

In sum, solar programs in Hawaii and New Jersey use self-attestation because it is easier for the customer, the developer, and the program implementer. They feel that the risk of fraud is low and have no plans to change it in the future.

## Income Verification Challenges

This section summarizes the challenges with income verification that ILSFA participants experience, as well as the experience of LMI customers more broadly in other income-qualified programs.

### ILSFA Challenges

Currently, the ILSFA program has several challenges related to income verification, for both participants and Approved Vendors.

#### Participant Challenges

One program staff member estimated that 35% – 40% of residents who start the process do not complete income verification because the residents become unresponsive. Elevate reaches out to potential participants twice after they indicate initial interest and then Elevate considers the customer to be no longer interested. The program staff members we interviewed offered some theories for why this is, such as:

- Residents are too busy to continue the process,
- Residents are not "tech-savvy" enough to submit their information themselves (without an Approved Vendor),
- Residents realize they are not qualified for ILSFA, or
- Residents are no longer interested in the program.

If participants decide to go through with the program, they often need to go back to residents to receive better or complete information, according to program staff members. For example, residents may submit a SNAP card without a household member's name on it, or they may not submit information for all members of the household. Finally, the program staff members explained that there is a trust component involved that can hinder the income verification process: Residents want to know *why* they need to give their personal information. Grassroots Educators had mixed feedback on the income verification process. While one Grassroots Educator reported that the income verification process has improved slightly, another shared that there is a "huge loss in participation" during income verification, and that the process can often take a while.

#### Approved Vendor Challenges



Approved Vendors also experience issues with the process. One program staff member explained that they sometimes receive documentation for a participant that has income levels above the cap, which they hypothesized may be related to challenges with Approved Vendor staff volume or training. Moreover, we heard that the level of effort needed to complete income verification varies depending on the subprogram, as Community Solar is a virtual transaction and Residential (Small) includes installing infrastructure. For example, Approved Vendors will try harder to get the correct documentation for distributed generation projects than with Community Solar projects because Community Solar projects have the income-eligible census tract option. It is easier to “go next door” to get another Community Solar subscriber, and therefore not follow through with every potential participant. However, it is important to note that there is a lower barrier for Approved Vendors to recruit Community Solar subscribers, as Community Solar does not have the same requirements for on-site suitability for solar and building readiness; it also does not come with the participant burden of having a solar array installed directly on their home.

One program staff member summed up their thoughts on income verification challenges, saying: “Anything besides the income-eligible census tract [method] is a potential pain point.” They argued that asking residents to share any personal information and finding the confirmation of third-party enrollment is a challenge. Customers are often hesitant to share personal information.

However, one Grassroots Educator noted that customers are used to showing documentation for income-eligible programs and do not think that hesitancy to share is a concern. Other Grassroots Educators noted that customers often seem to drop off during the income verification process, as mentioned previously. However, they could not point to a specific issue; they just reported that the customer stops responding, as we heard in a program administrator interview.

We note here that the evaluation team will be conducting qualitative research with Approved Vendors and with participating customers, which will include questions on the income verification process. This will be included as part of our PY6 evaluation, which is scheduled to be released in April 2025.

### **Bright Neighborhoods Evaluation**

Despite conducting more extensive follow-up with potential participants, the Bright Neighborhoods pilot still experienced high rates of participant drop off. The “Bright Neighborhoods Initiative Report,” published in June 2024, discusses income verification specific to the Bright Neighborhoods pilot program.<sup>18</sup> The Bright Neighborhood pilot made concerted efforts in outreach and marketing, including forming partnerships with community organizations. Program administrators conducted six follow-ups with potential Bright Neighborhood participants (by various methods including emails, phone calls, and direct mail).<sup>19</sup> This is more than the two follow-ups that program administrators described in interviews as being typical for the non-pilot programs.

<sup>18</sup> Illinois Power Agency. 2024. “Bright Neighborhoods Initiative Report: Program Year 2023-2024.” Accessed at: <https://www.illinoisfa.com/announcements/2024/06/illinois-solar-for-all-releases-bright-neighborhoods-report-and-request-for-stakeholder-feedback/>

<sup>19</sup> Ibid.

The follow-ups with potential participants led to an increase in response rates from potential participants.<sup>20</sup> Yet, there were still high percentages of participant drop-off during the income-verification stages: Only 43 of 113 potential participants submitted income verification forms, and of those, only 17 were eligible.<sup>21</sup> Many of the 43 potential participants became unresponsive or had incomplete forms.

### Opportunities for Improvement

Based on their observations and experiences, both ILSFA program staff members we interviewed felt that income-eligible census tract income verification is an easier and simpler process. The census tract method benefits participants if they choose to complete income verification themselves, and benefits Approved Vendors. Simpler processes would also eliminate the back-and-forth required to get more information from participants, allowing them to move through the program faster. The program staff members understood that the IPA strives for consumer protection as well as fair distribution of resources but believe the income verification process could be streamlined.

