

**Illinois Solar For All
Phase II Evaluation
Final Third Interim Report**

April 2021

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Executive Summary

This report presents findings from the Phase II, Third Interim Evaluation of the Illinois Solar for All (ILSFA) Program. The ILSFA Program was mandated by the state's Public Act 99-0906, colloquially known as the Future Energy Jobs Act (FEJA), which was enacted on December 7, 2016 and went into effect on June 1, 2017. The ILSFA Program provides more generous Renewable Energy Credit (REC) contracts than those offered through the Illinois Adjustable Block Program (ABP)¹ to overcome barriers to participation in the solar market faced by the low-income community.

Evaluation

The Illinois Power Agency (IPA) contracted with APPRISE, and its subcontractor Aeffect, Inc., to conduct an evaluation of the ILSFA Program. This evaluation report presents results from the third part of the Phase II Evaluation which was conducted from June 2020 through December 2020. Three previous evaluation reports provided findings from the inception of the program through May 2020. The final report will present findings from January 2021 through June 2021.

Illinois Solar for All Program Design and Implementation

FEJA required the development of the ILSFA Program to bring photovoltaics to low-income communities in Illinois. The objectives of the program are to maximize the development of new photovoltaic generating facilities, create a long-term, low-income solar marketplace throughout the State, integrate with existing energy efficiency initiatives, and minimize administrative costs.

FEJA mandated the ILSFA Program to include four sub-programs and indicated the funding percentages from the Renewable Energy Resources Fund (RERF) for each of them.

1. *Low-Income Distributed Generation (DG)*: This sub-program provides funding for photovoltaic projects for individual homes and multi-family buildings. Benefits to participants are achieved through net metering or reduction of energy costs.
2. *Low-Income Community Solar (CS)*: These projects provide the opportunity for participants to subscribe to a share of a CS system and receive credits on their utility bill for the energy produced by their share of the system. The projects must identify partnerships with community stakeholders where the project will be located.
3. *Non-Profits and Public Facilities (NP/PF)*: Non-profits and public facilities may receive incentives for on-site photovoltaic generation. These projects must serve the energy loads of non-profit or public sector customers, be installed at facilities within low-income or environmental justice (EJ) communities within the State of Illinois that have sufficient connection to and input from the low-income or EJ community, and are a qualified critical

¹The Adjustable Block Program (ABP) supports the development of new photovoltaic distributed generation systems and new photovoltaic community generation projects in Illinois through the purchase of Renewable Energy Credits. The ABP is not targeted to low-income households and Environmental Justice communities like the ILSFA Program is.

service provider, defined as a non-profit or public sector entity that offers essential services to low-income or EJ communities.

4. *Low-Income Community Solar Pilot Projects (LICS Pilot)*: This sub-program is based on a competitive procurement approach for CS projects, based only on the price for 15 years of delivery of all Renewable Energy Credits (RECs).

Some of the key characteristics of the ILSFA Program are as follows.

- An emphasis on EJ communities and a requirement that 25 percent of the incentives for the first three ILSFA sub-programs are allocated within those communities.
- Requirements for community partnerships.
- Requirements for job training opportunities and hiring job trainees.
- Extensive consumer protections to ensure that participants receive the benefits of the ILSFA Program.

The IPA was directed to develop a Long-Term Plan with a proposed approach to the design, implementation, and evaluation of the ILSFA Program. The Long-Term Plan was filed at the Illinois Commerce Commission (ICC) for review and approval on December 4, 2017 and was approved by the ICC on April 3, 2018. In 2019, the IPA undertook the Long-Term Plan update process. The ICC approved the Revised Long-Term Plan with some changes on February 18, 2020 and the Revised Long-Term Plan was published on April 20, 2020.

ILSFA Resources

The ILSFA Program is funded through three sources.

- **The Renewable Energy Resources Fund (RERF)**: This fund was created as a special fund in the State Treasury and is administered by the IPA for the procurement of renewable energy resources. The fund was created with Alternative Compliance Payments remitted by Alternative Retail Electric Suppliers (ARES) to comply with the State's Renewable Portfolio Standard established by the Public Utilities Act.
- **Utility Funding**: A portion of the funds collected by the utilities under their Renewable Portfolio Standard (RPS) tariffs is available for the ILSFA Program. Utility funding does not support the LICS Pilot projects sub-program.
- **Additional Utility Funding**: Additional funds from the utilities' renewable resources budgets were potentially available for program funding, however the triggering "funding shortfall" conditions have not been met.

Available funding is summarized in the table below. Unspent funds from previous program years were rolled over into additional funding for 2020-2021. Most of these funds were for the DG sub-program.

**Table ES-1
ILSFA Funding Summary**

| Program Year | Funding Source | DG | CS | NP/PF | CS Pilot |
|--------------|----------------|-------------|--------------|-------------|---------------------------|
| 2018-2019 | RERF | \$4,500,000 | \$7,500,000 | \$3,000,000 | \$20,000,000 from RERF |
| | Utility | \$3,000,000 | \$5,000,000 | \$2,000,000 | |
| | Total | \$7,500,000 | \$12,500,000 | \$5,000,000 | |
| 2020-2021 | RERF | \$4,950,000 | \$8,250,000 | \$3,300,000 | \$17,500,000 from RERF |
| | Utility | \$3,417,985 | \$5,696,642 | \$2,278,657 | |
| | Total | \$8,367,985 | \$13,946,642 | \$5,578,657 | |
| 2021-2022 | RERF | \$4,950,000 | \$8,250,000 | \$3,300,000 | \$17,500,000 from RERF |
| | Utility | \$3,418,081 | \$5,696,802 | \$2,278,721 | |
| | Total | \$8,368,081 | \$13,946,802 | \$5,578,721 | |

Implementation Statistics

Elevate Energy, the Program Administrator, provided AV data, project data, and participant data. Analyses in this report were based on data as of November to December 2020.

Key findings with respect to the AVs were as follows.

- Approved Vendors: As of November 2020, there were 51 AVs.
- Minority or Women-Owned Business AVs: Six of the 51 AVs were MWBEs.
- AV Participation: Thirty-two different AVs submitted projects and 20 different AVs had selected projects.

As of December 2020, 14 projects had been completed and interconnected. Seven of these projects had been reviewed and approved by the Program Administrator and seven had not yet received all of the necessary reviews including the desk top review, the job training review, and the inspections.

Project-level statistics relating to each sub-program are summarized below.

- NP/PF Projects: There were seven projects selected in the first program year, 24 in the second program year, and 18 in the third program year.
- CS Projects: There were four projects selected in the first program year, six in the second program year (including the LICS Pilot), and three in the third program year. The volume of submitted projects significantly exceeded the funding available for the sub-program.
- DG Projects: There were ten projects selected in the second program year, nine for single-family homes and one for a multi-family project. While no projects were submitted during the initial submission window of the third program year, there were 41 projects in pre-application and under initial review as of December 2020.

Project-level statistics relating to EJ communities, low-income communities, and MWBE representation are summarized below.

- **Urbanity of Project Locations:** Overall, 37 selected projects were characterized as being in urban locations, 19 in suburban locations, and 16 in rural locations. Of the selected CS projects, three were characterized as being in urban locations, four in suburban locations, and six in rural locations.
- **Minority Composition of Project Locations:** The census tracts that had selected projects were comprised of an average of 58 percent minorities (non-white), compared to an average of 30 percent minorities in census tracts that did not have selected projects.
- **EJ Communities:** Fifty-one of the 72 selected projects were in EJ communities.
- **Low-Income Census Tracts:** Sixty-eight of the 72 selected projects were in low-income Census Tracts.
- **MWBE Projects:** Two of the selected NP/PF projects were submitted by MWBEs. (This does not include AVs who received MWBE points for subcontracting to MWBEs.)

Project-level statistics relating to project size and REC value are summarized below.

- **Project Size:** The mean size for the NP/PF projects was 135 AC kW, the mean size for CS projects was 1,188 AC kW, and the mean size for the DG projects was 206 AC kW. However the DG mean was driven by the one large multi-family project size (2,000 AC kW), compared to the other small single family projects (ranging in size from four to 10 kW).²
- **REC Value:** The NP/PF projects averaged about \$290,000, the CS projects averaged about \$3.26 million, and the DG projects averaged \$410,000 in REC value.³
- **Urbanity of REC Value:** Twelve percent of the REC value was in urban areas, 24 percent was in suburban areas, and 64 percent was in rural areas. However, of the NP/PF projects, 41 percent of the REC value was in urban areas, 38 percent was in suburban areas, and 20 percent was in rural areas.
- **REC Value in EJ Communities and Low-Income Census Tracts:** While 67 percent of the REC value for NP/PF projects was in EJ communities, 83 percent of the REC value for CS projects, and three percent of the REC value for DG projects was in EJ communities⁴ (the EJ goal was not met because funding remains in the budget and additional projects will be funded in future program years). Almost all of the REC value was in low-income Census Tracts.

There were 75 Grassroots Education events completed by the second cohort of Grassroots Educators between June and November 2020. These included one-on-one contacts, phone banking, and virtual events due to COVID-19 restrictions.

Nine AVs with a combined portfolio of 15 projects submitted 41 job training affidavits as of December 2020. Across all projects, job trainees worked an average of 21 percent of total project hours. On average, 90 percent of trainee hours were spent on installation.

²Without that one large project, the average DG size is 6.5 AC kW.

³The DG average REC value is skewed by the one large multi-family project. Without that one large project, the average DG REC value is \$16,100.

⁴ This is due to one large DG project that was not in an EJ community.

ILSFA Impacts

We translated the projected electric production from ILSFA projects into energy and emission equivalencies to provide a context for understanding the benefits of the ILSFA Program. The following equivalencies were estimated and are expected from the first two years of projected kWh production for all selected projects (as opposed to completed and energized projects).

- Tons of coal burned: 13,994
- Cubic feet of natural gas burned: 272 million
- Barrels of oil consumed: 46,558
- Gallons of gasoline consumed: 3.99 million
- Homes powered: 2,453
- iPhones charged: 2,260 million
- Cars taken off the road for one year: 4,727
- Trees planted over 10-year growth period: 344,192

We calculated the estimated value of avoided emissions to be over \$2 million dollars in first year benefits from the first two years of selected ILSFA projects and \$32.8 million in lifetime benefits from the first two ILSFA Program years.

We calculated the estimated value of the increase in economic output in Illinois to be over \$24 million dollars in first year benefits and \$27.8 million in lifetime benefits from the first two ILSFA Program years.

We estimated the creation of 61 full-time job years from first-year economic benefits and 164 job years from lifetime economic benefits from the first two ILSFA Program years.

Approved Vendor Survey

APPRISE conducted an online survey with the ILSFA AVs. Forty-seven of the 50 AVs in the program at the time of data acquisition provided complete survey responses. This section provides a summary of the survey findings.

This section provides information on the AVs' views and opinions. Statements that were made by the AVs and that are reported in this section may include suggestions that are inconsistent with the statutory requirements of the ILSFA and/or the ICC approved program design. Additionally, recommendations in this section are those made by the AVs and may not represent the opinions of APPRISE or the IPA.

- **AV Registration:** While 26 percent of the AVs said that the registration process was somewhat or very easy, 19 percent said it was neither easy nor difficult, and 41 percent said it was somewhat or very difficult. Forty percent of the AVs said using the portal to register was somewhat or very easy, 26 percent said it was neither easy nor difficult, and 17 percent said it was somewhat difficult.
- **Project Submission:** Twenty-eight of the 47 AVs had submitted projects. Among those, 86 percent found the submission process to be somewhat or very challenging and 11

percent said it was not at all challenging. While 47 percent said their first use of the portal for project submission was somewhat or very difficult, 36 percent said their most recent use of the portal for project submission was very or somewhat difficult.

AVs reported challenges providing the high volume of information required, understanding the project submission application, understanding eligibility requirements for program participants, obtaining an interconnection agreement, and meeting the program timeline. With respect to the portal, AVs reported challenges uploading information, understanding portal instructions, accessing portal applications, saving applications in progress, and using the calculators for Alternate Capacity Factor and REC value.

- *DG Project Development:* Twenty-nine AVs indicated they had attempted to develop DG projects and 23 reported that they plan to submit DG projects in the future. AVs reported that they encountered issues with financing, finding eligible participants, obtaining interconnection agreements, finding community partners, securing permits, and the program requirements.
- *Project Stage:* Of the 28 AVs that had selected projects, eight had at least one project that had been constructed and energized, four had projects whose latest stage was construction, and 16 had projects that were pre-construction.
- *Job Trainees:* Twenty-six of the 47 AVs reported that they have looked for solar job trainees in preparation for ILSFA work. Eight AVs felt that it has been somewhat or very easy to find staff who are qualified to perform the work needed for the ILSFA, while ten felt that it had been somewhat or very difficult. The average number of trainees that they expected to hire was ten, but the average number hired to date was only two. The mean annual salary for trainees, reported by ten AVs, was approximately \$40,000. While 45 percent said they expected to work with job trainees on all future work, four percent said it was just for the ILSFA Program, and the others could not provide a response because it was too early to say or they were not involved in installation.
- *Solar Panels Used:* Seventeen AVs have used or plan to use panels produced outside of the U.S., two do not plan to use foreign-produced panels, and 28 said that it was too early or that they were not involved in procurement. The AVs that purchased or planned to purchase foreign-made panels estimated on average that switching to domestically produced panels would cause them to incur an increase in costs of 32 percent.
- *Satisfaction with Elevate Energy and the ILSFA Program:* When asked about their level of satisfaction with Elevate Energy, 62 percent of the AVs said they were very or somewhat satisfied, 19 percent were neutral, and 15 percent said they were very or somewhat dissatisfied. When asked about their level of satisfaction with the ILSFA Program overall, 51 percent of the AVs said they were very or somewhat satisfied, 15 percent were neutral, and 30 percent were very or somewhat dissatisfied. Much of the

dissatisfaction related to the complexity of program rules and the requirements for ILSFA projects.

- *AV Recommendations for Elevate Energy & ILSFA:* AVs made many recommendations for the program. The most common ones are summarized below.
 - Simplify program rules and guidelines
 - Increase the ILSFA budget
 - Improve the submission portal
 - Loosen program requirements
 - Revise the project selection process

Grassroots Educator Feedback

The goal of Grassroots Education is to ensure that awareness of the benefits of and opportunities provided by the ILSFA Program reach low-income households and communities throughout the state of Illinois. The ILSFA administrator released a second Request for Proposals (RFP) for organizations interested in conducting Grassroots Education in early 2020, and ten organizations were selected in August 2020. Six organizations in the second cohort are returning Grassroots Educators (GEs) and four are new GEs. APPRISE conducted in-depth telephone interviews with these ten GEs. This section provides a summary of findings from these interviews.

- *Selected Grassroots Organizations:* The ten Grassroots Organizations vary significantly in structure, presence, services, location, population served, and expertise. Seven organizations serve specific communities, cities, or neighborhoods and three organizations have a statewide or multi-county presence. Eight organizations focus on grassroots education and advocacy, while the other two organizations directly provide services to the low-income community. All four new GEs previously conducted outreach campaigns similar to their planned ILSFA campaign. One of the four organizations has experience with energy-related outreach campaigns.
- *Target Populations:* The scope of the geographic regions served by GEs ranged from specific neighborhoods within Chicago to larger regions throughout the state. The most common priority groups GEs serve are low-income populations (eight organizations), homeowners (seven organizations), and seniors (five organizations).
- *Outreach Plans and Implementation:* GEs are using a variety of outreach methods in their campaigns. All are utilizing virtual outreach methods instead of in-person due to the Coronavirus pandemic. Nine organizations are organizing virtual community events and meetings, including virtual presentations, webinars, and workshops; and nine organizations are posting on websites, social media, and newsletters. All ten are partnering with other community organizations and stakeholders to conduct their campaigns. The most common areas of focus for the outreach campaigns were DG and CS opportunities, participant benefits, basic solar education, and job training opportunities.

GEs are at various stages of program implementation. Five organizations began their outreach in June or July, and two organizations began in September. Three organizations started their outreach campaigns in October. In general, interviewees have found a low level of awareness and a high level of interest in the ILSFA. Three returning GEs reported there is a higher level of awareness than last year. Five GEs felt that they have been successful in reaching their target population to date.

The six returning GEs learned a variety of lessons from their first year of outreach. These lessons include taking the time to teach solar basics, partnering with other organizations, and acknowledging the lack of vendor availability.

- *Pandemic Impact:* All ten organizations have modified their outreach plans due to the Coronavirus pandemic. The impacts include shifting from in-person to virtual outreach methods, cancelling or delaying events, dealing with pandemic fatigue, and losing touch with constituents. Five of the returning GEs reported that their outreach campaigns for the first round were also impacted by the pandemic.
- *Performance Metrics:* GEs are using similar metrics to measure the success of their outreach campaigns. All selected organizations will track quantitative indicators, including event attendance, the number of interested participants, the number of events hosted, the amount of phone banking completed, and the number of solar projects installed. Eight organizations plan to develop additional metrics as needed, and eight organizations plan to evaluate their outreach campaign in the future and potentially revise their outreach plans.
- *Barriers to Participation:* The most common reported barriers were lack of solar readiness due to maintenance issues, reported by five organizations, and lack of available community solar projects, reported by four organizations. All ten organizations are implementing approaches to overcome skepticism to the ILSFA Program. Respondents believe that providing personal testimonies, using trusted organizations to disseminate information, and being upfront about barriers are the best ways to overcome these barriers.

All GEs reported that there is at least one AV working in their area; however, many felt that there was a limited availability of AVs in their community. Two respondents stated that there are no DG projects in their area and two respondents stated that there are no CS opportunities. All ten selected organizations will connect their communities to AVs.

- *Outreach Materials:* All ten organizations reported that they had developed or would be developing outreach materials for their campaign. They also reported that some or all of their outreach materials would be modified versions of the materials provided by Elevate Energy. Common outreach materials include advertisements for social media, websites, and newsletters, which are being developed by seven organizations, and PowerPoint presentations, which are being developed by eight organizations.

- *Collaboration:* All GEs have been in contact with one another through monthly calls and virtual message boards. They discuss how their outreach is going, challenges encountered, successful and unsuccessful outreach methods, strategies, best practices, and goals. All four new GEs reported that these collaborations are helpful.
- *ILSFA Feedback:* Most respondents described the materials provided by Elevate Energy as good and stated that it is helpful to have starting materials they can edit. However, four organizations believed that the material is too complex and technical and should be simplified more.

In general, respondents had positive feedback about the design and implementation of the Grassroots Education campaign but noted some challenges with the implementation and accessibility of the program. Three respondents found the collaborative cohort model to be helpful and two respondents reported that the training and onboarding process was useful. Three respondents stated that Salesforce, the software GEs are required to use to report on their campaigns, is difficult to use and three respondents were concerned that barriers to participation will impact interested resident's ability to participate in the program.

- *Recommendations from Grassroots Educators:* Eight of the GEs provided recommendations for the Grassroots Education campaign. These recommendations included connecting with more affordable housing organizations, developing realistic expectations both for potential participants and for what GEs can accomplish, using a different reporting method, connecting GEs with AVs, fully explaining policy developments, providing training information, providing giveaway items, and discussing similar programs during outreach.

Six of the GEs provided recommendations for the ILSFA Program more generally. These recommendations included having more AVs, providing funding for solar readiness, and providing more funding for the NP/PF sub-program.

Grassroots Education Participant Feedback

APPRISE conducted telephone interviews with 21 participants who attended an event organized by one of ILSFA's Grassroots Educators between October 2019 and December 2020. These interviews assessed participants' experiences at the GE events they attended as well as their knowledge of and desire to participate in the ILSFA Program. Due to various changes resulting from the Coronavirus pandemic, the 2020 in-person GE events were largely replaced by online events and phone calls made to potential participants. Because of this change in mode, it is possible that participants will need additional education before they develop a sufficient understanding of the ILSFA Program to participate.

Interviews were attempted with all 102 participants in the sample provided (however, 19 were missing phone numbers). This is a very small percent of the approximately 3,800 individuals who received Grassroots Education through methods other than "media" such as newsletters. Because the sample only consisted of those who expressed interest in the ILSFA, it cannot

be considered a representative sample and cannot assess the experience of those who potentially did not understand the program benefits and express interest in program participation.

This section provides a summary of findings from these interviews.

Customer Characteristics and Demographics

- **Household Characteristics:** Thirteen of the 21 respondents reported an elderly member in their household. Only two respondents reported a child in the home and eight respondents reported a disabled member in their household.
- **Household Income:** Twelve of the 21 survey respondents reported an annual household income at or below \$25,000. No respondents reported an annual income greater than \$75,000.

Participant and Event Background

- **Event Format:** When asked about the format of the event they attended, ten survey respondents reported that the event was an outdoor information or tabling event. Six respondents reported that they attended a webinar or virtual event, two respondents reported that they attended an in-person meeting, and one person attended an information fair. Additionally, one person said they had been canvassed with information about ILSFA and one person said they had received a call about ILSFA.
- **Reason for Attendance:** Eight respondents said they attended the event because they were interested in learning about solar energy, while seven respondents said they attended because they walked by the tabling event on their way to a food pantry.
- **Interest in ILSFA Program:** Ten respondents reported that they were interested in solar installation on their roof, five respondents reported they were interested in a community solar subscription, nine respondents provided other reasons for interest in ILSFA, and two said they were not interested in the ILSFA Program.
- **Bill Payment Difficulty:** Eleven of the 21 respondents reported that it was very or somewhat difficult to pay their monthly electricity bill.
- **Energy Efficiency Program Participation:** Eight respondents said they had participated in the Illinois Home Weatherization Assistance Program (IHWAP), while eight others said they had not participated in other no-cost energy or home weatherization programs before.
- **Familiarity with Solar and Energy Efficiency:** When asked how knowledgeable they feel about solar energy, 12 respondents said they feel very or somewhat knowledgeable. When asked how knowledgeable they feel about energy efficiency opportunities, 14 respondents said they feel very or somewhat knowledgeable.

Grassroots Education Event Participation and Feedback

- **Event Information Source:** When asked how they learned about the event they attended, eight respondents said they saw the ILSFA table on the way to the food pantry, five respondents said they learned about the event through word of mouth, and two respondents said the event was part of a regular scheduled Head Start meeting.

- **Solar Energy Knowledge Prior to Attendance:** Six of the 21 survey respondents reported that they knew nothing about solar energy prior to attending this event.
- **Information Learned at the Event:** When asked what important information they learned from the event, six respondents said they learned basic facts about solar power, five said they received an explanation of the ILSFA Program, three said they learned how to subscribe to Community Solar project, three said they did not know, and three said they learned nothing.
- **Community Educator Assessment:** Twelve respondents said the community educators hosting the event did an excellent job, four respondents said the educators did a good job, four said they did a less than good job, and one said they did not know. Multiple respondents reported that the educators gave poor explanations of the benefits of the program and program eligibility. When prompted for recommendations, two respondents said the educators should make the presentation more targeted and understandable, two respondents said there should be more outreach on the part of the educators, and two respondents said the educators should provide more information on eligibility and costs.
- **Additional Resources:** Eighteen of the 21 respondents reported that, after leaving the event, they felt they had someone they could call to learn more about solar. However, only nine respondents said the community educators contacted them after the event. More follow-up could lead to improved program understanding and increased potential for participation.
- **Participant Satisfaction:** When asked how satisfied they were with the event they attended, 12 respondents were very satisfied, five were somewhat satisfied, one was somewhat dissatisfied, two were very dissatisfied, and one said they did not know. The respondents who were dissatisfied reported that the educators did not explain the benefits of the program and that they did not understand the program.

ILSFA Program Awareness and Understanding

- **ILSFA Awareness:** When asked if they knew about the ILSFA Program prior to attending the GE event, three respondents answered yes while 18 respondents said they did not know about ILSFA.
- **Understanding of ILSFA:** When asked how well they understand the ILSFA Program after attending the event, three respondents said they have a high level of understanding, ten respondents said they have a moderate level of understanding, and eight said they have a low level of understanding.
- **Understanding of ILSFA Sub-Programs:** When asked if they know what is needed to participate in CS or install solar on their roof, only nine respondents answered yes while 12 respondents answered no.
- **ILSFA Benefits:** When asked to describe the benefits of the ILSFA Program, nine respondents said saving money was a benefit, six respondents said the program is beneficial to the environment, six respondents gave other responses, and six respondents said they did not know.
- **ILSFA Materials:** Twelve respondents reported that they received materials about the ILSFA Program at the education event. Of those 12, three said the materials were

somewhat difficult to understand, five said they were somewhat easy to understand, and four said they were very easy to understand. When asked how useful the materials were, four said the materials were very useful, seven said they were somewhat useful, and one respondent said they did not know.

- ILSFA Website: Only two respondents reported that they had visited the ILSFA website. Both reported that it was very easy to understand the information on the website.

ILSFA Participation and Satisfaction

- Interest in Solar Installation: When asked if they were interested in having solar installed on their roof through ILSFA, 12 respondents said yes, eight said no, and one was unsure. When asked if they plan on doing so, six respondents said yes, 11 said no, and four were unsure.
- DG Non-Participation Reasons: When the 11 respondents who reported they do not plan to install DG solar panels were asked why, three cited financial concerns, three said they do not own a home, two said they do not understand how to participate, and two said that not enough information was provided at the event.
- Interest in Community Solar Project: Nine respondents said they were interested in subscribing to a CS project, and six said they plan on doing so. Thirteen respondents said they do not plan on doing so.
- CS Non-Participation Reasons: Of the 13 respondents who said they do not plan to engage in a CS project, four said they do not understand how to participate, four said they do not understand CS, three said they are busy, and two cited financial concerns.
- Importance of Education Event: Of the eight respondents who said they planned to participate in the ILSFA Program, six said the GE event was very important in forming their interest and the other two said the event was somewhat important in forming their interest.
- ILSFA Participation: When asked if they felt they had a good understanding of how to participate in the ILSFA Program, 11 respondents said yes and ten said no. When asked about barriers they experienced or expect to experience while participating in the ILSFA Program, the most common by far was unexpected costs, which was mentioned by ten respondents. Five respondents said they expect no barriers and four said they were unsure.
- Contact with Approved Vendor: Only one respondent had contacted an Approved Vendor. Three respondents reported that an AV had reached out to them.
- Recommendations for the ILSFA Program: When asked to provide recommendations for the ILSFA Program, four respondents said the program should conduct more outreach. Two respondents said the program should be more financially beneficial and upfront about costs. Other recommendations included adding more well-known vendors and making it easier to contact property owners.

Program Administrator Assessment

This section assesses Elevate's role in administering the ILSFA Program.

- **Outreach:** Elevate has taken steps to increase outreach to critical groups including adding to their stakeholder list, having discussions with the Illinois Department of Commerce and Economic Opportunity (DCEO), reaching out to utility energy efficiency managers, and developing a system to screen potential program participants for ILSFA during LMI energy efficiency program delivery.

Elevate has taken a more active role in working with the IPA to address barriers to DG participation, including the development of a DG referral process.

As noted in previous evaluation reports, Elevate should increase their proactive outreach to the following groups.

- Low-Income Households
- Energy Efficiency Programs
- Other Low-Income Program Providers

Future success of the ILSFA may depend on forging greater connections. While Elevate is working on these connections, there has been limited progress and they should prioritize more outreach and communication with these audiences to promote these important linkages.

- **Call Center:** Elevate Energy has a call center to field questions about the ILSFA Program and provide guidance and information. Elevate's call center metrics report does a very good job of providing information on the volume and type of calls handled.
- **Program Materials:** Elevate has developed and updated a large amount of materials over the past six months. These include available DG and CS projects, a case study of a completed DG project, and updated Grassroots Education materials. Elevate should place increased emphasis on simplicity and reading level for customer-facing materials.
- **ILSFA Website:** Elevate made some improvements to the ILSFA website and plans to update the home page to improve clarity. Significant additional improvement to the website organization could make the program more accessible to the public, potential participants, and AVs. Often information is only available in the program announcements (however, this information may be needed by Approved Vendors or project developers rather than potential participants). Additional menus and links should be provided so that this information is easily found without searching or looking through the announcements.
- **Approved Vendor Portal:** Elevate has continued to update the portal with additional capabilities that are needed as projects move forward, as well as to improve the process for AVs. Many AVs still report that using the portal for project submission is challenging. Elevate should continue to advance and test the portal to make it easier for AVs to use.

- **Grassroots Education:** Elevate implemented the second Grassroots Education RFP, selected ten organizations, and developed an intensive onboarding and training process for those organizations. Elevate has worked to provide more information and support to these organizations than during the first round. Elevate has replaced many one-on-one check-ins with group or pod check-ins to provide opportunities for GEs to share best practices and to troubleshoot, and this has been well-received by the GEs. Interviews with Grassroots Education participants show that more work needs to be done to emphasize the key messages that the program will reduce energy bills and that households can participate through DG on their roof or CS if DG does not work for them. All information should include a summary to increase the opportunity to instill these key messages for participants.
- **Energy Efficiency:** Elevate has taken actions to improve coordination of the ILSFA Program with energy efficiency programs. They should continue to take more action to coordinate the ILSFA Program with income-qualified energy efficiency programs in Illinois, both to provide leads for the ILSFA Program and to ensure that ILSFA participants undertake beneficial energy efficiency actions prior to ILSFA Program participation.
- **Vendor Administration and Support:** Elevate Energy has responsibilities for administering and supporting the vendor registration and project submission process. Elevate has provided extensive support to the AVs and they speak favorably about their experience with Elevate and the tremendous assistance that Elevate provided.

As in previous evaluations, we recommend that Elevate take a more active role in providing proactive assistance to AVs in other areas where it has become apparent that additional support is needed. This includes the following areas.

- The Interconnection Process
 - MWBE Participation
 - Energy Efficiency
- **Environmental Justice Communities:** Elevate was responsible for working with the IPA to develop the EJ community determination process and the self-designation process. They developed a rigorous and well-documented process for determining the EJ communities, and the map and list of EJ communities is provided on the ILSFA website.
- Elevate continues to work with the IPA and community groups to score incoming EJ self-designation applications. They have also developed a systematic process for this scoring and meet with the scoring group on a regular basis to score EJ self-designation applications as they come in.
- **Reporting:** Elevate is responsible for providing quarterly reports to the IPA and the ICC on the status of the program, including number of applications received, number of applications approved, number of projects completed, REC payments, payments for Grassroots Education efforts, status of Grassroots Education, and technical assistance

provided. Elevate has submitted three of these quarterly reports (the last one covering the third quarter of calendar year 2020). Elevate has also developed comprehensive and useful reports on call center metrics, technical assistance, newsletters, and use of the ILSFA website.

- **Quality Assurance:** Elevate is responsible for developing a process for quality assurance, including photos of projects under construction and on-site inspection of a random sample of installations. To date, approximately six projects have been inspected using mostly off-site video review due to the COVID pandemic. These inspections have found that the projects are consistent with their plans and with the ILSFA requirements.

Recommendations

This section presents recommendations based on the research presented in this report.

ILSFA Program Design

Recommendations relating to the ILSFA Program design are summarized below.

- **ILSFA Requirements:** Assess where requirements can be simplified both within the current Long-Term Plan and with changes to the Long-Term Plan.
- **ILSFA Program Materials:** Include a list of the most important points for potential participants to understand in all Grassroots Education materials. Ensure that customer-facing materials are simplified and at the appropriate reading level.
- **ILSFA Website:** Include additional menus and links so information can be found without a search or a review of the program announcements. For example, this could include links to available projects at the top of the Illinois Residents pages, a link to a “How to Get Started” document, a link to program brochures, and a link to job training programs.
- **ILSFA Portal:** Continue to improve, remove glitches, and increase user-friendly design elements.
- **Job Training and Job Creation:** Continue to qualify and permit alternative job training programs if FEJA programs are not available.
- **DG Sub-Program:** Consider more substantial changes to this sub-program if DG projects do not increase significantly and expand throughout the state by the end of the Program Year 3 open submission period. This may require a movement away from the current market-based approach and changes to the Long-Term Plan.

Program Implementation

Recommendations relating to the ILSFA Program implementation are summarized below.

- **Outreach:** Prioritize outreach to low-income organizations and energy efficiency program implementers.

- **DG Participation:** Conduct additional outreach to AVs outside of the Chicago area to encourage participation in the DG sub-program and submission of projects for inclusion in the DG offer list. Provide additional support where possible to help AVs overcome barriers to participation. Specific areas reported by AVs are financing, finding eligible participants, obtaining interconnection agreements, finding community partners, securing permits, and meeting program requirements.
- **Grassroots Education:** Continue to provide the enhanced support to GEs that has been offered to the second cohort. Collect information on all participants for additional outreach and follow up.
- **Energy Efficiency:** Prioritize coordination of the ILSFA Program with income-qualified energy efficiency programs in Illinois.
- **Proactive Solutions:** Continue to explore proactive solutions to ILSFA Program challenges. Expand revisions to past procedures if there are opportunities to increase efficiency and effectiveness as was done with staggered project submission periods and division of labor in project review in Program Year 3.

I. Introduction

This report presents the findings from the third part of the Phase II Evaluation of the Illinois Solar for All (ILSFA) Program. The ILSFA Program was mandated by the state's Public Act 99-0906, colloquially known as the Future Energy Jobs Act (FEJA), which was enacted on December 7, 2016 and went into effect on June 1, 2017. The ILSFA Program provides more generous Renewable Energy Credit (REC) contracts than those offered through the Illinois Adjustable Block Program (ABP) to overcome barriers faced by the low-income community to participation in the solar market.⁵

The Illinois Power Agency (IPA) contracted with APPRISE, and its subcontractor Aeffect, Inc., to conduct an evaluation of the ILSFA Program. This evaluation report presents results from the third part of the Phase II Evaluation, which was conducted from June 2020 through December 2020. Three previous evaluation reports assessed the program from its inception through May 2020.

A. ILSFA Program Overview

FEJA required the development of the ILSFA Program to bring photovoltaics to low-income communities in Illinois. The objectives of the program are to maximize the development of new photovoltaic generating facilities, create a long-term, low-income solar marketplace throughout the State, integrate with existing energy efficiency initiatives, and minimize administrative costs.

FEJA mandated the creation of the ILSFA Program to include four sub-programs and indicated the funding percentages from the IPA Renewable Energy Resources Fund (RERF) for each of the four sub-programs.

1. *Low-Income Distributed Generation (DG)*: This sub-program provides funding for photovoltaic projects for individual homes and multi-family buildings. Benefits to participants are achieved through net metering or reduction of energy costs.
2. *Low-Income Community Solar (CS)*: These projects provide the opportunity for participants to subscribe to a share of a CS system and receive credits on their utility bill for the energy produced by their share of the system. The projects must identify partnerships with community stakeholders where the project will be located.
3. *Non-Profits and Public Facilities (NP/PF)*: Non-Profits and Public Facilities may receive incentives for on-site photovoltaic generation. These projects must serve the energy loads of NP/PF customers, be installed at facilities within low-income or environmental justice (EJ) communities in Illinois that have sufficient connection to and input from the low-income or EJ community, and are a qualified critical service provider, defined as a non-

⁵The Adjustable Block Program (ABP) supports the development of new photovoltaic distributed generation systems and new photovoltaic community generation projects in Illinois through the purchase of Renewable Energy Credits. The ABP is not targeted to low-income households and Environmental Justice communities like the ILSFA Program is.

profit or public sector entity that offers essential services to low-income or EJ communities.

4. *Low-Income Community Solar Pilot Projects (LICS Pilot)*: This sub-program is based on a competitive procurement approach for CS projects, based only on the price for 15 years of delivery of all RECs. Payments will be made over the first ten years of the contract for the first round procurement and for 15 years for the second procurement.

Some of the key characteristics of the ILSFA Program are as follows.

- An emphasis on EJ communities and a requirement that 25 percent of the incentives for the first three ILSFA sub-programs are allocated within those communities.
- Requirements for community partnerships.
- Requirements for job training opportunities and hiring job trainees.
- Extensive consumer protections to ensure that consumers receive the benefits of the ILSFA Program.

B. ILSFA Evaluation

FEJA requires an independent evaluation of the ILSFA Program with objective criteria developed through a public stakeholder process. FEJA calls for an evaluation at least every two years. The evaluation is required to review the program and the third-party program administrator.

The Phase I Evaluation provided initial feedback and recommendations to the IPA for use in updating the Long-Term Renewable Resources Procurement Plan (Long-Term Plan) in Fall 2019 (to be implemented, following approval by the Illinois Commerce Commission (ICC), beginning in early 2020). This research focused on the stakeholder outreach process, development of program materials and guidelines, initial Approved Vendor (AV) registration, initial project application, and the development of Grassroots Education. The final Phase I Evaluation report was published on the ILSFA website in October 2019.

The first part of the Phase II Evaluation included a more detailed assessment of the ILSFA Program's implementation and results, including metrics required by FEJA and additional priorities identified in the Long-Term Plan. The Phase II First Interim Evaluation report was published on the ILSFA website in April 2020.

This second part of the Phase II Evaluation continued the review of program design changes and implementation. The report addressed key metrics required by FEJA, including installations, capacity, costs, jobs created, and non-energy impacts; jobs and job opportunities; incentive dollars awarded, AV satisfaction, and Grassroots Education impacts; and an overall program administrator assessment. The Phase II Second Interim Evaluation report was published on the ILSFA website in August 2020.

This evaluation report presents results from the third part of the Phase II Evaluation which was conducted from June 2020 through December 2020. The final report will present findings from January 2021 through June 2021.

C. Report Overview

Eight sections follow this introduction.

- Section II – Illinois Solar for All Design and Implementation: Provides a review of the ILSFA Program design and the implementation experience.
- Section III – ILSFA Implementation Statistics: Provides statistics on AVs, submitted and selected projects, and DG participants.
- Section IV – Impacts: Calculates equivalent changes in energy use from the projected ILSFA production and provides estimates of environmental and economic impacts of the ILSFA.
- Section V – Approved Vendor Survey: Provides findings and recommendations on the AV experience based on the online survey with 48 of the 50 AVs.
- Section VI – Grassroots Educator Feedback: Provides findings from in-depth telephone interviews with the ten Grassroots Educators selected for the second round of funding.
- Section VII – Grassroots Education Participant Feedback: Provides findings from surveys with 21 Grassroots Education participants.
- Section VIII - Program Administrator Assessment: Provides an assessment of Elevate Energy’s performance to date. Findings in this section are based upon review of publicly available material on the ILSFA website, additional program information and data provided by Elevate, the online AV survey, interviews with Grassroots Educators, and interviews with Grassroots Education participants.
- Section IX – Findings and Recommendations: Provides findings and recommendations based on all of the research presented in this report.

APPRISE prepared this report under contract to the IPA. The IPA and Elevate Energy facilitated this research by furnishing data and information to APPRISE. Any errors or omissions in this report are the responsibility of APPRISE. Further, the statements, findings, conclusions, and recommendations are solely those of analysts from APPRISE and do not necessarily reflect the views of the IPA.

II. Illinois Solar for All Design and Implementation

This section provides background on the design and implementation of the ILSFA Program.

A. *Future Energy Jobs Act*

FEJA mandated the creation of the ILSFA Program to include four sub-programs and indicated the funding percentages from the IPA Renewable Energy Resources Fund for each of the four sub-programs.

- Low-Income Distributed Generation
- Low-Income Community Solar
- Non-Profits and Public Facilities
- Low-Income Community Solar Pilot Projects

Other specific requirements of FEJA were as follows.

Economic Benefits

- Tangible economic benefits must flow directly to program participants except in multi-family housing where the low-income customer does not pay directly for energy.
- LICS Pilot projects must provide economic benefits for members of the community where the project is located and include a partnership with at least one Community Based Organization (CBO).

Community Partnerships

- Priority should be given to projects that demonstrate meaningful involvement of low-income community members.
- CS developers must identify partnerships with community stakeholders.
- The IPA should ensure collaboration with community agencies and allocate up to five percent of the funds available under the ILSFA Program to community-based groups to assist in Grassroots Education.

Environmental Justice

- At least 25 percent of the incentives for DG, CS, and NP/PF projects must be allocated within EJ communities.

Income Eligibility

- Low-income households are persons and families whose income does not exceed 80 percent of the area median income, adjusted for family size and revised every five years.

Job Training

- Projects must include job training opportunities if available and should coordinate with job training programs.

Administration

- LICs Pilot projects must be competitively bid by the IPA.
- The IPA should select a third-party program administrator through a competitively bid process.

Incentives

- The IPA (or a utility) will purchase RECs from generation for the first 15 years of operation as an upfront payment per installed kilowatt of nameplate capacity, paid when the device is interconnected at the distribution system level of the utility and is energized.

Evaluation

- The IPA should select an independent evaluator to review and report on the ILSFA Program and the performance of the third-party administrator at least every two years. The evaluation should be based on objective criteria developed through a public stakeholder process. The report should include the following metrics.
 - Total installed capacity in kilowatts.
 - Average cost per kilowatt of installed capacity.
 - Number of jobs or job opportunities created.
 - Economic, social, and environmental benefits created.
 - Total administrative costs expended by the IPA and the program administrator to implement and evaluate the program.

The IPA was directed to develop a Long-Term Plan with a proposed approach to the design, implementation, and evaluation of the ILSFA Program. FEJA specified that the following would be included in this Long-Term Plan.

- Program terms, conditions, and requirements.
- Prices to be paid for RECs.
- The level of energy and economic benefits to be accrued by low-income customers.
- A definition of EJ community that is compatible with other agencies' definitions.

B. Long-Term Renewable Resources Procurement Plan

The IPA published a Draft Long-Term Plan on September 29, 2017 and stakeholders were provided with 45 days to provide written comments. The IPA answered questions, provided presentations on the Long-Term Plan, received public comments, and revised the Long-Term Plan. The Long-Term Plan was filed at the ICC for review and approval on December 4, 2017 and was approved by the Illinois Commerce Commission (ICC) on April 3, 2018.

The Long-Term Plan provided more detail on the requirements for the ILSFA Program.

- Economic Benefits: Economic benefits for participants will be accrued through net metering or avoided consumption from the energy the system produces. The IPA developed the following requirements to ensure that benefits flow to low-income participants.
 - Eligible low-income residential participants should not pay up-front costs for the DG installation or pay an up-front fee to subscribe to a CS project.

- Participation should result in immediate, reliable reductions in energy costs for residents or subscribers.
- Any ongoing annual payments (for financed or leased projects) must be less than 50 percent of the annual first year estimated production and/or utility default service net metering value to be received by the customer.
- While incentives must flow through to the intended recipients, the incentives will not be customized to each participant's specific economic circumstances. The evaluation will review the impact on participants' energy burden and that information will be used to inform any future modifications to incentive levels. The IPA and the program administrator will educate AVs about utility programs, weatherization assistance programs, and other alternative sources of funding.
- Net Metering: Projects are required to participate in the utility's or ARES' net metering program. This may prevent projects in the service territory of a municipal utility or rural electric cooperative that does not offer net metering from participating.
- Project Viability: Roof repairs or wiring upgrades may be needed to implement the solar installations. The ILSFA Program will not provide funding for those upgrades.
- Capacity Factor: The Long-Term Plan describes the options for the capacity factor used in the ABP to convert the kilowatt size of a project to the number of RECs the system would be expected to generate over 15 years.
 - Standard Capacity Factor: For each kW of capacity, approximately 21 RECs would be generated over 15 years for a fixed-mount system and 25 RECs would be generated over 15 years for a tracking system.
 - Alternative Capacity Factor: AVs have the option of proposing an alternative capacity factor based on an analysis using PV Watts or an equivalent tool.
- REC Payments
 - The price will be expressed on a dollar per REC basis.
 - Payments will be based on the 15-year expected REC production of the system.
 - A system must be registered in GATS or M-RETS to verify it will produce RECs.
- Contracts
 - Contracts will be with the IPA if the funding source is the Renewable Energy Resources Fund (RERF) and with the utility if the funding source is the utility.
 - Contracts will be applied to the annual Renewable Portfolio Standard (RPS) goals of the utility to which the project is interconnected, but will not count toward each utility's new photovoltaic targets.
 - RECs from projects in the service territories of municipal utilities, rural electric cooperatives, or Mt. Carmel Public Utility would not be applied to the utility RPS goals if they are procured through contracts with the IPA. Any RECs procured through contracts with a utility would be applied to the RPS goals of the contracting utility.
 - Projects that receive a contract through the ILSFA Program cannot receive one through the ABP.

In 2019, the IPA undertook the Long-Term Plan update which involved the following steps.

- Workshops were held in June 2019 to discuss the Long-Term Plan update.
- A Request for Comments on the Long-Term Plan workshops was posted in early July 2019.
- Responses to the Request for Comments on the Long-Term Plan workshops were posted in late July 2019.
- The Draft Revised Long-Term Plan was released on August 15, 2019.
- Public hearings on the Draft Revised Long-Term Plan were held in early September.
- Written comments on the Draft Revised Long-Term Plan were accepted until September 30, 2019.
- Comments on the Draft Revised Long-Term Plan were posted in early October 2019.
- The IPA filed the Revised Long-Term Plan with the ICC on October 21, 2019.
- The ICC approved the Revised Long-Term Plan with some changes on February 18, 2020.
- The IPA published the Revised Long-Term Plan on April 20, 2020.
- The IPA is now working with the Program Administrator to implement the program changes contained in the Revised Long-Term Plan (as approved by the ICC).

C. Changes to the Distributed Generation Program

The DG sub-program continues to have low participation and there is a concern that changes are needed to expend the sub-program's available budget, develop a market for limited-income DG in Illinois, and provide limited-income households with an opportunity to participate in DG.

The ILSFA has taken the following actions in response to concerns about participation.

1. The Revised Long-Term plan allows for interested households to request verification of income-eligibility directly through the Program Administrator instead of through an AV. This process will be implemented in Winter 2020/2021. Interested participants will be able to receive eligibility letters from Elevate that are valid for six months.
2. Elevate has published a chart of standard AV offers for 1-4 unit residential buildings which will be updated on a regular basis. This chart is published on the ILSFA website and will be distributed by Grassroots Educators.
3. Elevate published a Draft Referral Proposal for DG in November 2020 and held a stakeholder feedback session to discuss the proposal in December 2020. Then they published a Referral Proposal in January 2021, with a request for comments.

The referral process aims to increase interest in the program and reduce AV costs by connecting income-eligible households to AVs through a referral process that would work as follows.

- Participation in the referral process is expected to result from GE events, information on the ILSFA website, and integration of the ILSFA Program with energy efficiency programs.

- The Program Administrator will undertake the following activities.
 - Conduct income verification.
 - Collect basic information on the home. This may include information on the electric bill, roof characteristics, shading, and the electrical system.
 - Obtain agreement to share the information with AVs.
 - Inform interested participants of the number of participating AVs in their area.
 - If no AVs are available, follow up with interested participants when an AV becomes available.
 - Provide requests to the AVs on a weekly basis.
 - Periodically follow up with participating households to assess participation and ensure that AVs are complying with referral requirements. (AVs may be removed from the referral program if they are not complying.)

- AVs will agree to the following to participate in the referral process.
 - Contact interested households within one week of receiving referrals.
 - Keep household information confidential (except for working with subcontractors or implementation partners).
 - Delete information on interested households if they do not respond to the AV or decline services.
 - Make no more than four total contacts through phone calls and emails.
 - Suspend outreach if households ask not to be contacted again or decline services.

D. Resources

The ILSFA Program is funded through three sources.

- **The Renewable Energy Resources Fund (RERF):** This fund was created as a special fund in the State Treasury and is administered by the IPA for the procurement of renewable energy resources. The RERF was created with Alternative Compliance Payments remitted by ARES to comply with the State’s RPS established by the Public Utilities Act.

- **Utility Funding:** A portion of the funds collected by the utilities under their Renewable Portfolio Standard (RPS) tariffs. The utility funding is not required to be applied in the same percentages as the RERF funds, and will not provide funding for the LICS Pilot projects sub-program.

- **Additional Utility Funding:** Additional funds from the utilities’ renewable resources budgets were potentially available for program funding, however, the triggering “funding shortfall” conditions have not been met.

The funding allocations are to support the following.

- REC Payments
- Program Administration
- Grassroots Education
- Evaluation

Available funding is summarized in the table below. Unspent funds from previous program years were rolled over into additional funding for 2020-2021. Most of these funds were for the DG sub-program.

Table II-1
ILSFA Funding Summary

| Program Year | Funding Source | DG | CS | NP/PF | CS Pilot |
|--------------|----------------|-------------|--------------|-------------|---------------------------|
| 2018-2019 | RERF | \$4,500,000 | \$7,500,000 | \$3,000,000 | \$20,000,000 from RERF |
| | Utility | \$3,000,000 | \$5,000,000 | \$2,000,000 | |
| | Total | \$7,500,000 | \$12,500,000 | \$5,000,000 | |
| 2020-2021 | RERF | \$4,950,000 | \$8,250,000 | \$3,300,000 | \$17,500,000 from RERF |
| | Utility | \$3,417,985 | \$5,696,642 | \$2,278,657 | |
| | Total | \$8,367,985 | \$13,946,642 | \$5,578,657 | |
| 2021-2022 | RERF | \$4,950,000 | \$8,250,000 | \$3,300,000 | |
| | Utility | \$3,418,081 | \$5,696,802 | \$2,278,721 | |
| | Total | \$8,368,081 | \$13,946,802 | \$5,578,721 | |

E. ILSFA Sub-Programs

There are four sub-programs within the Illinois Solar for all Program.

1. *Low-Income Distributed Generation (DG)*: This sub-program provides funding for photovoltaic projects for individual homes and multi-family buildings. Benefits to participants are achieved through net metering or reduction of energy costs. Residents of master-metered buildings may not receive the direct benefits of the solar installation because they do not pay for their electric bill. In such a case, the building owner/manager must commit to passing along at least 50 percent of the energy savings from net metering to tenants through reduced rents or by other means.
2. *Low-Income Community Solar (CS)*: These projects provide the opportunity for participants to subscribe to a share of a CS system and receive credits on their utility bill for the energy produced by their share of the system. The projects must identify partnerships with community stakeholders where the project will be located. The AV must identify those partnerships in the project application, and provide a description of how the partnership shows that it is responsive to the priorities and concerns of low-income members of the community. Incentives for these projects are for the portion of the project that is subscribed by low-income households.
3. *Non-Profits and Public Facilities (NP/PF)*: NP/PF may receive incentives for on-site photovoltaic generation. These projects must serve the energy loads of NP/PF customers, be installed at facilities within low-income or EJ communities in Illinois that have sufficient connection to and input from the low-income or EJ community, and are a qualified critical service provider, defined as a non-profit or public sector entity that offers

essential services to low-income or EJ communities. Critical service providers include youth centers, hospitals, schools, homeless shelters, senior centers, community centers, places of worship, or affordable housing providers including public housing sites.

These entities may not be able to capture the tax benefits that an ABP participant would be able to capture. Therefore, the adjusted incentive level can help overcome the financing barriers that NP/PF may face compared to private entities.

4. *Low-Income Community Solar Pilot Projects (LICS Pilot)*: This sub-program is based on a competitive procurement approach, based only on the price for 15 years of delivery of all RECs.

LICS Pilot projects are community-based photovoltaic generation projects that provide benefits to low-income subscribers through net metering and monthly bill credits.

The other following criteria established in the Long-Term Plan are minimum criteria for eligibility to participate in the competitive procurement.

- Projects must result in economic benefits for the members of the community where the project will be located. This requirement can be met by including partnerships with community stakeholders. Projects must provide a commitment to local hiring, describe the impact on payments to community residents or organizations as part of the development process, or offer subscriptions to community residents and organizations.
- The project must also include a partnership with at least one community-based organization, an existing non-profit organization that provides programs and services within the community where the proposed project will be located.
- The funds may not be distributed solely to a utility.
- At least some funds must include community ownership by the project subscribers.

Unlike the other three sub-programs, the incentives for LICS Pilot are determined through a competitive bidding process. The procurement for LICS Pilot projects is bid on a dollar/REC basis. Contracts are for 15 years of delivery of all RECs from the project to the IPA once the project is energized.

The LICS Pilot procurement process is conducted by NERA Economic Consulting, the Procurement Administrator selected by the IPA. NERA is responsible for handling the intake of all LICS Pilot project proposals, evaluating each proposal, and recommending proposals for approval by the ICC. Additionally, Bates White, LLC, the Procurement Monitor appointed by the ICC, observes the entire procurement process and reports on the progress and fairness of the proceedings to the ICC.

The LICS Pilot contracts are with the IPA and use RERF funding.

Information on the results of the first LICS Pilot bidding process were released on December 19, 2019 at the time of Commission approval of the procurement event. There were two suppliers selected with an average price of \$72.02 per REC.

F. Other ILSFA Guidelines

This section provides a brief description of additional ILSFA guidelines and requirements. More details for the DG, CS, and NP/PF sub-programs are provided in the Phase I Evaluation Report.

Income Eligibility

The ILSFA uses income eligibility guidelines from the U.S. Department of Housing and Urban Development (HUD) which bases its housing assistance programs on 80 percent of area median income (AMI) adjusted for family size. Because the income guidelines for LIHEAP and IHWAP are lower than these guidelines, all LIHEAP-eligible and IHWAP-eligible (state funded) households are eligible for the ILSFA Program.

Qualified Census Tracts (QCTs) have 50 percent of households with incomes below 60 percent of the Area Median Gross Income or have a poverty rate of 25 percent or more. QCTs are used as a streamlined method for determining eligibility for CS subscribers.

Consumer Protections

The ILSFA Program has developed extensive procedures to ensure that consumers are protected. The IPA felt that it was important to ensure these protections given the experience with ARES taking advantage of low-income customers in Illinois.

The key financial protections with respect to the DG and CS sub-programs include no upfront customer payments, ongoing costs and fees paid by the participant must not exceed 50 percent of the value of energy generated by the system or by the participant's share of the system, loans must not be secured by the program participant's home or home equity, financing terms must be based on an assessment of the participant's ability to repay the debt, and contracts for loans must offer terms that include forbearance.

AVs must also ensure that marketing materials are accurate and do not contain misleading statements.

Environmental Justice Communities

EJ communities are defined as having a higher risk of exposure to pollution based on environmental and socioeconomic factors. FEJA requires that 25 percent of the funds in the following sub-programs be allocated to projects located in EJ communities.

- Low-Income Distributed Generation
- Non-Profit and Public Facilities
- Low-Income Community Solar Projects

The IPA worked with Elevate Energy to develop a systematic evaluation and scoring system using the EJ Screen tool developed by the US EPA and the CalEnviroScreen tool developed

by the California Office of Environmental Health Hazard Assessment as guidance.⁶ Communities with scores in the top 25 percent were defined as EJ communities. Communities that were not in the top 25 percent of scores and thus not initially defined as being an EJ community may request consideration to be self-designated.

The EJ community self-designation is an ongoing process with periodic review and approval by the EJ review committee. Elevate Energy worked with the IPA to determine the make-up of the EJ review committee. The committee was designed to have representatives from the administrative team, individuals from the community with environmental justice backgrounds, and a balance of downstate and Chicago area representation. The committee includes two IPA staff members, two Elevate Energy staff members, a representative from the Illinois EPA, and two representatives from community organizations. Since the initial applications in May 2019, 21 communities submitted EJ self-designation applications and five re-submitted for a total of 26 reviews. Eight of these communities received EJ self-designation status.

Approved Vendor Requirements and Registration

There are five different types of AVs that can develop projects for the ILSFA Program – Approved Vendors, Aggregator Approved Vendors, Designees, Single Project Approved Vendors, and Subcontractors. The Original Long-Term Plan required all AV types, except for the AV Designees, to register and maintain their status as an AV in the ABP to participate in ILSFA Program. The Revised Plan requires AV Designees to be officially registered with the ABP and ILSFA Programs.

AVs who participate in the ABP must meet additional requirements to participate in the ILSFA Program, and must register to participate in the program. Requirements include community involvement, job training, hiring job trainees, income verification, marketing, and consumer protections.

Incentives

ILSFA incentives are REC prices that are adjusted from the ABP and are based on system size, building size, and geography. LICS Pilot incentives are based on the competitive bid price.

Site Suitability Guidelines

The ILSFA Program has site suitability guidelines that identify the site conditions that are considered to be barriers to the installation of rooftop DG and ground-mounted photovoltaic systems.⁷ These conditions relate to roofing, structural issues, electrical conditions, space and accessibility, health and safety, and ground-mounted systems.

Interconnection Requirements

Illinois utilities have specific requirements for interconnection agreements. The ILSFA requires projects submitted for approval to the ILSFA Program with a nameplate capacity

⁶ This was based on methodology described in the Long-Term Plan.

⁷ ILSFA Site Suitability Guidelines dated 5/7/2019. Available on the ILSFA Program website.

above 25 AC kW to have a valid, signed interconnection agreement at submission. A limited exception will be made under certain conditions regarding previous agreements and new applications outlined in the guidelines.

Project Selection

ILSFA projects are selected from those submitted by AVs during the project submission window at the beginning of the program year if there are more submissions than funding available for the sub-program.

1. The initial assessment reviews that the projects meet the requirements for community engagement, participant benefit and protections, job trainees, site eligibility, and interconnection.
2. Projects (which must be submitted to a specific sub-program) are sorted by priority grouping (EJ community, low-income community, and project diversity) for scoring.
3. Projects are scored based upon the unique protocols of each sub-program. Factors include location in EJ and LI communities, MWBE AVs, participant savings, subscriber ownership for CS, NP or PF ownership for CS, and diversity by utility groups, number of units, system size, and non-profits and public facilities.

Quality Assurance

The ILSFA quality assurance process will include photo documentation of all projects while under construction and on-site inspection of a random sample of installations. The AV will be responsible for remedying any deficiencies that are found, and AVs that have a disproportionately high number of deficient systems may lose eligibility to continue to participate in the ILSFA Program.

G. Net Metering

Under Illinois law, net metering is available to any retail customer that “owns or operates a solar, wind, or other eligible renewable energy generating facility with a rated capacity of not more than 2,000 kilowatts that is located on the customer’s premises and is intended primarily to offset the customer’s own electrical requirements.”⁸ Illinois net metering law requires investor owned utilities (ComEd, Ameren, and MidAmerican) to offer one-to-one net metering for renewable energy generation for small customers, where customers are credited at the same rate they are charged for electricity (larger customers receive supply-only net metering). In a given month, if a resident’s installation produces more electricity than they use, the excess net metering credits will roll over to the next month and can help offset future electricity usage. Any remaining credit will expire once per year.⁹

According to the Future Energy Jobs Act of 2016, when the installed net metering capacity reaches five percent of the total peak demand supplied by a utility in the previous year, new net metering customers will not receive the full retail credit for their excess electricity

⁸ Illinois Solar for All. “[FAQ: Is the value of net metering changing in Illinois?](#)” October 2020.

⁹ Citizens Utility Board. “[Illinois Net Metering.](#)” November 2020.

production, only for the supply portion. Instead, the full retail rate will be replaced with a “distributed generation rebate.”¹⁰

Ameren Illinois notified the ICC on April 2, 2020 that their installed net metering capacity could reach five percent of their total peak demand before the end of the year, and in October 2020, Ameren Illinois notified the ICC that they had reached five percent.

The ICC completed its investigation into Ameren Illinois’ Rider on December 2, 2020 and found that Ameren’s Rider requires revisions to the calculation of the five percent threshold, and that the volume of installed net metering capacity in the Ameren service territory had not yet reached that threshold. Ameren was required to file updated tariff language reflecting changes to how Ameren calculates the threshold and to compensate any customers who became net metering customers during the time when net metering credits were reduced. Ameren Illinois has filed an appeal of the ICC’s determination which is currently pending.¹¹

H. Grassroots Education

The second Grassroots Education RFP was released on January 30, 2020 and was due on April 6, 2020. A total of \$500,000 was available for this round of Grassroots Education. Elevate received 18 proposals and announced the ten selected proposals in August 2020. They aimed to select a diverse group of organizations, including both smaller and larger non-profits. They still would like to receive more applications from southern Illinois.

Elevate reported that one of the challenges with Grassroots Education is finding a balance between providing comprehensive program information and engaging eligible households. They published two new simplified handouts geared toward homeowners and renters that provide clear next steps for interested participants and the available DG and CS projects broken down by location. Elevate also developed a presentation with key messages and an emphasis on opportunities for renters, as well as a testimonial from a successful solar installation.

Elevate structured the second round of Grassroots Education to be more collaborative, fostering information sharing and more frequent check-ins. There are also monthly pod check-ins where three to four organizations come to together to provide status updates and state their progress.

Elevate has focused the GEs on reaching out to individuals who have expressed interest on a weekly or monthly basis until the individual has installed solar or no longer expresses interest.

In terms of reporting, there are now exit ticket surveys in addition to event metrics. When practical, GEs can provide a digital form to event participants and interested participants can fill it out and provide their contact information. The form auto populates on Salesforce, so GEs can see the potential participants and contact them.

¹⁰ Illinois Solar for All. “[FAQ: Is the value of net metering changing in Illinois?](#)” October 2020.

¹¹See ICC Docket Nos. and 20-0389 and 20-0738.

Elevate has undertaken additional outreach to engage potential participants.

- Elevate developed a template request for AVs who had offers for residential projects and received information from four contractors. The offers covered most of the state except east central Illinois. They shared these offers with the GEs to use in their outreach.
- Elevate has been contacting interested participants to share basic ILSFA information and assess eligibility, roof age, and shading (via Google Project Sunroof). If the household is ILSFA income-eligible and has a suitable roof, they explain the existing DG offers and provide information on the AVs offering projects.
- Elevate has been working to integrate solar with energy efficiency. Their Healthy Homes team will send emails to past participants with information on ILSFA. Additionally, Elevate had a call with an organization that works with homeowners to do basic repairs and will send some ILSFA documents to this group.

COVID has posed challenges to the GEs in that they cannot provide in-person education, but also because potential participants are facing challenges meeting their basic needs and may not have the bandwidth to focus on solar. Because Elevate knew GE outreach would be a challenge due to COVID, they placed a greater emphasis on contacting those that GEs had already interacted with on their other programs and making one-on-one calls to provide deeper education.

I. Job Training

The ILSFA Program requires that AVs meet the following job training requirements.

- **Portfolio Requirement:** Annual installations across an AV's portfolio of projects must include a minimum percentage of hours from qualified job trainees. The minimum percentage requirement increases with years of program participation.
 - 10% in Year 1
 - 20% in Year 2
 - 33% in Year 3 and beyond
- **Low-Income Distributed Generation Requirement:** Thirty-three percent of all DG projects annually must include at least one qualified job trainee.

AVs have begun to report on the use of job trainees as they reach the implementation stage of their projects. Elevate now provides data on the job training affidavits received and verified, and the number and percent of project hours worked by qualified trainees by job task category.

Elevate also moved the job training component forward in the following ways.

- **Job Training Programs:** They developed a list of 30 job training programs that are potentially eligible to become "Other Qualifying Programs" that can be used by AVs to satisfy the job training requirements if the AV is not able to find trainees from the FEJA Workforce Development programs.

- Other Qualifying Program Application: They created a form that job training programs that are not FEJA Workforce Development Programs can use to apply to become a Qualifying Job Training Program for ILSFA.
- Job Training Affidavits: They updated the affidavits to clarify requirements based on the submission date. The Project Summary Affidavit was also provided for AVs to use when employing job trainees on ILSFA projects.
- Job Training Portal Video: They created a video explaining how to use the ComEd Job Training Portal.

J. Implementation

Key dates in the implementation of the ILSFA Program are provided in Table II-2.

Table II-2
Key ILSFA Program Implementation Dates

| Date | Milestone |
|-------------|--|
| 12/7/2016 | Future Energy Jobs Act Legislation Enacted |
| 6/1/2017 | Future Energy Jobs Act Effective Date |
| 9/29/2017 | Draft Long-Term Renewable Resources Procurement Plan Published |
| 12/4/2017 | Long-Term Renewable Resources Procurement Plan Filed with Illinois Commerce Commission |
| 4/3/2018 | Long-Term Renewable Resources Procurement Plan Approved by Illinois Commerce Commission |
| 9/14/2018 | ILSFA Program Administrator, Elevate Energy, Selected |
| 11/1/2018 | ILSFA Website Launch |
| 1/17/2019 | Environmental Justice Communities List Published |
| 2/19/2019 | Approved Vendor Registration Launched |
| 5/6/2019 | Environmental Justice Community Self-Designation Application Opened |
| 5/15/2019 | Approved Vendor Portal Opened for Project Submissions, Standard REC Contract Published |
| 6/13/2019 | Low-Income Community Solar Submission Window Closed |
| 6/27/2019 | Grassroots Educators Announced |
| 6/28/2019 | Low-Income Distributed Generation and Non-Profit / Public Facilities Submission Window Closed |
| 8/7/2019 | ILSFA Program Evaluator, APPRISE, Selected |
| 8/15/2019 | Draft Revised Long-Term Renewable Resources Procurement Plan Released for Public Comment |
| 8/22/2019 | Non-Profit / Public Facilities Projects Selected for 2018/2019 |
| 8/29/2019 | Low-Income Community Solar Projects Selected for 2018/2019 |
| 9/4/2019 | 2019/2020 Project Submission Window Opened |
| 9/17/2019 | 2019/2020 Project Submission Window Closed |
| 10/2/2019 | Illinois Commerce Commission Approved 2018/2019 Project Selections |
| 10/21/2019 | Revised Long-Term Renewable Resources Procurement Plan Filed for Illinois Commerce Commission Approval |
| 11/7/2019 | 2019/2020 Final Project Selections Announcement |
| 1/30/2020 | Second Grassroots Education RFP Released |

| Date | Milestone |
|------------|---|
| 4/6/2020 | Second Grassroots Education Proposals Due |
| 6/5/2020 | EJC Self-Designation Submission Deadline for 2020-2021 DG and NP/PF Sub-Program Submissions |
| 6/12/2020 | New AV Application Deadline for Submissions |
| 7/6/2020 | Project Submission Window Opens for 2020-2021 DG and NP/PF Sub-Programs |
| 7/17/2020 | Project Submission Window Closes for 2020-2021 DG and NP/PF Sub-Programs |
| 7/20/2020 | Rolling Submission Opens if Sub-Program Funding is Available |
| 7/24/2020 | EJC Self-Designation Submission Deadline for 2020-2021 CS Sub-Program Submissions |
| 8/24/2020 | Project Submission Window Opens for 2020-2021 CS Sub-Program |
| 9/4/2020 | Project Submission Window Closes for 2020-2021 CS Sub-Program |
| 9/9/2020 | Selected DG and NP/PF Sub-Programs Projects Announced |
| 10/27/2020 | Selected CS Sub-Program Projects Announced |

LICS Pilot Implementation

The LICS Pilots were implemented in Fall 2019 according to the following schedule.

- 10/23/19: Final RFP Documents Posted
- 10/24/19 – 11/6/19: Part One Submission Window
- 11/20/19 – 12/4/19: Part Two Submission Window
- 12/13/19: Bid Date
- 12/19/19: ICC Decision on Procurement Event Results
- 12/24/19: REC Contracts Fully Executed

The IPA will hold another procurement for the remaining balance of funds in the LICS Pilot sub-program during either the 2020-2021 or 2021-2022 program years.

Project Contracting and Implementation Steps

Elevate has developed a document that provides a clear list of steps for project contracting and implementation. The steps are as follows.

1. Project sent to the ICC for approval.
2. The ICC approves project. This is the “Trade Date”.
3. The IPA or utility counterparties execute the contract. (Prior to contract execution, vendors contracting with the State of Illinois must provide additional contracting documents.)
4. The AV executes the contract (within seven days of receipt).
5. Five percent collateral is due from the AV in the form of cash or a letter of credit (with 30 days of “Trade Date”).
6. System status reports are due from the AV every six months (after “Trade Date”) until energization.
7. Energization is completed (within 12 months for DG and within 18 months for CS).
8. AVs complete Part II Submission of final project data. Installed project is reviewed and approved.
9. AV submits invoicing for full payment.

10. First REC delivery (90 days for ≥ 5 kW; 180 days for < 5 kW).
11. AV submits the Annual Report (followed by collateral draws, if necessary, for underperformance).

Year Three Submissions

In the third program year the ILSFA received submissions for 12 eligible CS projects with incentive values totaling \$52.22 million, nearly \$40 million over its budget of \$12.26 million. The NP/PF sub-program received submissions for 21 eligible projects with incentive values totaling over \$7.6 million, which exceeded the budget of \$4.8 million by nearly \$2.8 million. The DG program had no eligible projects submitted during the initial window, but AVs were working on developing projects to submit during the rolling submission period.

Participation Challenges

The ILSFA Program has faced challenges with increasing the number of DG projects. Elevate noted that difficulties include the number of consumer protections which results in AVs needing to visit the homes of interested households two to three times before they have a contract, and a 12-page disclosure form that is much longer than what is usually seen.

The IPA adopted an emergency amendment on March 20, 2020 in response to the COVID-19 pandemic. The amendment stated the following.

In-person marketing and solicitation: Given the public health emergency posed by the COVID-19 virus, in-person marketing or solicitation of photovoltaic system sales, installations, or financing; in-person marketing or solicitation of community solar subscriptions; or similar in-person solar marketing or solicitation activity are prohibited.

The restrictions were loosened slightly in June 2020. While door-to-door sales and solicitation were still prohibited, passive forms of in-person marketing and solicitation were no longer prohibited. This included outreach such as tabling at retail stores or events and door-to-door distribution of marketing materials. In-person meetings with prospective or existing customers were no longer prohibited if agreed to by the customer.

The ILSFA Program has faced challenges in implementation due to COVID-19 and the IPA's moratorium on on-site marketing. This has included the need to provide extensions to AVs, marketing restrictions, and a slowdown in customer acquisition, especially with some CS projects. Marketing has been done remotely through phone calls, social media, online events, word-of-mouth, and working with partner programs and community programs. The AVs have engaged more with the GEs and the GEs have needed to shift outreach from in-person to virtual.

Elevate reported that about six projects have had inspections. Due to COVID-19 these inspections have been done remotely. The remote inspections are working better than anticipated, but someone on site needs to understand the system enough so that the inspector can guide the individual to the components they need to see. The inspectors conduct a test call the day before to ensure the technology works and all the components are visible. Then they

conduct the actual test. If there is something that cannot be done live, the inspectors will follow up with the AV and ask for pictures. Elevate reports that the remote inspections have provided the information needed to fully assess the projects. If there are any problems, they will follow up with the AVs and have them fix the issue. They have been able to get the information they need from the remote inspections. To date, the inspections have found only one project with issues that needed to be remedied. There was a piece of electrical equipment installed without sufficient clearance per code, but the AV obtained a variance from the authority having jurisdiction.

The projects that were inspected to date have been smaller projects. Elevate reports that they will soon begin inspecting larger projects and that these will require a hybrid approach with some elements inspected on site.

III. ILSFA Implementation Statistics

This section provides detailed statistics and analysis on Approved Vendors, submitted and approved projects, and program participants.

A. *Approved Vendors*

Analyses provided below are based on vendor registration data in the ILSFA Program database as of November 2020.

Table III-1 displays the status of the AVs. Fifty-one vendors had been approved (up from 45 approved as of April 2020), four were under review, two were withdrawn, and two were rejected.

**Table III-1
Approved Vendor Registration Status**

| Status | Vendors | |
|--------------|-----------|-------------|
| | # | % |
| Approved | 51 | 86% |
| Under Review | 4 | 7% |
| Withdrawn | 2 | 3% |
| Rejected | 2 | 3% |
| Total | 59 | 100% |

Table III-2 displays the number of AVs that were qualified as Minority or Women-Owned Businesses (MWBEs). Approved Vendors are considered to be MWBEs if they are registered with public or non-public third-party certifying bodies approved by ComEd and Ameren Illinois, including but not limited to, the National Minority Supplier Development Council and its regional affiliates, and the Women's Business Enterprise National Council and its regional affiliates.

While in April 2020, five of the 45 Approved Vendors were qualified as MWBEs, in November 2020, six of the 51 AVs were qualified as MWBEs.

**Table III-2
Approved Vendors Minority or Women-Owned Status**

| Minority or Women Owned | Vendors | | | | | | | | | |
|-------------------------|----------|-----|-----------|-----|----------|-----|--------------|----|-----------|------------|
| | Approved | | Withdrawn | | Rejected | | Under Review | | Total | |
| | # | % | # | % | # | % | # | % | # | % |
| MWBE | 6 | 12% | 0 | 0% | 1 | 50% | 0 | 0% | 7 | 12% |
| Not MWBE | 39 | 76% | 1 | 50% | 0 | 0% | 0 | 0% | 40 | 68% |

| Minority or Women Owned | Vendors | | | | | | | | | |
|-------------------------|-----------|-------------|-----------|-------------|----------|-------------|--------------|-------------|-----------|-------------|
| | Approved | | Withdrawn | | Rejected | | Under Review | | Total | |
| | # | % | # | % | # | % | # | % | # | % |
| Unknown/Pending | 6 | 12% | 1 | 50% | 1 | 50% | 4 | 100% | 12 | 20% |
| Total | 51 | 100% | 2 | 100% | 2 | 100% | 4 | 100% | 59 | 100% |

Table III-3 displays the types of projects that the AVs stated they would provide in their registrations. Of the 51 Approved Vendors, 43 stated that they would do NP/PF projects, 33 said they would do CS projects, 27 said they would do 1-to-4 unit DG projects, and 28 said they would do multi-family DG projects. AVs respond to questions on the registration based on the types of projects they select. While they are permitted to work in all types of projects that they select, they are not required to do so.

Table III-3
Approved Vendor Project Types

| Project Types | Vendors | | | | | | | | | |
|----------------------------------|-----------|-------------|-----------|-------------|----------|-------------|--------------|-------------|-----------|-------------|
| | Approved | | Withdrawn | | Rejected | | Under Review | | Total | |
| | # | % | # | % | # | % | # | % | # | % |
| Total | 51 | 100% | 2 | 100% | 2 | 100% | 4 | 100% | 59 | 100% |
| Non-Profit/Public Facilities | 43 | 84% | 2 | 100% | 2 | 100% | 4 | 100% | 51 | 86% |
| Community Solar | 33 | 65% | 1 | 50% | 1 | 50% | 2 | 50% | 37 | 63% |
| Distributed Generation: 1-4 Unit | 27 | 53% | 2 | 100% | 2 | 100% | 4 | 100% | 35 | 59% |
| Distributed Generation: 5+ Unit | 28 | 55% | 2 | 100% | 2 | 100% | 4 | 100% | 36 | 61% |

Note: Vendors can pursue multiple project types.

Table III-4 displays the utility territories where the AVs stated they would work in their registration applications. While 44 planned to perform work in ComEd's territory, 41 planned to perform work in Ameren's territory, 21 in the territories of municipal utilities, 21 in the territories of rural electric cooperatives, 18 in the Mid-American territory, and 12 in the Mt. Carmel territory. As with the sub-programs, these are vendor-reported and require further review and confirmation with AVs.

Table III-4
Approved Vendors by Utility Territories

| Utility Territories | Vendors | | | | | | | | | |
|---------------------|-----------|-------------|-----------|-------------|----------|-------------|--------------|-------------|-----------|-------------|
| | Approved | | Withdrawn | | Rejected | | Under Review | | Total | |
| | # | % | # | % | # | % | # | % | # | % |
| Total | 51 | 100% | 2 | 100% | 2 | 100% | 4 | 100% | 59 | 100% |
| ComEd | 44 | 86% | 2 | 100% | 2 | 100% | 4 | 100% | 52 | 88% |

| Utility Territories | Vendors | | | | | | | | | |
|-----------------------------|----------|-----|-----------|------|----------|-----|--------------|------|-----------|------------|
| | Approved | | Withdrawn | | Rejected | | Under Review | | Total | |
| | # | % | # | % | # | % | # | % | # | % |
| Ameren | 41 | 80% | 2 | 100% | 1 | 50% | 3 | 75% | 47 | 80% |
| Municipal Utilities | 21 | 41% | 2 | 100% | 0 | 0% | 4 | 100% | 27 | 46% |
| Rural Electric Cooperatives | 21 | 41% | 2 | 100% | 0 | 0% | 3 | 75% | 26 | 44% |
| Mid-American | 18 | 35% | 2 | 100% | 0 | 0% | 3 | 75% | 23 | 61% |
| Mt. Carmel | 12 | 24% | 2 | 100% | 0 | 0% | 3 | 75% | 17 | 29% |

Note: Vendors can work in multiple utility territories.

Table III-5 displays the types of vendors. While 35 of the AVs are in the general AV category, eight are Designees, five are Single Project Approved Vendors, and three are Aggregators.

**Table III-5
Vendor Type**

| Vendor Type | Vendors | | | | | | | | | |
|--------------------------------|-----------|-------------|-----------|-------------|----------|-------------|--------------|-------------|-----------|-------------|
| | Approved | | Withdrawn | | Rejected | | Under Review | | Total | |
| | # | % | # | % | # | % | # | % | # | % |
| Approved Vendor | 35 | 69% | 1 | 50% | 2 | 100% | 4 | 100% | 42 | 71% |
| Designee | 8 | 16% | 1 | 50% | 0 | 0% | 0 | 0% | 9 | 15% |
| Single Project Approved Vendor | 5 | 10% | 0 | 0% | 0 | 0% | 0 | 0% | 5 | 8% |
| Aggregator | 3 | 6% | 0 | 0% | 0 | 0% | 0 | 0% | 3 | 5% |
| Total | 51 | 100% | 2 | 100% | 2 | 100% | 4 | 100% | 59 | 100% |

Note: Two approved Aggregators initially applied to the Program as Approved Vendors.

B. Projects

This section provides information on the project applications and projects that were selected in program years 2018-2019 (October 2019 data), 2019-2020 (December 2020 data), and 2020-2021 (December 2020 data).

As of December 2020, 14 projects had been completed and interconnected. Seven of these projects had been reviewed and approved by the Program Administrator and seven had not yet received all of the necessary reviews including the desk top review, the job training review, and the inspections.

Table III-6 displays the number of projects selected, eligible, ineligible, withdrawn, and under review by sub-program and program year. Projects that were re-submitted are included in the table more than once. There were 18 projects that were re-submitted one time and five projects that were re-submitted two times. The table provides the following information.

- Non-Profit / Public Facility Projects: 101 projects were submitted, 52 were eligible, and 49 were selected. While seven projects were selected in the first program year, 24 were selected in the second program year, and 18 were selected in the third program year.
- Low-Income Community Solar Projects: 94 projects were submitted, 71 were eligible, and 13 were selected across the three program years. The volume of submitted projects significantly exceeded the amount of funding available for the sub-program.¹²
- Low-Income Distributed Generation Projects: 31 projects were submitted, ten were eligible, and ten were selected in the second program year. The DG sub-program was not fully subscribed and additional projects from the third program year are under review and in the pre-application stage.

Table III-6
All Submitted Projects, 2018-2020
Eligibility Status

| Status | PY1: 2018-2019 | | | | PY2: 2019-2020 | | | | PY3: 2020-2021 | | | | PY1 – PY3: 2018-2021 | | | |
|--------------|----------------|-----------|----------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|----------------------|-----------|-----------|------------|
| | NP PF | CS | DG | Total PY1 | NP PF | CS | DG | Total PY2 | NP PF | CS | DG | Total PY3 | NP PF | CS | DG | Total |
| Selected | 7 | 4 | 0 | 11 | 24 | 6 | 10 | 40 | 18 | 3 | 0 | 21 | 49 | 13 | 10 | 72 |
| Eligible | 7 | 28 | 0 | 35 | 24 | 31 | 10 | 65 | 21 | 12 | 0 | 33 | 52 | 71 | 10 | 133 |
| Ineligible | 10 | 8 | 0 | 18 | 4 | 1 | 1 | 6 | 11 | 0 | 0 | 11 | 25 | 9 | 1 | 35 |
| Withdrawn | 11 | 9 | 1 | 21 | 10 | 0 | 0 | 10 | 2 | 5 | 0 | 7 | 23 | 14 | 1 | 38 |
| Under Review | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 8 | 8 | 1 | 0 | 8 | 9 |
| Pre-App | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 11 | 0 | 0 | 11 | 11 |
| Total | 28 | 45 | 1 | 74 | 39 | 32 | 11 | 82 | 34 | 17 | 19 | 70 | 101 | 94 | 31 | 226 |

Note: 23 projects that were not selected in program year one or two were re-submitted in program year three.

Table III-7 displays the reasons for vendor withdrawal of projects. The most common reasons for withdrawal were issues obtaining documentation and lack of a signed interconnection agreement.