### Peer Program Challenges

While income verification is a necessary function of LMI programs, implementing verification may limit participation from LMI solar customers. Requiring income verification creates a high burden of proof for LMI households when applying for solar programs.<sup>22</sup>

This is not limited to rooftop solar. NCSP has expressed that the burden of proof on individual households to verify their income is a barrier for LMI Community Solar participation.<sup>23</sup> Stakeholders in the NCSP report believed that “the administrative burden for LMI households and higher-income households should be comparable” for Community Solar subscriptions.<sup>24</sup>

This administrative burden exists for solar vendors as well as LMI households. For instance, stakeholders in New Jersey (who were meeting to discuss the then-pilot New Jersey Community Solar Program) were concerned that “excessive income verification requirements for vendors” may be a barrier to participation.<sup>25</sup> Offering alternate forms of income verification, like self-attestation or geographic verification, could lessen these barriers for LMI households and solar vendors. However, this form of income verification does not currently have a large presence in existing solar programs.

The renter-versus-owner dichotomy is another issue with LMI income verification. Programs that solely rely on previous participation in programs like the WAP may also exclude the (potentially larger) renter LMI population. This was documented in the case of a small Community Solar program in L’Anse, Michigan, where

<sup>20</sup> Ibid.

<sup>21</sup> Ibid.

<sup>22</sup> Summary: Solar Energy Technologies Office Convenings for Community-Focused Organizations. No. DOE/EE-2537. EERE Publication and Product Library, Washington, DC (United States), 2022.

<sup>23</sup> Ibid.

<sup>24</sup> Ibid.

<sup>25</sup> Paulos, B., Forrester, S., O’Shaughnessy, E., Dyson, C., Barbose, G., & Wisner, R. (2021). An Assessment of Evaluation Practices of Low- And Moderate-Income Solar Programs. Lawrence Berkeley National Laboratory. Retrieved from <https://escholarship.org/uc/item/9714344s>

all participants in their Community Solar program were homeowners based on their income verification requirements.<sup>26</sup>

## Income-Qualified Programs: Self-Attestation Presence

This section briefly touches on the presence of self-attestation and gaming in income-qualified programs more generally. Though these programs are structured differently than ILSFA and provide different benefits, the challenges they encounter are transferable to any income verification process for income-qualified customers. Overall, findings from this research indicate that gaming is an infrequent occurrence in income-qualified programs, and many sources point to the benefits of simplifying processes for all participants. However, these findings are related solely to participants, and these additional income-qualified programs do not have an analogous Approved Vendor role with strong financial incentives.

A report from the Center on Budget and Policy Priorities highlights how less than 1% of SNAP benefits go to households that are ineligible, and this number has steadily fallen since 2014.<sup>27</sup> Another memo from the Oregon Department of Transportation highlighted the presence of self-attestation in other income-qualified programs.<sup>28</sup> It found that, overall, fraud has been minimal and the programs it researched all had practices to address potential fraud. It also found that in one program where self-attestation was offered, about two-thirds (70%) still chose to provide documentation. The staff that worked in this program shared that customers prefer the certainty of providing documentation.

This memo also highlighted that many programs use self-attestation to get people enrolled and require documentation later to verify and maintain the benefit.

An article from the U.S. Department of the Treasury on the Emergency Rental Assistance Program summarizes how simplifying the application process can reduce processing time and ensure more households receive critical benefits.<sup>29</sup> Another report from the Bonneville Power Administration on energy efficiency programs includes recommendations on using census tract to qualify for programs.<sup>30</sup> This can lower the administrative burden as well as increase accessibility for households looking to participate in programs.

<sup>26</sup> Hoesch, Karl W., Douglas L. Bessette, and Dominic J. Bednar. "Locally charged: Energy justice outcomes of a low-income community solar project in Michigan." *Energy Research & Social Science* 113 (2024): 103569.

<sup>27</sup> <https://www.cbpp.org/snap-combating-fraud-and-improving-program-integrity-without-weakening-success>

<sup>28</sup> <https://www.oregon.gov/odot/tolling/Documents/STRAC%20Meeting%207%20-%20Self-Certification%20Research%20Memo.pdf>

<sup>29</sup> <https://home.treasury.gov/policy-issues/coronavirus/assistance-for-state-local-and-tribal-governments/emergency-rental-assistance-program/promising-practices/fact-specific-proxies>

<sup>30</sup> <https://www.bpa.gov/-/media/Aep/energy-efficiency/evaluation-projects-studies/240403-bpa-low-income-energy-efficiency-process-evaluation-report-and-findings.pdf>

# Conclusions and Recommendations

This section contains the key findings and associated recommendations from this research. Our recommendations highlight opportunities to make the income verification process easier and more transparent for participants. However, these should be considered with the context that while improving income verification processes for the Residential (Small) and Community Solar subprograms may help lower the participation burden for participants, income verification is not the only barrier to participation. The ILSFA PY4 Midyear Report<sup>31</sup> and the Bright Neighborhoods pilot evaluation<sup>32</sup> found multiple barriers to participation including repairs needed to ready homes for solar, customer education about the programs, and Approved Vendor availability.