Table III-7
All Submitted Projects
Reason for Vendor Withdrawal

| Reason | PY1: 2018-2019 | | | | PY2: 2019-2020 | | | | PY3: 2020-2021 | | | | PY1 – PY3: 2018-2021 | | | |
|---------------------------|----------------|----|----|-----------|----------------|----|----|-----------|----------------|----|----|-----------|----------------------|----|----|-------|
| | NP PF | CS | DG | Total PY1 | NP PF | CS | DG | Total PY2 | NP PF | CS | DG | Total PY3 | NP PF | CS | DG | Total |
| Documentation Issues | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 |
| Interconnection Agreement | 4 | 0 | 0 | 4 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 |

¹² This is similar to what was seen in ABP and in the recent NJ community solar application process.

| Reason | PY1: 2018-2019 | | | | PY2: 2019-2020 | | | | PY3: 2020-2021 | | | | PY1 – PY3: 2018-2021 | | | |
|------------------------|----------------|-----------|----------|--------------|----------------|-----------|-----------|--------------|----------------|-----------|-----------|--------------|----------------------|-----------|-----------|------------|
| | NP PF | CS | DG | Total PY1 | NP PF | CS | DG | Total PY2 | NP PF | CS | DG | Total PY3 | NP PF | CS | DG | Total |
| Organizational Changes | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Vendor Requested | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 0 | 0 | 2 |
| Batching Issue | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Financial Constraints | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Other | 2 | 0 | 0 | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| Reason Not Provided | 4 | 9 | 1 | 14 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 5 | 4 | 14 | 1 | 19 |
| Not Withdrawn | 17 | 36 | 0 | 53 | 29 | 32 | 11 | 72 | 32 | 12 | 19 | 63 | 78 | 80 | 30 | 188 |
| Total | 28 | 45 | 1 | 74 | 39 | 32 | 11 | 82 | 34 | 17 | 19 | 70 | 101 | 94 | 31 | 226 |

Tables III-8A, III-8B, and III-8C display whether mitigation was required for each sub-program. Mitigation is required when a proposed project does not meet the ILSFA's site suitability guidelines that were developed to ensure that there are no barriers to the safe installation of photovoltaic systems.¹³ While 14 of 49 selected NP/PF projects required mitigation, three of 11 selected CS projects required mitigation, and one of ten selected DG projects required mitigation.

Table III-8A
Non-Profit and Public Facility Projects
Mitigation Required

| Mitigation | Non-Profit / Public Facility Participants | | | | | | | | | | | |
|--------------|---|-----------|--------------|----------------|-----------|--------------|----------------|-----------|--------------|----------------------|-----------|------------|
| | PY1: 2018-2019 | | | PY2: 2019-2020 | | | PY3: 2020-2021 | | | PY1 – PY3: 2018-2021 | | |
| | Selected | | Total PY1 | Selected | | Total PY2 | Selected | | Total PY3 | Selected | | Total |
| | Yes | No | | Yes | No | | Yes | No | | Yes | No | |
| Required | 1 | 4 | 5 | 10 | 6 | 16 | 3 | 4 | 7 | 14 | 14 | 28 |
| Not Required | 6 | 17 | 23 | 14 | 9 | 23 | 15 | 12 | 27 | 35 | 38 | 73 |
| Total | 7 | 21 | 28 | 24 | 15 | 39 | 18 | 16 | 34 | 49 | 52 | 101 |

Note: "Not Selected" includes eligible projects that were not selected and all projects that were ineligible, withdrawn, rejected, or under review as of December 2020.

¹³ Examples of mitigation that may be required include repair or replacement of an existing roof so that it has a warranty of at least 15 years, or provisions made for the removal and reinstallation of the PV system to allow for reroofing on a future date; a plan to minimize the impact on wetlands or protected natural resources if present; a plan for dealing with flood risks; and resolution of electrical system deficiencies.

Table III-8B
Low-Income Community Solar Projects
Mitigation Required

| Mitigation | Low-Income Community Solar Participants | | | | | | | | | | | |
|--------------|---|-----------|--------------|----------------|-----------|--------------|----------------|-----------|--------------|--------------------|-----------|-----------|
| | PY1: 2018-2019 | | | PY2: 2019-2020 | | | PY3: 2020-2021 | | | PY1-PY3: 2018-2021 | | |
| | Selected | | Total PY1 | Selected | | Total PY2 | Selected | | Total PY3 | Selected | | Total |
| | Yes | No | | Yes | No | | Yes | No | | Yes | No | |
| Required | 1 | 9 | 10 | 1 | 4 | 5 | 1 | 3 | 4 | 3 | 16 | 19 |
| Not Required | 3 | 31 | 34 | 3 | 21 | 24 | 2 | 11 | 13 | 8 | 63 | 71 |
| Missing | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 2 |
| Total | 4 | 41 | 45 | 4 | 26 | 30 | 3 | 14 | 17 | 11 | 81 | 92 |

Note: "Not Selected" includes eligible projects that were not selected and all projects that were ineligible, withdrawn, or rejected as of December 2020. The two LICs Pilot projects were excluded from the table.

Table III-8C
Low-Income Distributed Generation Projects
Mitigation Required

| Mitigation | Low-Income Distributed Generation Participants | | | | | | | | | | | |
|--------------|--|----------|--------------|----------------|----------|--------------|----------------|-----------|--------------|--------------------|-----------|-----------|
| | PY1: 2018-2019 | | | PY2: 2019-2020 | | | PY3: 2020-2021 | | | PY1-PY3: 2018-2021 | | |
| | Selected | | Total PY1 | Selected | | Total PY2 | Selected | | Total PY3 | Selected | | Total |
| | Yes | No | | Yes | No | | Yes | No | | Yes | No | |
| Required | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 8 | 8 | 1 | 8 | 9 |
| Not Required | 0 | 1 | 1 | 9 | 1 | 10 | 0 | 11 | 11 | 9 | 13 | 22 |
| Total | 0 | 1 | 1 | 10 | 1 | 11 | 0 | 19 | 19 | 10 | 21 | 31 |

Note: "Not Selected" includes eligible projects that were not selected and all projects that were ineligible, withdrawn, rejected, or under review as of December 2020.

Table III-9A displays the number of projects submitted by AVs in each program year. The vendors that submitted the most projects were Central Road Energy, Novel Energy Solutions, Affordable Community Energy, and Promethean Solar.¹⁴ Thirty-two different vendors submitted projects, indicating a successful AV participation rate.

¹⁴ Projects that were re-submitted were counted in both Program Years.

**Table III-9A
All Submitted Projects by Program Year
Approved Vendors**

| Vendor | Total PY1 2018-2019 | Total PY2 2019-2020* | Total PY3 2020-2021 | Total PY1 – PY3 2018-2021 |
|------------------------------------|--------------------------------|---------------------------------|--------------------------------|--------------------------------------|
| Central Road Energy | 9 | 8 | 12 | 29 |
| Novel Energy Solutions | 13 | 5 | 3 | 21 |
| Affordable Community Energy | 0 | 2 | 17 | 19 |
| Promethean Solar | 4 | 7 | 7 | 18 |
| Community Power | 9 | 5 | 0 | 14 |
| Solar Sense, Inc. | 9 | 4 | 1 | 14 |
| Groundswell, Inc. | 4 | 6 | 2 | 12 |
| Sunrun Installation | 0 | 0 | 12 | 12 |
| Certasun | 0 | 10 | 0 | 10 |
| Advanced Energy Solutions | 6 | 2 | 0 | 8 |
| Windfree Wind and Solar | 0 | 6 | 2 | 8 |
| Trajectory Energy Partners | 3 | 1 | 3 | 7 |
| PSG Energy Group | 2 | 4 | 0 | 6 |
| Tattleaux Illinois Solar | 0 | 6 | 0 | 6 |
| Xolar Renewable Energy | 0 | 2 | 4 | 6 |
| Ameresco | 5 | 0 | 0 | 5 |
| CIC Energy Consulting | 0 | 3 | 2 | 5 |
| Citrine Power | 2 | 1 | 1 | 4 |
| SA Energy | 2 | 1 | 0 | 3 |
| Day and Night Solar | 0 | 2 | 0 | 2 |
| JCD Solar | 1 | 1 | 0 | 2 |
| LiveWire Electrical | 2 | 0 | 0 | 2 |
| VLV Development | 0 | 1 | 1 | 2 |
| WCP Solar | 1 | 1 | 0 | 2 |
| AMP Solar | 0 | 0 | 1 | 1 |
| Centralia City School Dist. | 0 | 1 | 0 | 1 |
| GRNE Solutions | 0 | 0 | 1 | 1 |
| Renewable Energy Evolution | 0 | 0 | 1 | 1 |
| Rockford Solar | 1 | 0 | 0 | 1 |
| Solar Star Urbana Landfill Central | 0 | 1 | 0 | 1 |

| Vendor | Total PY1 2018-2019 | Total PY2 2019-2020* | Total PY3 2020-2021 | Total PY1 – PY3 2018-2021 |
|---------------------------------|------------------------|-------------------------|------------------------|------------------------------|
| Solar Star Urbana Landfill East | 1 | 0 | 0 | 1 |
| Total | 74 | 82 | 70 | 224 |

*Two LICS Pilot projects were excluded from this table.

Table III-9B displays the number of projects submitted by AVs in each sub-program. While 15 AVs submitted NF/PF projects and 20 submitted CS projects, only four submitted DG projects.

Table III-9B
All Submitted Projects by Sub-program
Approved Vendors

| Vendor | Total PY1 – PY3: 2018-2021 | | |
|-----------------------------|----------------------------|----|----|
| | NP/PF | CS | DG |
| Central Road Energy | 27 | 2 | 0 |
| Novel Energy Solutions | 2 | 19 | 0 |
| Affordable Community Energy | 12 | 0 | 7 |
| Promethean Solar | 0 | 18 | 0 |
| Community Power | 0 | 14 | 0 |
| Solar Sense, Inc. | 12 | 2 | 0 |
| Groundswell, Inc. | 8 | 4 | 0 |
| Sunrun Installation | 0 | 0 | 12 |
| Certasun | 0 | 0 | 10 |
| Advanced Energy Solutions | 8 | 0 | 0 |
| Windfree Wind and Solar | 7 | 1 | 0 |
| Trajectory Energy Partners | 0 | 7 | 0 |
| PSG Energy Group | 6 | 0 | 0 |
| Tatleaux Illinois Solar | 0 | 6 | 0 |
| Xolar Renewable Energy | 6 | 0 | 0 |
| Ameresco | 0 | 5 | 0 |
| CIC Energy Consulting | 5 | 0 | 0 |
| Citrine Power | 0 | 4 | 0 |
| SA Energy | 0 | 1 | 2 |
| Day and Night Solar | 2 | 0 | 0 |
| JCD Solar | 0 | 2 | 0 |
| LiveWire Electrical | 2 | 0 | 0 |
| VLV Development | 2 | 0 | 0 |

| Vendor | Total PY1 – PY3: 2018-2021 | | |
|------------------------------------|----------------------------|-----------|-----------|
| | NP/PF | CS | DG |
| WCP Solar | 0 | 2 | 0 |
| AMP Solar | 0 | 1 | 0 |
| Centralia City School Dist. | 1 | 0 | 0 |
| GRNE Solutions | 0 | 1 | 0 |
| Renewable Energy Evolution | 1 | 0 | 0 |
| Rockford Solar | 0 | 1 | 0 |
| Solar Star Urbana Landfill Central | 0 | 1 | 0 |
| Solar Star Urbana Landfill East | 0 | 1 | 0 |
| Total | 101 | 92 | 31 |

*Two LICS Pilot projects were excluded from this table.

Table III-10 displays the number of selected projects by AV. There were 20 different AVs that had selected projects. Central Road had 16 selected projects, Solar Sense had ten selected projects, and Certasun had nine selected projects. Twelve other vendors had one or two selected projects. There were nine AVs that each had one selected project.

Table III-10
All Selected Projects
Approved Vendors

| Vendor | PY1: 2018-2019 | | | PY2: 2019-2020 | | | | PY3: 2020-2021 | | | PY1 – PY3: 2018-2021 | | | |
|-------------------|----------------|----|--------------|----------------|----|----|--------------|----------------|----|--------------|----------------------|----|----|-------|
| | NP PF | CS | Total PY1 | NP PF | CS | DG | Total PY2 | NP PF | CS | Total PY3 | NP PF | CS | DG | Total |
| Central Road | 0 | 0 | 0 | 7 | 0 | 0 | 7 | 9 | 0 | 9 | 16 | 0 | 0 | 16 |
| Solar Sense, Inc. | 3 | 2 | 5 | 4 | 0 | 0 | 4 | 1 | 0 | 1 | 8 | 2 | 0 | 10 |
| Certasun | 0 | 0 | 0 | 0 | 0 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 9 | 9 |
| Windfree | 0 | 0 | 0 | 6 | 0 | 0 | 6 | 1 | 0 | 1 | 7 | 0 | 0 | 7 |
| PSG Energy | 2 | 0 | 2 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 6 | 0 | 0 | 6 |
| Groundswell, Inc. | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 2 | 2 | 1 | 0 | 3 |
| Promethean Solar | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 1 | 1 | 0 | 3 | 0 | 3 |
| Xolar Renewable | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 3 | 0 | 0 | 3 |
| Day and Night | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Novel Energy | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Trajectory Energy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 2 | 0 | 2 |
| CIC Energy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 |
| Centralia City. | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Rockford Solar | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| SA Energy | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |

| Vendor | PY1: 2018-2019 | | | PY2: 2019-2020 | | | | PY3: 2020-2021 | | | PY1 – PY3: 2018-2021 | | | |
|--------------------|----------------|----------|--------------|----------------|----------|-----------|--------------|----------------|----------|--------------|----------------------|-----------|-----------|-----------|
| | NP PF | CS | Total PY1 | NP PF | CS | DG | Total PY2 | NP PF | CS | Total PY3 | NP PF | CS | DG | Total |
| Solar Star Central | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Solar Star East | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| VLV | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 |
| Total | 7 | 4 | 11 | 24 | 4 | 10 | 38 | 18 | 3 | 21 | 49 | 11 | 10 | 70 |

*Two LICS Pilot projects were excluded from this table.

Table III-11 displays the number of submitted projects by utility territory. The table shows that 122 projects were submitted in ComEd's territory, 95 projects were submitted in Ameren's territory, and six were submitted in the territory of rural or municipal utilities.

Table III-11
All Submitted Projects
Utility Territory

| Utility Territory | PY1: 2018-2019 | | | | PY2: 2019-2020 | | | | PY3: 2020-2021 | | | | PY1 – PY3: 2018-2021 | | | |
|----------------------|----------------|-----------|----------|--------------|----------------|-----------|-----------|--------------|----------------|-----------|-----------|--------------|----------------------|-----------|-----------|------------|
| | NPPF | CS | DG | Total PY1 | NPPF | CS | DG | Total PY2 | NPPF | CS | DG | Total PY3 | NPPF | CS | DG | Total |
| ComEd | 3 | 23 | 1 | 27 | 26 | 12 | 11 | 49 | 21 | 6 | 19 | 46 | 50 | 41 | 31 | 122 |
| Ameren | 22 | 22 | 0 | 44 | 11 | 18 | 0 | 29 | 11 | 11 | 0 | 22 | 44 | 51 | 0 | 95 |
| Rural Elec Co-op | 2 | 0 | 0 | 2 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 4 | 0 | 0 | 4 |
| Municipal Utility | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Mid- American | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 |
| Total | 28 | 45 | 1 | 74 | 39 | 30 | 11 | 80 | 34 | 17 | 19 | 70 | 101 | 92 | 31 | 224 |

The two LICS Pilot projects were excluded from the table.

Table III-12 displays the number of selected projects by utility territory. The table shows that 37 projects in ComEd's territory and 32 in Ameren's territory were selected.

Table III-12
All Selected Projects
Utility Territory

| Utility Territory | PY1: 2018-2019 | | | PY2: 2019-2020 | | | | PY3: 2020-2021 | | | PY1 – PY3: 2018-2021 | | | |
|-------------------|----------------|----------|-----------|----------------|----------|-----------|-----------|----------------|----------|-----------|----------------------|-----------|-----------|-----------|
| | NP PF | CS | Total PY1 | NP PF | CS | DG | Total PY2 | NP PF | CS | Total PY3 | NP PF | CS | DG | Total |
| ComEd | 2 | 1 | 3 | 13 | 1 | 10 | 25 | 8 | 2 | 10 | 23 | 4 | 10 | 37 |
| Ameren | 5 | 3 | 8 | 11 | 3 | 0 | 14 | 9 | 1 | 10 | 25 | 7 | 0 | 32 |
| Mid-American | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 |
| Total | 7 | 4 | 11 | 24 | 4 | 10 | 38 | 18 | 3 | 21 | 49 | 11 | 10 | 70 |

The two LICS Pilot projects were excluded from the table.

Table III-13 displays the number of selected projects by city. The table shows that the selected projects are located in 28 different cities. While 18 selected projects were located in Chicago, seven were located in Champaign, and six were located in Aurora and Urbana.

Table III-13
All Selected Projects
Illinois City

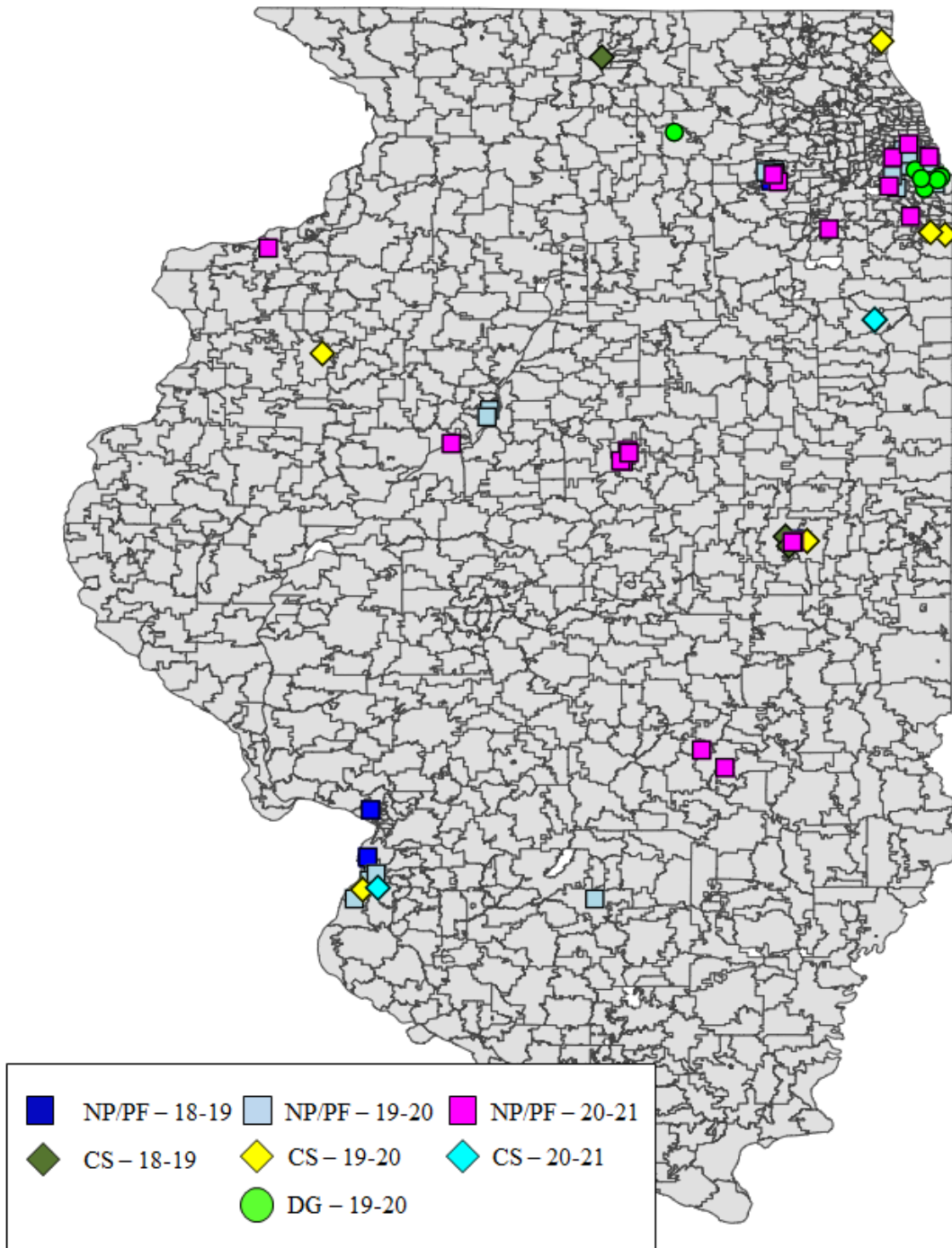
| City | PY1: 2018-2019 | | | PY2: 2019-2020 | | | | PY3: 2020-2021 | | | PY1 – PY3: 2018-2021 | | | |
|----------------|----------------|----|-----------|----------------|----|----|-----------|----------------|----|-----------|----------------------|----|----|-------|
| | NP PF | CS | Total PY1 | NP PF | CS | DG | Total PY2 | NP PF | CS | Total PY3 | NP PF | CS | DG | Total |
| Chicago | 0 | 0 | 0 | 7 | 0 | 9 | 16 | 2 | 0 | 2 | 9 | 0 | 9 | 18 |
| Champaign | 1 | 2 | 3 | 2 | 0 | 0 | 2 | 2 | 0 | 2 | 5 | 2 | 0 | 7 |
| Aurora | 1 | 0 | 0 | 4 | 0 | 0 | 4 | 1 | 0 | 1 | 6 | 0 | 0 | 6 |
| Urbana | 2 | 1 | 3 | 2 | 1 | 0 | 3 | 0 | 0 | 0 | 4 | 2 | 0 | 6 |
| East St. Louis | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| Peoria | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 1 | 0 | 1 | 3 | 0 | 0 | 3 |
| Bloomington | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 | 0 | 0 | 2 |
| Cahokia | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 2 | 0 | 2 |
| Chicago Ridge | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Effingham | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 | 0 | 0 | 2 |
| Kankakee | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 2 | 0 | 2 |
| Montgomery | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 2 |
| Normal | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 | 0 | 0 | 2 |
| Alton | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Berwyn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 |
| Bridgeview | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 |
| Centralia | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |

| City | PY1: 2018-2019 | | | PY2: 2019-2020 | | | | PY3: 2020-2021 | | | PY1 – PY3: 2018-2021 | | | |
|--------------------|----------------|----------|--------------|----------------|----------|-----------|--------------|----------------|----------|--------------|----------------------|-----------|-----------|-----------|
| | NP PF | CS | Total PY1 | NP PF | CS | DG | Total PY2 | NP PF | CS | Total PY3 | NP PF | CS | DG | Total |
| Chicago Heights | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Country Club Hills | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 |
| Dekalb | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Dupo | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Galesburg | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Granite City | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Joliet | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 |
| Rock Island | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 |
| Rockford | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Sauk Village | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Waukegan | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Total | 7 | 4 | 11 | 24 | 6 | 10 | 40 | 18 | 3 | 21 | 49 | 13 | 10 | 72 |

Figure III-1 displays the location of the selected projects by sub-program and program year.

Figure III-1
ILSFA Program Selected Project Locations

ILSFA Program Selected Project Locations, 2018-2021



To characterize the urbanity of the selected projects, we used a definition from the Department of Health and Human Services, as published in the Federal Register¹⁵ and applied the following methodology.

- The five-digit zip code for each project’s installation was matched to the corresponding Census Zip Code Tabulation Area (ZCTA). ZCTAs are the Census Bureau’s geographical approximation of zip codes, which are used to report Census data.
- Data from the 2010 Census on population density (number of people per square mile of land area) at the ZCTA-level was used to classify each project as urban, rural, or suburban using the following schema.
 - Urban is defined as a five-digit ZCTA in which the population density is greater than 3,000 persons per square mile.
 - Suburban is defined as a five-digit ZCTA in which the population density is between 1,000 and 3,000 persons per square mile.
 - Rural is defined as a five-digit ZCTA in which the population density is less than 1,000 persons per square mile.

Table III-14 shows that 37 selected projects were characterized as being in urban locations, 19 in suburban locations, and 16 in rural locations. Of the selected CS projects, three were characterized as being in urban locations, four in suburban locations, and six in rural locations.

Table III-14
All Selected Projects
Urbanity

| Urbanity | PY1: 2018-2019 | | | PY2: 2019-2020 | | | | PY3: 2020-2021 | | | PY1 – PY3: 2018-2021 | | | |
|--------------|----------------|----------|--------------|----------------|----------|-----------|--------------|----------------|----------|--------------|----------------------|-----------|-----------|-----------|
| | NP PF | CS | Total PY1 | NP PF | CS | DG | Total PY2 | NP PF | CS | Total PY3 | NP PF | CS | DG | Total |
| Urban | 2 | 2 | 4 | 14 | 1 | 9 | 24 | 9 | 0 | 9 | 25 | 3 | 9 | 37 |
| Suburban | 2 | 0 | 2 | 7 | 3 | 0 | 10 | 6 | 1 | 7 | 15 | 4 | 0 | 19 |
| Rural | 3 | 2 | 5 | 3 | 2 | 1 | 6 | 3 | 2 | 5 | 9 | 6 | 1 | 16 |
| Total | 7 | 4 | 11 | 24 | 6 | 10 | 40 | 18 | 3 | 21 | 49 | 13 | 10 | 72 |

Table III-15 shows that the census tracts that had selected projects were comprised of an average of 58 percent minority (non-white), compared to an average of 30 percent minority in census tracts that did not have selected projects. While 56 percent of the census tracts with selected projects had more than 50 percent minority households, 20 percent of the census tracts without selected projects had more than 50 percent minority households. The census tracts without selected projects were similar to the overall state composition and the census tracts with selected projects were more likely to have large minority populations.

¹⁵<https://www.cms.gov/Regulations-and-Guidance/Regulations-and-Policies/QuarterlyProviderUpdates/downloads/cms40631fc.pdf>

Table III-15
All Selected Projects
Minority Communities

| Percent Minority | Census Tracts Without Selected Projects | Census Tracts With Selected Projects | All Census Tracts in Illinois |
|-------------------------|---|--------------------------------------|-------------------------------|
| Number of Census Tracts | 3,057 | 59 | 3,116 |
| ≤ 10% | 32% | 3% | 31% |
| 11% - 25% | 27% | 17% | 27% |
| 26% - 50% | 21% | 24% | 21% |
| > 50% | 20% | 56% | 21% |
| Total | 100% | 100% | 100% |
| Mean | 30% | 58% | 30% |

Table III-16 displays the number of submitted projects in EJ communities, in low-income census tracts, and by minority or women-owned businesses. The 226 submitted projects had the following characteristics.

- About half, 111 were in EJ communities.
- About three quarters, 165 were in low-income census tracts.
- Eleven were submitted by MWBEs.
- 174 of the 226 projects had at least one of these characteristics.
- 52 projects had none of these characteristics.

Table III-16
All Submitted Projects
EJ Community, Low-Income Census Tract, and MWBE Businesses

| Category | PY1: 2018-2019 | | | | PY2: 2019-2020 | | | | PY3: 2020-2021 | | | | PY1 – PY3: 2018-2021 | | | |
|------------------------------|----------------|-----------|----------|-----------|----------------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|----------------------|-----------|-----------|------------|
| | NP PF | CS | DG | Total PY1 | NP PF | CS | DG | Total PY2 | NP PF | CS | DG | Total PY3 | NP PF | CS | DG | Total |
| EJ Community | 14 | 17 | 0 | 31 | 31 | 9 | 9 | 49 | 14 | 7 | 10 | 31 | 59 | 33 | 19 | 111 |
| LI Census Tract | 22 | 25 | 1 | 48 | 38 | 15 | 11 | 64 | 33 | 10 | 10 | 53 | 93 | 50 | 22 | 165 |
| MWBE | 2 | 0 | 1 | 3 | 4 | 0 | 0 | 4 | 3 | 1 | 0 | 4 | 9 | 1 | 1 | 11 |
| At Least One of Above | 22 | 26 | 1 | 49 | 39 | 16 | 11 | 66 | 34 | 13 | 12 | 59 | 95 | 55 | 24 | 174 |
| None of the Above | 6 | 19 | 0 | 25 | 0 | 16 | 0 | 16 | 0 | 4 | 7 | 11 | 6 | 39 | 7 | 52 |
| Total Submitted | 28 | 45 | 1 | 74 | 39 | 32 | 11 | 82 | 34 | 17 | 19 | 70 | 101 | 94 | 31 | 226 |

Table III-17 displays the number of selected projects in EJ communities, in low-income census tracts, and by minority or women-owned businesses.

- 34 of the 49 selected NP/PF projects were located in EJ communities, and 47 were located in LI census tracts.

- Nine of the 13 selected CS projects were located in EJ communities and 11 were located in LI census tracts.
- Eight of the ten selected DG projects were located in EJ communities and all 10 were located in LI census tracts.
- Two of the selected projects were submitted by MWBEs. (This does not include AVs who received MWBE points for subcontracting to MWBEs.)

**Table III-17
Selected Projects
EJ Community, Low-Income Census Tract, and MWBE Businesses**

| Category | PY1: 2018-2019 | | | PY2: 2019-2020 | | | | PY3: 2020-2021 | | | PY1 – PY3: 2018-2021 | | | |
|--------------------------------|----------------|----------|-----------|----------------|----------|-----------|-----------|----------------|----------|-----------|----------------------|-----------|-----------|-----------|
| | NP PF | CS | Total PY1 | NP PF | CS | DG | Total PY2 | NP PF | CS | Total PY3 | NP PF | CS | DG | Total |
| EJ Community | 5 | 2 | 7 | 19 | 4 | 8 | 31 | 10 | 3 | 13 | 34 | 9 | 8 | 51 |
| LI Census Tract | 7 | 2 | 9 | 23 | 6 | 10 | 39 | 17 | 3 | 20 | 47 | 11 | 10 | 68 |
| MWBE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 | 0 | 0 | 2 |
| At Least One of Above | 7 | 2 | 9 | 24 | 6 | 10 | 40 | 18 | 3 | 21 | 49 | 11 | 10 | 70 |
| None of the Above | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Total Selected Projects | 7 | 4 | 11 | 24 | 6 | 10 | 40 | 18 | 3 | 21 | 49 | 13 | 10 | 72 |

Table III-18 breaks down the NP/PF projects into the two sub-program segments. The table shows that 36 of the selected projects were non-profits and 13 were public facilities.

**Table III-18
Non-Profit and Public Facility Projects
Non-Profit or Public Facility**

| Type of Project | Non-Profit / Public Facility Participants | | | | | | | | | | | |
|-----------------|---|-----------|-----------|----------------|-----------|-----------|----------------|-----------|-----------|----------------------|-----------|------------|
| | PY1: 2018-2019 | | | PY2: 2019-2020 | | | PY3: 2020-2021 | | | PY1 – PY3: 2018-2021 | | |
| | Selected | | Total PY1 | Selected | | Total PY2 | Selected | | Total PY3 | Selected | | Total |
| | Yes | No | | Yes | No | | Yes | No | | Yes | No | |
| Non-Profit | 4 | 13 | 17 | 17 | 14 | 31 | 15 | 3 | 18 | 36 | 30 | 66 |
| Public Facility | 3 | 8 | 11 | 7 | 1 | 8 | 3 | 0 | 3 | 13 | 9 | 22 |
| Unknown* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 13 | 0 | 13 | 13 |
| Total | 7 | 21 | 28 | 24 | 15 | 39 | 18 | 16 | 34 | 49 | 52 | 101 |

Note: “Not Selected” includes eligible projects that were not selected and all projects that were ineligible, withdrawn, rejected, or under review as of December 2020.

*Thirteen PY3 projects do not have nonprofit or public facility information available as they were withdrawn or ineligible.

Table III-19 displays the agreement type for NP/PF projects. While 33 selected projects were power purchase agreements (PPAs), 12 were leases, and four were purchases.

**Table III-19
Non-Profit and Public Facility Projects
Agreement Type**

| Agreement Types | Non-Profit / Public Facility Participants | | | | | | | | | | | |
|-----------------|---|-----------|-----------|----------------|-----------|-----------|----------------|-----------|-----------|----------------------|-----------|------------|
| | PY1: 2018-2019 | | | PY2: 2019-2020 | | | PY3: 2020-2021 | | | PY1 – PY3: 2018-2021 | | |
| | Selected | | Total PY1 | Selected | | Total PY2 | Selected | | Total PY3 | Selected | | Total |
| | Yes | No | | Yes | No | | Yes | No | | Yes | No | |
| PPA | 4 | 10 | 14 | 17 | 8 | 25 | 12 | 3 | 15 | 33 | 21 | 54 |
| Lease | 3 | 9 | 12 | 5 | 3 | 8 | 4 | 0 | 4 | 12 | 12 | 24 |
| Purchase | 0 | 2 | 2 | 2 | 4 | 6 | 2 | 0 | 2 | 4 | 6 | 10 |
| Unknown* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 13 | 0 | 13 | 13 |
| Total | 7 | 21 | 28 | 24 | 15 | 39 | 18 | 16 | 34 | 49 | 52 | 101 |

Note: "Not Selected" includes eligible projects that were not selected and all projects that were ineligible, withdrawn, rejected, or under review as of December 2020.

*Thirteen PY3 projects do not have an agreement type available as they were withdrawn or ineligible.

Table III-20 provides the term of agreement for the NP/PF projects. The table shows that eight of the selected projects had a six to seven year term, 18 had a 15-year term, nine had a 20-year term, 12 had a 25-year term, one had a shorter term, and one was missing these data.

**Table III-20
Non-Profit and Public Facility Projects
Term of Agreement**

| Term of Agreement (Years) | Non-Profit / Public Facility Participants | | | | | | | | | | | |
|---------------------------|---|----|-----------|----------------|----|-----------|----------------|----|-----------|----------------------|----|-------|
| | PY1: 2018-2019 | | | PY2: 2019-2020 | | | PY3: 2020-2021 | | | PY1 – PY3: 2018-2021 | | |
| | Selected | | Total PY1 | Selected | | Total PY2 | Selected | | Total PY3 | Selected | | Total |
| | Yes | No | | Yes | No | | Yes | No | | Yes | No | |
| 0 | 0 | 2 | 2 | 0 | 2 | 2 | 1 | 0 | 1 | 1 | 4 | 5 |
| 6-7 | 0 | 1 | 1 | 1 | 0 | 1 | 7 | 0 | 7 | 8 | 1 | 9 |
| 12 | 0 | 2 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 3 | 3 |
| 15 | 5 | 7 | 12 | 5 | 12 | 17 | 8 | 0 | 8 | 18 | 19 | 37 |
| 20 | 0 | 8 | 8 | 8 | 0 | 8 | 1 | 0 | 1 | 9 | 8 | 17 |
| 25 | 2 | 1 | 3 | 9 | 0 | 9 | 1 | 3 | 4 | 12 | 4 | 16 |

| Term of Agreement (Years) | Non-Profit / Public Facility Participants | | | | | | | | | | | |
|---------------------------|---|-----------|-----------|----------------|-----------|-----------|----------------|-----------|-----------|----------------------|-----------|------------|
| | PY1: 2018-2019 | | | PY2: 2019-2020 | | | PY3: 2020-2021 | | | PY1 – PY3: 2018-2021 | | |
| | Selected | | Total PY1 | Selected | | Total PY2 | Selected | | Total PY3 | Selected | | Total |
| | Yes | No | | Yes | No | | Yes | No | | Yes | No | |
| Unknown* | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 13 | 13 | 1 | 13 | 14 |
| Total | 7 | 21 | 28 | 24 | 15 | 39 | 18 | 16 | 34 | 49 | 52 | 101 |

Note: "Not Selected" includes eligible projects that were not selected and all projects that were ineligible, withdrawn, rejected, or under review as of December 2020.

*Thirteen PY3 projects do not have information on the term of agreement as they were withdrawn or ineligible.

Table III-21 displays the anchor type for the CS projects. While three of the selected CS projects had a public facility as an anchor, five had a non-profit as an anchor, and three did not have an anchor.

Table III-21
Low-Income Community Solar Projects
Projected Anchor Type

| Anchor Type | Community Solar Participants | | | | | | | | | | | |
|-----------------|------------------------------|-----------|-----------|----------------|-----------|-----------|----------------|-----------|-----------|----------------------|-----------|-----------|
| | PY1: 2018-2019 | | | PY2: 2019-2020 | | | PY3: 2020-2021 | | | PY1 – PY3: 2018-2021 | | |
| | Selected | | Total PY1 | Selected | | Total PY2 | Selected | | Total PY3 | Selected | | Total |
| | Yes | No | | Yes | No | | Yes | No | | Yes | No | |
| Public Facility | 2 | 14 | 16 | 1 | 11 | 12 | 0 | 4 | 4 | 3 | 29 | 32 |
| Non-Profit | 0 | 7 | 7 | 2 | 5 | 7 | 3 | 8 | 11 | 5 | 20 | 25 |
| Other | 2 | 15 | 17 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 17 | 19 |
| None | 0 | 5 | 5 | 3 | 10 | 13 | 0 | 0 | 0 | 3 | 15 | 18 |
| Total | 4 | 41 | 45 | 6 | 26 | 32 | 3 | 14 | 17 | 13 | 81 | 94 |

Note: "Not Selected" includes eligible projects that were not selected and all projects that were ineligible, withdrawn, rejected, or under review as of December 2020.

Table III-22 displays the projected anchor share for the CS projects. The table shows that three of the selected projects did not have an anchor, six had an anchor share between ten and 25 percent, and two had an anchor share of 40 percent.

Table III-22
Low-Income Community Solar Projects
Projected Anchor Share

| Anchor Share | Community Solar Participants | | | | | | | | | | | |
|--------------|------------------------------|-----------|-----------|----------------|-----------|-----------|----------------|-----------|-----------|----------------------|-----------|-----------|
| | PY1: 2018-2019 | | | PY2: 2019-2020 | | | PY3: 2020-2021 | | | PY1 – PY3: 2018-2021 | | |
| | Selected | | Total PY1 | Selected | | Total PY2 | Selected | | Total PY3 | Selected | | Total |
| | Yes | No | | Yes | No | | Yes | No | | Yes | No | |
| 0% | 2 | 20 | 22 | 1 | 10 | 11 | 0 | 2 | 2 | 3 | 32 | 35 |
| 2% - 5% | 0 | 4 | 4 | 0 | 2 | 2 | 0 | 1 | 1 | 0 | 7 | 7 |
| 10% | 0 | 2 | 2 | 0 | 2 | 2 | 2 | 4 | 6 | 2 | 8 | 10 |
| 12% - 20% | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 2 | 1 | 3 |
| 24% - 25% | 0 | 2 | 2 | 1 | 0 | 1 | 1 | 1 | 2 | 2 | 3 | 5 |
| 33% - 37% | 0 | 3 | 3 | 0 | 2 | 2 | 0 | 1 | 1 | 0 | 6 | 6 |
| 40% | 1 | 10 | 11 | 1 | 10 | 11 | 0 | 4 | 4 | 2 | 24 | 26 |
| Total | 4 | 41 | 45 | 4 | 26 | 30 | 3 | 14 | 17 | 11 | 81 | 92 |

Note: "Not Selected" includes eligible projects that were not selected and all projects that were ineligible, withdrawn, rejected, or under review as of December 2020. Two PY2 LICS Pilot projects do not have anchor share information available and were excluded from the table.

Table III-23 displays the distribution of DG projects between one to four unit buildings and five or more unit buildings. Nine of the selected projects were in one-to-four unit buildings and one was in a five or more unit building.

Table III-23
Low-Income Distributed Generation Projects
1-4 Units or 5+ Units

| Housing Type | Distributed Generation Participants | | | | | | | | | | | |
|--------------|-------------------------------------|----------|-----------|----------------|----------|-----------|----------------|-----------|-----------|----------------------|-----------|-----------|
| | PY1: 2018-2019 | | | PY2: 2019-2020 | | | PY3: 2020-2021 | | | PY1 – PY3: 2018-2021 | | |
| | Selected | | Total PY1 | Selected | | Total PY2 | Selected | | Total PY3 | Selected | | Total |
| | Yes | No | | Yes | No | | Yes | No | | Yes | No | |
| 1-4 Units | 0 | 0 | 0 | 9 | 1 | 10 | 0 | 12 | 12 | 9 | 13 | 22 |
| 5+ Units | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 7 | 7 | 1 | 8 | 9 |
| Total | 0 | 1 | 1 | 10 | 1 | 11 | 0 | 19 | 19 | 10 | 21 | 31 |

Note: "Not Selected" includes eligible projects that were not selected and all projects that were ineligible, withdrawn, rejected, or under review as of December 2020.

Table III-24 displays the project stage and type for the DG projects. The selected projects are all from the second project year. However, there are 41 projects in development.

**Table III-24
Distributed Generation Projects
Project Stage and Type**

| Project Stage | Type of Project | Number of Projects |
|--------------------------------------|----------------------------|--------------------|
| Further Part I Information Requested | 5+ Distributed Generation | 7 |
| Part I Submitted and Under Review | 1-4 Distributed Generation | 2 |
| Pre-Application | 1-4 Distributed Generation | 30 |
| Pre-Approval | 1-4 Distributed Generation | 2 |
| ICC Approved/Construction | 1-4 Distributed Generation | 9 |
| ICC Approved/Construction | 5+ Distributed Generation | 1 |
| Dropped- Ineligible | 1-4 Distributed Generation | 1 |

Table III-25 displays the funding source for the selected projects. Twenty-one of the 49 NP/PF projects, nine of the 13 CS projects, one of the ten DG projects will be funded through the RERF.

**Table III-25
All Selected Projects
Funding Source**

| Funding Source | PY1: 2018-2019 | | | PY2: 2019-2020 | | | | PY3: 2020-2021 | | | PY1 – PY3: 2018-2021 | | | |
|----------------|----------------|----------|-----------|----------------|----------|-----------|-----------|----------------|----------|-----------|----------------------|-----------|-----------|-----------|
| | NP PF | CS | Total PY1 | NP PF | CS | DG | Total PY2 | NP PF | CS | Total PY3 | NP PF | CS | DG | Total |
| RERF | 6 | 3 | 9 | 11 | 4 | 1 | 16 | 4 | 2 | 6 | 21 | 9 | 1 | 31 |
| Utility | 1 | 1 | 2 | 13 | 2 | 9 | 24 | 14 | 1 | 15 | 28 | 4 | 9 | 41 |
| Total | 7 | 4 | 11 | 24 | 6 | 10 | 40 | 18 | 3 | 21 | 49 | 13 | 10 | 72 |

Table III-26 displays the projected project size for the selected projects. The mean size for the NP/PF projects was 135 AC kW, the mean size for CS projects was 1,188 AC kW, and the mean size for the DG projects was 206 AC kW. Without the one large DG project, the average DG size is 6.5 AC kW.

There has been some concern that many of the CS projects are large in size and not truly community-driven. This relates to the project economics and the developers looking for economies of scale in project implementation. The project selection criteria was changed prior to the third program year to provide increased priority for selection of smaller projects. However, most of the projects are still 1,000 kW or greater.

Table III-26
All Selected Projects
Projected Project Size (AC kW)

| Project Size (AC kW) | PY1: 2018-2019 | | | PY2: 2019-2020 | | | | PY3: 2020-2021 | | | PY1 – PY3: 2018-2021 | | | |
|-------------------------|----------------|------------|--------------|----------------|--------------|------------|--------------|----------------|--------------|--------------|----------------------|--------------|------------|------------|
| | NP PF | CS | Total PY1 | NP PF | CS | DG | Total PY2 | NP PF | CS | Total PY3 | NP PF | CS | DG | Total |
| ≤25 kW | 1 | 1 | 2 | 6 | 0 | 9 | 15 | 6 | 0 | 6 | 13 | 1 | 9 | 23 |
| 26-50 kW | 0 | 1 | 1 | 5 | 0 | 0 | 5 | 4 | 0 | 4 | 9 | 1 | 0 | 10 |
| 51-100 kW | 3 | 0 | 3 | 5 | 0 | 0 | 5 | 4 | 0 | 4 | 12 | 0 | 0 | 12 |
| 101-1,000 kW | 3 | 0 | 3 | 8 | 2 | 0 | 10 | 3 | 1 | 4 | 14 | 3 | 0 | 17 |
| 1,001-1,999 kW | 0 | 1 | 1 | 0 | 2 | 0 | 2 | 1 | 0 | 1 | 1 | 3 | 0 | 4 |
| 2,000 kW | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 2 | 2 | 0 | 3 | 1 | 4 |
| Total | 7 | 4 | 11 | 24 | 4 | 10 | 38 | 18 | 3 | 21 | 49 | 11 | 10 | 70 |
| Mean Size | 186 | 976 | 473 | 119 | 1,042 | 206 | 239 | 136 | 1,667 | 355 | 135 | 1,188 | 206 | 311 |

Note: Information on the pilot projects were excluded due to confidentiality.

Table III-27 displays the projected estimated production from the PV Watts tool for the selected projects. The mean production for the NP/PF projects was 420 MWh per year and the mean for CS was 2,443 MWh per year. The mean DG project production was 427 MWh per year.

Table III-27
All Selected Projects
Projected Estimated Production (MWh/Year)

| Projected Estimated Production (MWh/Year) | PY1: 2018-2019 | | | PY2: 2019-2020 | | | | PY3: 2020-2021 | | | PY1 – PY3: 2018-2021 | | | |
|--|----------------|----|--------------|----------------|----|----|--------------|----------------|----|--------------|----------------------|----|----|-------|
| | NP PF | CS | Total PY1 | NP PF | CS | DG | Total PY2 | NP PF | CS | Total PY3 | NP PF | CS | DG | Total |
| 5 – 13 | 0 | 0 | 0 | 0 | 0 | 9 | 9 | 1 | 0 | 1 | 1 | 0 | 9 | 10 |
| 21 – 40 | 1 | 0 | 1 | 4 | 0 | 0 | 4 | 3 | 0 | 3 | 8 | 0 | 0 | 8 |
| 41 – 50 | 0 | 1 | 1 | 5 | 0 | 0 | 5 | 2 | 0 | 2 | 7 | 1 | 0 | 8 |
| 51 – 100 | 0 | 1 | 1 | 6 | 0 | 0 | 6 | 5 | 0 | 5 | 11 | 1 | 0 | 12 |
| 101 – 200 | 4 | 0 | 4 | 1 | 0 | 0 | 1 | 3 | 0 | 3 | 8 | 0 | 0 | 8 |
| 201 – 300 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| 301 – 500 | 1 | 0 | 1 | 3 | 0 | 0 | 3 | 2 | 0 | 2 | 6 | 0 | 0 | 6 |
| 691 – 890 | 1 | 0 | 1 | 2 | 1 | 0 | 3 | 1 | 0 | 1 | 4 | 1 | 0 | 5 |
| 1,150 – 1,670 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 2 | 0 | 2 |
| 2,285 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 3,701 – 4,200 | 0 | 2 | 2 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 3 | 1 | 4 |
| 4,661 – 4,750 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 2 | 0 | 2 |

| Projected Estimated Production (MWh/Year) | PY1: 2018-2019 | | | PY2: 2019-2020 | | | | PY3: 2020-2021 | | | PY1 – PY3: 2018-2021 | | | |
|---|----------------|--------------|------------|----------------|--------------|------------|------------|----------------|--------------|--------------|----------------------|--------------|------------|------------|
| | NP PF | CS | Total PY1 | NP PF | CS | DG | Total PY2 | NP PF | CS | Total PY3 | NP PF | CS | DG | Total |
| 11,970 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 |
| Total | 7 | 4 | 11 | 24 | 4 | 10 | 38 | 18 | 3 | 21 | 49 | 11 | 10 | 70 |
| Mean | 275 | 1,942 | 881 | 183 | 2,138 | 427 | 453 | 792 | 3,517 | 1,181 | 420 | 2,443 | 427 | 739 |

Two PY2 LICS Pilot projects did not have estimated production information available and were excluded from the table.

Table III-28 displays the contracted number of RECs for the selected projects. The table shows that the mean was 2,834 for the NP/PF projects, 35,199 for the CS projects, and 6,171 for the DG projects.

**Table III-28
All Selected Projects
Contracted Number of RECs**

| Contracted # of RECs | PY1 – PY3: 2018-2021 | | | |
|----------------------|----------------------|---------------|--------------|--------------|
| | NP/PF | CS | DG | Total |
| 75 – 155 | 1 | 0 | 9 | 10 |
| 301 – 500 | 3 | 0 | 0 | 3 |
| 501 – 750 | 12 | 1 | 0 | 13 |
| 901 – 1,000 | 5 | 1 | 0 | 6 |
| 1,001 – 3,000 | 14 | 0 | 0 | 14 |
| 3,001 – 4,700 | 4 | 0 | 0 | 4 |
| 5,001 – 8,600 | 6 | 0 | 0 | 6 |
| 9,001 – 13,000 | 3 | 1 | 0 | 4 |
| 16,001 – 17,000 | 1 | 1 | 0 | 2 |
| 23,396 – 32,378 | 0 | 2 | 0 | 2 |
| 52,823 – 55,425 | 0 | 3 | 0 | 3 |
| 60,69 – 68,564 | 0 | 2 | 1 | 3 |
| Total | 49 | 11 | 10 | 70 |
| Mean RECs | 2,834 | 35,199 | 6,171 | 8,397 |

Note: Two PY2 LICS Pilot Projects did not have REC information available and were excluded from the table.

Table III-29 displays the REC value for the selected projects. The table shows that the NP/PF projects averaged about \$300,000, the CS projects averaged about \$3.26 million, and the DG projects averaged \$410,000 in REC value. However, the DG average REC value is skewed by the one very large project and the CS average REC value is drawn down by the two small CS projects. Without the one large DG project, the average DG REC value is \$16,100.

Table III-29
All Selected Projects
REC Value (\$ Millions)

| REC Value (\$ Millions) | PY1 – PY3: 2018-2021 | | | |
|----------------------------|----------------------|---------------|---------------|---------------|
| | NP/PF | CS | DG | Total |
| \$0.01 - <\$0.10 | 13 | 1 | 9 | 23 |
| \$0.10 - <\$0.20 | 17 | 1 | 0 | 18 |
| \$0.20 - <\$0.30 | 4 | 0 | 0 | 4 |
| \$0.30 - <\$0.40 | 3 | 0 | 0 | 3 |
| \$0.40 - <\$0.60 | 5 | 0 | 0 | 5 |
| \$0.60 - <\$0.90 | 3 | 0 | 0 | 3 |
| \$0.90 - <\$1.00 | 2 | 0 | 0 | 2 |
| \$1.00 - <\$1.60 | 2 | 1 | 0 | 3 |
| \$2.45 - <\$3.45 | 0 | 4 | 0 | 4 |
| \$4.00 - \$6.00 | 0 | 4 | 1 | 5 |
| Total | 49 | 11 | 10 | 70 |
| Mean Value | \$0.29 | \$3.26 | \$0.41 | \$0.77 |

Table III-30 displays the dollars and percent of REC dollars in Ameren, ComEd, and Mid-American service territories. The table shows that 48 percent of the REC value was in Ameren’s service territory, 50 percent was in ComEd’s service territory, and two percent was in Mid-American’s territory. The submitted projects were weighted more to Ameren’s territory, with 57 percent of REC value in Ameren’s territory and 42 percent in Com-Ed’s territory.

Table III-30
All Selected Projects
REC Value (\$ Millions) by Utility Territory

| Utility Territory | PY1-PY3: 2018-2021 | | | | | | | |
|----------------------|--------------------|-------------|----------------|-------------|---------------|-------------|----------------|-------------|
| | NP/PF | | CS | | DG | | Total | |
| | \$ | % | \$ | % | \$ | % | \$ | % |
| Ameren | \$6.08 | 43% | \$20.00 | 56% | \$0.00 | 0% | \$26.07 | 48% |
| ComEd | \$7.30 | 51% | \$15.83 | 44% | \$4.15 | 100% | \$27.28 | 50% |
| Mid-American | \$0.82 | 6% | \$0.00 | 0% | \$0.00 | 0% | \$0.82 | 2% |
| Total | \$14.20 | 100% | \$35.83 | 100% | \$4.15 | 100% | \$54.17 | 100% |

Table III-31 displays the dollars and percent of REC dollars by urbanity. The table shows that 12 percent of the REC value was in urban areas, 24 percent was in suburban areas, and 64 percent was in rural areas, due to the location of the large CS projects and the large DG project.

Table III-31
All Selected Projects, 2018-2020
REC Value (\$ Millions) by Urbanity

| Urbanity | PY1-PY3: 2018-2021 | | | | | | | |
|--------------|--------------------|-------------|----------------|-------------|---------------|-------------|----------------|-------------|
| | NP/PF | | CS | | DG | | Total | |
| | \$ | % | \$ | % | \$ | % | \$ | % |
| Urban | \$5.87 | 41% | \$0.21 | 1% | \$0.15 | 4% | \$6.23 | 12% |
| Suburban | \$5.46 | 38% | \$7.77 | 22% | \$0.00 | 0% | \$13.23 | 24% |
| Rural | \$2.87 | 20% | \$27.85 | 78% | \$4.00 | 96% | \$34.72 | 64% |
| Total | \$14.20 | 100% | \$35.83 | 100% | \$4.15 | 100% | \$54.17 | 100% |

Table III-32 displays the dollars and percent of REC dollars in EJ communities and low-income Census Tracts. The table shows that 67 percent of the REC value for NP/PF projects, 83 percent of the REC value for CS projects, and three percent of the REC value for DG projects were in EJ communities.¹⁶ Almost all of the REC value was in low-income Census Tracts.¹⁷

Table III-32
All Selected Projects
REC Value (\$) in Environmental Justice Communities and Low-Income Census Tracts

| Community Type | PY1-PY3: 2018-2021 | | | | | | | |
|----------------|--------------------|-------------|----------------|-------------|---------------|-------------|----------------|-------------|
| | NP/PF | | CS | | DG | | Total | |
| | \$ | % | \$ | % | \$ | % | \$ | % |
| In EJ | \$9.49 | 67% | \$29.77 | 83% | \$0.12 | 3% | \$39.38 | 73% |
| Not in EJ | \$4.71 | 33% | \$6.06 | 17% | \$4.02 | 97% | \$14.80 | 27% |
| In LI Tracts | \$13.47 | 95% | \$35.62 | 99% | \$4.15 | 100% | \$53.24 | 98% |
| Not LI Tracts | \$0.72 | 5% | \$0.21 | 1% | \$0.00 | 0% | \$0.93 | 2% |
| Total | \$14.20 | 100% | \$35.83 | 100% | \$4.15 | 100% | \$54.17 | 100% |

¹⁶ This is due to one large DG project that was not in an EJ community.

¹⁷ The CS locations relate to the project's location and not the subscribers' locations. The subscribers' locations will be examined once the projects are energized and have subscribers.

Table III-33 displays the first year projected costs savings, total costs, and savings for the NP/PF projects. The projects averaged a total savings of \$220,000 across the lifetime. Given the 48 projects, this amounts to estimated lifetime savings of almost \$10.6 million.

Table III-33
Non-Profit and Public Facility Projects, 2018-2020
Projected Project Costs and Savings for Selected Projects

| Project Year | Costs and Savings | # | Selected Non-Profit/ Public Facility Projected Project Costs and Savings | | | | | | | |
|---------------------------|--------------------|----|--|----------|------------|-----------|-----------|-----------|-----------|-------------|
| | | | Mean | Min | Percentile | | | | | Max |
| | | | | | P10 | P25 | P50 | P75 | P90 | |
| PY1: 2018-2019 | First Year Costs | 7 | \$8,762 | \$12 | \$12 | \$12 | \$867 | \$22,228 | \$32,800 | \$32,800 |
| | Total Costs | 7 | \$205,712 | \$181 | \$181 | \$181 | \$12,561 | \$322,000 | \$948,692 | \$948,692 |
| | First Year Savings | 7 | \$14,731 | \$1,838 | \$1,838 | \$5,400 | \$10,953 | \$24,951 | \$32,800 | \$32,800 |
| | Total Savings | 7 | \$354,678 | \$31,584 | \$31,584 | \$156,187 | \$258,112 | \$447,869 | \$948,692 | \$948,692 |
| PY2: 2019-2020 | First Year Costs | 23 | \$6,170 | \$0 | \$12 | \$102 | \$2,232 | \$8,870 | \$16,291 | \$30,600 |
| | Total Costs | 23 | \$128,888 | \$0 | \$181 | \$1,970 | \$40,453 | \$212,331 | \$377,117 | \$599,786 |
| | First Year Savings | 23 | \$8,232 | \$1,535 | \$2,177 | \$2,369 | \$4,690 | \$8,870 | \$16,373 | \$34,413 |
| | Total Savings | 23 | \$209,704 | \$17,776 | \$51,751 | \$55,869 | \$113,963 | \$300,744 | \$534,148 | \$981,288 |
| PY3: 2020-2021 | First Year Costs | 18 | \$5,286 | \$0 | \$12 | \$874 | \$1,961 | \$4,459 | \$24,164 | \$25,368 |
| | Total Costs | 18 | \$72,118 | \$0 | \$181 | \$7,855 | \$16,267 | \$72,767 | \$349,911 | \$380,520 |
| | First Year Savings | 18 | \$9,417 | \$409 | \$936 | \$2,464 | \$4,401 | \$8,330 | \$27,998 | \$44,786 |
| | Total Savings | 18 | \$181,845 | \$14,379 | \$15,572 | \$29,026 | \$60,226 | \$135,931 | \$775,218 | \$1,163,011 |
| PY1-PY3: 2018-2021 | First Year Costs | 48 | \$6,216 | \$0 | \$12 | \$175 | \$2,112 | \$8,579 | \$24,164 | \$32,800 |
| | Total Costs | 48 | \$118,803 | \$0 | \$181 | \$3,393 | \$23,584 | \$144,760 | \$377,117 | \$948,692 |
| | First Year Savings | 48 | \$9,624 | \$409 | \$1,838 | \$2,814 | \$4,698 | \$12,029 | \$27,998 | \$44,786 |
| | Total Savings | 48 | \$220,399 | \$14,379 | \$20,987 | \$52,923 | \$108,720 | \$279,428 | \$581,070 | \$1,163,011 |

Note: One PY2 project with a Purchase Agreement only had data for First Year Costs and was excluded from the table.

Table III-34 displays the total projected savings percentage over the term of the agreement. This averages 71 percent, greater than the required 50 percent, for the selected NP/PF projects.

**Table III-34
Non-Profit and Public Facility Projects
Total Projected Savings over the Term of Agreement**

| Total Projected Savings | Non-Profit / Public Facility Participants | | | | | | | | | | | |
|-------------------------|---|------------|------------|----------------|------------|------------|----------------|------------|------------|----------------------|------------|------------|
| | PY1: 2018-2019 | | | PY2: 2019-2020 | | | PY3: 2020-2021 | | | PY1 – PY3: 2018-2021 | | |
| | Selected | | Total PY1 | Selected | | Total PY2 | Selected | | Total PY3 | Selected | | Total |
| | Yes | No | | Yes | No | | Yes | No | | Yes | No | |
| 19% | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| 50%-59% | 4 | 9 | 13 | 10 | 5 | 15 | 0 | 0 | 0 | 14 | 14 | 28 |
| 60%-69% | 0 | 2 | 2 | 4 | 4 | 8 | 12 | 1 | 13 | 16 | 7 | 23 |
| 70%-79% | 0 | 2 | 2 | 1 | 2 | 3 | 3 | 2 | 5 | 4 | 6 | 10 |
| 80%-83% | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 |
| 96%-98% | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 3 |
| 100% | 3 | 6 | 9 | 5 | 4 | 9 | 2 | 0 | 2 | 10 | 10 | 20 |
| Unknown* | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 13 | 13 | 1 | 13 | 14 |
| Total | 7 | 21 | 28 | 24 | 15 | 39 | 18 | 16 | 34 | 49 | 52 | 101 |
| Mean | 74% | 67% | 69% | 72% | 72% | 72% | 72% | 69% | 72% | 73% | 69% | 71% |

Note: “Not Selected” includes eligible projects that were not selected and all projects that were ineligible, withdrawn, or under review as of December 2020.

*Thirteen PY3 projects do not have savings information determined as they were withdrawn or ineligible.

Table III-35 breaks down the projected savings by more detailed status for projects that were not selected including eligible, ineligible, withdrawn, and under review.

**Table III-35
Non-Profit and Public Facility Projects
Total Projected Savings over the Term of Agreement
For Projects Not Selected by Detailed Status**

| Total Projected Savings | Non-Profit / Public Facility Participants | | | | |
|-------------------------|---|------------|-----------|--------------|-----------|
| | PY1 – PY3: 2018-2021 | | | | |
| | Eligible | Ineligible | Withdrawn | Under Review | Total |
| 19% | 0 | 2 | 0 | 0 | 2 |
| 50%-59% | 0 | 7 | 6 | 1 | 14 |
| 60%-71% | 3 | 3 | 7 | 0 | 13 |
| 100% | 0 | 2 | 8 | 0 | 10 |
| Unknown* | 0 | 11 | 2 | 0 | 13 |
| Total | 3 | 25 | 23 | 1 | 52 |

| Total Projected Savings | Non-Profit / Public Facility Participants | | | | |
|-------------------------|---|------------|-----------|--------------|-------|
| | PY1 – PY3: 2018-2021 | | | | |
| | Eligible | Ineligible | Withdrawn | Under Review | Total |
| Mean | 69% | 58% | 77% | 59% | 69% |

*Thirteen PY3 projects do not have savings information determined as they were withdrawn or ineligible.

C. Grassroots Education Statistics

This section provides information on the Grassroots Education events completed by the second cohort of GEs from July 2020 through the end of November 2020.

Table III-36 displays the number of completed events by GE. The table shows that Faith in Place, the GE with the greatest number of events, completed 19 events, while Blacks in Green completed one event. Most GEs completed between three and six events by November 30, 2020.

Table III-36
Grassroots Education Events by Educator

| Grassroots Educator | Completed Events* |
|---|-------------------|
| BCMW Community Services | 4 |
| Blacks in Green | 1 |
| Ecology Action Center | 3 |
| Faith in Place | 19 |
| Garfield Park Community Council | 17 |
| North River Commission | 4 |
| Pilsen Environmental Rights and Reform Organization (PERRO) | 16 |
| People for Community Recovery | 5 |
| Prairie Rivers Network | 6 |
| Total | 75 |

* Completed as of November 30, 2020.

Table III-37 displays the number of attendees by GE. Overall, 5,050 individuals attended. While there were events that had only one attendee, the largest “event” had 1,200 attendees. The following table provides additional information on these counts.

Table III-37
Grassroots Education Events
Number of Attendees by Grassroots Educator

| Grassroots Educator | Completed Events* | Number of Attendees | | | |
|---|-------------------|---------------------|-----------|--------------|--------------|
| | | Min. | Mean | Max. | Total |
| BCMW Community Services | 4 | 12 | 48 | 80 | 193 |
| Blacks in Green | 1 | 21 | 21 | 21 | 21 |
| Ecology Action Center | 3 | 1 | 4 | 8 | 11 |
| Faith in Place | 19 | 4 | 70 | 293 | 1,338 |
| Garfield Park Community Council | 17 | 20 | 148 | 1,200 | 2,510 |
| North River Commission | 4 | 1 | 113 | 434 | 453 |
| Pilsen Environmental Rights and Reform Organization (PERRO) | 16 | 1 | 19 | 100 | 307 |
| People for Community Recovery | 5 | 10 | 30 | 100 | 150 |
| Prairie Rivers Network | 6 | 1 | 11 | 50 | 67 |
| All Events | 75 | 1 | 67 | 1,200 | 5,050 |

* Completed as of November 30, 2020.

Table III-38 displays the number of attendees by event type. The table shows the largest participation “event” was “media” which included newsletters. The one-on-one events have up to 50 attendees because GEs can choose to submit these as individual events or as many attendees within a single event, which is a lower administrative burden for the GEs.

Table III-38
Grassroots Education Events
Number of Attendees by Event Type

| Event Type | Completed Events* | Number of Attendees | | | |
|-------------------------|-------------------|---------------------|------|-------|-------|
| | | Min. | Mean | Max. | Total |
| 1:1 | 14 | 1 | 6 | 50 | 77 |
| Canvassing | 11 | 1 | 42 | 100 | 463 |
| Community Meeting | 16 | 4 | 49 | 434 | 783 |
| House Party | 1 | 15 | 15 | 15 | 15 |
| Media | 2 | 12 | 606 | 1,200 | 1,212 |
| Networking | 5 | 4 | 7 | 12 | 33 |
| Phone Banking | 2 | 80 | 90 | 100 | 180 |
| Tabling | 14 | 40 | 91 | 180 | 1,275 |
| Workplace Lunch & Learn | 1 | 101 | 101 | 101 | 101 |

Table III-39 displays the discussion topics for the events. Events were most likely to cover single family DG, CS, and NP/PF programs. Other events covered multi-family DG programs, AVs, and job training. Events were likely to cover more than one topic.

Table III-39
Grassroots Education Events
Discussion Topic by Grassroots Educator

| Grassroots Educator | Completed Events* | Discussion Topic | | | | | |
|---------------------------------|-------------------|------------------|----------|-----------|-----------|----------|--------------|
| | | 1-4 DG | 5+ DG | CS | NP/PF | AVs | Job Training |
| BCMW Community Services | 4 | 4 | 0 | 3 | 0 | 1 | 0 |
| Blacks in Green | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Ecology Action Center | 3 | 1 | 1 | 3 | 2 | 0 | 0 |
| Faith in Place | 19 | 17 | 0 | 18 | 17 | 2 | 12 |
| Garfield Park Community Council | 17 | 17 | 0 | 0 | 2 | 0 | 0 |
| North River Commission | 4 | 3 | 4 | 4 | 2 | 0 | 3 |
| PERRO | 16 | 15 | 2 | 2 | 5 | 0 | 0 |
| PCR | 5 | 5 | 1 | 3 | 1 | 0 | 0 |
| Prairie Rivers Network | 6 | 5 | 0 | 5 | 0 | 0 | 1 |
| All Events | 75 | 68 | 8 | 38 | 29 | 3 | 16 |

* Completed as of November 30, 2020. Events may cover more than one topic.

D. Job Training Statistics

AVs are required to submit an affidavit for each hired qualified job trainee as part of the Part II project submission process. The affidavit captures the relationship between the trainee and AV, summarizes the trainee's participation in the project, and provides the current contact information for the trainee. The information in the affidavit is verified by the program administrator.

Table III-40 displays the number of verified job training affidavits submitted as of December 2020. The table shows that of the 41 submitted affidavits, 26 were verified, two were reviewed but could not be verified, and 13 were not yet reviewed. The 13 affidavits that had not yet been reviewed were for projects that had not yet submitted their Part II requirements for approval as of December 2020 when the data were collected.

**Table III-40
Job Training Affidavit Verified**

| Job Training Affidavit Verified | Observations |
|--|---------------------|
| Affidavit Reviewed & Verified | 26 |
| Affidavit Reviewed & Not Verified | 2 |
| Affidavit Not Reviewed | 13 |
| Total | 41 |

Table III-41 displays the number of AVs, projects, and affidavits by project stage. Nine AVs with a combined portfolio of 15 projects submitted 41 affidavits as of December 2020. Two projects were under construction, seven were under inspection, four had their Part II submission approved, and two had their Part II submission under review.

**Table III-41
Number of Vendors, Projects, and Affidavits
By Project Stage**

| Project Stage | Number of Vendors | Number of Projects | Number of Affidavits |
|------------------------------------|--------------------------|---------------------------|-----------------------------|
| ICC Approved/Construction | 1 | 2 | 9 |
| Inspection | 3 | 7 | 14 |
| Part II Approved | 4 | 4 | 12 |
| Part II Submitted and Under Review | 2 | 2 | 6 |
| Total | 9* | 15 | 41 |

*Solar Sense has two projects, each in a different project stage, and is therefore double counted in the column above.

Table III-42 displays the percent of total project hours worked by qualified job trainees. Most of the projects had qualified trainees work between 11 and 20 or between 31 and 40 percent of the project hours. Across all projects, job trainees worked an average of 21 percent of total project hours.

Table III-42
Percent of Total Project Hours Worked by Qualified Job Trainees

| Percent of Hours Worked by Job Trainees | Observations |
|--|---------------------|
| 1% – 10% | 1 |
| 11% – 20% | 4 |
| 31% – 40% | 6 |
| 51% - 60% | 1 |
| 61% - 70% | 1 |
| Total | 13 |
| Mean | 21% |

Note: 2 projects were excluded due to missing total project hours data.

Table III-43 shows that both AVs who submitted affidavits and had DG projects satisfied the DG job training requirement. This was determined by comparing the selected DG projects with projects that submitted an affidavit. Five of Certasun’s nine selected projects had at least one job trainee and SA Energy LLC’s one selected project had six job trainees. The remaining seven approved vendors did not have DG projects selected.

Table III-43
Low-Income Distributed Generation Requirement

| Satisfied DG Requirement | Observations |
|---------------------------------|---------------------|
| Satisfied DG Requirement | 2 |
| Not Applicable | 7 |
| Total | 9 |

Table III-44 shows the NABCEP job task categories for all projects and provides a list of activities that fall within each category. Hired job trainees provide a direct or support role to ILSFA projects in one or more of the following capacities.

- System Design
- Installations
- System Commissioning
- Operations & Maintenance
- Technical Sales/Other

Table III-44
Activities by Job Task Category

| System Design | Installations | System Commissioning | Operations & Maintenance | Technical Sales/Other |
|---|---|---|---|--|
| <ul style="list-style-type: none"> • Site assessment • Shading analysis • Electric design • Mechanical design • Engineering • Procurement • Permitting • Zoning | <ul style="list-style-type: none"> • Install electric • Roofing • Structural • Racking • Modules • Carpentry • Fencing • Health and safety • Battery • Monitoring controls • Foundations | <ul style="list-style-type: none"> • Interconnection • Visual and mechanical inspection • Component testing • Electrical testing • System monitoring • User training • Utility commissioning | <ul style="list-style-type: none"> • Preventative maintenance • Corrective maintenance • System monitoring • Component testing • Component replacement | <ul style="list-style-type: none"> • Sales • Customer service • Subscriber management • Financial modeling |

Source: AV Manual, Section 15.2. www.illinoissfa.com/app/uploads/2020/06/ILSFA-Approved-Vendor-Manual.pdf

Table III-45 displays the total hours worked by all qualified job trainees, by job task category. The table shows that a significant number of job trainee hours were used for installation. On average, job trainees spent 396 hours on installation for each eligible project. The time spent on installation varied greatly between projects, as expected with large variation in project size. Significantly fewer job trainee hours were used for system design, system commissioning, operations/maintenance, and technical sales/other.

Table III-45
Hours Worked by All Qualified Job Trainees
By Job Task Category

| Job Task Category | # Projects | Job Trainee Hours Spent on Job Task Category | | | | | | | Max |
|------------------------|------------|--|-----------|------------|-----------|-----------|------------|--------------|--------------|
| | | Mean | Min | Percentile | | | | | |
| | | | | P10 | P25 | P50 | P75 | P90 | |
| Installation | 15 | 396 | 8 | 22 | 25 | 48 | 400 | 1,603 | 2,514 |
| System Design | 15 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 40 |
| System Commissioning | 15 | 6 | 0 | 0 | 0 | 0 | 2 | 13 | 66 |
| Operations/Maintenance | 15 | 12 | 0 | 0 | 0 | 0 | 0 | 2 | 174 |
| Technical Sales/Other | 15 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 60 |
| Total | 15 | 421 | 22 | 23 | 27 | 48 | 400 | 1,603 | 2,754 |

Table III-46 displays a breakdown of the trainee hours. On average, 90 percent of trainee hours were spent on installation, one percent on system design, five percent on system commissioning, one percent on operations/maintenance, and two percent on technical sales/other.

Table III-46
Percent of Training Hours Worked by All Qualified Job Trainees
By Job Task Category

| Job Task Category | # Projects | Percent of Job Trainee Hours Spent on Job Task Category | | | | | | | |
|------------------------|------------|---|-----|------------|-----|-----|------|------|------|
| | | Mean | Min | Percentile | | | | | Max |
| | | | | P10 | P25 | P50 | P75 | P90 | |
| Installation | 15 | 90% | 35% | 44% | 93% | 97% | 100% | 100% | 100% |
| System Design | 15 | 1% | 0% | 0% | 0% | 0% | 0% | 0% | 22% |
| System Commissioning | 15 | 5% | 0% | 0% | 0% | 0% | 4% | 7% | 57% |
| Operations/Maintenance | 15 | 1% | 0% | 0% | 0% | 0% | 0% | 6% | 9% |
| Technical Sales/Other | 15 | 2% | 0% | 0% | 0% | 0% | 0% | 0% | 33% |

Table III-47 provides a breakdown of the percent of total project hours worked by qualified job trainees. On average, 29 percent of total installation hours were worked by job trainees. Only two percent of system commissioning hours, on average, were worked by job trainees.

Table III-47
Percent of Total Project Hours Worked by All Qualified Job Trainees
By Job Task Category

| Job Task Category | # Projects | Percent of Total Project Hours Worked by Trainees | | | | | | | |
|------------------------|------------|---|-----|------------|-----|------|-----|-----|-----|
| | | Mean | Min | Percentile | | | | | Max |
| | | | | P10 | P25 | P50 | P75 | P90 | |
| Installation | 13 | 29% | 5% | 6% | 18% | 31% | 36% | 55% | 62% |
| System Design | 13 | < 1% | 0% | 0% | 0% | 0% | 0% | 0% | 2% |
| System Commissioning | 13 | 2% | 0% | 0% | 0% | < 1% | 1% | 4% | 10% |
| Operations/Maintenance | 13 | < 1% | 0% | 0% | 0% | 0% | 0% | 1% | 1% |
| Technical Sales/Other | 13 | < 1% | 0% | 0% | 0% | 0% | 0% | 0% | 3% |

Note: 2 projects were excluded due to missing total project hours data.

IV. ILSFA Impacts

This section calculates equivalent changes in energy use from the projected ILSFA production to put the solar production into context, and also monetizes the expected environmental and economic benefits of the ILSFA Program. All of the benefits projections in this section relate to approved projects, most of which had not yet been energized.

A. Equivalencies

This section provides a translation of the projected electric production from ILSFA projects into energy and emission equivalencies to provide a context for understanding the benefits of the ILSFA Program. This analysis was requested by stakeholders during their review of the evaluation plans.

The following equivalencies are estimated and are expected from the first two years of projected kWh production for all selected projects (as opposed to completed and energized projects).

- Tons of coal burned
- Cubic feet of natural gas burned
- Barrels of oil consumed
- Gallons of gasoline consumed
- Homes powered
- iPhones charged
- Cars taken off the road
- Trees planted

Table IV-1 displays the conversion factors used to calculate each of the target equivalencies. The methodologies and sources used to determine each conversion factor are described below.

**Table IV-1
ILSFA Equivalency Conversion Factors**

| Equivalency | Input Unit | Conversion Factor | Output Unit |
|-------------|--------------------|--------------------------|----------------------------------|
| Coal Burned | ILSFA Output (kWh) | 0.00052 ¹⁸ | Short Tons |
| | Short Tons | 18,875,000 ¹⁹ | Btu |
| | Btu | 0.000001 | MMBtu |
| | MMBtu | 205.7 ²⁰ | CO ₂ Emissions (lbs.) |

¹⁸Kronebusch, Robert. Common Energy Units Conversion and Other Commodities Review. February 2017. https://www.doi.gov/sites/doi.gov/files/uploads/common_energy_units_conversion_other_commodities_review_final_1-30-17.pdf

¹⁹U.S. Energy Information Administration (EIA). Units and Calculators Explained. June 3, 2020. <https://www.eia.gov/energyexplained/units-and-calculators/>

²⁰U.S. Energy Information Administration (EIA). How much carbon dioxide is produced when different fuels are burned? June 17, 2020. <https://www.eia.gov/tools/faqs/faq.php?id=73&t=11>

| Equivalency | Input Unit | Conversion Factor | Output Unit |
|-------------------------|--|------------------------|--|
| Natural Gas Burned | ILSFA Output (kWh) | 10.11 ²¹ | Cubic Ft. |
| | Cubic Ft. | 1,037 ²² | Btu |
| | Btu | 0.000001 | MMBtu |
| | MMBtu | 117 ²³ | CO ₂ Emissions (lbs.) |
| Fuel Oil Burned | ILSFA Output (kWh) | 0.00173 ²⁴ | Barrels |
| | Barrels | 6,287,000 | Btu |
| | Btu | 0.000001 | MMBtu |
| | MMBtu | 161.3 | CO ₂ Emissions (lbs.) |
| Gasoline Burned | ILSFA Output (kWh) | 0.148368 ²⁵ | Gallons |
| | Gallons | 120,286 | Btu |
| | Btu | 0.000001 | MMBtu |
| | MMBtu | 157.2 | CO ₂ Emissions (lbs.) |
| Homes Powered | ILSFA Output (kWh) | 0.000091 ²⁶ | Homes Powered (1 Year) |
| Smart Phones Charged | ILSFA Output (kWh) | 84 ²⁷ | Complete iPhone Charges |
| Cars Taken Off the Road | ILSFA Output (kWh) | 1.78 | ILSFA CO ₂ Reduction (lbs.) |
| | ILSFA CO ₂ Reduction (lbs.) | 0.000099 ²⁸ | Cars Taken Off the Road (1 Year) |
| Trees Planted | ILSFA Output (kWh) | 1.78 | ILSFA CO ₂ Reduction (lbs.) |
| | ILSFA CO ₂ Reduction (lbs.) | 0.007 ²⁹ | Trees Planted |

Fossil Fuels

We used the following steps to calculate the amount of each fossil fuel that would be displaced by solar power from the ILSFA Program and the subsequent emissions that would be avoided by that displacement. Table IV-2 displays the values associated with each step of the calculation for each of the first three program years.

²¹Kronebusch, Robert. Common Energy Units Conversion and Other Commodities Review. February 2017.

²²U.S. Energy Information Administration (EIA). Units and Calculators Explained. June 3, 2020.

<https://www.eia.gov/energyexplained/units-and-calculators/>

²³U.S. Energy Information Administration (EIA). How much carbon dioxide is produced when different fuels are burned? June 17, 2020.

<https://www.eia.gov/tools/faqs/faq.php?id=73&t=11>

²⁴Kronebusch, Robert. Common Energy Units Conversion and Other Commodities Review. February 2017.

²⁵Alternative Fuels Data Center (AFDC). Fuel Properties Comparison. October 2014.

https://afdc.energy.gov/fuels/fuel_comparison_chart.pdf

²⁶U.S. Energy Information Administration (EIA). How much electricity does an American home use? October 2019.

<https://www.eia.gov/tools/faqs/faq.php?id=97&t=3#:~:text=How%20much%20electricity%20does%20an,about%20914%20kWh%20per%20month.>

²⁷GSM Arena. Apple iPhone 11 Technical Specifications. 2019.

https://www.gsmarena.com/apple_iphone_11-9848.php

²⁸U.S. Environmental Protection Agency (EPA). Greenhouse Gas Emissions from a Typical Passenger Vehicle. May 2018

<https://www.epa.gov/greenvehicles/greenhouse-gas-emissions-typical-passenger-vehicle#:~:text=A%20typical%20passenger%20vehicle%20emits%20about%204.6%20metric%20tons%20of,8%20grams%20of%20CO2.>

²⁹U.S. EPA. Greenhouse Gases Equivalencies Calculator – Calculations and References. May 27, 2020.

Electric Generation Resource Mix: We used information on the mix of fossil fuels used to produce residential electricity in Illinois to calculate the proportion of the ILSFA output that would have otherwise been produced by burning each fuel. Using the 2018 Emissions & Generation Resource Integrated Database (eGRID) from the U.S. Environmental Protection Agency (EPA)³⁰, we estimated that approximately 70 percent of the electricity produced for residential consumption in Illinois is sourced from coal and 30 percent is sourced from natural gas. Thus, we calculated the number of coal-fired and natural gas-fired kWh displaced by ILSFA solar power by multiplying the total ILSFA output by 0.7 and 0.3, respectively.

- *Coal-fired electricity displaced by ILSFA (in kWh) = ILSFA output (in kWh) × 0.7*
- *Natural gas-fired electricity displaced by ILSFA (in kWh) = ILSFA output (in kWh) × 0.3*

1. *Amount of Fuel per kWh:* Second, we calculated the amount of coal and natural gas needed to produce the proportion of the ILSFA output that would have otherwise been sourced from each fuel.

- **Tons of Coal Burned:** According to the U.S. Energy Information Administration (EIA) and the United States Extractive Industries Transparency Initiative (USEITA), the average coal-fired generator needs to burn 0.00052 short tons of coal in order to produce one kilowatt-hour (kWh) of electricity.³¹

- *Amount of coal displaced (in Tons) =*
Coal-fired electricity displaced by ILSFA (in kWh) × 0.00052 $\left(\frac{\text{Tons}}{\text{kWh}}\right)$

- **Cubic Feet of Natural Gas Burned:** According to the EIA and USEITA, producing one kWh of electricity requires the burning of 0.01011 thousand cubic feet (Mcf) of natural gas.³²

- *Amount of natural gas displaced (in Cubic ft.) =*
Natural gas-fired electricity displaced by ILSFA (in kWh) × 10.11 $\left(\frac{\text{Cubic ft.}}{\text{kWh}}\right)$

2. *Total Energy Content by Fuel:* Third, we converted the amounts of coal and natural gas displaced to the total amounts of energy (in MMBtu) released from burning those respective amounts of each fuel. According to the EIA, one short ton of coal contains 18,875,000 Btu (18.875 MMBtu) and one cubic foot of natural gas contains 1,037 Btu (0.001037 MMBtu).³³ We calculated the total energy that would have otherwise been released by the displaced coal and natural gas by multiplying the amount of coal (in short tons) and natural gas (in cubic feet) by 18.875 and 0.001037 respectively.