**Key Finding:** Many of the solar programs included in our peer program research the use of third-party programs as the primary path to qualify applicants for their program. The list of third-party programs accepted by peer solar programs overlaps with the programs accepted by ILSFA but includes some programs that are not on the ILSFA third-party qualifying list.

## RECOMMENDATION:

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**Continue to leverage third party programs as an income verification method.** In addition, to the extent possible and allowed by law, consider expanding the list of programs for single person households to those that provide individual benefits as well, including (but not limited to) Supplemental Security Income (SSI), Temporary Assistance for Needy Families (TANF), Supplemental Nutrition Program for Women, Infants, and Children (WIC), and Head Start.

**Key Finding:** The programs we researched that use self-attestation were not concerned about gaming in their programs. Their goal was to lower the burden of proof and simplify the application processes for income-eligible customers. While the benefits to residents in peer programs were like ILSFA, the ILSFA model of providing REC payments to Approved Vendors is unique.

## RECOMMENDATION:

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**For the Residential (Small) subprogram, consider including income-eligible census tracts and/or self-attestation methods for income verification.** Both ILSFA program staff members the evaluation team interviewed, as well as managers of other programs, consider census tract and self-attestation to be effective methods for income verification. If there are concerns about using these methods, such as non-eligible participants being included in the program, the IPA and Elevate could design an audit strategy that validates random participants.

<sup>31</sup> ILLUME Advising. 2023. "Illinois Solar For All Residential Solar (Small) Subprogram – Barriers & Opportunities." Prepared for the Illinois Power Agency.

<sup>32</sup> Illinois Power Agency. 2024. "Bright Neighborhoods Initiative Report: Program Year 2023-2024." Accessed at: <https://www.illinoispsa.com/announcements/2024/06/illinois-solar-for-all-releases-bright-neighborhoods-report-and-request-for-stakeholder-feedback/>

**Key Finding:** Program staff members report that both Approved Vendors and Grassroots Educators experience difficulties gathering documentation from participants and submitting paperwork promptly. They also report that Approved Vendors and Grassroots Educators sometimes process paperwork for customers who don't qualify for the program. Approved Vendors and Grassroots Educators are both touchpoints for potential participants in ILSFA. The program administrator additionally reported that when participants submit their own documentation, many do not submit complete paperwork on the first try.

## RECOMMENDATIONS:

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**Increase training for Approved Vendors and Grassroots Educators to streamline the income verification processes.** Ensuring that these actors understand the income verification process and can explain it to participants who want to do it themselves can make the current income verification processes run smoother.

**For the Community Solar subprogram, the IPA should continue to encourage Approved Vendors to use the income-eligible census tract method.** This is already the most popular method for Community Solar within the ILSFA program, and it is seen as procedurally simpler for both Approved Vendors and participants. Approved Vendors could increase marketing and outreach in eligible census tracts. The program should monitor the geographic distribution of participants over time to ensure that EJs or other areas of the state are not missing opportunities to participate. If there are concerns about risks with this method leading to non-eligible participants in the program, the IPA and Elevate could design an audit strategy that validates random participants.

**Key Finding:** There were not enough Residential (Large) projects to draw conclusions about the income verification processes for this subprogram.

## RECOMMENDATION:

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**In the future, investigate income verification processes for Residential (Large) projects.** Currently, there have not been enough Residential (Large) projects to understand income verification processes from both tracking data and administrator interviews. However, this subprogram may come with unique challenges related to income verification and should be investigated accordingly when more projects have been submitted or completed.

# APPENDIX

## Appendix A. Materials Reviewed

The evaluation team researched 13 programs during the secondary research and provides findings on 10 based on publicly available information:

- California Disadvantaged Communities Single-Family Solar Homes (DAC-SASH)
- California Multifamily Affordable Solar Housing Program (MASH) and Single Family Affordable Solar Homes Program (SASH) (Inactive)
- Connecticut Green Bank/PosiGen Solar for All
- Connecticut Residential Renewable Energy Solutions
- D.C. Solar for All
- Hawaii Green Energy Money \$aver (GEM\$)
- New Jersey Clean Energy Program: Community Solar
- NYSERDA Solar for All
- Solarize Philly
- Xcel Energy Minnesota Solar Rewards

In addition to the program materials, we also reviewed the following reports, articles, and webinars to provide additional insight into current industry research on income verification processes:

- [Design and Implementation of Community Solar Programs for Low and Moderate-Income Customers](#)
- [An Assessment of Evaluation Practices of Low- And Moderate-Income Solar Programs](#)
- [Summary: Solar Energy Technologies Office Convenings for Community-Focused Organizations](#)
- [Solar Pathways in Federal Energy Assistance Programs: Expanding the Low-Income Home Energy Assistance Program \(LIHEAP\) and the Weatherization Assistance Program \(WAP\)](#)
- [Income Verification for Low-Income Solar Programs](#)

We note overall that there was limited publicly available information for many solar programs.