³⁰U.S. Environmental Protection Agency (March 2020). 2018 Emissions & Generation Resource Integrated Database (eGRID2018). <https://www.epa.gov/egrid/emissions-generation-resource-integrated-database-egrid>

³¹Kronebusch, Robert. Common Energy Units Conversion and Other Commodities Review. February 2017. https://www.doi.gov/sites/doi.gov/files/uploads/common_energy_units_conversion_other_commodities_review_final_1-30-17.pdf

³² Kronebusch, Robert. Common Energy Units Conversion and Other Commodities Review. February 2017.

³³ U.S. Energy Information Administration (EIA). Units and Calculators Explained. June 3, 2020. <https://www.eia.gov/energyexplained/units-and-calculators/>

- *Energy released from burning coal (in MMBtu) =*
Amount of coal (in Tons) x 18.875 ($\frac{MMBtu}{Ton}$)
 - *Energy released from burning natural gas (in MMBtu) =*
Amount of natural gas (in Cubic ft.) x 0.001037 ($\frac{MMBtu}{Cubic\ ft.}$)
3. *Carbon Emissions per MMBtu by Fuel:* Fourth, we found the CO₂ emissions that would have been produced if the respective amounts of coal and natural gas had not been replaced by solar. According to the EIA, burning one MMBtu of coal produces 205.7 pounds of CO₂ and burning one MMBtu of natural gas produces 117 pounds of CO₂, so we calculated the reduction in CO₂ emissions (in pounds) attributable to the displacement of coal and natural gas-fired electricity by multiplying the MMBtu values by 205.7 and 117 respectively.³⁴
- *CO₂ emissions avoided from coal (in Lbs.) =*
Energy released from burning coal (in MMBtu) x 205.7 ($\frac{Lb.}{MMBtu}$)
 - *CO₂ emissions avoided from natural gas (in Lbs.) =*
Energy released from burning natural gas (in MMBtu) x 117 ($\frac{Lb.}{MMBtu}$)
4. *Total Reduction in Carbon Emissions:* We added the reduction in emissions attributable to the displacement of coal and natural gas together to calculate the total emissions avoided.
- *CO₂ emissions avoided (in Lbs.) = CO₂ emissions avoided from coal +*
CO₂ emissions avoided from natural gas

Combining these steps together yields the following equation for calculating the emissions avoided for a given year's estimated ILSFA Output (in kWh).

- *CO₂ emissions avoided (in lbs) = (ILSFA output (in kWh)) × ((0.7 × 0.00052 × 18.875 × 205.7) + (0.3 × 10.11 × 0.001037 × 117))*
- *CO₂ emissions avoided (in lbs) = ILSFA output (in kWh) × 1.78*

Gallons of Gasoline

According to the Alternative Fuels Data Center, the heat energy contained within one gallon of gasoline is equivalent to 33.7 kWh of electricity.³⁵ However, the source also clarifies that modern gasoline-powered generators are only about 20 percent efficient.³⁶ Combining those two factors, we find that burning one gallon of gasoline will produce about $(33.7 \times 0.2) = 6.74$ kWh of electricity, and the amount of gasoline that would have been required to produce the same amount of electricity as the ILSFA Program in a given program year is $(1/6.74) =$ approximately 0.1484 gallons.

³⁴ U.S. Energy Information Administration (EIA). How much carbon dioxide is produced when different fuels are burned? June 17, 2020. <https://www.eia.gov/tools/faqs/faq.php?id=73&t=11>

³⁵ Alternative Fuels Data Center (AFDC). Fuel Properties Comparison. October 2014. https://afdc.energy.gov/fuels/fuel_comparison_chart.pdf

³⁶ AFDC. October 2014.

Homes Powered

According to the most recently available EIA data, the average annual electric consumption for a residential utility customer in the U.S. was 10,972 kWh in 2018.³⁷ The number of homes powered by the electricity produced by the ILSFA in a given program year was calculated by multiplying the output of the ILSFA in kWh for that program year by $(1/10,972) =$ approximately 0.000091.

iPhones Charged

According to GSM Arena, who receive their information directly from Apple, the iPhone 11 has a battery size of 11.91 Wh.³⁸ By dividing the battery size in Wh by 1,000 we calculated that the iPhone 11's battery holds roughly 0.01191 kWh per charge. Thus, the number of iPhones that could be charged with the electricity produced by the ILSFA was calculated by multiplying the total output in kWh for each program year by $(1/0.01191) =$ approximately 84.

Cars Taken Off the Road

The environmental benefits of transitioning from fossil fuels to the solar power produced by ILSFA are comparable to removing cars from the road because both reduce the amount of CO₂ emitted into the atmosphere. In order to find the number of cars taken off the road that is equivalent to the environmental benefits produced by the ILSFA in each program year, we first calculated the carbon emissions that would result from the displacement of fossil fuels with solar power in each year. Since different fossil fuels emit different amounts of CO₂ per unit of energy produced, the carbon emissions calculation had to factor in the mix of resources used for residential electricity generation in Illinois. Next, we used the total reduction in emissions to calculate the equivalent number of cars taken off the road.

According to the U.S. Environmental Protection Agency (EPA), the average passenger car emits approximately 4.6 metric tons, or 10,141 pounds, of CO₂ per year.³⁹ Thus, in order to calculate the equivalent number of cars taken off the road we multiplied the reduction in emissions resulting from the ILSFA for each program year by $(1/10,141) =$ approximately 0.000099.

- *Number of cars removed = CO₂ emissions avoided (in Lbs.) x 0.000099 $\left(\frac{\text{cars}}{\text{lbs CO}_2}\right)$*

Trees Planted

The environmental benefits of planting trees and transitioning from fossil fuels to renewable solar energy are comparable because both reduce the overall level of carbon dioxide in the atmosphere. According to the EPA, a deciduous tree planted in an urban setting will sequester

³⁷ U.S. Energy Information Administration (EIA). How much electricity does an American home use? October 2019. <https://www.eia.gov/tools/faqs/faq.php?id=97&t=3#:~:text=How%20much%20electricity%20does%20an,about%20914%20kWh%20per%20month.>

³⁸ GSM Arena. Apple iPhone 11 Technical Specifications. 2019. https://www.gsmarena.com/apple_iphone_11-9848.php

³⁹ U.S. Environmental Protection Agency (EPA). Greenhouse Gas Emissions from a Typical Passenger Vehicle. May 2018 <https://www.epa.gov/greenvehicles/greenhouse-gas-emissions-typical-passenger-vehicle#:~:text=A%20typical%20passenger%20vehicle%20emits%20about%204.6%20metric%20tons%20of,8%20C887%20grams%20of%20CO2.>

about 38 pounds of carbon over a ten-year growth period.⁴⁰ To convert the amount sequestered from pounds of carbon to CO₂, we multiplied this value by 44/12, which represents the ratio of the molecular weight of carbon dioxide (44) to an atom of carbon (12).⁴¹ This calculation shows that the average deciduous tree will sequester 38*(44/12) = 139.33 pounds of CO₂ over a ten-year growth period.

Next, we calculated the number of trees that would need to be planted to reduce emissions by the equivalent of transitioning from fossil fuels to ILSFA solar power by multiplying the total ILSFA reduction in CO₂ emissions (in pounds) by (1/139.33) = approximately 0.00718.

- *Number of trees planted = CO₂ emissions avoided (in Lbs.) x 0.00718 ($\frac{\text{trees}}{\text{lbs CO}_2}$)*

Table IV-2 displays the values from this analysis.

**Table IV-2
ILSFA Output Equivalencies**

| Equivalencies | PY1 | PY2 | Total PY1-PY2 |
|---|------------------|-------------------|-------------------|
| Estimated ILSFA Production (kWh) | 9,695,047 | 17,217,244 | 26,912,291 |
| Tons of Coal Burned | 5,041 | 8,953 | 13,994 |
| Cubic Feet of NG Burned | 98,016,925 | 174,066,337 | 272,083,262 |
| Barrels of Oil Consumed | 16,772 | 29,786 | 46,558 |
| Gallons of Gasoline Consumed | 1,438,434 | 2,554,487 | 3,992,922 |
| Homes Powered | 884 | 1,569 | 2,453 |
| iPhones Charged | 814,025,777 | 1,445,612,427 | 2,259,638,203 |
| Cars Taken Off the Road | 1,703 | 3,024 | 4,727 |
| Trees Planted | 123,994 | 220,198 | 344,192 |

⁴⁰U.S. Environmental Protection Agency (EPA). Greenhouse Gases Equivalencies Calculator – Calculations and References. May 27, 2020. <https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references>

⁴¹ U.S. EPA. Greenhouse Gases Equivalencies Calculator – Calculations and References. May 27, 2020.

B. Environmental Impacts

Environmental benefits result from the ILSFA because the solar energy production from ILSFA projects replaces electricity generation from power plants and the negative environmental impacts that are associated with that usage.

Major air pollutants associated with electric power generation include the following.

- Greenhouses gases (GHG, represented in CO₂-equivalents)
- Sulfur dioxide (SO₂)
- Nitrogen oxides (NO_x)
- Fine particulate matter less than 2.5 micrometers in diameter (PM 2.5)
- Volatile organic compounds (VOCs)

The estimation of environmental benefits associated with the ILSFA Program involved the following steps. These steps were comparable with the procedures used in the evaluation of the National Weatherization Assistance Program (WAP), with minor modifications and updated to use more recent data sources.⁴²

1. *Allocate displaced electric grid generation resulting from solar energy production to each grid region in Illinois.*

We used American Community Survey (ACS) population data from the U.S. Census Bureau to estimate the share of households in Illinois who reside in each Emissions & Generation Resource Integrated Database (eGRID) subregion. These population weights were then used to allocate the displaced electric grid generation resulting from the estimated solar energy production by the program to the eGRID subregions in Illinois.

The displaced electric grid generation resulting from the estimated solar energy production by the program does not account for any line losses between the points of consumption and the points of generation. Accounting for the additional displaced electric grid generation resulting from line losses could be added to the analysis in the future. However, since rooftop solar energy production is not estimated to remove the majority of the line loss to the grid, it is not included in this analysis.⁴³

2. *Identify non-baseload electric generation in each grid region in Illinois.*

Using the 2018 eGRID from the U.S. EPA⁴⁴, we identified the non-baseload electric generation from each power plant in the eGRID subregions within Illinois. Non-baseload generation and emissions rates were used to estimate the emissions that were avoided by displacing marginal fossil fuel power generation from the grid. This approach is based on guidance published by the EPA. Since baseload power plants typically supply electricity to the grid at all times, it is the non-baseload power plants most likely to be displaced by

⁴²Oak Ridge National Laboratory (September 2014). Environmental Emissions Nonenergy Benefits: Working Paper. https://weatherization.ornl.gov/wp-content/uploads/pdf/WAPRetroEvalFinalReports/ORNLTM-2015_126.pdf

⁴³ Davis, Lucas (June 2018). "Does Rooftop Solar Help the Distribution System?" Energy Institute Blog, Haas School of Business, University of California, Berkeley.

⁴⁴ U.S. Environmental Protection Agency (March 2020). 2018 Emissions & Generation Resource Integrated Database (eGRID2018). <https://www.epa.gov/egrid/emissions-generation-resource-integrated-database-egrid>

clean energy projects that are at least somewhat coincident with peak demand, such as solar energy production.⁴⁵ The eGRID subregions were used as an approximation for the grid operators providing power to Illinois because solar energy production resulting from the ILSFA Program may reduce the power generated from any power plant within the grid, and because the pollutant damages resulting from power generation vary widely by power plant.

3. *Calculate non-baseload emissions rates for each pollutant in each grid region in Illinois.*
We estimated the non-baseload emissions rates for each pollutant for each eGRID subregion. For PM 2.5 and VOCs, this involved combining data on emissions from the 2017 National Emissions Inventory (NEI)⁴⁶ with the 2018 eGRID database, since the eGRID database does not include PM 2.5 and VOCs.
4. *Calculate marginal damage values of each pollutant in each grid region in Illinois.*
We calculated the marginal damage values using the Air Pollutant Emissions Experiments and Policy (APEEP) model for criteria air pollutants (SO₂, NO_x, PM 2.5, and VOCs) as recommended by the National Research Council (NRC) in its 2010 Report to Congress. For GHGs, we used guidance from the Office of Management and Budget (OMB) and used the Social Cost of Carbon (SCC)⁴⁷ to estimate the value of avoided CO₂-equivalent emissions. Values from both the APEEP model and SCC were updated to 2020 dollars.
5. *Calculate quantity of avoided emissions of each pollutant in each grid region in Illinois.*
We estimated the quantity of avoided emissions of each pollutant by multiplying the amount of displaced electric grid generation allocated to each eGRID subregion by the emissions rates of each pollutant in those subregions. We calculated the quantity of first year and lifetime avoided emissions. For the latter, we assumed a 20-year measure life and constant solar energy production and displaced electric grid generation in each year. However, consistent with the National WAP Evaluation, we assumed that certain pollutants (SO₂, NO_x, and PM 2.5) would experience reductions in emissions over the lifetime of the measures due to other efforts toward emission reduction, and we reduced the emissions rates by assuming that the rates would be 50 percent of their current values in 25 years.
6. *Calculate value of avoided emissions of each pollutant in each grid region in Illinois.*
We estimated the value of the avoided emissions of each pollutant by multiplying the quantity of avoided emissions in each eGRID subregion by the marginal damage value of those emissions in each eGRID subregion. We calculated the value of first year and lifetime values of avoided emissions. For the latter, we assumed a three percent discount

⁴⁵ Art Diem and Cristina Quiroz (July 2012). How to use eGRID for Carbon Footprinting Electricity Purchases in Greenhouse Gas Emission Inventories. Environmental Protection Agency (EPA), pages 10-11. <https://www.epa.gov/sites/production/files/2015-01/documents/adiem.pdf>

⁴⁶ U.S. Environmental Protection Agency (April 2020). 2017 National Emissions Inventory (NEI). <https://www.epa.gov/air-emissions-inventories/2017-national-emissions-inventory-nei-data>

⁴⁷ Interagency Working Group of Social Cost of Greenhouse Gases (August 2016). Technical Support Document: Technical Update of the Social Cost of Carbon for Regulatory Analysis. https://obamawhitehouse.archives.gov/sites/default/files/omb/infogov/scc_tsd_final_clean_8_26_16.pdf

rate. In addition, we assumed that the marginal damage values of criteria air pollutants (SO₂, NO_x, PM 2.5, and VOCs) would continue to increase over time, and we increased the marginal damage values by assuming that the values would be 150 percent of their current values in 25 years.

Table IV-3 displays the projected estimated solar energy production by program and project year. For the analysis of the emissions reductions benefits associated with the solar energy production, it is assumed that the projects will have the same solar energy production each year over a 20-year lifetime.

**Table IV-3
Projected Estimated Solar Energy Production by Program and Project Year**

| | PY1 | | | PY2 | | | |
|---|-------|-------|-----------|-------|-------|-------|-----------|
| | NP/PF | CS | Total PY1 | NP/PF | CS | DG | Total PY2 |
| Projected Estimated Production (MWh/year) | 1,926 | 7,769 | 9,695 | 4,397 | 8,554 | 4,267 | 17,217 |

Table IV-4 displays the estimated share of Illinois households residing in each eGRID subregion based on the ACS data. These shares were used to allocate the displaced electric grid generation to the eGRID subregions.

**Table IV-4
Estimated Share of Illinois Households in eGRID Subregions**

| eGRID Subregion | Percent of Households |
|-----------------|-----------------------|
| RFCW | 70.8% |
| SRMW | 27.8% |
| MROW | 1.4% |
| Total | 100.0% |

Table IV-5 displays the estimated displaced electric grid generation resulting from the solar energy production allocated to each eGRID subregion. The values shown are in MWh for first year displaced electric grid generation. For example, based on having an estimated 70.8 percent of the household population, the RFCW subregion is allocated 6,866 MWh of the 9,695 MWh estimated total solar energy production in PY1 and 12,192 MWh of the 17,217 MWh estimated total solar energy production in PY2.

**Table IV-5
First Year Displaced Electric Grid Generation Allocated to eGRID Subregions**

| eGRID Subregion | First Year Displaced Electric Grid Generation (MWh) | |
|-----------------|---|---------------|
| | PY1 | PY2 |
| RFCW | 6,866 | 12,192 |
| SRMW | 2,691 | 4,779 |
| MROW | 138 | 245 |
| Total | 9,695 | 17,217 |

Table IV-6A displays the estimated share of each fuel type used in generating non-baseload power in the eGRID subregions, weighted according to the estimated share of Illinois households residing in each eGRID subregion. Because each subregion has a different fuel mix for non-baseload generation, the pollutant emissions rates vary by subregion. For example, burning coal emits more CO₂ per energy produced than burning gas, so all else being equal, a subregion that has more non-baseload generation from coal compared to gas will have a higher emissions rate of CO₂-equivalents.

**Table IV-6A
Share of Fuel Types Used in Generating Non-Baseload Power
By eGRID Subregion**

| Fuel Type | Fuel Share | | | |
|----------------------------|---------------|---------------|---------------|----------------|
| | RFCW | SRMW | MROW | Weighted Share |
| Coal | 66.52% | 77.81% | 64.93% | 69.63% |
| Gas | 30.54% | 21.55% | 31.40% | 28.06% |
| Other fossil | 1.31% | 0.20% | 0.33% | 0.99% |
| Oil | 0.92% | 0.09% | 0.28% | 0.68% |
| Biomass | 0.71% | 0.24% | 2.92% | 0.61% |
| Hydro | 0.00% | 0.11% | 0.08% | 0.03% |
| Wind | 0.00% | 0.00% | 0.08% | 0.00% |
| Solar | 0.00% | 0.00% | 0.00% | 0.00% |
| Nuclear | 0.00% | 0.00% | 0.00% | 0.00% |
| Geothermal | 0.00% | 0.00% | 0.00% | 0.00% |
| Total Non-Renewable | 99.29% | 99.65% | 96.93% | 99.36% |
| Total Renewable | 0.71% | 0.35% | 3.07% | 0.64% |

Table IV-6B displays the estimated share of each fuel type used in generating non-baseload power in the utility territories, in the weighted utility total (weighted by projected production for approved projects), and in the weighted eGRID total. The table shows that there are some

differences between the utilities and that the weighted utility total has a lower percentage coal and a higher percentage gas than the weighted eGRID total.

Table IV-6B
Share of Fuel Types Used in Generating Non-Baseload Power
By Utility

| Fuel Type | Fuel Share | | | | |
|----------------------------|---------------|---------------|---------------|------------------|----------------|
| | ComEd | Ameren | MidAmerican | Weighted Utility | Weighted eGRID |
| Coal | 53.18% | 87.63% | 0.00% | 63.55% | 69.63% |
| Gas | 45.33% | 11.93% | 99.06% | 35.30% | 28.06% |
| Other fossil | 0.49% | 0.34% | 0.00% | 0.43% | 0.99% |
| Oil | 0.07% | 0.09% | 0.00% | 0.08% | 0.68% |
| Biomass | 0.93% | 0.01% | 0.00% | 0.62% | 0.61% |
| Hydro | 0.00% | 0.00% | 0.94% | 0.01% | 0.03% |
| Wind | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Solar | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Nuclear | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Geothermal | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Total Non-Renewable | 99.07% | 99.99% | 99.06% | 99.37% | 99.36% |
| Total Renewable | 0.93% | 0.01% | 0.94% | 0.63% | 0.64% |

Table IV-7A displays the estimated non-baseload emissions rates for each pollutant in each eGRID subregion in Illinois. The values shown are in pounds per MWh and are for first year savings. For example, this means that for each MWh of solar electricity produced and grid electricity displaced in the RFCW subregion, 1,841 pounds of CO₂-equivalents are avoided.

Table IV-7A
First Year Pollutant Emissions Rates from Non-Baseload Electric Generation
By eGRID Subregion

| Pollutant | Non-Baseload Electric Generation Emissions Rates (lb./MWh) | | |
|---------------------|--|-------|-------|
| | RFCW | SRMW | MROW |
| CO ₂ -eq | 1,841 | 1,921 | 1,777 |
| SO ₂ | 1.437 | 2.654 | 1.759 |
| NO _x | 1.365 | 1.079 | 1.499 |
| PM 2.5 | 0.203 | 0.118 | 0.120 |
| VOC | 0.053 | 0.042 | 0.043 |

Table IV-7B displays the estimated non-baseload emissions rates for each pollutant in each utility territory, in the weighted utility total (weighted by projected production for approved projects), and in the weighted eGRID total. The weighted utility total has lower emission rates than the weighted eGRID total.

Table IV-7B
First Year Pollutant Emissions Rates from Non-Baseload Electric Generation
By Utility

| Pollutant | Non-Baseload Electric Generation Emissions Rates (lb./MWh) | | | | |
|---------------------|--|--------|-------------|------------------|----------------|
| | ComEd | Ameren | MidAmerican | Weighted Utility | Weighted eGRID |
| CO ₂ -eq | 1,775 | 2,025 | 874 | 1,843 | 1,862 |
| SO ₂ | 0.918 | 3.069 | 0.005 | 1.598 | 1.779 |
| NO _x | 0.792 | 0.976 | 0.180 | 0.843 | 1.288 |
| PM 2.5 | 0.062 | 0.078 | 0.036 | 0.067 | 0.178 |
| VOC | 0.021 | 0.029 | 0.008 | 0.024 | 0.050 |

Table IV-8 displays the avoided emissions of each pollutant resulting from the estimated displaced electric grid generation in each eGRID subregion and project year. Values are shown in tons of avoided CO₂-equivalent emissions and pounds of avoided criteria air pollutant emissions. For example, in PY1, based on the estimated displaced electric grid generation in the RFCW subregion, an estimated 6,318 tons of CO₂-eq emissions would be avoided and 9,866 lbs. of SO₂ emissions would be avoided.

Table IV-8
Avoided Emissions resulting from Estimated Displaced Electric Grid Generation

| Pollutant | Avoided Emissions (tons for CO ₂ -eq, lbs. for criteria air pollutants) | | | | | | | |
|----------------------------|--|-------|------|--------|--------|--------|------|--------|
| | PY1 | | | | PY2 | | | |
| | RFCW | SRMW | MROW | Total | RFCW | SRMW | MROW | Total |
| CO ₂ -eq (tons) | 6,318 | 2,585 | 123 | 9,026 | 11,220 | 4,590 | 218 | 16,029 |
| SO ₂ (lbs.) | 9,866 | 7,143 | 243 | 17,251 | 17,520 | 12,685 | 431 | 30,636 |
| NO _x (lbs.) | 9,369 | 2,903 | 207 | 12,479 | 16,638 | 5,156 | 368 | 22,161 |
| PM 2.5 (lbs.) | 1,394 | 318 | 17 | 1,728 | 2,475 | 565 | 29 | 3,069 |
| VOC (lbs.) | 362 | 114 | 6 | 481 | 642 | 202 | 11 | 855 |

Table IV-9 displays the estimated marginal damage values associated with each pollutant in each eGRID subregion in Illinois. The values shown are in dollars per ton, in 2020 dollars, for first year avoided emissions. For CO₂-eq, separate values are used for each project year since the SCC increases over time. We used the value corresponding to each program year, converted from 2007 dollars to 2020 dollars. The marginal damage values for criteria air

pollutants are based on the APEEP model, which uses a damage function based on existing emission levels, population, and other local factors that vary geographically.

Table IV-9
First Year Marginal Damage Values of Pollutants by eGRID Subregion in Dollars per Ton

| Pollutant | Marginal Damage Value (\$/ton, 2020 dollars) | | |
|---------------------------------|--|----------|----------|
| | RFCW | SRMW | MROW |
| CO ₂ -eq (PY1, 2019) | \$46.20 | \$46.20 | \$46.20 |
| CO ₂ -eq (PY2, 2020) | \$47.33 | \$47.33 | \$47.33 |
| SO ₂ | \$28,079 | \$23,028 | \$13,428 |
| NO _x | \$6,356 | \$8,528 | \$7,182 |
| PM 2.5 | \$45,974 | \$29,292 | \$19,554 |
| VOC | \$4,406 | \$2,819 | \$1,877 |

Table IV-10A displays the estimated marginal damage values associated with each pollutant in each eGRID subregion in Illinois, converted from dollars per ton to dollars per MWh using the non-baseload emissions rates identified for each subregion. The values shown are in 2020 dollars per MWh for first year avoided emissions. Here, the marginal values of CO₂-equivalents differ by subregion because the emissions rates of CO₂-equivalents vary by subregion, owing to the different fuel mix used for non-baseload generation in each subregion.

Table IV-10A
First Year Marginal Damage Values of Pollutants by eGRID Subregion per MWh
By eGRID Subregion

| Pollutant | Marginal Damage Value (\$/MWh, 2020 dollars) | | |
|---------------------------------|--|---------|---------|
| | RFCW | SRMW | MROW |
| CO ₂ -eq (PY1, 2019) | \$42.52 | \$44.38 | \$41.06 |
| CO ₂ -eq (PY2, 2020) | \$43.56 | \$45.46 | \$42.06 |
| SO ₂ | \$20.17 | \$30.56 | \$11.81 |
| NO _x | \$4.34 | \$4.60 | \$5.38 |
| PM 2.5 | \$4.67 | \$1.73 | \$1.17 |
| VOC | \$0.12 | \$0.06 | \$0.04 |

Table IV-10B displays the estimated marginal damage values associated with each pollutant in each utility territory, in the weighted utility total (weighted by projected production for approved projects), and in the weighted eGRID total. The table shows that the values vary by utility and are somewhat lower for the weighted utility than for the weighted eGRID value.

Table IV-10B
First Year Marginal Damage Values of Pollutants by eGRID Subregion per MWh
By Utility

| Pollutant | Marginal Damage Value (\$/MWh, 2020 dollars) | | | | |
|---------------------------------|--|---------|-------------|------------------|----------------|
| | ComEd | Ameren | MidAmerican | Weighted Utility | Weighted eGRID |
| CO ₂ -eq (PY1, 2019) | \$41.00 | \$46.79 | \$20.18 | \$42.58 | \$43.02 |
| CO ₂ -eq (PY2, 2020) | \$42.00 | \$47.93 | \$20.68 | \$43.62 | \$44.07 |
| SO ₂ | \$15.36 | \$37.36 | \$0.06 | \$22.24 | \$22.94 |
| NO _x | \$4.92 | \$4.61 | \$0.80 | \$4.76 | \$4.43 |
| PM 2.5 | \$1.98 | \$1.23 | \$0.64 | \$1.72 | \$3.80 |
| VOC | \$0.06 | \$0.04 | \$0.01 | \$0.06 | \$0.10 |

We estimate the value of avoided emissions resulting from the first year solar energy production and the net present value of the lifetime solar energy production resulting from the program. To calculate the value of avoided emissions resulting from the first year solar energy production and displaced electric grid generation, the following formula is used.

$$\text{First year benefits} = (\text{Displaced electric grid generation}) \times (\text{Pollutant emissions rate}) \times (\text{Marginal damage value of avoided pollutant})$$

To calculate the net present value of avoided emissions resulting from the lifetime savings of the program, the following formulas are used.

Lifetime benefits

$$= \sum_{i=1}^{20} \frac{(\text{Displaced electric grid generation year } n) \times (\text{Pollutant emissions rate year } n) \times (\text{Marginal damage value year } n)}{\text{Discount rate year } n}$$

Where:

$$\text{Pollutant emissions rate year } n = \text{Pollutant emissions rate} \times (1 + \text{emissions reduction rate})^{(n-1)}$$

$$\text{Marginal damage value year } n = \text{Marginal value of avoided emissions} \times (1 + \text{damage increase rate})^{(n-1)}$$

$$\text{Discount rate year } n = (1 + \text{discount rate})^{(n-1)}$$

The net present value of the lifetime avoided emissions was calculated with the following assumptions.

- The solar energy production and displaced electric grid generation from the first year of the solar projects were assumed to remain the same each subsequent year for the 20-year expected lifetime of the projects.
- The emissions rates for certain pollutants (SO₂, NO_x, and PM 2.5) were assumed to decrease over time.

- The damage values for criteria air pollutants (SO₂, NO_x, PM 2.5, and VOCs) were assumed to increase over time.
- The social cost of carbon, as published by the Interagency Working Group, increases over time.
- The values were discounted to present using a three percent discount rate.

Table IV-11 displays the estimated value of avoided emissions resulting from the ILSFA Program. The results are shown as first year benefits from the first two years of selected ILSFA projects and the net present value of lifetime benefits for the stream of projects completed in each program year. Total first year benefits for both PY1 projects and PY2 projects are estimated to be \$2,016,994 and total lifetime benefits for both PY1 projects and PY2 projects are estimated to be \$32,790,719.

Table IV-11
Estimated Value of Avoided Emissions

| Pollutant | First Year Benefits (\$) | | | NPV Lifetime Benefits (2020\$) | | |
|---------------------|--------------------------|--------------------|--------------------|--------------------------------|---------------------|---------------------|
| | PY1 (2019) | PY2 (2020) | Total | PY1 (2019) | PY2 (2020) | Total |
| CO ₂ -eq | \$417,017 | \$758,629 | \$1,175,646 | \$7,516,359 | \$13,593,437 | \$21,109,796 |
| SO ₂ | \$222,382 | \$394,920 | \$617,302 | \$3,084,693 | \$5,477,995 | \$8,562,688 |
| NO _x | \$42,895 | \$76,175 | \$119,069 | \$594,996 | \$1,056,632 | \$1,651,629 |
| PM 2.5 | \$36,855 | \$65,449 | \$102,304 | \$511,221 | \$907,859 | \$1,419,079 |
| VOC | \$962 | \$1,709 | \$2,672 | \$17,122 | \$30,405 | \$47,527 |
| Total | \$720,111 | \$1,296,882 | \$2,016,994 | \$11,724,391 | \$21,066,329 | \$32,790,719 |

C. Economic Impacts

The ILSFA Program results in economic benefits because it shifts expenditures from those industries that have lower economic multipliers to industries that have higher multipliers. Two key expenditure shifts occur as a result of the program.

1. *ILSFA Program expenditures replace general retail expenditures:* Funding for the ILSFA Program is from the RERF and utility ratepayer funds. We assume that these ILSFA expenditures replace retail purchases that would have been made in the absence of these ratepayer charges.
2. *Retail expenditures replace electricity expenditures:* The ILSFA Program results in reductions in electric costs for program participants who install DG or participate in community solar, and for nonprofit and public facilities that install solar. We assume that when electricity costs decline as a result of the ILSFA Program, participants increase their spending on retail goods.

The economic benefits result because of the following.

1. Expenditures on solar installations create more economic activity than expenditures on retail goods.

2. Expenditures on retail goods create more economic activity than expenditures on electricity.

These differences result from the labor-intensity of each industry and the percentage of expenditures that are made in Illinois. The total economic benefit from the ILSFA Program is the sum of the two key expenditure shifts that occur because of the program.

Methodology

The macroeconomic effects of any economic activity are generally divided into three categories.

- *Direct Effects*: The direct effects are jobs and output created from the initial investment in a program. For the ILSFA Program, examples include the salaries of program administrators, the salaries of workers hired to install the solar systems, and the salaries of staff hired to conduct Grassroots Education.
- *Indirect Effects*: The indirect effects are jobs and output in industries that supply goods and services to the program. For ILSFA, an example would be the jobs created by the AV expenditures on supplies. While the solar panels are not manufactured in Illinois, other goods purchased as part of the installation activities will add income to residents of Illinois.
- *Induced Effects*: The induced effects are jobs and output created when the individuals who are directly and indirectly affected by the program spend their earnings. One of the goals of the ILSFA Program is to have Approved Vendors hire new job trainees in Illinois to add to the green workforce. Expenditures by these hires will impact the economy in Illinois.

These macroeconomic effects can be calculated using economic multipliers. A multiplier shows the change in jobs or output that results from a change in final demand in any given industry. A multiplier is defined as follows.

$$\text{Multiplier} = \frac{\text{direct effect} + \text{indirect effect} + \text{induced effect}}{\text{direct effect}}$$

We estimated the impact of the ILSFA Program on output and employment by comparing the multipliers for the industries with ILSFA expenditures to those in the absence of the program. Because there is an opportunity cost to all spending decisions, it is not sufficient to only examine the economic impact of funds spent through the ILSFA Program. It is critical to subtract the economic activity that would have occurred in the absence of the program.

Each source of economic impact was matched with the appropriate industry multipliers. The multipliers used in the analysis were obtained from the Regional Input-Output Modeling System II (RIMS-II) produced by the Bureau of Economic Analysis (BEA). To calculate the RIMS-II multipliers, the BEA uses a set of national input-output accounts that record the

goods and services used by each industry. The input-output accounts used for RIMS-II are based on 2012 national benchmarks and 2018 regional data.⁴⁸

Multipliers are also affected by local supply conditions. The BEA takes this into account by adjusting each regional industry multiplier by the industry's concentration in the region relative to its concentration in the nation. RIMS-II Type II multipliers include not only direct and indirect effects but also induced effects. As described above, induced effects capture the impact of the increased spending by individuals whose income has risen as a direct or indirect result of the program. Accounting for induced effects is necessary to calculate the full economic impact of the ILSFA Program.

$$\textcircled{3} \text{ Impact due to ILSFA Expenditure} = \frac{1}{\$1,000,000} \times \{[\$ \textit{Spent in IL} \times (\textit{Job Multiplier with ILSFA} - \textit{Retail Job Multiplier})] - (\$ \textit{Spent Outside of IL} \times \textit{Retail Job Multiplier})\}$$

$$\textcircled{4} \text{ Impact due to Electric Cost Reduction} = \frac{1}{\$1,000,000} \times \textit{ILSFA Bills Saved} \times (\textit{Retail Job Multiplier with ILSFA} - \textit{Utility Job Multiplier})$$

$$\text{Employment Impact} = \textcircled{3} + \textcircled{4}$$

Calculations were performed using the following formulas.

Economic Output Impact

This section analyzes the economic output impact of the ILSFA Program. Table IV-12 displays ILSFA expenditure data and an estimate of the percent spent in Illinois. The total expenditures in Program Year 1 were approximately \$17 million and the total expenditures for Program Year 2 were approximately \$26 million. There are several sources for these data.

- **IPA Expenditures:** IPA administrative expenditures were reported by the IPA and REC expenditures were based on program administration data. The percent of REC dollars spent on labor, materials, and other were reported by the AVs as part of the AV survey.
- **Elevate and NERA Expenditures:** These expenditures were reported by the IPA.
- **Percent Spent in Illinois:** The percent of labor, materials, and other costs spent in Illinois were reported by AVs in the AV survey. IPA costs and Elevate costs were assumed to be spent in Illinois and the NERA costs were assumed to be spent out of Illinois. The 20 percent of evaluation costs for the subcontractor located in Illinois were assumed to be spent in Illinois.

⁴⁸ The multipliers were purchased at this website: <https://apps.bea.gov/regional/rims/rimsii/>

**Table IV-12
ILSFA Program Expenditures**

| Expenditures | | Expenditures | | % Spent in Illinois |
|-----------------------------|---------------------|---------------------|---------------------|---------------------|
| | | PY1 | PY2 | |
| IPA Expenditures | | | | |
| Administrative | | \$375,426 | \$222,155 | 100% |
| RECs (\$ Millions) | Labor Cost (42%) | \$5.94 | \$9.64 | 96% |
| | Material Cost (46%) | \$6.50 | \$10.56 | 74% |
| | Other Cost (11%) | \$1.70 | \$2.76 | 89% |
| Evaluation | | \$76,731 | \$339,550 | 20% |
| Elevate Expenditures | | | | |
| Administrative | | \$1,164,751 | \$1,049,229 | 100% |
| Call Center | | \$34,487 | \$37,451 | 100% |
| IT (Website, Portal, etc.) | | \$687,487 | \$287,371 | 100% |
| Grassroots Education* | | \$257,580 | \$461,446 | 100% |
| Other Marketing/Outreach | | \$240,584 | \$152,410 | 100% |
| Quality Assurance | | \$11,123 | \$12,590 | 100% |
| Job Training | | \$85,244 | \$119,069 | 100% |
| NERA Expenditures | | | | |
| Administrative | | \$192,400 | \$461,160 | 0% |
| Total | | \$17,265,813 | \$26,102,432 | |

Note: PY1 includes plan development work completed prior to PY1.

*Grassroots Education costs include Elevate’s costs and Grassroots Educators’ costs.

Table IV-13 displays the RIMS-II output multipliers in the presence and the absence of the ILSFA Program. The output multipliers represent the dollars of output created for each additional dollar of expenditures. The table also displays the output multiplier change as the difference between the multipliers with and without the ILSFA Program.

**Table IV-13
Output Multipliers Used to Estimate ILSFA Economic Output Impact**

| Category | | Output Multiplier With Program | | Output Multiplier Without Program | | Output Multiplier Change |
|-------------------------|----------|--|------------|-----------------------------------|------------|--------------------------|
| | | Description | Multiplier | Description | Multiplier | |
| IPA Expenditures | | | | | | |
| Administrative | | Administrative and Support Services | 2.3364 | Other Retail | 0.9878 | 1.3486 |
| RECs | Labor | Construction | 2.3988 | Other Retail | 0.9878 | 1.411 |
| | Material | Electrical equipment, appliance, and component manufacturing | 0.7797 | Other Retail | 0.9878 | -0.2081 |

| Category | Output Multiplier With Program | | Output Multiplier Without Program | | Output Multiplier Change | |
|-----------------------------|--------------------------------|--|-----------------------------------|--------------|--------------------------|--------|
| | Description | Multiplier | Description | Multiplier | | |
| | Other | Administrative and Support Services | 2.3364 | Other Retail | 0.9878 | 1.3486 |
| Evaluation | | Professional, scientific, and technical services | 2.2712 | Other Retail | 0.9878 | 1.2834 |
| Elevate Expenditures | | | | | | |
| Administrative | | Administrative and Support Services | 2.3364 | Other Retail | 0.9878 | 1.3486 |
| Call Center | | Administrative and Support Services | 2.3364 | Other Retail | 0.9878 | 1.3486 |
| IT | | Data processing, hosting, and other information services | 2.1856 | Other Retail | 0.9878 | 1.1978 |
| Grassroots Education | | Social Assistance | 2.3795 | Other Retail | 0.9878 | 1.3917 |
| Marketing/Outreach | | Administrative and Support Services | 2.3364 | Other Retail | 0.9878 | 1.3486 |
| Quality Assurance | | Professional, scientific, and technical services | 2.2712 | Other Retail | 0.9878 | 1.2834 |
| Job Training | | Educational Services | 2.1819 | Other Retail | 0.9878 | 1.1941 |
| NERA Expenditures | | | | | | |
| Administrative | | Administrative and Support Services | 2.3364 | Other Retail | 0.9878 | 1.3486 |

Table IV-14 displays the first year impact of the ILSFA Program on economic output due to the shift from retail spending to ILSFA expenditures. The estimated increase in output for Program Year 1 is about \$10.5 million and the increase for Program Year 2 is around \$13.8 million. The total estimated increase in output is over \$24 million.

Table IV-14
ILSFA Expenditures Impact on Economic Output

| Expenditures | | Expenditures | | % Spent in IL | Output Multipliers | | Economic Output Impact | | |
|-----------------------------|----------|--------------|--------------|---------------|--------------------|--------|------------------------|--------------|--------------|
| | | PY1 | PY2 | | ILSFA | Retail | PY1 | PY2 | Total |
| IPA Expenditures | | | | | | | | | |
| Administrative | | \$375,426 | \$222,155 | 100% | 2.3364 | 0.9878 | \$506,299 | \$299,598 | \$805,897 |
| RECs (\$ Million) | Labor | \$5,938,800 | \$9,643,200 | 96% | 2.3988 | 0.9878 | \$7,809,807 | \$12,681,271 | \$20,491,078 |
| | Material | \$6,504,400 | \$10,561,600 | 74% | 0.7797 | 0.9878 | -\$2,672,151 | -\$4,338,938 | -\$7,011,088 |
| | Other | \$1,696,800 | \$2,755,200 | 89% | 2.3364 | 0.9878 | \$1,852,220 | \$3,007,565 | \$4,859,785 |
| Evaluation | | \$76,731 | \$339,550 | 20% | 2.2712 | 0.9878 | -\$40,941 | -\$181,170 | -\$222,111 |
| Elevate Expenditures | | | | | | | | | |
| Administrative | | \$1,164,751 | \$1,049,229 | 100% | 2.3364 | 0.9878 | \$1,570,783 | \$1,414,990 | \$2,985,773 |
| Call Center | | \$34,487 | \$37,451 | 100% | 2.3364 | 0.9878 | \$46,510 | \$50,506 | \$97,016 |
| IT | | \$687,487 | \$287,371 | 100% | 2.1856 | 0.9878 | \$823,471 | \$344,213 | \$1,167,685 |

| Expenditures | Expenditures | | % Spent in IL | Output Multipliers | | Economic Output Impact | | |
|--------------------------|---------------------|---------------------|---------------|--------------------|--------|------------------------|---------------------|---------------------|
| | PY1 | PY2 | | ILSFA | Retail | PY1 | PY2 | Total |
| Grassroots Education | \$257,580 | \$461,446 | 100% | 2.3795 | 0.9878 | \$358,474 | \$642,195 | \$1,000,669 |
| Marketing/Outreach | \$240,584 | \$152,410 | 100% | 2.3364 | 0.9878 | \$324,452 | \$205,541 | \$529,993 |
| Quality Assurance | \$11,123 | \$12,590 | 100% | 2.2712 | 0.9878 | \$14,275 | \$16,157 | \$30,433 |
| Job Training | \$85,244 | \$119,069 | 100% | 2.1819 | 0.9878 | \$101,790 | \$142,181 | \$243,971 |
| NERA Expenditures | | | | | | | | |
| Administrative | \$192,400 | \$461,160 | 0% | 2.3364 | 0.9878 | -\$190,053 | -\$455,534 | -\$645,587 |
| Total | \$17,265,813 | \$26,102,432 | | | | \$10,504,938 | \$13,828,576 | \$24,333,514 |

Table IV-15 displays the first year impact of the ILSFA Program on output due to the electric cost reduction. The first year economic output impact for Program Year 1 is \$66,217 and the impact for Program Year 2 is \$140,633. The total first year estimated impact due to electric cost reduction is \$206,850.

Table IV-15
ILSFA Electric Cost Reduction
Economic Output Impact

| ILSFA Sub-program | Electric Cost Reduction* | | Output Multipliers | | First Year Output Impact | | |
|-----------------------------------|--------------------------|------------------|--------------------|----------|--------------------------|------------------|------------------|
| | PY1 | PY2 | Retail | Electric | PY1 | PY2 | Total |
| Distributed Generation | \$0 | \$256,256 | | | \$0 | \$60,271 | \$60,271 |
| Community Solar | \$178,415 | \$152,331 | 0.9878 | 0.7526 | \$41,963 | \$35,828 | \$77,792 |
| Non-Profits and Public Facilities | \$103,120 | \$189,344 | | | \$24,254 | \$44,534 | \$68,788 |
| Total | \$281,535 | \$597,931 | | | \$66,217 | \$140,633 | \$206,850 |

*For the DG and NP/PF sub-programs, savings are from the administrative data. For the CS sub-program, savings were calculated based on estimated production from the administrative data and the net metering rates listed on the CS disclosure form on the ILSFA website on 12/23/20.

Table IV-16 displays the total first year output impact of the ILSFA Program in the state of Illinois. The total first year economic output impact is greater than \$24 million. The majority of the impact results from the shift in expenditures on retail goods to the ILSFA Program.

**Table IV-16
ILSFA Total First Year Economic Output Impact**

| Economic Output Impact | PY1 | PY2 | Total |
|-------------------------------|---------------------|---------------------|---------------------|
| ILSFA Expenditure | \$10,504,938 | \$13,828,576 | \$24,333,514 |
| Electric Cost Reduction | \$66,217 | \$140,633 | \$206,850 |
| Total | \$10,571,156 | \$13,969,209 | \$24,540,365 |

Table IV-17 displays the total first year and lifetime economic impact of the ILSFA Program. The ILSFA expenditures are a one-time impact because they are a one-time infusion into the economy. The electric savings are calculated as the net present value of savings over the estimated 20 years that the systems produce electricity, with a three percent discount rate. The lifetime economic impact is estimated to be over \$28 million.

**Table IV-17
ILSFA Total First Year and Lifetime Economic Impact**

| | PY1 | PY2 | Total |
|--------------------------|--------------|--------------|---------------------|
| First Year Impact | \$10,571,156 | \$13,969,209 | \$24,540,365 |
| Lifetime Impact | \$11,713,189 | \$16,553,066 | \$28,266,254 |

Employment Impact

This section analyzes the employment impact of the ILSFA Program. Each final-demand multiplier for employment indicates the change in employment in each industry that results from a \$1 million change in final demand in the industry.

Table IV-18 displays the RIMS-II job multipliers. The table also displays the jobs multiplier change as the difference between the multipliers with and without the ILSFA Program.

**Table IV-18
Multipliers for ILSFA Employment Impact**

| Category | Jobs Multiplier With Program | | Jobs Multiplier Without Program | | Job Multiplier Change | |
|-------------------------|-------------------------------------|--|--|-------------------|------------------------------|---------|
| | Description | Multiplier | Description | Multiplier | | |
| IPA Expenditures | | | | | | |
| Administrative | Administrative and Support Services | 21.805 | Other Retail | 8.7737 | 13.0313 | |
| RECs | Labor | Construction | 14.2615 | Other Retail | 8.7737 | 5.4878 |
| | Materials | Electrical equipment, appliance, and component manufacturing | 3.0064 | Other Retail | 8.7737 | -5.7673 |
| | Cost | Administrative and Support Services | 21.805 | Other Retail | 8.7737 | 13.0313 |

| Category | Jobs Multiplier With Program | | Jobs Multiplier Without Program | | Job Multiplier Change |
|-----------------------------|--|------------|---------------------------------|------------|-----------------------|
| | Description | Multiplier | Description | Multiplier | |
| Evaluation | Professional, scientific, and technical services | 13.8495 | Other Retail | 8.7737 | 5.0758 |
| Elevate Expenditures | | | | | |
| Administrative | Administrative and Support Services | 21.805 | Other Retail | 8.7737 | 13.0313 |
| Call Center | Administrative and Support Services | 21.805 | Other Retail | 8.7737 | 13.0313 |
| IT | Data processing, hosting, and other information services | 9.0058 | Other Retail | 8.7737 | 0.2321 |
| Grassroots Education | Social Assistance | 25.275 | Other Retail | 8.7737 | 16.5013 |
| Marketing/Outreach | Administrative and Support Services | 21.805 | Other Retail | 8.7737 | 13.0313 |
| Quality Assurance | Professional, scientific, and technical services | 13.8495 | Other Retail | 8.7737 | 5.0758 |
| Job Training | Educational Services | 19.2265 | Other Retail | 8.7737 | 10.4528 |
| NERA Expenditures | | | | | |
| Administrative | Administrative and Support Services | 21.805 | Other Retail | 8.7737 | 13.0313 |

Table IV-19 displays the annual employment impact of the ILSFA Program due to the shift from retail expenditures to ILSFA expenditures. It was estimated that 61 job years were created as a result of the program. Most of these gains result from the labor needed to install energy efficiency upgrades.

Table IV-19
ILSFA Expenditures Replaced Retail Expenditures
Employment Impact

| Expenditures | Expenditures | | % Spent in IL | Job Multipliers | | Employment Impact | | | |
|-----------------------------|---------------------|---------------------|---------------|-----------------|---------|-------------------|-------------|-------------|--------|
| | PY1 | PY2 | | ILSFA | Retail | PY1 | PY2 | Total | |
| IPA Expenditures | | | | | | | | | |
| Administrative | \$375,426 | \$222,155 | 100% | 21.805 | 8.7737 | 4.9 | 2.9 | 7.8 | |
| RECs (\$ Million) | Labor | \$5,938,800 | \$9,643,200 | 96% | 14.2615 | 8.7737 | 29.2 | 47.4 | 76.6 |
| | Material | \$6,504,400 | \$10,561,600 | 74% | 3.0064 | 8.7737 | -42.6 | -69.2 | -111.8 |
| | Cost | \$1,696,800 | \$2,755,200 | 89% | 21.805 | 8.7737 | 18.0 | 29.3 | 47.3 |
| Evaluation | \$76,731 | \$339,550 | 20% | 13.8495 | 8.7737 | -0.5 | -2.0 | -2.5 | |
| Elevate Expenditures | | | | | | | | | |
| Administrative | \$1,164,751 | \$1,049,229 | 100% | 21.805 | 8.7737 | 15.2 | 13.7 | 28.9 | |
| Call Center | \$34,487 | \$37,451 | 100% | 21.805 | 8.7737 | 0.4 | 0.5 | 0.9 | |
| IT | \$687,487 | \$287,371 | 100% | 9.0058 | 8.7737 | 0.2 | 0.1 | 0.2 | |
| Grassroots Education | \$257,580 | \$461,446 | 100% | 25.275 | 8.7737 | 4.3 | 7.6 | 11.9 | |
| Marketing/Outreach | \$240,584 | \$152,410 | 100% | 21.805 | 8.7737 | 3.1 | 2.0 | 5.1 | |
| Quality Assurance | \$11,123 | \$12,590 | 100% | 13.8495 | 8.7737 | 0.1 | 0.1 | 0.1 | |
| Job Training | \$85,244 | \$119,069 | 100% | 19.2265 | 8.7737 | 0.9 | 1.2 | 2.1 | |
| NERA Expenditures | | | | | | | | | |
| Administrative | \$192,400 | \$461,160 | 0% | 21.805 | 8.7737 | -1.7 | -4.0 | -5.7 | |
| Total | \$17,265,813 | \$26,102,432 | | | | 31.5 | 29.5 | 61.0 | |

Table IV-20 displays first year employment impact of the ILSFA Program due to electric cost reduction. The total first year employment impact due to electric cost reduction is 5.7 job years.

**Table IV-20
ILSFA Electric Cost Reduction
Employment Impact**

| ILSFA Sub-program | Electric Cost Reduction* | | Job Multipliers | | First Year Employment Impact | | |
|-----------------------------------|--------------------------|------------------|-----------------|----------|------------------------------|------------|------------|
| | PY1 | PY2 | Retail | Electric | PY1 | PY2 | Total |
| Distributed Generation | \$0 | \$256,256 | 8.7737 | 2.2621 | 0 | 1.7 | 1.7 |
| Community Solar | \$178,415 | \$152,331 | | | 1.2 | 1.0 | 2.2 |
| Non-Profits and Public Facilities | \$103,120 | \$189,344 | | | 0.7 | 1.2 | 1.9 |
| Total | \$281,535 | \$597,931 | | | 1.8 | 3.9 | 5.7 |

*For the DG and NP/PF sub-programs, savings are from the administrative data. For the CS sub-program, savings were calculated based on estimated production from the administrative data and the net metering rates listed on the CS disclosure form on the ILSFA website on 12/23/20.

Table IV-21 displays the total annual employment impact of the ILSFA Program in the state of Illinois. The annual employment impacts from the previous two tables were summed to calculate the total annual employment impact. We estimate that 66.7 job years were created as a result of the program.

**Table IV-21
ILSFA First Year Employment Impact**

| Employment Impact | PY1 | PY2 | Total |
|--------------------------|-------------|-------------|-------------|
| ILSFA Expenditures | 31.5 | 29.5 | 61.0 |
| Electric Cost Reductions | 1.8 | 3.9 | 5.7 |
| Total | 33.3 | 33.4 | 66.7 |

Table IV-22 displays the first year and lifetime employment impacts. The ILSFA expenditures are a one-time impact because they are a one-time infusion into the economy. The electric savings are calculated as the net present value of savings over the estimated 20 years that the systems produce electricity, with a three percent discount rate. The lifetime employment impact for Program Year 1 is 65 job years and the impact for Program Year 2 is 104.9 job years. The total lifetime employment impact is 169.9 job years.

**Table IV-22
ILSFA First Year and Lifetime Employment Impact**

| | PY1 | PY2 | Total |
|-------------------|------|-------|--------------|
| First Year Impact | 33.3 | 33.4 | 66.7 |
| Lifetime Impact | 65.0 | 104.9 | 169.9 |

V. Approved Vendor Survey

APPRISE conducted an online survey with 48 of ILSFA's 50 Approved Vendors (AVs). These surveys assessed AVs' experiences with the ILSFA Program.⁴⁹

This section provides information on the AVs' views and opinions. Statements that were made by the AVs and that are reported in this section may include suggestions that are inconsistent with the statutory requirements of the ILSFA and/or the ICC approved program design. Additionally, recommendations in this section are those made by the AVs, and may not represent the opinions of APPRISE or the IPA.

A. Methodology

All Approved Vendors, Approved Vendor Aggregators, and Approved Vendor Designees as of July 8, 2020 were included in the survey sample.

The following procedures were used to implement the surveys.

- APPRISE posted an online survey.
- Each AV was assigned a unique link so that only one response could be provided per organization.
- AVs were initially notified about the survey via email.
- Up to seven additional contact attempts were made to AVs. These included a combination of email and phone attempts.
- AVs were given the option to defer questions to designees, sub-contractors, or other sub-entities. APPRISE followed-up with these sub-entities to obtain additional information when necessary.
- Surveys were completed between September 22, 2020 and October 25, 2020.
- APPRISE reviewed all surveys for completeness and consistency. Thirty-seven AVs were found to have many missing or inconsistent questions and were asked to provide additional clarifying information. Thirty of those provided additional information.

APPRISE attempted to survey all 50 of the ILSFA AVs and was able to collect completed surveys from 48, one of whom is not included in the survey findings because they only became an AV to complete an individual project and most questions did not apply. The two AVs who did not complete a survey said they did not have time to complete the survey because they were trying to meet project deadlines for other programs.

The following topics were addressed.

- Approved Vendor Data
- Approved Vendor Background
- Approved Vendor Registration and Project Submission
- Project Implementation
- Job Creation

⁴⁹ One of the AVs is not included in the final count as it is a school district that only pursued a project for the district.

- Non-Energy Benefit Data
- ILSFA Training and Resources
- Stakeholder Outreach and Feedback
- Grassroots Education
- Performance Metrics and Program Assessment

B. Approved Vendor Data

This section summarizes the characteristics of the AVs and the individuals who responded to the survey on behalf of those AVs. Information on AV characteristics is based on AV data as of November 2020.

Table V-1 displays the registration status of the AVs. In the overall sample, 48 AVs were approved and two had withdrawn. Two of the AVs who completed the survey had withdrawn.

Table V-1
Approved Vendor Registration Status

| Status | Completed Survey | | Did Not Complete Survey | | Total | |
|--------------|------------------|-------------|-------------------------|-------------|-----------|-------------|
| | # | % | # | % | # | % |
| Approved | 46 | 96% | 2 | 100% | 48 | 96% |
| Withdrawn | 2 | 4% | 0 | 0% | 2 | 4% |
| Total | 48 | 100% | 2 | 100% | 50 | 100% |

Table V-2 displays the AVs by registration type. Of those who completed the survey, 39 were registered as Approved Vendors, eight were registered as Designees, and three were registered as Approved Vendor Aggregators. Two AVs were registered as both Approved Vendors and Aggregators and are thus included in the count for both groups.

Table V-2
Approved Vendor Registration Type

| Type | Completed Survey | | Did Not Complete Survey | | Total | |
|---------------------|------------------|-------------|-------------------------|-------------|-----------|-------------|
| | # | % | # | % | # | % |
| Observations | 48 | 100% | 2 | 100% | 50 | 100% |
| Approved Vendor | 39 | 81% | 2 | 100% | 41 | 82% |
| Designee | 8 | 17% | 0 | 0% | 8 | 16% |
| AV Aggregator | 3 | 6% | 0 | 0% | 1 | 2% |

*Two AVs were registered as both an AV and an AV Aggregator.

Table V-3 displays the AV Minority or Women Owned Business (MWBE) status. Six MWBEs and one with a pending MWBE application completed the survey.

Table V-3
Approved Vendor Minority or Women-Owned Status

| Minority or Women-Owned | Completed Survey | | Did Not Complete Survey | | Total | |
|-------------------------|------------------|-------------|-------------------------|-------------|-----------|-------------|
| | # | % | # | % | # | % |
| MWBE | 6 | 13% | 0 | 0% | 6 | 12% |
| Not MWBE | 41 | 85% | 2 | 100% | 43 | 86% |
| Pending | 1 | 2% | 0 | 0% | 1 | 2% |
| Total | 48 | 100% | 2 | 100% | 50 | 100% |

Table V-4 shows that one of the AVs that did not complete the survey had a project selected and one had not submitted projects. Nineteen AVs who did not submit any projects completed the survey.

Table V-4
Approved Vendors with Selected Projects

| Project Selection Status | Completed Survey | | Did Not Complete Survey | | Total | |
|-----------------------------------|------------------|-------------|-------------------------|-------------|-----------|-------------|
| | # | % | # | % | # | % |
| Submitted & Had Projects Selected | 17 | 35% | 1 | 50% | 18 | 36% |
| Submitted Projects, None Selected | 12 | 25% | 0 | 0% | 12 | 24% |
| No Projects Submitted | 19 | 40% | 1 | 50% | 20 | 40% |
| Total | 48 | 100% | 2 | 100% | 50 | 100% |

C. Approved Vendor Background

Information in this and the rest of the sections on the AV survey are based upon the survey responses. While 48 AVs responded to the survey, these tables exclude the one AV that installed a school district system and did not respond to most of the survey questions. Some tables only include AVs that had experience with the referenced topic.

The AVs were asked about their roles and responsibilities within their companies. Table V-5 shows that 34 respondents said they are involved in project development, 29 said they are in a management position, 23 said they are involved in sales, and 22 said their role includes facilitating a relationship between their company and utility/rebate programs. Other commonly reported responsibilities included community engagement, marketing, and system design.

**Table V-5
Company Responsibilities**

| What are your general responsibilities within your company? | | |
|--|------------|-------------|
| Response | AVs | |
| | # | % |
| Observations | 47 | 100% |
| Project Development | 34 | 72% |
| Management | 29 | 62% |
| Sales | 23 | 49% |
| Utility/Rebate Program Participation | 22 | 47% |
| Community Engagement | 17 | 36% |
| Marketing | 16 | 34% |
| System Design | 14 | 28% |
| Operations/Installation | 4 | 9% |
| REC Aggregation / Coordination | 2 | 4% |
| Policy and Strategy | 1 | 2% |

*Some AVs provided more than one response.

AVs were asked about their level of involvement in the AV registration application and project submission. Most respondents indicated that they were the primary person responsible for the AV registration application and project submissions. All but three respondents indicated that they played at least some role in the AV registration application, and all but four said they were at least somewhat involved in the project submissions.

**Table V-6
Approved Vendor Application and Project Submission Responsibilities**

| What was your role in submitting the Approved Vendor registration? What was your role in submitting ILSFA project submissions? | | | | |
|---|------------------------|-------------|-----------------------------|-------------|
| Response | AV Registration | | Project Applications | |
| | # | % | # | % |
| Primary Responsibility | 34 | 72% | 32 | 68% |
| Secondary Responsibility | 6 | 13% | 6 | 13% |
| Somewhat Involved | 4 | 9% | 5 | 11% |
| No Role | 3 | 6% | 3 | 6% |
| Don't Know | 0 | 0% | 1 | 2% |
| Total | 47 | 100% | 47 | 100% |

D. *Approved Vendor Registration and Project Submission*

This section describes respondents' experiences with the AV registration and project submission process.

Respondents who had played at least some role in the AV registration process were asked how easy or difficult that process had been to complete. Table V-7 shows that 26 percent said that the process was very or somewhat easy, 19 percent said it was neither easy nor difficult, and 41 percent said it was somewhat or very difficult.

AVs were also asked how easy or difficult it had been to use the AV Portal to submit their AV registration application. Forty percent said that the registration portal was either very easy or somewhat easy to use while 17 percent said that using the portal was somewhat difficult.

Table V-7
Approved Vendor Registration Process and Portal

| How easy or difficult did you find the Approved Vendor registration process? How easy or difficult was the portal to use in the Approved Vendor registration process? | | | | |
|--|-------------------------|-------------|-----------|-------------|
| Response | AV Registration Process | | AV Portal | |
| | # | % | # | % |
| Very Easy | 5 | 11% | 1 | 2% |
| Somewhat Easy | 7 | 15% | 18 | 38% |
| Neither Easy nor Difficult | 9 | 19% | 12 | 26% |
| Somewhat Difficult | 15 | 32% | 8 | 17% |
| Very Difficult | 4 | 9% | 0 | 0% |
| Don't Know | 4 | 9% | 5 | 11% |
| Played No Role in AV Registration | 3 | 6% | 3 | 6% |
| Total | 47 | 100% | 47 | 100% |

AVs who had not yet submitted any projects at the time of the survey were asked why they had not done so. Nineteen AVs indicated they had not yet submitted an ILSFA project. Among those, seven said they are partnering with other AVs or Aggregators would handle the submission process, seven said they are still developing an understanding of the ILSFA Program, and six said they only recently joined the program.

**Table V-8
Reasons for Not Submitting ILSFA Projects**

| If you have not submitted any projects to the ILSFA yet, why not? | | |
|--|------------|-------------|
| Response | AVs | |
| | # | % |
| Observations | 47 | 100% |
| Partnering with Other AVs/Aggregators | 7 | 15% |
| Still Developing ILSFA Understanding | 7 | 15% |
| Recently Registered | 6 | 13% |
| No Suitable Projects | 4 | 9% |
| ILSFA Funding Uncertainty | 3 | 6% |
| Initial Batch Challenges | 2 | 4% |
| Submission Windows Timeline | 1 | 2% |
| Cannot Find AV Partners to Pursue LIDG Projects | 1 | 2% |
| N/A – Have Submitted Project Already | 28 | 60% |

*Some AVs provided more than one response.

Respondents who had previously submitted a project to the ILSFA Program were asked how challenging it had been to complete their most recent project submission. Table V-9 shows that 61 percent of the AVs said the most recent submission was somewhat challenging and 25 percent said it was very challenging. Eleven percent said it was not at all challenging.

Respondents were also asked how easy or difficult it had been to use the AV Portal for both their first project submission and their most recent project submission. Table V-9 shows that 32 percent said their most recent submission was very or somewhat easy and 36 percent said it was very or somewhat difficult. There was some improvement from the first portal use to the most recent use, as 47 percent said the first portal use was very or somewhat difficult.

**Table V-9
Project Submission Ease or Difficulty**

| How challenging did you find the most recent project submission process? | | | How easy or difficult was the portal to use in your first project submission? In your most recent project submission? | | | | |
|--|--------------------------------|-------------|---|-------------|-----------------|-------------|--|
| Response | Most Recent Project Submission | | First Use | | Most Recent Use | | |
| | # | % | # | % | # | % | |
| Not at all Challenging | 3 | 11% | 2 | 7% | 2 | 7% | |
| Somewhat Challenging | 17 | 61% | 3 | 11% | 7 | 25% | |
| Very Challenging | 7 | 25% | 6 | 21% | 6 | 21% | |
| Don't Know | 1 | 4% | 8 | 29% | 7 | 25% | |
| Total | 28 | 100% | 5 | 18% | 3 | 11% | |
| | | | 3 | 11% | 3 | 11% | |
| | | | 1 | 4% | 0 | 0% | |
| | | | 28 | 100% | 28 | 100% | |

Respondents who had submitted projects were asked about the challenges they faced. Seventeen AVs said they were challenged by the large amount of information required in the submission application, 13 said the submission application was unclear or confusing, 12 said the eligibility requirements for program participants were unclear or confusing, ten said they had issues obtaining an interconnection agreement, and ten said they were challenged by the program timeline. These and other challenges indicated by AVs are displayed in Table V-10.

**Table V-10
Challenges Faced in Project Submission**

| What challenges have you faced in project submission? | | |
|---|-----------|-------------|
| Response | AVs | |
| | # | % |
| Observations | 47 | 100% |
| Volume of Information Required | 17 | 36% |
| Unclear/Confusing Application | 13 | 28% |
| Unclear/Confusing Eligibility Requirements | 12 | 26% |
| Interconnection Agreement | 10 | 21% |
| Program Timeline | 10 | 21% |
| Communication with Elevate Energy | 7 | 15% |
| Community Engagement | 4 | 9% |
| Project Financing | 4 | 9% |
| Finding Eligible Participants | 3 | 6% |

| What challenges have you faced in project submission? | | |
|---|-----|-----|
| Response | AVs | |
| | # | % |
| Portal Issues | 3 | 6% |
| Savings Requirements | 1 | 2% |
| Mitigation Resolution | 1 | 2% |
| Calculating Alternate Capacity Factor | 1 | 2% |
| Other | 1 | 2% |
| Have Not Faced Any Challenges Yet | 3 | 6% |
| Have Not Submitted Projects | 19 | 40% |

*Some AVs provided more than one response.

Respondents who had used the project submission portal were asked what challenges they faced when using the portal for their most recent project submission. Table V-11 shows that ten AVs faced challenges uploading information, nine had trouble understanding portal instructions, five had issues accessing portal applications, three had challenges saving their progress in the portal, and two found it difficult to use the tools for calculating the alternate capacity factor and REC value for the submitted project. Twelve AVs reported that they had not faced any challenges.

Table V-11
Vendor Portal for Project Submission Challenges

| What challenges did you face when using the vendor portal in your most recent project submission? | | |
|---|-----------|-------------|
| Response | AVs | |
| | # | % |
| Observations | 47 | 100% |
| Uploading Information to the Portal | 10 | 21% |
| Understanding Portal Instructions | 9 | 19% |
| Accessing Applications on the Portal | 5 | 11% |
| Saving Progress in the Portal | 3 | 6% |
| Using Calculators for REC Value and Capacity Factor | 2 | 4% |
| Other | 1 | 2% |
| Have Not Faced Any Challenges | 12 | 26% |
| Have Not Submitted Projects | 19 | 40% |

*Some AVs provided more than one response.

Table V-12 displays the responses AVs provided when asked if they felt that the current selection process is easy to understand. Thirteen percent said that the project selection process

is easy to understand, 47 percent said that the process is somewhat easy to understand, and 38 percent said that the process is not easy to understand.

Table V-12
Project Selection Process Ease of Understanding

| Do you feel that the current project selection process is easy to understand? | | |
|--|------------|-------------|
| Response | AVs | |
| | # | % |
| Yes | 6 | 13% |
| Somewhat | 22 | 47% |
| No | 17 | 38% |
| Don't Know | 2 | 4% |
| Total | 47 | 100% |

Respondents were asked to provide their opinion on the revisions that were made to the ILSFA project selection process for the third program year. Table V-13 shows that 15 percent felt somewhat or very positive about the revisions, 24 percent felt somewhat or very negative, and 26 percent were neutral. Thirty-six percent indicated that they did not know how they felt about the revisions, which suggests that these AVs may not have been fully aware of the changes. Views on these changes are not related to whether the AV had a selected project.

Table V-13
Program Year 3 Project Selection Changes

| How positively or negatively do you feel about the revisions that were made to the project selection process for the third Program Year? | | |
|---|------------|-------------|
| Response | AVs | |
| | # | % |
| Very Positively | 1 | 2% |
| Somewhat Positively | 6 | 13% |
| Neither Positively nor Negatively | 12 | 26% |
| Somewhat Negatively | 6 | 13% |
| Very Negatively | 5 | 11% |
| Don't Know | 17 | 36% |
| Total | 47 | 100% |

Respondents were asked whether they had tried to develop ILSFA Low-Income Distributed Generation (DG) projects in the past and whether they plan to develop DG projects going forward. Table V-14 shows that 62 percent had tried to develop a DG project. Looking to the

future, 49 percent said they plan to develop DG projects, 34 percent said they do not plan to develop these projects, and 17 percent were unsure.

Table V-14
ILSFA Distributed Generation Project Development

| Have you tried to develop Low-Income Distributed Generation projects for the ILSFA? Do you plan to submit Low-Income Distributed Generation projects to the ILSFA in the future? | | | | |
|---|-------------------------|-------------|------------------------|-------------|
| Response | Tried to Develop | | Plan to Develop | |
| | # | % | # | % |
| Yes | 29 | 62% | 23 | 49% |
| No | 17 | 36% | 16 | 34% |
| Don't Know | 1 | 2% | 8 | 17% |
| Total | 47 | 100% | 47 | 100% |

Respondents who had previously attempted to develop DG projects were asked what barriers they had encountered. The most common barriers were financing issues, finding eligible participants, and obtaining an interconnection agreement. Table V-15 displays the full list of barriers reported by AVs.

Table V-15
Distributed Generation Project Challenges

| What barriers have you encountered in developing DG projects? | | |
|--|------------|-------------|
| Response | AVs | |
| | # | % |
| Observations | 47 | 100% |
| Financing Issues | 14 | 30% |
| Finding Eligible Participants | 13 | 28% |
| Interconnection Agreements | 7 | 15% |
| Finding Community Partners | 5 | 11% |
| Permitting | 5 | 11% |
| Unclear or Burdensome Requirements | 5 | 11% |
| Project Financials | 4 | 9% |
| Roof Quality Issues | 2 | 4% |
| Uncertainty about Winning RECS | 1 | 2% |
| Finding AV Partner | 1 | 2% |
| Long-Term Program Uncertainty | 1 | 2% |
| Batch Requirements | 1 | 2% |
| Don't Know | 1 | 2% |

| What barriers have you encountered in developing DG projects? | | |
|--|------------|----------|
| Response | AVs | |
| | # | % |
| N/A - Have Not Developed DG Projects | 18 | 38% |

*Some AVs provided more than one response.

Table V-16 shows that six AVs had performed income verification for DG and two had performed the process for CS.

**Table V-16
Income Verification Performed**

| Have you performed the income verification process for any of your projects? If so, what type(s) of projects have you performed income verification for? | | |
|---|------------|-------------|
| Response | AVs | |
| | # | % |
| Observations | 47 | 100% |
| Distributed Generation | 6 | 13% |
| Community Solar | 2 | 4% |
| Don't Know | 2 | 4% |
| Have Not Performed Income Verification | 37 | 79% |

*Some AVs provided more than one response.

Respondents who had performed income verification were asked if they had faced challenges in completing that process and whether potential low-income customers had been reluctant to divulge information about their income. Table V-17 shows that four AVs said they faced challenges in income verification and four said they had not. Additionally, three AVs said that potential low-income customers were reluctant to provide their income information while four AVs said they did not experience that reluctance.

**Table V-17
Income Verification Challenges**

| Have you faced any challenges in the income verification process? Have customers been reluctant to divulge the requested information for income verification? | | | | |
|--|-------------------------|----------|----------------------------|----------|
| Response | Faced Challenges | | Customers Reluctant | |
| | # | % | # | % |
| Yes | 4 | 9% | 3 | 6% |
| No | 4 | 9% | 4 | 9% |
| Don't Know | 0 | 0% | 1 | 2% |
| Did Not Perform Income Verification | 39 | 83% | 39 | 83% |

| Have you faced any challenges in the income verification process? Have customers been reluctant to divulge the requested information for income verification? | | | | |
|--|------------------|-------------|---------------------|-------------|
| Response | Faced Challenges | | Customers Reluctant | |
| Total | 47 | 100% | 47 | 100% |

E. Project Implementation

This section summarizes AVs' responses to questions about the implementation stage of their selected projects.

Respondents were asked if they are working or planning to work with a designee, subcontractor, or other sub-entity that will be responsible for the implementation of their projects. As shown in Table V-18, ten AVs said they are working with a sub-entity on project implementation, 32 AVs said they aren't working with a sub-entity, and five AVs said they don't know if they will be working with a sub-entity because it is too early to say.

Table V-18
Partnered with a Designee for Project Implementation

| Do you have a Designee or other entity that will be responsible for project implementation? | | |
|--|-----------|-------------|
| Response | AVs | |
| | # | % |
| Yes | 10 | 21% |
| No | 32 | 68% |
| Don't Know | 5 | 11% |
| Total | 47 | 100% |

Respondents with selected projects were asked to indicate the latest stage of development reached on those projects. Twenty-eight of the 47 AVs indicated that they have projects selected in the ILSFA Program. Table V-19 shows that 16 AVs said they have not moved beyond the pre-construction stage, four AVs said their most developed project is still under construction, and eight AVs indicated that they have at least one project that has been fully constructed and energized.

Table V-19
Stage of Construction Reached

| If you have selected projects in the ILSFA, what is the latest stage you have reached in the development of your projects? | | |
|---|------------|-------------|
| Response | AVs | |
| | # | % |
| Pre-Construction | 16 | 34% |
| Under Construction | 4 | 9% |
| Constructed and Energized | 8 | 17% |
| N/A (No Projects Selected) | 19 | 40% |
| Total | 47 | 100% |

The 28 respondents who indicated that they had a project selected were asked if they have sought help from Elevate Energy while implementing these projects. Table V-20 shows that 20 AVs asked Elevate for help, seven AVs did not, and one AV did not know whether anyone at their company had asked Elevate for help.

Table V-20
Elevate Energy Assistance Sought with Project Implementation

| Did you seek help from Elevate Energy as you began implementing your projects? | | |
|---|------------|-------------|
| Response | AVs | |
| | # | % |
| Yes | 20 | 71% |
| No | 7 | 25% |
| Don't Know | 1 | 4% |
| Total | 28 | 100% |

The 20 respondents who said they had asked Elevate Energy for help with project implementation were asked what kinds of assistance they had requested. Table V-21 shows that 19 AVs requested help submitting required documentation, ten AVs requested help meeting job training requirements, four AVs requested assistance with income verification, one AV requested help with program rule interpretation, and another requested help calculating the savings requirements for their project.

**Table V-21
Elevate Energy Type of Assistance**

| For which aspects of project implementation did you request assistance? | | |
|---|-----------|-------------|
| Response | AVs | |
| | # | % |
| Observations | 20 | 100% |
| Submitting Required Documentation | 19 | 95% |
| Meeting Job Training Requirements | 10 | 50% |
| Income Verification | 4 | 2% |
| Program Rule Interpretation | 1 | <1% |
| Savings Requirement Calculations | 1 | <1% |

*Some AVs provided more than one response.

The 20 AVs who requested assistance from Elevate Energy were asked how helpful the program administrator had been in providing that assistance. Table V-22 shows that 12 AVs said Elevate was very helpful, five said that Elevate was somewhat helpful, and three said that Elevate was not at all helpful. The three AVs who said that Elevate was not helpful had all requested assistance submitting required documentation and one had also requested assistance in meeting job training requirements and with interpreting program rules.

**Table V-22
Elevate Energy Helpfulness**

| How helpful was Elevate in providing the support that you requested? | | |
|--|-----------|-------------|
| Response | AVs | |
| | # | % |
| Very Helpful | 12 | 60% |
| Somewhat Helpful | 5 | 25% |
| Not at All Helpful | 3 | 15% |
| Total | 20 | 100% |

F. Job Creation

This section summarizes AVs' experiences finding and hiring qualified labor and job trainees for their ILSFA projects.

Respondents were asked if they are working or planning to work with a designee, subcontractor, or other sub-entity that will be responsible for hiring trainees and other installation labor, procuring materials, or conducting marketing for their ILSFA projects. As shown in Table V-23, 11 AVs said they are working with a sub-entity to hire trainees, procure materials, and/or market their projects, 27 AVs said they aren't working with a sub-entity,

and nine AVs said they don't know if they will be working with a sub-entity because it is too early to say.

Table V-23
**Partnered with a Designee for Hiring Job Trainees,
Purchasing Panels, and/or Marketing**

| Do you have a Designee or other entity that will be responsible for hiring job trainees, purchasing the panels that will be used for your project(s), and/or conducting marketing? | | |
|---|------------|-------------|
| Response | AVs | |
| | # | % |
| Yes | 11 | 23% |
| No | 27 | 57% |
| Don't Know | 9 | 19% |
| Total | 47 | 100% |

Table V-24 displays AV responses about whether they had looked into hiring job trainees for their ILSFA projects. Twenty-six AVs said they have looked for trainees, 13 AVs said they have not looked for trainees, and two AVs said they don't know if their company has started looking for trainees. Additionally, six AVs indicated that the hiring of installation staff is completely handled by their AV partner(s) and that they are not involved in that process at all.

Table V-24
ILSFA Job Trainee Search

| Have you looked for solar job trainees in preparation for ILSFA work? | | |
|--|----------------------|-------------|
| Response | Number of AVs | |
| | # | % |
| Yes | 26 | 55% |
| No | 13 | 28% |
| Don't Know | 2 | 4% |
| N/A (Not Involved in Hiring Installation Staff) | 6 | 13% |
| Total | 47 | 100% |

The 26 respondents who said they had started looking for ILSFA job trainees were asked how easy or difficult it has been to find job trainees who are qualified to perform the work needed for ILSFA and how easy or difficult it has been to hire a sufficient number of trainees to meet the program's job training requirements. Table V-25 shows that eight AVs said it has been very or somewhat easy to find qualified trainees while ten AVs said that it has been somewhat or very difficult to find trainees. With regard to hiring a sufficient number of trainees, 12 AVs

said this has been very or somewhat easy to do while six AVs said it has been somewhat or very difficult.

**Table V-25
ILSFA Job Trainee Hiring**

| How easy or difficult has it been for you to find job trainees who are qualified to perform the work needed for the Illinois Solar for All Program? How easy or difficult has it been for you to hire job trainees to meet the ILSFA Program’s job training requirement? | | | | |
|---|-----------------------------------|-------------|-----------------------------------|-------------|
| Response | Finding Qualified Trainees | | Hiring Sufficient Trainees | |
| | # | % | # | % |
| Very Easy | 4 | 15% | 5 | 19% |
| Somewhat Easy | 4 | 15% | 7 | 27% |
| Neither Easy no Difficult | 4 | 15% | 2 | 8% |
| Somewhat Difficult | 5 | 19% | 2 | 8% |
| Very Difficult | 5 | 19% | 4 | 15% |
| Too Early to Say | 3 | 12% | 4 | 15% |
| Don’t Know | 1 | 4% | 2 | 8% |
| Total | 26 | 100% | 26 | 100% |

Respondents were asked what methods they have used, or plan to use, to hire qualified trainees for their ILSFA projects. Table V-26 shows that 33 AVs have or will be contacting FEJA Job Training Programs, 18 AVs said they will rely on community partnerships, and four AVs don’t how they will look for job trainees because it is too early to say.

**Table V-26
ILSFA Job Trainee Search Methods**

| What methods have you used/will you use to find qualified job trainees? | | |
|--|------------|-------------|
| Response | AVs | |
| | # | % |
| Observations | 47 | 100% |
| FEJA Job Training Programs | 33 | 70% |
| Community Partnerships | 18 | 38% |
| Don’t Know | 4 | 9% |
| N/A – Not Involved in Hiring Installation Staff | 6 | 13% |

*Some AVs provided more than one response.

Respondents who had looked for trainees were asked to indicate the number of trainees they hired. Table V-27 shows that eight AVs had not yet hired a trainee, 12 AVs hired between one and five trainees, and one AV hired between six and ten trainees.

All respondents in the sample were asked to provide an estimate of the total number of trainees they expect to hire for all of their ILSFA work. Table V-27 shows that one AV said they will not hire any trainees, nine AVs said they will hire between one and five trainees, three AVs said they will hire between six and ten trainees, and three AVs said they plan to hire more than ten trainees. Twenty-five AVs said they do not know how many trainees they expect to hire because they do not know how many REC contracts they will win through ILSFA. The mean number they expect to hire is ten trainees.

**Table V-27
Job Trainees Hired and Expected**

| How many job trainees have you hired to date? How many total job trainees do you expect to hire (including any already hired)? | | | | |
|---|--------------------|-------------|------------------------|-------------|
| Response | Job Trainees Hired | | Total Expected to Hire | |
| | # | % | # | % |
| 0 | 8 | 17% | 1 | 2% |
| 1-5 | 12 | 26% | 9 | 19% |
| 6-10 | 1 | 2% | 3 | 6% |
| >10 | 0 | 0% | 3 | 6% |
| Not Involved in Hiring Installation Staff | 6 | 13% | 6 | 13% |
| Don't Know | 4 | 9% | 25 | 53% |
| Don't Want to Answer | 1 | 2% | 0 | 0% |
| N/A (Have Not Looked for Trainees) | 15 | 32% | - | - |
| Total | 47 | 100% | 47 | 100% |
| Mean | 2 | | 10 | |

Respondents were asked to report the percent of installation hours on their ILSFA projects that they expect to be completed by qualified job trainees. Table V-28 displays the responses that AVs provided. The mean percent of hours was 35 percent. Two AVs said they expect none of their installation hours to be completed by trainees and 16 AVs said they do not know what percentage of their installation hours will be completed by trainees.

**Table V-28
Percent of Installation Hours Expected to be Completed by Job Trainees**

| Across all of your selected projects, what percent of installation hours do you expect to be completed by qualified job trainees? | | |
|---|-----|-----|
| Response | AVs | |
| | # | % |
| 0% | 2 | 4% |
| 1%-10% | 5 | 11% |

| Across all of your selected projects, what percent of installation hours do you expect to be completed by qualified job trainees? | | |
|--|------------|-------------|
| Response | AVs | |
| | # | % |
| 11%-20% | 6 | 13% |
| 21%-30% | 4 | 9% |
| 50% | 2 | 4% |
| 80%-90% | 3 | 6% |
| 100% | 2 | 4% |
| N/A (Not Involved in Hiring Installation Staff) | 6 | 13% |
| Don't Know | 16 | 34% |
| Don't Want to Answer | 1 | 2% |
| Total | 47 | 100% |
| Mean | 35% | |

Respondents were asked to report the expected job responsibilities for the job trainees on their ILSFA projects. Table V-29 shows that the most common response, reported by 23 AVs, was that trainees would work in construction and installation. Other responses included general construction/trades, sales, system design, supply chain, and administrative work.

Table V-29
Roles and Responsibilities for Job Trainees

| What are the job responsibilities of the job trainees that you have hired or will be hiring? | | |
|---|------------|-------------|
| Response | AVs | |
| | # | % |
| Observations | 47 | 100% |
| Construction/Installation | 23 | 49% |
| General Construction/Trades | 11 | 23% |
| Sales | 9 | 19% |
| System Design | 9 | 19% |
| Supply Chain | 4 | 9% |
| Administrative Work | 4 | 9% |
| Not Involved in Hiring Installation Staff | 6 | 13% |
| Too Early to Say | 10 | 21% |
| Don't Know | 2 | 4% |

*Some AVs provided more than one response.

Respondents were asked to provide the hourly rate and/or annual salary that will be paid to job trainees for ILSFA work. Table V-30 displays the hourly wages and annual salaries that

the AVs provided. The most common hourly rate was \$19 to \$20 and the most common annual salary was \$38,000 to \$42,000. The mean hourly rate was \$24 and the mean annual salary was \$40,568.

Table V-30
Hourly Rate & Annual Salaries for Job Trainees

| What is the hourly rate for new job trainees? | | |
|---|-------------|-------------|
| Response | AVs | |
| | # | % |
| \$12-\$16 | 3 | 6% |
| \$19-\$20 | 7 | 15% |
| \$22-\$25 | 3 | 6% |
| \$30-\$35 | 3 | 6% |
| - | - | - |
| Don't Know | 19 | 40% |
| Don't Want to Answer | 3 | 6% |
| Not Involved in Installation | 6 | 13% |
| Total | 47 | 100% |
| Mean Hourly Rate | \$24 | |

| What is the annual salary for new job trainees? | | |
|---|-----------------|-------------|
| Response | AVs | |
| | # | % |
| \$20,000 | 1 | 2% |
| \$30,000 | 1 | 2% |
| \$38,000-\$42,000 | 6 | 13% |
| \$50,000 | 1 | 2% |
| \$67,000 | 1 | 2% |
| Don't Know | 28 | 60% |
| Don't Want to Answer | 3 | 6% |
| Not Involved in Installation | 6 | 13% |
| Total | 47 | 100% |
| Mean Annual Salary | \$40,568 | |

Respondents were asked if their job trainees had been located or would be located close to the job site. As shown in Table V-31, 17 AVs said that trainees would live in close proximity to their ILSFA job sites, one AV said the trainees would not live close to the ILSFA job site, and 19 AVs said it was too early to say where job trainees would be located.

Table V-31
Job Trainee Proximity to ILSFA Project Location

| Have the job trainees been/will the trainees be located in areas close to where they are/will be working? | | |
|---|-----------|-------------|
| Response | AVs | |
| | # | % |
| Yes | 17 | 36% |
| No | 1 | 2% |
| Too Early to Say | 19 | 40% |
| Not Involved in Installation | 6 | 13% |
| Don't Know | 4 | 9% |
| Total | 47 | 100% |

Table V-32 displays information on additional training that job trainees would need. Twelve AVs said their trainees would need solar-specific training, eight AVs said their trainees needed or would need company-specific training, and 18 AVs said that it was too early to say if their trainees would need additional training.

Table V-32
Additional Training Required for Job Trainees

| What, if any, additional training do/will the job trainees need prior to being able to complete the expected work for the ILSFA? | | |
|---|------------|-------------|
| Response | AVs | |
| | # | % |
| Solar-Specific Training | 12 | 26% |
| Company-Specific Training | 8 | 17% |
| Too Early to Say | 18 | 38% |
| Not Involved in Installation | 6 | 13% |
| Don't Know | 3 | 6% |
| Total | 47 | 100% |

Respondents who had already hired at least one trainee were asked about their level of satisfaction with their trainees. Table V-33 shows that all AVs who had an opinion were very or somewhat satisfied with the job trainees.

Table V-33
Satisfaction with Job Trainees

| What is your overall level of satisfaction with the job trainees you have hired thus far? | | |
|--|------------|-------------|
| Response | AVs | |
| | # | % |
| Very Satisfied | 10 | 21% |
| Somewhat Satisfied | 5 | 11% |
| Too Early to Say | 3 | 6% |
| Have Not Looked for Trainees | 29 | 62% |
| Total | 47 | 100% |

Respondents were asked if they plan to work with their job trainees on all future work or only on projects in the ILSFA Program. Table V-34 shows that two AVs will only work with their trainees within the ILSFA Program, 21 AVs said they plan to work with their trainees on all future work, and 16 AVs said it is too early to say.

**Table V-34
Plans to Work with Job Trainees in the Future**

| Do you plan to work with job trainees just for the ILSFA Program, or on all future work? | | |
|---|------------|-------------|
| Response | AVs | |
| | # | % |
| Just for the ILSFA Program | 2 | 4% |
| All Future Work | 21 | 45% |
| Too Early to Say | 16 | 34% |
| Not Involved in Installation | 6 | 13% |
| Don't Know | 2 | 4% |
| Total | 47 | 100% |

Table V-35 displays information on whether the job trainee hires would be temporary staff. Five AVs said the trainees will be temporary hires, eleven AVs said the trainees will not be temporary hires, and 22 AVs said that it is too early to say.

**Table V-35
Job Trainees as Temporary Hires**

| Do/will you consider the job trainees to be temporary hires? | | |
|---|------------|-------------|
| Response | AVs | |
| | # | % |
| Yes | 5 | 11% |
| No | 11 | 23% |
| Too Early to Say | 22 | 47% |
| Not Involved in Installation | 6 | 13% |
| Don't Know | 3 | 6% |
| Total | 47 | 100% |

G. Non-Energy Benefit Data

This section summarizes data from the survey that will be used to compute the economic, social, and environmental benefits that will result from the ILSFA Program.

Respondents were asked to estimate the percent of their total project budget that will be spent on labor, project materials, and other costs. Table V-36 displays the responses that AVs provided. AVs most commonly reported that they would spend roughly 26 percent to 50 percent of their budget on labor, between 26 percent and 50 percent on materials, and less than 25 percent on other costs. Nineteen AVs said they did not know how their costs would be broken down because it is too early in the process to say.

Table V-36
ILSFA Labor and Materials Cost Percentages

| What percent of your ILSFA project costs are/will be for labor, project materials, and other costs? | | | | | | |
|---|------------|-------------|-------------------|-------------|-------------|-------------|
| Response | Labor | | Project Materials | | Other Costs | |
| | # | % | # | % | # | % |
| 0% - 25% | 4 | 9% | 2 | 4% | 19 | 40% |
| 26% - 50% | 15 | 32% | 13 | 28% | 4 | 9% |
| 51% - 75% | 2 | 4% | 7 | 15% | 0 | 0% |
| 76% - 100% | 2 | 4% | 1 | 2% | 0 | 0% |
| Not Involved in Project Implementation | 4 | 9% | 4 | 9% | 4 | 9% |
| Don't Know | 19 | 40% | 19 | 40% | 19 | 40% |
| Don't Want to Answer | 1 | 2% | 1 | 2% | 1 | 2% |
| Total | 47 | 100% | 47 | 100% | 47 | 100% |
| Mean | 42% | | 46% | | 11% | |

Respondents were asked to estimate the percentage of their labor, materials, and other costs that would be spent within the state of Illinois. Table V-37 shows that a substantial number of AVs said they did not know what percent of their costs in these three categories would be spent in Illinois. However, among those who did provide estimates, the most common response for all three categories was that between 75 and 100 percent of those costs would be spent in Illinois.

Table V-37
ILSFA Project Costs Spent in Illinois

| What percent of ILSFA labor costs will be for staff with permanent residence in IL? What percent of ILSFA materials cost will be spent in IL? What percent of other ILSFA costs will be spent in IL? | | | | | | |
|--|------------|-------------|-------------------|-------------|-------------|-------------|
| Response | Labor | | Project Materials | | Other Costs | |
| | # | % | # | % | # | % |
| 0% - 25% | 0 | 0% | 4 | 9% | 1 | 2% |
| 26% - 50% | 1 | 2% | 2 | 4% | 2 | 4% |
| 51% - 75% | 0 | 0% | 0 | 0% | 0 | 0% |
| 75% - 99% | 3 | 6% | 0 | 0% | 0 | 0% |
| 100% | 21 | 45% | 12 | 26% | 15 | 32% |
| Not Involved in Project Implementation | 4 | 9% | 4 | 9% | 4 | 9% |
| Don't Know | 18 | 38% | 25 | 53% | 25 | 53% |
| Total | 47 | 100% | 47 | 100% | 47 | 100% |
| Mean | 96% | | 74% | | 89% | |

Table V-38 displays information on use of solar panels manufactured outside of the United States. Seventeen AVs said they plan to use foreign-made panels, two AVs said they will not be using foreign-made panels, 23 AVs said it is too early to say.

Table V-38
Foreign Solar Panels

| Did you / do you plan to use solar panels that are manufactured OUTSIDE the United States for your ILSFA projects? | | |
|---|------------|-------------|
| Response | AVs | |
| | # | % |
| Yes | 17 | 36% |
| No | 2 | 4% |
| Too Early to Say | 23 | 49% |
| Not Involved in Panel Procurement | 5 | 11% |
| Total | 47 | 100% |

Respondents who indicated they were planning to use foreign-made panels were asked how much they would expect their costs to increase if they were to use domestically manufactured panels instead. Table V-39 shows that the estimated increase in cost across the seven who provided a numeric response averaged 32 percent. Ten of the 17 respondents who were asked this question said they did not know how much their costs would increase if they were to switch from foreign to domestic panels.

Table V-39
Cost of Domestic Solar Panels

| What is the percentage increase in costs that you would expect to incur if you purchased panels that were domestically produced? | | |
|---|------------|-------------|
| Response | AVs | |
| | # | % |
| 7% | 1 | 2% |
| 25% | 1 | 2% |
| 30% | 1 | 2% |
| 35% | 2 | 4% |
| 40% | 1 | 2% |
| 50% | 1 | 2% |
| Don't Know | 10 | 21% |
| Not Applicable | 30 | 64% |
| Total | 47 | 100% |

| What is the percentage increase in costs that you would expect to incur if you purchased panels that were domestically produced? | | |
|--|-----|---|
| Response | AVs | |
| | # | % |
| Mean | 32% | |

Respondents were asked what factors influenced their panel purchases. Panel price, quality/durability, and efficiency/output performance were each selected by 30 AVs while 28 selected availability, 26 cited recommendations, and 22 cited tier ranking/manufacturer reputation. These and other responses provided by AVs are summarized in Table V-40.

Table V-40
Factors Informing Panel Purchasing Decisions

| What factors contributed to your decision to purchase the panels you are using/will use for your ILSFA projects? | | |
|--|-----------|-------------|
| Response | AVs | |
| | # | % |
| Observations | 47 | 100% |
| Price | 30 | 64% |
| Quality/Durability | 30 | 64% |
| Efficiency/Output Performance | 30 | 64% |
| Availability | 28 | 60% |
| AV Manual/Forms/Other Resources | 26 | 55% |
| Tier Ranking/Manufacturer Reputation | 22 | 47% |
| Ease of Installation | 9 | 19% |
| Aesthetics/Workmanship | 8 | 17% |
| Other | 1 | 2% |
| Not Involved in Panel Procurement | 5 | 11% |
| Don't Know | 6 | 13% |

*Some AVs provided more than one response.

Table V-41 displays the strategies respondents indicated they had used or were planning to use to market DG and CS projects to low-income households. For both sub-programs the most common strategy was community partnerships, followed by Grassroots Education events, door-to-door canvassing, and online/digital marketing. Twenty-two AVs said they do not market DG projects to low-income households and 19 AVs said they do not market CS projects to low-income households.

Table II-41
Methods Used to Market to Low-Income Households

| What methods do you use to market ILSFA Low-Income Distributed Generation opportunities to low-income households? What methods do you use to market ILSFA Low-Income Community Solar opportunities to low-income households? | | | | |
|---|-------------------------------|-------------|------------------------|-------------|
| Response | Distributed Generation | | Community Solar | |
| | # | % | # | % |
| Observations | 47 | 100% | 47 | 100% |
| Community Partnerships | 15 | 32% | 17 | 36% |
| Grassroots Education Events | 11 | 23% | 12 | 26% |
| Canvassing | 3 | 6% | 3 | 6% |
| Online/Digital Marketing | 2 | 4% | 1 | 2% |
| Other | 0 | 0% | 1 | 2% |
| N/A - Don't Market Sub-Program | 22 | 47% | 19 | 40% |
| Don't Know | 7 | 15% | 9 | 19% |

*Some AVs provided more than one response.

H. ILSFA Training and Resources

This section summarizes AV responses to questions about the resources they have used while participating in the ILSFA Program.

Respondents were asked whether they had used any of the training videos or other training resources on the ILSFA website while registering as an AV or submitting projects. Table V-42 shows that 25 AVs said they had used these resources, 19 said they had not, and three said they did not know.

Table V-42
ILSFA Website Materials Used

| Have you referenced the AV training videos and other instructions on the ILSFA website while registering or submitting projects? | | |
|---|------------|-------------|
| Response | AVs | |
| | # | % |
| Yes | 25 | 53% |
| No | 19 | 40% |
| Don't Know | 3 | 6% |
| Total | 47 | 100% |

The 25 respondents who indicated they had used training resources on the ILSFA website were asked what resources they had used. Table V-43 shows that AVs most commonly used

the AV Portal Training Videos, the Project Selection Guidelines Document, and the Sample Disclosure Form.

Table V-43
Training Resources Used

| Which training resources have you used? | | |
|---|-----------|-------------|
| Response | AVs | |
| | # | % |
| Observations | 47 | 100% |
| AV Portal Training Videos | 18 | 38% |
| Project Selection Guidelines Document | 18 | 38% |
| Sample Disclosure Form | 17 | 36% |
| Resources for Registering as an AV | 11 | 23% |
| Quality Assurance Guidelines Document | 11 | 23% |
| Other | 1 | 2% |
| N/A – Have Not Used Training Resources | 22 | 47% |

*Some AVs provided more than one response.

The 25 respondents who indicated that they had used training resources on the ILSFA website were asked if they had found those resources to be useful. Table V-44 shows that ten AVs found the resources to be useful, 14 AVs found the resources to be somewhat useful, and one AV said the resources were not useful.

Table V-44
Training Resources Usefulness

| Did you find these training videos and other resources to be useful? | | |
|--|-----------|-------------|
| Response | AVs | |
| | # | % |
| Useful | 10 | 40% |
| Somewhat Useful | 14 | 56% |
| Not Useful | 1 | 4% |
| Total | 25 | 100% |

Respondents were asked to rate the helpfulness of the AV Manual. Table V-45 shows that 17 AVs said the manual was very helpful, 23 said it was somewhat helpful, and three said that the manual was not helpful at all. Respondents were also asked how often they are able to find the information they are looking in the AV Manual. Thirty AVs said they were able to find the desired information most of the time and 12 AVs said they were sometimes able to find the desired information.

Table V-45
AV Manual Usefulness

| How helpful is the AV manual? | | | Are you usually able to find the information you need in the AV manual? | | |
|-------------------------------|-----------|-------------|---|-----------|-------------|
| Response | AVs | | Response | AVs | |
| | # | % | | # | % |
| Very Helpful | 17 | 36% | Always | 0 | 0% |
| Somewhat Helpful | 23 | 49% | Most of the Time | 30 | 64% |
| Not at All Helpful | 3 | 6% | Sometimes | 12 | 26% |
| Don't Know | 3 | 6% | Don't Know | 4 | 9% |
| Don't Want to Answer | 1 | 2% | Don't Want to Answer | 1 | 2% |
| Total | 47 | 100% | Total | 47 | 100% |

Table V-46 summarizes the reasons respondents provided for using the ILSFA website. The most common responses were checking the project dashboard, referencing the maps for low-income and environmental justice communities, obtaining program updates or announcements, and accessing AV resources.

Table V-46
ILSFA Website Purposes

| For what purposes do you use the ILSFA website? | | |
|---|-----------|-------------|
| Response | AVs | |
| | # | % |
| Observations | 47 | 100% |
| Project Dashboard | 39 | 83% |
| EJ and LI Maps | 34 | 72% |
| Program Updates/Announcements | 33 | 70% |
| AV Manual/Forms/Other Resources | 30 | 64% |
| ILSFA Brochure | 26 | 55% |
| Event Calendar | 20 | 43% |
| Training Videos | 17 | 36% |
| Job Training Programs | 13 | 28% |
| N/A – Never Use the Website | 3 | 6% |
| Don't Know | 1 | 2% |
| Don't Want to Answer | 1 | 2% |

*Some AVs provided more than one response.

Respondents were asked about the usefulness of the ILSFA website. Table V-47 shows that 19 AVs found the website to be very useful, another 19 found the site to be somewhat useful, and four said the ILSFA website was not at all useful.

Table V-47
ILSFA Website Usefulness

| How useful is the ILSFA website? | | |
|----------------------------------|---------------|-------------|
| Response | Number of AVs | |
| | # | % |
| Very Useful | 19 | 40% |
| Somewhat Useful | 19 | 40% |
| Not at All Useful | 4 | 9% |
| Don't Know | 1 | 2% |
| Don't Want to Answer | 1 | 2% |
| Never Use the Website | 3 | 6% |
| Total | 47 | 100% |

I. Stakeholder Outreach and Feedback

This section summarizes AVs' responses to questions about their experiences with the ILSFA stakeholder outreach and feedback process.

Respondents were asked if they were aware of the stakeholder outreach that had taken place for the ILSFA Program and whether they had participated in that process. Table V-48 shows that 33 AVs said they had been aware of the stakeholder outreach process and 17 AVs said they had participated in that process.

Table V-48
Awareness of and Participation in the ILSFA Stakeholder Outreach Process

| Were you aware of opportunities to participate in the stakeholder outreach process for the Illinois Solar for All Program? Did you participate in the stakeholder outreach process for the Illinois Solar for All Program? | | | | |
|--|-----------|-------------|--------------|-------------|
| Response | Aware | | Participated | |
| | # | % | # | % |
| Yes | 33 | 70% | 17 | 36% |
| No | 13 | 28% | 13 | 28% |
| Don't Know | 1 | 2% | 3 | 6% |
| Not Aware of Stakeholder Outreach | - | - | 14 | 30% |
| Total | 47 | 100% | 47 | 100% |

Respondents who had participated in the stakeholder outreach process were asked if they felt their ideas were heard and considered. Table V-49 shows that three AVs said they felt their ideas were taken into account, nine said their ideas were somewhat taken into account, and three AVs felt their ideas were not heard or considered.

Table V-49
AV Input

| Did you feel that your ideas were heard and taken into account? | | |
|--|------------|-------------|
| Response | AVs | |
| | # | % |
| Yes | 3 | 6% |
| Somewhat | 9 | 19% |
| No | 3 | 6% |
| Don't Know | 2 | 4% |
| Didn't Participate in Stakeholder Feedback Process | 30 | 64% |
| Total | 47 | 100% |

Respondents were asked if they felt the ILSFA Program provided sufficient opportunities to participate in the development process and whether they were given sufficient notice of those opportunities. Table V-50 shows that 11 AVs felt there had been sufficient opportunities to participate in the stakeholder feedback process, 15 felt the notices and opportunities for the stakeholder feedback process were somewhat sufficient, and nine AVs said the notice and opportunities were not sufficient. When asked if they felt they had had an impact on the development of ILSFA seven AVs said they had, ten AVs said they felt they had some impact, and 21 AVs said they had not had an impact.

Table V-50
Stakeholder Outreach Opportunities and Perceived Impact on ILSFA

| Did you feel that the program provided sufficient notice and opportunities to participate in the ILSFA development process? Do you feel that you had an impact on the development of the ILSFA? Do you feel that you had an impact on the development of the ILSFA? | | | | |
|--|--------------------------|-------------|------------------------------------|-------------|
| Response | Sufficient Notice | | Impact on ILSFA Development | |
| | # | % | # | % |
| Yes | 11 | 23% | 7 | 15% |
| Somewhat | 15 | 32% | 10 | 21% |
| No | 9 | 19% | 21 | 45% |
| Don't Know | 12 | 26% | 9 | 19% |
| Total | 47 | 100% | 47 | 100% |

J. Grassroots Education

This section summarizes AVs' responses to questions about their experiences with the ILSFA's Grassroots Education Program.

Respondents were asked if they were aware of the ILSFA's Grassroots Education Program and whether they had participated in any of the grassroots education events. Table V-51 shows that 33 AVs said they had been aware of the Grassroots Education Program and 14 AVs said they had participated in at least one grassroots education event.

Table V-51
Awareness of and Participation in ILSFA Grassroots Education

| Are you aware of the Grassroots Education program that is part of the ILSFA? Have you participated in any Grassroots Education activities? | | | | |
|---|-----------|-------------|--------------|-------------|
| Response | Aware | | Participated | |
| | # | % | # | % |
| Yes | 33 | 70% | 14 | 30% |
| No | 13 | 28% | 19 | 40% |
| Don't Know | 1 | 2% | 0 | 0% |
| Unaware of Grassroots Education Program | - | - | 14 | 30% |
| Total | 47 | 100% | 47 | 100% |

Respondents who had attended a Grassroots Education event were asked if they had found it to be helpful. As shown in Table V-52, all 14 AVs who had attended grassroots education events found those activities to be at least somewhat helpful.

Table V-52
Helpfulness of ILSFA Grassroots Education

| If you attended Grassroots Education activities, how helpful do you feel those activities were? | | |
|--|-----------|-------------|
| Response | AVs | |
| | # | % |
| Very Helpful | 2 | 14% |
| Somewhat Helpful | 12 | 86% |
| Total | 14 | 100% |

Respondents were asked if they had received any interest from potential program participants as a result of the Grassroots Education Program. Table V-53 shows that 18 AVs felt that they had and 12 said they had not.

**Table V-53
Grassroots Education Leads**

| Have you received interest and questions as a result of the Grassroots Education? | | |
|--|------------|-------------|
| Response | AVs | |
| | # | % |
| Yes | 18 | 38% |
| No | 12 | 26% |
| Don't Know | 3 | 6% |
| Unaware of Grassroots Education Program | 14 | 30% |
| Total | 47 | 100% |

K. Performance Metrics and Program Assessment

This section summarizes AVs' responses to questions relating to performance metrics as well as their level of satisfaction with the program administrator and ILSFA overall.

Respondents were asked if they had encountered homes that required remediation of housing stock issues before DG projects could move forward and if so, whether those households had been able to remediate those issues. Table V-54 shows the results only for those who had tried to develop DG. The table shows that only two AVs said they had encountered remediation issues. One AV reported that the household had not been able to remediate the issues and one did not know.

**Table V-54
Homes Requiring Remediation**

| Did you encounter any homes that required remediation of housing stock issues before DG project could move forward? If so, were any of these households able to remediate the housing stock issues? | | | | |
|--|-----------------------------|-------------|-------------------------------------|-------------|
| Response | Remediation Required | | Households Able to Remediate | |
| | # | % | # | % |
| Yes | 2 | 20% | 0 | 0% |
| No | 4 | 40% | 1 | 10% |
| Don't Know / Too Early to Say | 4 | 40% | 1 | 10% |
| Didn't Experience | - | - | 8 | 80% |
| Total | 10 | 100% | 10 | 100% |

Note: Only includes those who have tried to develop LIDG.

Respondents were asked if the ILSFA Program guidelines and procedures are clear. Table V-55 shows that seven AVs said that the guidelines and procedures are clear, 27 said that the guidelines and procedures are somewhat clear, and ten AVs said that the guidelines and procedures are not clear.

Table II-55
Clarity of Program Guidelines and Procedures

| Do you feel that the ILSFA Program guidelines and procedures are clear? | | |
|---|-----------|-------------|
| Response | AVs | |
| | # | % |
| Clear | 7 | 15% |
| Somewhat Clear | 27 | 57% |
| Not Clear | 10 | 21% |
| Don't Know | 3 | 4% |
| Total | 47 | 100% |

Table V-56 shows the respondents' reported levels of satisfaction with Elevate Energy and the ILSFA Program overall. Sixty-two percent of AVs were very or somewhat satisfied with the program administrator while 15 percent of AVs were somewhat or very dissatisfied. With regard to the ILSFA Program overall, 51 percent of AVs said they are very or somewhat satisfied and 30 percent said they are very or somewhat dissatisfied. Those who did not have selected projects or had not submitted projects were more likely to say that they were dissatisfied with the ILSFA Program.

Table V-56
Satisfaction with Elevate Energy & ILSFA Program

| How satisfied are you with Elevate Energy and the ILSFA Program overall? | | | | |
|--|----------------|-------------|---------------|-------------|
| Response | Elevate Energy | | ILSFA Program | |
| | # | % | # | % |
| Very Satisfied | 16 | 34% | 9 | 19% |
| Somewhat Satisfied | 13 | 28% | 15 | 32% |
| Neither Satisfied nor Dissatisfied | 9 | 19% | 7 | 15% |
| Somewhat Dissatisfied | 5 | 11% | 12 | 26% |
| Very Dissatisfied | 2 | 4% | 2 | 4% |
| Don't Know | 2 | 4% | 1 | 2% |
| Don't Want to Answer | 0 | 0% | 1 | 2% |
| Total | 47 | 100% | 47 | 100% |

Respondents were asked what recommendations they had for Elevate Energy to more effectively manage the ILSFA Program. Their responses are listed below and summarized in Table V-57. These recommendations were provided directly from AVs and may not represent the opinions of APPRISE or the IPA.

Improve Concision and Clarity of Program Guidelines and Procedures

- The program rules need to be more clear and concise. There is no reason to have a 126-page program manual plus multiple additional documents.
- The program framework is extremely convoluted and needs to be revised.
- Make the program more cut and dry.
- Submission guidelines for savings are vague and open to interpretation.
- Simplify ILSFA Program rules and submission process.
- The one area of confusion is financing projects, the 50 percent savings ratio metric vs payment, etc.
- The ILSFA administrator is excellent but the program requirements are confusing, difficult to implement, change constantly, and are burdensome for so few projects that get fully funded.
- Make the disclosure more amenable to a wider variety of contracts to be made available to customers (not just yearly but also monthly), no cost contracts, etc.⁵⁰

Praise for Elevate Energy

- We were very pleased with the direct support we received from Elevate. We commend Elevate on what they established and how they supported it, particularly given its complexity.
- Elevate was a HUGE help while completing the application process in our last batch. They were readily available for questions and patient throughout.
- Overall Elevate is very quick to answer questions and support our team.
- The Elevate staff is very prompt at responding to inquiries from our team, and we appreciate that.
- Elevate Energy is doing a fantastic job of managing the program!
- We have found Elevate Energy to be a perfect partner in working in the Illinois Solar For All program. They are always informative and helpful.

Improve the Submission Portal

- One thing that would improve the portal is if the upload feature made it clear whether or not a document was uploaded correctly. It seemed that my uploaded documents had "disappeared" every time I navigated to another page within the portal and I'd end up reuploading, resulting in duplicates of the same document.
- The Portal is not user friendly and very hard to navigate.
- Please overhaul the project application portal.
- The portal is not very user friendly.

Loosen Program Requirements

- The requirement of a minority contractor or designee that must be awarded 50 percent of the SREC project makes these projects non-financeable.⁵¹ My suggestion would be to make this a requirement of 50 percent of the construction work/hours vs award of SRECs.

⁵⁰ There are AVs who offer no-cost contracts.

⁵¹ This is only required to receive MWBE points in the project selection. There were AVs who met this requirement.

- My main comment is that this program insisted on having everything filled out so completely before we could even find out if we were going to be in the running for this very limited funding. Once projects are selected the in-depth review could be done.
- We found that the updates to project selection for Program Year 3 have caused projects to be (nearly) infeasible, specifically increasing the savings requirement if ITC is leveraged. The financial aspect of designing, engineering, and maintaining a system for 15+ year was tight to begin with now we cannot make it work out and still have a quality installation for the end user. This updated requirement should be re-evaluated.
- Please ease the initial batch restrictions.

Reorganize the ILSFA Website

- Reorganize the website so it's easier to find relevant documents and information.
- The website could be organized a bit better.
- The Illinois Solar For All website is not intuitive and is pretty challenging to find information when you are unfamiliar with the program.

Program Changes

- Implement program changes in a more timely fashion with goal of no program changes within six months of program year opening.
- Any changes/updates to program year guidance should be published well in advance of the project application window, to ensure that contracts and paperwork can be updated accordingly.
- Please don't make changes to forms during an application cycle.
- Please seek feedback from AVs before making changes to project submission forms. Please send out clear notifications when changes to these forms have been made.

Improve Responsiveness to AV Inquiries

- Elevate needs to work on responding to emails from AVs in a timely fashion.
- Getting clear answers from Elevate in a timely fashion is hit or miss. It would be nice if this could be improved.
- AV contact at ILSFA needs to be more available and responsive. There is no reason for AV contact to not respond to phone calls or emails or only do so with significant time lags.
- The materials produced by ILSFA are excessively verbose and complicated and thus beg for more engagement by AV contacts to clarify/explains to AVs.

Revise the Project Selection Process

- It appears there were too many staff involved with ILSFA from Elevate and thus caused much confusion with the rules and selection criteria.
- We did not like how the project selection process was run. This should be overhauled.

Improve the Alternative Capacity Factor and REC Contract Value Calculators

- A separate REC contract value calculator tool should be made available. A REC contract is the end product of this program, yet AVs cannot estimate their REC contract value until

the final stage of the submission process in the portal. Furthermore, the math behind the REC contract calculations in the portal are not clear. Nor is the math behind the capacity factor input clear. A separate tool that allows AVs to transparently estimate their capacity factor and REC contract value would solve these problems.

- We have just now learned how the "Alternate Capacity Factor" functions. That could be made clearer.

Job Training

- We have had a difficult time navigating the ILSFA job requirement portion. We have run into hurdles specific to our jobs and attempt to resolve with the Elevate job representative but have found it to be challenging and do not have a solution beyond partnering with local IBEW training programs and it is unclear if that will suffice in future.

**Table V-57
Recommendations for Elevate Energy**

| What recommendations do you have for Elevate Energy to more effectively manage the ILSFA Program? | | |
|---|-----------|-------------|
| Response | AVs | |
| | # | % |
| Observations | 47 | 100% |
| Improve Clarity and Concision of Program Rules & Guidelines | 10 | 21% |
| Praise for Elevate Energy | 8 | 17% |
| Improve the Submission Portal | 4 | 9% |
| Loosen Program Requirements | 4 | 9% |
| Reorganize the ILSFA Website | 3 | 6% |
| Reduce Form Changes / Close to the Application Cycle | 3 | 6% |
| Improve Responsiveness to AV Inquiries | 3 | 6% |
| Revise Project Selection Process | 2 | 4% |
| Improve Clarity for Alternate Capacity Factor & REC Contract Value | 2 | 4% |
| Seek Input from Stakeholders when Modifying Submission Forms | 1 | 2% |
| Assistance Regarding Job Training Requirements | 1 | 2% |
| None | 22 | 47% |

*Some AVs provided more than one response.

Respondents were asked what recommendations they had for the ILSFA Program overall. Their responses are listed below and summarized in Table V-58. These recommendations were provided directly by AVs and may not represent the opinions of APPRISE or the IPA.

Reduce Program Complexity

- We have been involved in low-income community solar programs in various other states and the ILSFA is without doubt the most complicated, documentation intensive and frustrating program.
- The project documentation requirements (for application) are quite excessive. I would suggest streamlining the required documents to lessen the burden on AVs and on host sites.
- The program seems to be excessively bureaucratic. It has been a barrier to focusing on this program more.
- The contract requirements for residential systems need to change substantially. It is very difficult to meet contract requirements and all ILSFA Program requirements at once.
- The entire program needs to be simplified. The current process discourages the development of solar projects in low-income communities because it is too complex.
- Please make the process easier for AVs.

Revise the Project Selection Process

- Evaluate and overhaul project selection protocols right away. These should be finalized before the end of November PY4.
- The new rules and point systems for the 20-21 selection year are not very fair. Please revise the project selection process.
- Consider further changes to the scoring matrix so that projects submitted but not selected in the current round can be waitlisted with a clear line of sight to selection at a relatively certain future date.

Increase the Attractiveness of the DG Sub-Program

- The risk and the paperwork requirements for an AV to take on DG projects are just too high.
- So far it doesn't look like folks are serious about finding a way forward with the DG program.
- Make the DG program easier for AVs to access.

Reallocate Funding to the Non-Profit/Public Facilities Sub-Program.

- These projects are more feasible and have a higher likelihood to make it to completion. Transferring balance of funds to non-profit waitlist / future rounds will help the IPA and utilities better reach their goals and will continue to help low income families.
- The lack of SREC funding in the subcategories of NP/PF and CS means that there is not enough funding for projects that are > 100 KW AC and therefore it's hard to justify the burdensome administration requirements for smaller projects.
- Increase funding for the NP/PF sub-program.⁵²

⁵² The ICC order on the Revised Long-Term Plan did not allow DG funds to be reallocated.

Loosen Job Training Requirements

- While we strongly agree with the concept of promoting solar job trainees and building a stronger state solar staffing workforce, we are in east-central Illinois and the only trainees we can find are in the Chicago area. The rules regarding trainees could be much better applied if we could use local trainees but there are no ILSFA job training programs locally. We would use trainees from the local trade unions (electrical, carpenters, etc.) if they qualified.
- The trainees that we hire tend to be very motivated but for the most part, have to learn everything on the job and are not prepared for actual solar installations. We also hire installers for full-time permanent jobs and the program reporting only accounts for ILSFA projects and not how many projects have been installed or hours installed by ILSFA trainees on other projects.
- Job training requirements have a negative overall effect on program attractiveness for large financiers.

Loosen Savings Requirements

- Savings guarantee requirements have a negative overall effect on program attractiveness for large financiers. Program administrators should recognize that solar financiers operate on a national level, and the bigger, cleaner deals with the least amount of long term risk, least amount of administrative burden, and less onerous program requirements over term are the most attractive to pursue, and ultimately the low-income customer is whom usually benefits the most.
- The requirement of no payment until the end of the installation means that projects sold as cash deals are very hard to for our company to do because the cash flow on us makes it very difficult to operate and stay in business. This requirement means that PPAs are the best way for these projects but due to the low PPA rate/Energy savings means that most of these projects are non-financeable.⁵³

Other Recommendations

- We would greatly benefit from a customized interconnection process for ILSFA solar projects. ComEd's standard processes and timelines, particularly for community solar, are not conducive to low-income community solar project development. Rather, they are a significant obstacle.
- A more structured schedule would be appreciated. It seems to always be unclear when the next round will be and then it is announced without much notice and the window has shrunk to two weeks. This is difficult in the sales aspect, the interconnection agreement needs to be completed for a complete application, however, with unknown windows it is hard to motivate nonprofit facilities to take the step/commitment for us to obtain the interconnection agreement. It would help if project windows are announced six months prior to opening.
- The final third-party inspection by the ILSFA is burdensome when a local jurisdiction passed inspection should suffice.
- Reorganize the ILSFA website.

⁵³ This no longer applies to the NP/PF sub-program.

- Make the program more participant friendly.
- Ease the initial batch restrictions.
- Implement programs to foster relationships between AVs and encourage partnering on project submission.
- Please stop denying our projects, we have given up.

**Table V-58
Recommendations for ILSFA Program Overall**

| What other recommendations do you have for the ILSFA Program? | | |
|--|-----------|-------------|
| Response | AVs | |
| | # | % |
| Observations | 47 | 100% |
| Reduce Complexity of the Program | 6 | 13% |
| Increase the ILSFA Budget | 5 | 11% |
| Revise the Project Selection Process | 4 | 9% |
| Increase the Access/Attractiveness of the LIDG Sub-Program for AVs | 3 | 6% |
| Reallocate Funding to the NP/PF Sub-Program | 3 | 6% |
| Loosen Job Training Requirements | 3 | 6% |
| Loosen Savings Requirements | 2 | 4% |
| Reorganize the ILSFA Website | 1 | 2% |
| Create Customized Interconnection Agreement Process for ILSFA | 1 | 2% |
| Make the Program More Participant Friendly | 1 | 2% |
| Ease Batch Requirements | 1 | 2% |
| Produce a More Structured Schedule for Future Project Years | 1 | 2% |
| Implement Programs to Encourage AVs to Partner Up for Project Submission | 1 | 2% |
| Other | 2 | 4% |
| None | 23 | 49% |

*Some AVs provided more than one response.

VI. Grassroots Educator Feedback

This section summarizes the findings from in-depth telephone interviews with the ten Grassroots Educators selected in the second RFP.

This section provides information on the Grassroots Educators' views and opinions. As these statements were made by Grassroots Educators, and they may not have a complete understanding of all details of the ILSFA Program design and requirements, some of the statements in this section may be inconsistent with the statutory requirements of the ILSFA and/or the ICC-approved ILSFA Program design. Additionally, recommendations in this section are those made by the Grassroots Educators, and may not represent the opinions of APPRISE or the IPA.

A. Methodology

Ten organizations were selected to implement the second round of Grassroots Education Campaigns for the ILSFA. APPRISE conducted telephone interviews with all ten selected organizations. The interviews addressed the following topics.

- Organization background
- Outreach plans and implementation
- Feedback and recommendations

The following procedures were used to implement the interviews.

- Grassroots Educators were contacted via phone and email to set up an interview. Three of the ten organizations responded to the first email attempt, four responded after the second email attempt, and the remaining three organizations responded after a third email attempt.
- Interviews were conducted with twelve participants, representing all ten organizations.
- The interview length ranged from 39 to 71 minutes.
- Interviews were completed between October 5, 2020 and October 21, 2020.
- Interview summaries were sent to each organization for review and editing. Additional follow-up questions were sometimes included in these emails, as well as a request for marketing materials developed for the ILSFA.

B. Selected Grassroots Organizations

This section provides an overview of the ten Grassroots Organizations selected in the second cohort of the ILSFA Grassroots Education Campaign. Six of these organizations also participated in the first round of the Grassroots Education Campaign.

1. *Bond Clinton Marion Washington Community Services (BCMWS)* is a Community Action Agency (CAA) that serves Bond, Clinton, Marion, and Washington Counties. They provide services and education to empower individuals to overcome poverty. They work with the community to stabilize low-income families and individuals through a variety of early learning, nutrition, homeless prevention, housing rehabilitation, and energy programs.

2. *Blacks in Green (BIG)* is an environmental organization that advocates for the development of green, self-sustaining Black communities in south Chicago. They advocate for the Sustainable Square Mile, where all neighborhood amenities are located within walking distance, which decreases carbon emissions and leads to Black economic development. They also have a “Green Living Room” which serves as a space for the community to meet and discuss environmental initiatives.
3. *Community Organizing and Family Issues (COFI)* is a nonprofit organization that focuses on parent leadership development. They work in low-income communities in south Chicago and across the state. COFI utilizes a peer-to-peer model, in which parent leaders conduct outreach to their community on policy areas that are relevant to them. COFI works with parent leaders to identify issues in their community, and to organize and implement initiatives to address these issues. Initiatives include early learning programs, summer meal distribution programs, and community cleanups.
4. *Ecology Action Center (EAC)* is an environmental education organization located in Normal, Illinois. EAC serves central Illinois. In addition to environmental education, they provide technical services in solid waste reduction, recycling, clean water protection, energy efficiency, and renewable energy.
5. *Faith in Place* is a nonprofit that educates communities of faith about the environment, advocacy, and sustainability. Faith in Place serves communities across the state, with a focus on EJ communities. It utilizes a “Green Team” model, in which groups of three or more community members work alongside Faith in Place staff to implement programs that promote sustainability within their communities.
6. *Garfield Park Community Council (GPCC)* is a community-building organization working to improve the Garfield Park community in Chicago. They inform the community about available opportunities that will allow them to live better, healthier, and more economically efficient lives. Their programs focus on resident engagement, housing, business, and community wellness.
7. *North River Commission (NRC)* is a nonprofit community and economic development organization that serves three neighborhoods in the northwest side of Chicago. They improve the quality of life in their community by focusing on economic development, housing, education, the environment, and arts and culture. Their environmental programs advocate for environmental justice, open spaces, public transportation, and healthy rivers and urban forests.
8. *People for Community Recovery (PCR)* is an environmental and economic justice nonprofit. PCR is located in Altgeld Gardens, a Chicago Housing Authority (CHA) public housing community on the far south side of Chicago. In addition to Altgeld Gardens, PCR serves several neighborhoods on the far south side, including Riverdale, Pullman, West Pullman, and Roseland. PCR advocates for clean energy, job training opportunities, and affordable housing.

9. *Pilsen Environmental Rights and Reform Organization (PERRO)* is an all-volunteer, environmental justice organization that serves the Pilsen neighborhood in Chicago. PERRO is a grassroots organization, with no paid staff, no office, and no operating budget. PERRO has organized several environmental justice campaigns. They have successfully advocated for the shut-down of coal-fired power plants and worked to have certain polluting industries cited by the EPA for particulate matter, including metal and lead. PERRO also campaigns for awareness of water lead content and has conducted water and soil testing.

10. *Prairie Rivers Network (PRN)* is an environmental advocacy nonprofit organization that works to protect rivers and communities from pollution and the harms of coal mining and coal-fired plants. They also provide resources on sustainable agriculture, reducing nutrient pollution runoff, and protecting floodplains and wetlands. PRN serves the Urbana-Champaign area.

Selected Grassroots Organizations vary significantly in structure, presence, services, location, population served, and expertise.

- Organization Types
 - Two are environmental justice organizations.
 - One is a CAA.
 - One is a community organizing group.
 - One is a faith-based organization.

- Areas Served
 - Seven organizations focus on a specific community, city, or neighborhood area.
 - Three organizations have a statewide or multi-county presence.

- Services Provided
 - Eight organizations focus on grassroots education and advocacy on environmental and economic issues, including energy efficiency, renewable energy, water and air pollution, affordable housing, and sustainability.
 - Two organizations provide direct services to the low-income community, including meals, afterschool programs, energy assistance, and housing assistance.

Six organizations were involved in the first round of Grassroots Education. The other four organizations indicated that they have experience providing similar types of outreach campaigns as planned for the ILSFA Program.

- The four new Grassroots Educators reported significant ties to the communities they will serve for the ILSFA campaign. They have previous experience working in these communities and have formed connections with local residents and stakeholders. They all previously conducted outreach campaigns similar to their planned ILSFA campaign.
- One of the four organizations has experience with energy-related campaigns, including outreach for energy efficiency programs.

The twelve interviewees had a diverse set of roles and responsibilities within their organizations. Their titles were as follows.

- Five ILSFA Program Managers or Coordinators
- Three Executive or Assistant Directors
- One Director of Development
- One Director of Programs
- One Director of Housing and Community Engagement
- One Program Associate

All interviewees were responsible for overseeing, managing, and implementing the ILSFA Grassroots Education Campaign. In all organizations, additional staff were involved in the design, oversight, and implementation of the ILSFA campaign. The number of staff involved in the ILSFA Grassroots Education Campaign ranged from one to six. Some of these other staff members were minimally involved, supervising or advising on program implementation, and others were primarily focused on creating ILSFA materials, conducting outreach, or educating community members.

C. Target Populations

Grassroots Education Campaigns were required to target specific populations, and to collectively reach a diversity of geographic regions and population groups.

The Grassroots Educators were asked about the geographic regions that they serve. The scope of the geographic regions ranged from specific neighborhoods within Chicago to larger regions throughout the state. Specific geographic regions described by Grassroots Educators were as follows.

- Cook County (8 organizations)
 - Four organizations serve neighborhoods on the west side of Chicago.
 - Two organizations serve neighborhoods on the south side of Chicago.
 - Two organizations serve neighborhoods on the north side of Chicago.
- Central Illinois (3 organizations)
 - One serves the cities of Bloomington and Normal.
 - One serves the counties of Champaign, Macon, Vermillion, and Will in East-Central Illinois.
 - One serves East-Central Illinois.
- Southern Illinois (2 organizations)
 - One serves Bond, Clinton, Marion, and Washington Counties.
 - One serves Southern Illinois.
- Eastern Illinois (1 organization)
 - Lake County in Northeast Illinois.

Grassroots Educators were also asked about the priority groups that their outreach targets. They provided the following responses.

- Low-income populations (8 organizations)
- Homeowners (7 organizations)
- Seniors (5 organizations)
- Renters (3 organizations)
- Communities of color (2 organizations)
- Environmental justice communities (2 organizations)
- Businesses (1 organization)
- Head Start families (1 organization)

D. Outreach Plans and Implementation

Grassroots Educators are using a variety of outreach methods and focusing on a wide range of topics. This section provides an overview of each organization's outreach plans and implementation, including their outreach methods, their areas of focus, their current stage of implementation, the response by the targeted communities, and how the Coronavirus pandemic has impacted their campaigns. The section also lists potential barriers and solutions identified by the interviewees.

Outreach Methods

All of the Grassroots Educators are utilizing virtual outreach methods instead of in-person methods due to the Coronavirus pandemic. Organizations reported that they have or will use the following outreach methods.

- Virtual community events and meetings (9 organizations)
 - Virtual presentations and workshops on the ILSFA and solar energy
 - Webinar presentations during existing community meetings and house parties
 - Webinar presentations at congregations
- Posts on social media, websites, and newsletters (9 organizations)
 - Posts on the Grassroots Educators' social media, website, and newsletters
 - Posts on partnering organizations' social media, website, and newsletters
- One-on-one remote follow-up with partner organizations, community members, current clients of the organization, and those who have otherwise expressed interest in the ILSFA (8 organizations)
 - Follow-up with community members over phone, text, or email (6 organizations)
 - Outreach to partner organizations through phone calls, emails, and office visits (2 organizations)
- Flyering (5 organizations)
 - Distributing flyers while tabling (2 organizations)
- Direct mailing campaigns (4 organizations)
- Tabling (4 organizations)
- Door hangers (1 organization)

All ten organizations will be partnering with other leaders and organizations in their communities to conduct outreach. Partners include the following.

- Nonprofits and CAAs
- Residential, business, neighborhood, and other local associations
- Local government, including ward offices, school districts, and public housing authorities
- Food pantries
- Civic organizations
- Faith communities and congregations

Eight organizations described one or more of their outreach methods as innovative.

- Presenting to the local Chamber of Commerce
- A peer-to-peer approach, in which ambassadors from the community conduct canvassing
- Presenting at other organization's meetings
- Filming a short video about ILSFA
- Developing coloring sheets about solar basics to distribute to school-age children
- Providing a survey about solar and its associated community benefits
- Creating a greater digital and social media presence and providing QR codes to share information
- Partnering with Habitat for Humanity organizations and placing door hangers in housing authority residences

Two of the respondents said they would not consider any of their outreach methods innovative. These organizations are instead utilizing methods that have been successful for them in the past.

Campaign Area of Focus

The Grassroots Educators are focusing on various aspects of the ILSFA Program in their outreach. These areas include the following.

- Distributed Generation and Community Solar opportunities (5 organizations)
- Benefits of the program (3 organizations)
- Basic solar education (2 organizations)
- Job training opportunities (2 organizations)
- Distributed Generation and Non-Profit opportunities (1 organization)
- Community Solar opportunities (1 organization)

Key Messages and Framing

While the outreach methods vary, Grassroots Educators communicate similar key messages in their outreach campaigns.

- Six educators focus on the benefits of the program, particularly the cost and energy savings for ILSFA participants.
- Four organizations emphasize that solar is accessible to low-income households as a result of the ILSFA Program.
- Two organizations promote basic awareness and understanding of solar and the ILSFA Program.
- Two organizations emphasize the environmental and social benefits of solar energy.

Grassroots Educators make the information accessible to the groups they are targeting by simplifying information, appealing to a specific audience, and relating information to personal experience.

- Five organizations simplify their outreach information to be more understandable.
- Three organizations tailor the information they provide based on their audience.
- Two organizations are attempting to breach the digital divide in their communities by sending information home with students through schools.
- Two organizations provide translated versions of their outreach materials in Spanish.
- Two organizations connect the program information to residents' personal experiences.

Outreach Materials

All ten organizations had developed or would be developing outreach materials for their campaign. They also reported that some or all of their outreach materials would be modified versions of the materials provided by Elevate Energy. The following types of outreach materials were developed by the Grassroots Educators.

- Advertisements via social media, websites, and newsletters (9 organizations)
- PowerPoint presentation (8 organizations)
- Flyers (4 organizations)
 - Three organizations reported they are distributing flyers while tabling in the community or at events.
 - One organization will distribute flyers through direct mailing.
- Post-card or letter (4 organizations)
 - Two organizations are still deciding how to best distribute these materials given that they cannot conduct in-person outreach.
 - One organization will send a one-page post-card through emails and a direct mailing campaign.
 - One organization is distributing a letter about Community Solar opportunities through a direct mailing campaign.
- Door hangers (1 organization)
- Coloring sheet (1 organization)
 - This organization is developing coloring sheets that cover the basics of how solar works and why energy is important to distribute to school-age children.
- Video (1 organization)
 - This organization is creating a short one to three-minute video describing the basics of the program. Staff will put this video in their email signature.

Three of the Grassroots Educators provided their outreach materials.

- *Newsletter Post*: Two organizations provided a newsletter post. Both posts included income eligibility information, basic program information, a link where readers can learn more about the program, and a link to a form where readers can input their contact information to indicate their interest. One post emphasized zero upfront costs. The other post specifically focused on the Distributed Generation sub-program.

- *Presentation:* Two organizations provided a PowerPoint presentation used for outreach events. Both presentations included background on the ILSFA Program, information on income eligibility and benefits, and next steps for interested participants. One of the presentations provided more in-depth information on the three sub-programs and job training opportunities. The other presentation emphasized cost savings and that there are opportunities for both homeowners and renters.
- *Postcard:* Two organizations provided a one-page postcard. Both postcards emphasized no upfront costs and guaranteed savings. One provided a QR code where readers can learn more about the program and one provided a QR code where readers can provide their contact information to indicate their interest in the program. One of the postcards targeted homeowners, whereas the other postcard stated there were opportunities for both homeowners and renters. One of the organizations provided a Spanish version of the postcard.
- *Flyer:* Two organizations provided flyers. One organization sent a flyer that provided basic program information, emphasized savings, and included a QR code for the organization's website.

The other organization provided six flyers which included information on basic solar education, solar readiness, the CS sub-program, the DG sub-program, and CS and DG projects available to residents.

- *Business Card:* One organization provided a business card. This included the ILSFA coordinator's contact information and the ILSFA logo.

Outreach Conducted to Date

Grassroots Educators are at various stages of program implementation.

- Seven organizations have started their outreach campaigns. Five organizations began their outreach in June or July, and two organizations began in September.
- Three organizations were just getting started with their outreach campaigns in October.

In general, the interviewees have found a very low to moderate level of awareness about solar and the ILSFA Program. Three organizations in their second year of Grassroots Education reported that there is a higher level of awareness than last year. Respondents provided the following additional information about the initial response to their outreach campaigns.

- Six organizations reported that the response has been positive, and their constituents and partner organizations are excited about the opportunities.
- Four organizations stated that the pandemic has impacted the response to their outreach. Partner organizations are more difficult to reach as they deal with other programs and they do not want to overburden their staff. Solar is a low priority for residents, who face other challenges such as unemployment and remote learning.
- Three organizations found that some outreach recipients are wary of the program's benefits or do not believe the program is accessible to them.

- Two organizations stated it is too early to tell what the response to their outreach is.

Five Grassroots Educators felt that they have been successful in reaching their target population to date. Four organizations reported that it was too early to tell if they had reached their target audience. One organization stated they have not been successful since, due to the pandemic, they have been unable to contact many partner organizations through which they would reach their target population. Additionally, three organizations noted that the pandemic has caused delays in their outreach and they had to modify their plans, which affected their ability to reach their target populations.

The Grassroots Educators were asked about their most successful outreach methods to date. Two organizations reported that one-on-one phone calls with residents and partner organizations have been the most successful. One organization believed that distributing ILSFA information while tabling for their water distribution program was another successful method. One organization stated that networking with other organizations in their community has been successful. Six organizations stated that it was too early to tell which methods are the most successful. However, two of these educators, who are in their second year of Grassroots Education, reported that one-on-one conversations with community members and non-profits were the most successful methods last year.

Pandemic Impact

All ten organizations have modified their outreach plans due to the Coronavirus pandemic and most of the respondents said the pandemic has had a significant impact on their campaign. The respondents reported the following impacts.

- *Shift from in-person to virtual outreach methods.* All ten organizations are providing digital events and other remote outreach methods. Many organizations reported that this is especially difficult since traditional grassroots organizing is conducted through in-person community events and door-to-door canvassing. They are now navigating pandemic restrictions and trying to find new ways to share information remotely.

One organization was contemplating going door-to-door in late October but was concerned about safety and how the community would react.

- *Cancelled or delayed events.* Six organizations reported that they have had to cancel in-person events or delay their events due to safety guidelines, illnesses, or lack of interested participants. Two of these organizations were planning on conducting outreach at large events that draw in thousands of people, but these were cancelled as well.
- *Pandemic fatigue.* Four organizations have found that pandemic fatigue has affected their own organizations, partner organizations, and community residents. Grassroots Educators and partner organizations are strapped for resources and their staff are struggling to adapt all of their programs, not just ILSFA. Additionally, the low-income communities they serve are feeling the weight of the pandemic more than others and therefore learning about solar opportunities is a low priority for many residents.

- *Losing touch with constituents.* Three organizations reported that they may not be able to reach all of their constituents due to the digital divide. Many low-income or senior residents do not have access to technology or are not tech savvy. One organization noted that the churches they work with did not have email addresses for their congregation. When the churches were shut down, they lost contact with many members.
- *Participants wary of conversing with educators.* One organization which tables at food pantries said that people are more wary to talk to them while they are handing out materials.

The six returning Grassroots Educators were asked how their outreach campaigns during the last program year were impacted by the pandemic.

- Five organizations reported that their outreach campaign was impacted by pandemic restrictions last year. Two of these organizations said their campaigns were finishing up in March, so they were only slightly impacted.
- One organization said their outreach was not impacted since they had already wrapped up their campaign in September.

Returning Grassroots Educators

This is the second year of participation in the ILSFA Grassroots Education campaign for six organizations. These educators were asked what lessons they learned from the last round of Grassroots Education and how they changed their outreach efforts based on those lessons. Interviewees provided the following information about the lessons learned from last year's outreach campaign.

- *Take time to teach solar basics.* Three organizations stated that they learned that it takes time to build an understanding of solar before they can explain the program.

These organizations are now spending more time educating participants and team members about solar and they provide solar background before getting into the specifics of the program.

- *Partner with other organizations.* Three organizations reported that they learned to work more closely with area agencies and community organizations. Presenting at other organizations already scheduled meetings allows them to gain traction and reach a wider audience, as it is difficult to expect people to attend a separate event that the Grassroots Educators host themselves. One organization also found that participants are more likely to show interest and be less skeptical of the program if they co-host events with another established organization.

All three of these organizations are now partnering with more organizations and attending existing community events to meet people where they are.

- *Acknowledge the lack of vendor availability.* One organization learned that there are fewer vendors implementing projects than they expected. This created difficulties since they

were educating the community about solar but knew that participants may not have any solar projects available to them.

This respondent stated that there are a few more solar vendors this year. They are honest with the community and tell residents that the program is available but interested participants may have trouble finding a vendor in their area.

Metrics

Grassroots Educators are using similar metrics to measure the success of their outreach campaigns.

- All ten organizations track quantitative indicators. These metrics include event attendance, the number of interested participants, the number of events hosted, the amount of phone banking completed, and the number of solar projects installed.
- There was a mixture of how the Grassroots Educators measure participation in the ILSFA Program.
 - Five organizations look at the number of event attendees and the number of participants who indicate interest in the program.
 - Four programs will look at the number of solar projects installed or the number of solar subscriptions to determine program participation, in addition to the metrics listed previously. They noted that their campaigns are focused solely on education and information distribution, but the main goal of the program is to install solar.
 - One organization is exclusively measuring the number of solar installations and subscriptions.
- Eight organizations plan to develop additional metrics as needed.

The quantitative indicators noted above are recorded in Salesforce, either through Grassroots Educator input or through an exit ticket survey. After an event, participants can fill out a virtual exit ticket form that has a unique ID attached to the specific event they attended. Interested participants can input their contact information to demonstrate their interest in ILSFA. This information is populated in Salesforce and provides a way for Grassroots Educator staff to reach out to potential participants.

Eight organizations reported that they have no plans to revise their outreach plans yet, but will evaluate their plans after conducting more outreach. One organization will look into providing more solar information through anchor institutions that have been established in the community for many years. One organization is planning to find more outreach methods to work around the digital divide, such as direct mailings, flyers, or post-cards.

Approved Vendors

Interviewees were asked about the availability of AVs serving their community. All of the educators reported that there was at least one AV working in their area; however, many felt that there was limited availability of AVs in their communities.

- Two respondents stated that there are no DG projects and two respondents stated that there are no CS opportunities in their area. They do not feel comfortable sharing information on one of the sub-programs if there are no projects available for residents.

- All ten organizations will connect interested participants to AVs.
 - Five organizations provide potential participants with a list of available vendors.
 - One organization will invite AVs to attend their virtual community events.
 - One organization provides outreach materials with a link to an AV's website where participants can subscribe to a CS project.

Barriers to Solar

Grassroots Educators were asked about the barriers to solar they had discovered in their outreach efforts and how they thought these barriers could be overcome. Educators provided the following information.

- *Deferred maintenance issues and lack of solar readiness.* Five organizations believed that many residents interested in ILSFA in their communities would not be able to participate in the DG sub-program because of the condition of their homes. Many homes need a roof repair or an updated electrical system. One organization noted that the households in their low-income community that are solar ready are slightly over the income eligibility guidelines so they cannot participate in the ILSFA Program.

To overcome this barrier, two organizations reported that they are looking into other programs that could provide weatherization or roof repair services to make homes solar ready. One organization suggested that ILSFA provide small grants for homeowners or property owners to improve their solar readiness (they are not aware that the ILSFA does not have funding for this purpose). One educator believed the creation of a green bank could help participants with roof repair costs.

- *Lack of available projects.* Four organizations reported that a lack of available solar projects in their service area is a barrier to participation. Some organizations do not provide information on a sub-program if there are no opportunities available or they are upfront with the community about the lack of opportunities. One respondent mentioned that solar companies may be wary of becoming involved in ILSFA because the program requires much upfront capital with no guaranteed return or guarantee the project will be approved.

One organization suggested that Elevate Energy and the IPA should put out a competitive RFP for DG projects to increase the available offers. Another organization commented on the lack of CS opportunities in Chicago and proposed that ILSFA should prioritize these projects or add more points to proposals that are built in brownfield sites within the city to increase the financial feasibility for AVs.

- *Coronavirus pandemic.* Three organizations stated that restrictions due to the Coronavirus pandemic were a major barrier to their outreach efforts and made it more difficult to generate enthusiasm about the program. Their outreach plans have been delayed and staff, residents, and partner organizations are dealing with pandemic fatigue.

These organizations are overcoming the restrictions by hosting virtual events, conducting remote outreach, and implementing safety guidelines if they are tabling in-person.

- *Net metering issues in Ameren's service territory.* Three organizations reported that Ameren is attempting to stop net metering in their service territory, and this poses a major problem for the DG sub-program. One organization added that this will increase skepticism about the ILSFA. To solve this issue, one organization suggested that the ICC should order Ameren to reinstate full retail net metering.⁵⁴
- *Complicated sign-up process for DG.* One organization stated that requiring DG participants to reach out to AVs is a challenge, especially if they have to navigate multiple offers from different AVs. The sign-up process should be simpler.

This educator believed that vendors should shoulder more of the responsibility and reach out to interested participants that Grassroots Educators have identified. They also suggested to model the sign-up process after the DG sub-program, where participants simply input their information to an online portal and a vendor reaches out to them.

- *Long wait time for potential participants.* One organization believed the long wait for application approval for participants is a barrier. Participants may have to wait months or even a year to fully go through with the program.

This organization acknowledged that it may not be possible to overcome this barrier with a state program. However, they proposed that the program should have money readily available so vendors with an approved contract can begin working on an installation soon after receiving interest from a participant.

All ten Grassroots Educators are working to overcome skepticism to the ILSFA Program. The organizations reported that some potential participants are skeptical of the program because they do not believe they will save money, or they do not think the program is truly accessible to them. Others believe the program is a scam based on experiences they have had with utility companies or alternative retail energy suppliers.

Educators provided the following plans and suggestions on how to overcome skepticism.

- *Provide testimonials from successful ILSFA participants.* Eight organizations stated that showcasing personal testimonies from individuals who have participated in ILSFA or installing solar within their community would create more trust in the program. (Elevate has begun this process.)
- *Use trusted organizations to spread information.* Five Grassroots Educators reported that their organizations have a long history of working in the community and residents trust them to provide honest information. Their reputation in the community will ensure residents know they are not being scammed.

⁵⁴The ICC investigated the matter and found that Ameren's Rider required revisions to the calculation of the five percent threshold, so this is no longer an issue at the current time.

- *Be upfront about barriers.* Three organizations will overcome skepticism by being honest with residents about the challenges of participating in the program. They will acknowledge that the program may not be available for everyone and will offer realistic timelines.
- *Solve barriers to accessibility.* Two organizations suggested that ILSFA should solve barriers to participation to show residents that the program is truly accessible to them. They stated that these barriers include solar readiness and lack of available projects.
- *Emphasize savings.* One organization will emphasize savings during outreach by showing graphics about cost savings. Another respondent reported that when potential participants meet with an AV, they will ensure the participant receives a savings amount.

Collaboration

All ten Grassroots Educators have been in contact with one another through monthly check-in meetings. The monthly check-in meetings were set up by one of the Grassroots Educators and are conducted with the entire cohort. The Grassroots Educators can also collaborate through monthly pod calls, which are comprised of three to four Grassroots Educators. There are also message boards on Salesforce where educators can ask questions.

On the calls, the organizations discuss a variety of topics, including how their outreach is going, challenges encountered, successful and unsuccessful outreach methods, strategies, best practices, and goals.

All four of the new Grassroots Educators reported that these calls are helpful, and they have received tips from the returning Grassroots Educators. Two of these organizations also reported that they have connected individually with returning Grassroots Educators for more information.

E. ILSFA Feedback

Grassroots Educators were asked to provide feedback on the ILSFA materials and guidelines and the design and implementation of Grassroots Education. This section provides a summary of the feedback received.

Eight respondents provided feedback on the materials provided by the ILSFA. Most responded that the materials are good and stated that it is helpful to have starting materials they can edit. However, four organizations believed that the material is too complex and technical and should be simplified.

- Two organizations noted that the turnaround time for Elevate to approve their outreach materials can impact their ability to implement outreach, but one of these organizations reported that the turnaround time has greatly improved this year.
- One interviewee would like ILSFA to provide more high-quality images and designs that they can use to create their own flyers or post-cards.

- One respondent thought that it would be useful if ILSFA developed a very introductory fact sheet and a short, five to ten-minute video about the program with a testimonial to educate potential participants about the program.
- One respondent would like more third-party media coverage from independent news sources.

The Grassroots Educators also provided feedback about the design and implementation of the Grassroots Education campaign. In general, respondents had some positive feedback but noted some challenges with the implementation and accessibility of the program. They provided the following feedback.

- Three respondents found the collaborative cohort model to be helpful. They stated that there are more processes in place for checking-in and there is greater engagement from Elevate Energy.
- Three respondents stated that Salesforce is difficult to use because it is very detailed, and they have difficulties inputting the necessary information. One organization noted that the Salesforce metrics, such as address or type of meeting, are not adequately conveyed when the meeting is virtual.
- Three respondents were concerned that barriers to participation, such as lack of solar readiness and lack of available projects, will impact interested residents' ability to access the program. This will also adversely affect their organization's ability to implement grassroots education.
- Two respondents reported that the training was useful, and the onboarding process was comprehensive.
- One respondent believed that much of the responsibility for resolving program challenges is placed on the Grassroots Educators. For example, they have been asked to recruit more DG AVs. The respondent did not feel that the Grassroots Educators had the expertise required for that type of recruiting. They also did not feel this was necessary since the DG sub-program has other challenges to solve, such as net metering in Ameren's territory, and adding more vendors will not fix the problem.
- One respondent reported that it is unclear to what extent Grassroots Educators are supposed to support interested participants throughout the entire ILSFA process. They noted that Grassroots Educators are expected to do more handholding through the vendor review and project selection stages. They are taking on more case managing roles as opposed to strictly education. It is not clear what support or resources potential participants should receive from the Grassroots Educators once they express interest.

F. Grassroots Educators' Recommendations

At the end of their interview, Grassroots Educators were asked to provide recommendations for the Grassroots Education campaign and for the ILSFA Program. This section provides a summary of the recommendations received.

Eight of the Grassroots Educators provided recommendations for the Grassroots Education campaign. Their recommendations were as follows.

- *Connect with more affordable housing organizations.* One organization recommended that affordable housing service organizations, such as Habitat for Humanity, should be invited to be Grassroots Educators, since they directly serve low-income households. They believed that organizations already working with income-qualified residents should be educated about ILSFA by becoming Grassroots Educators themselves.

Alternatively, they suggested that these housing organizations should be directed by the ILSFA or the IPA to connect with Grassroots Educators. There should be a requirement for these organizations to show that they have met with the Grassroots Educators and are distributing information about the ILSFA Program to their participants. This would alleviate the difficulties Grassroots Educators face convincing other grassroots organizations to be educated about ILSFA and to disseminate information on the program.

- *Develop realistic expectations.* One organization believed that Elevate Energy should reflect on what Grassroots Educators can realistically accomplish when setting goals for Grassroots Education. Their outreach will not be productive if there are no solar opportunities for families to take advantage of.

They believed that the program may need to spend more time addressing barriers to participation and increasing accessibility before the Grassroots Educators conduct outreach.

- *Use a different reporting method.* One organization provided this recommendation. They believed that Grassroots Educators should be able to report information to Elevate Energy through other tools besides Salesforce, which is not user friendly. Grassroots Educators must create a new event for every person they interact with and input detailed information, which the respondent did not believe to be necessary.

The respondent reported that it would be easier if Elevate Energy could find more ways for Grassroots Educators to reach out to their communities in the way they are used to. They would prefer to create a spreadsheet to share basic information about their conversations with interested participants.

- *Connect Grassroots Educators with AVs.* One organization thought it would be helpful if connecting with AVs was a stronger part of the onboarding process so Grassroots Educators can better understand the roadblocks in the vendor-participant relationship.
- *Fully explain policy developments.* One organization thought that Grassroots Educators should be kept up to date on policy developments, such as Ameren's net metering issue. Elevate Energy should fully explain the problem to Grassroots Educators and discuss the implications for their outreach campaigns.
- *Provide training information.* One organization would like Elevate Energy to provide training presentations and materials so Grassroots Educators can repeatedly access them after the event. This organization reported that the training covered a lot of complex

information and it would be useful to be able to review the trainings whenever they have questions.

- *Provide giveaway items.* One organization suggested that while there are no in-person events for the time being, designing giveaways, such as key chains or mugs, would help bring in potential participants.
- *Lengthen Grassroots Education proposal window.* One organization reported that the Grassroots Education submission window was short, and it is difficult to keep up with the timeline.

Six organizations provided recommendations for the ILSFA Program more generally. Their recommendations were as follows.

- *More Approved Vendors.* Four organizations would like to see more vendors in their area, which would allow for increased participation in the program. Two organizations specifically recommended having more DG vendors and one organization recommended more CS projects within Chicago.
- *Provide funding for solar readiness.* One organization recommended that the ILSFA Program provide funding for low-income households to repair their roofs and upgrade their electrical system to become solar ready. This will increase program accessibility and help low-income residents overcome barriers to participation.
- *More funding for the Non-Profit sub-program.* One organization believed there should be more funding available for the NP/PF sub-program. This sub-program is very popular and has already been filled this year, which shows there is a lot of opportunity there.

VII. Grassroots Education Participant Feedback

APPRISE conducted a survey with individuals who participated in Grassroots Education conducted in the second round of the education program.

A. Methodology

This section provides a description of the survey implementation and response rates. APPRISE conducted telephone interviews with 21 participants who attended an event organized by one of ILSFA's Grassroots Educators between October 2019 and December 2020. These interviews assessed participants' experiences at the GE events they attended as well as their knowledge of and desire to participate in the ILSFA Program. Due to various changes resulting from the coronavirus pandemic, the 2020 in-person GE events were largely replaced by online events and phone calls made to potential participants.

The following procedures were used to implement the interviews.

- Elevate provided data on participants who had expressed interest in the ILSFA Program after receiving Grassroots Education. The data were delivered in five batches over the evaluation period.
- There were 102 participants in the sample provided overall, but 19 of them were missing phone numbers. Therefore, the sample for calling consisted of 83 participants. Note that this is a very small percent of the approximately 3,800 individuals who received Grassroots Education through methods other than "media" such as newsletters. Because the sample only consisted of those who expressed interest in the ILSFA, it cannot be considered a representative sample and cannot assess the experience of those who potentially did not understand the program benefits and express interest in program participation.
- Participants were initially notified via e-mail about the survey. In the e-mail, they were given the option to call a toll-free number to complete the survey at their convenience (though most surveys were completed through outbound calling).
- Surveys were attempted with all participants who listed a working phone number. The survey length was roughly five minutes.
- Midway through the field period, advance letters were sent via mail with a \$10 cash incentive to the participants (both those who had and had not yet completed a survey). The purpose of the incentive was to compensate participants for their time and encourage participation in the survey by additional participants.
- Surveys were completed in November and December of 2020.

Table VII-1 provides information on the survey sample and the response rates. Among the sample of 83 potential participants with phone numbers, APPRISE was able to complete 21 surveys, with a completion rate of 25 percent. The cooperation rate, the completion rate for customers who were contacted and who were eligible for the survey because they recalled the education, was 70 percent. The response rate was 40 percent.

**Table VII-1
Sample and Response Rates**

| Survey Response Status | # | % |
|-------------------------------|------------|----------|
| Phone Sample | 83 | 100% |
| Unusable | 18 | 22% |
| Non-Interviews | 11 | 13% |
| Unknown Eligibility | 33 | 40% |
| Completed Interviews | 21 | 25% |
| Cooperation Rate | 70% | |
| Response Rate | 40% | |

B. Survey Findings

This section provides a summary of findings from the completed interviews. The following topics are addressed.

- Characteristics and Demographics
- Participant and Event Background
- Grassroots Education Event Participation and Feedback
- ILSFA Program Awareness and Understanding
- ILSFA Participation and Satisfaction

Characteristics and Demographics

This section provides information on participant's characteristics and demographics.

Respondents were asked if any members of their household were elderly, children, or disabled. Table VII-2 shows that 13 of the 21 respondents reported there was an elderly member in their household. Only two respondents reported a child in their home and eight reported a disabled member in the household.

**Table VII-2
Household Characteristics**

| | Is there anyone in your household that is aged 62 or older? | Is there anyone in your household that is aged 18 or younger? | Is there anyone in your household with a disability? |
|--------------|--|--|---|
| | # | # | # |
| Yes | 13 | 2 | 8 |
| No | 8 | 19 | 13 |
| Total | 21 | 21 | 21 |

Respondents were asked for their annual household income and were given the option to select a range if they refused to share or did not know their exact income. Table VII-3 shows that twelve participants reported annual income of less than \$25,000.

**Table VII-3
Household Income**

| Approximately, what is your annual household income? | |
|---|-----------|
| | # |
| Less than \$25,000 | 12 |
| Between \$25,001 and \$50,000 | 4 |
| Between \$50,001 and \$75,000 | 3 |
| Refused | 1 |
| Don't Know | 1 |
| Total | 21 |

Participant and Event Background

This section summarizes findings about the format of the event, participants' experiences paying their electric bill, and participants' knowledge of solar energy and energy efficiency programs.

Table VII-4 provides information on the format of the Grassroots Education event. Ten participants attended outdoor information/tabling events while six participants attended online, virtual events.

**Table VII-4
Event Format**

| What was the format of the event? | |
|--|-----------|
| | # |
| Outdoor Information / Tabling Event | 10 |
| Webinar / Virtual Event | 6 |
| Meeting | 2 |
| Information Fair | 1 |
| Canvassing | 1 |
| Received Call | 1 |
| Total | 21 |

Participants who did not report receiving a call or canvassing were asked why they attended the GE event. Table VII-5 shows that the most common responses include that the participant was interested in learning about solar energy, they passed by an ILSFA tabling event while

on the way to a food pantry, and they were interested in learning about the ILSFA Program. Other reasons for attending the GE event include the following.

- Wants neighborhood to convert to solar for environmental and savings benefits
- Watches all of the Alderman's Facebook live events to support the community
- Is the president of the club hosting the meeting

**Table VII-5
Reason for Event Attendance**

| Why did you decide to attend this event? | |
|---|-----------|
| | # |
| Observations | 19 |
| Interested in Learning About Solar Energy | 8 |
| Passed by ILSFA Table on Way to Food Pantry | 7 |
| Interested in Learning About the ILSFA Program | 5 |
| Event Focused on Another Topic but Included Info on ILSFA | 2 |
| Other | 3 |

*Totals do not add up as some participants provided more than one response.

Participants were asked if the event they attended included information about opportunities or programs other than the ILSFA Program. All 21 respondents reported either that there was no information provided about programs other than ILSFA or they did not know.

Participants were asked to describe their interest in the ILSFA Program. Table VII-6 shows that ten participants said they were interested in having solar installed on their roof and five said they were interested in a community solar subscription. Other interests in the ILSFA Program were energy and monetary savings and environmental benefits.

**Table VII-6
Interest in ILSFA Program**

| Please describe your interest in the ILSFA Program. | |
|---|-----------|
| | # |
| Observations | 21 |
| Solar Installation on Roof | 10 |
| Community Solar Subscription | 5 |
| Energy and Monetary Savings | 5 |
| Environmental Benefits | 3 |
| Not Interested in the ILSFA Program | 2 |

*Totals do not add up as some participants provided more than one response.

Participants were asked if they had previously participated in no-cost energy efficiency or home weatherization programs. Table VII-7 shows that 11 respondents had participated in such programs, eight had not, and two respondents did not know if they had participated.

Table VII-7
Energy Efficiency Program Participation

| What are other no-cost energy or home weatherization programs that you have participated in? | |
|---|-----------|
| | # |
| Illinois Home Weatherization Assistance Program (IHWAP) | 8 |
| ComEd Income-Eligible Energy Efficiency Program | 1 |
| Ameren Income-Qualified Home Efficiency Program | 1 |
| CEDA/People's Gas Home Weatherization Assistance Program | 1 |
| None | 8 |
| Don't Know | 2 |
| Total | 21 |

Table VII-8 provides information on how difficult it is for participants to pay their monthly electric bill. Eleven respondents reported that it was very or somewhat difficult to pay their bill. Eight respondents reported that it was very or somewhat easy to pay their bill. One participant's electric bill was included in their rent.

Table VII-8
Bill Payment Difficulty

| How easy or difficult is it for you to pay your monthly electricity bill? | |
|--|-----------|
| | # |
| Very Difficult | 6 |
| Somewhat Difficult | 5 |
| Somewhat Easy | 3 |
| Very Easy | 5 |
| Not Applicable | 1 |
| Don't Know | 1 |
| Total | 21 |

Participants were asked how knowledgeable they felt about solar energy and energy efficiency opportunities. Table VII-9 shows that most participants felt somewhat knowledgeable about solar energy and most felt very or somewhat knowledgeable about energy efficiency opportunities. However nine of the 21 felt not too knowledgeable or not at all knowledgeable about solar energy after attending the GE event.

Table VII-9
Familiarity with Energy Efficiency

| | How knowledgeable do you feel about solar energy? | How knowledgeable do you feel about energy efficiency opportunities? |
|--------------------------|---|--|
| | # | # |
| Very Knowledgeable | 0 | 4 |
| Somewhat Knowledgeable | 12 | 10 |
| Not Too Knowledgeable | 6 | 4 |
| Not At All Knowledgeable | 3 | 3 |
| Total | 21 | 21 |

Grassroots Education Event Participation and Feedback

This section summarizes participants' responses regarding how they learned about the GE event, what they learned, and their overall satisfaction with the presentation.

Table VII-10 provides information on how participants learned about the event they attended. Respondents whose event was either canvassing or receiving a phone call were not asked this question. The most common responses were that the respondent walked by an ILSFA table on the way to a food pantry or that the respondent heard about ILSFA through word of mouth. Other responses included a meeting with a community organization, and serving on the board of the organization.

Table VII-10
Grassroots Education Event Information Source

| How did you learn about the event that you attended? | |
|--|-----------|
| | # |
| Observations | 19 |
| Saw ILSFA Table on Way to Food Pantry | 8 |
| Word of Mouth from Friends/Community Members | 5 |
| Part of Regularly Scheduled Head Start/Other Program Meeting | 2 |
| Letter/Mailing From ILSFA/Community Organization | 1 |
| Social Media | 1 |
| Other | 3 |

*Totals do not add up as some participants provided more than one response.

Table VII-11 shows that 15 of the 21 respondents were familiar with solar energy before attending the GE event.

Table VII-11
Solar Energy Knowledge Prior to Attendance

| Did you know anything about solar energy before attending this event? | |
|--|-----------|
| | # |
| Yes | 15 |
| No | 6 |
| Total | 21 |

Participants were asked if they were aware that the GE event would provide information on the ILSFA Program. Respondents whose event was either canvassing or receiving a phone call were not asked this question. Table VII-12 shows that eight respondents reported that they were aware that ILSFA would be a focus of the event, ten respondents were not aware, and one respondent did not know.

Table VII-12
Awareness of ILSFA Focus of Event

| Did you know that the meeting would provide information on the ILSFA Program? | |
|--|-----------|
| | # |
| Yes | 8 |
| No | 10 |
| Don't Know | 1 |
| Total | 19 |

Participants who did not know that the meeting would provide information on the ILSFA Program were asked if they would have attended if the main purpose of the event was to provide information about the ILSFA. Table VII-13 shows that seven of these ten participants reported that they would have attended the event and three participants would not have attended.

Table VII-13
Motivation to Attend Event

| Would you have attended if the main purpose of the event was to provide information about the ILSFA? | |
|---|-----------|
| | # |
| Yes | 7 |
| No | 3 |
| Total | 10 |

Participants were asked if there were any barriers to their attendance at the event. Respondents whose event was either canvassing or receiving a phone call were not asked this question. All but one of the respondents said that they had not faced any barriers. The participant who experienced a barrier said they had a time conflict.

Participants were asked about the distance of the event from their home. Respondents were not asked this question if their event was canvassing, receiving a phone call, or online. Table VII-14 displays information on how far the GE event was located from participants' homes. Only two of the 13 respondents to this question stated that the event was more than a 20-minute drive from their home.

**Table VII-14
Driving Time to Event**

| How close or far was the event located from your home? | |
|--|-----------|
| | # |
| 5 Minute Drive or Less | 6 |
| 5-10 Minute Drive | 5 |
| More Than 20-Minute Drive | 2 |
| Total | 13 |

When asked what important information they learned at the event, six participants said they learned basics about solar energy, five said they received an explanation of the ILSFA Program, and four said they learned how to save money with solar energy. Three participants did not know what information they learned at the event. Other responses were as follows.

- Options for renters
- Low-income energy efficiency devices from ComEd
- Accessibility of solar
- Program is unaffordable

**Table VII-15
Information Learned at the Event**

| What important information did you learn at the event? | |
|--|----|
| Observations | 21 |
| Basics About Solar Power | 6 |
| Explanation of the ILSFA Program | 5 |
| How to Save Money with Solar Energy | 4 |
| How to Subscribe to Community Solar Project | 3 |
| Steps to Install Solar On Roof | 2 |
| Other | 11 |
| Nothing | 3 |

| What important information did you learn at the event? | |
|--|----|
| Observations | 21 |
| Don't Know | 3 |

*Totals do not add up as some participants provided more than one response.

Table VII-16 shows that 12 of the 21 respondents reported that the community educators hosting the event did an excellent job of presenting information in a way that was easy to understand.

**Table VII-16
Community Educator Assessment**

| Did the community educators hosting the event do a good job of presenting information about the ILSFA Program that was easy to understand? | |
|--|-----------|
| | # |
| Excellent Job | 12 |
| Good Job | 4 |
| Okay Job | 1 |
| Fair Job | 1 |
| Poor Job | 2 |
| Don't Know | 1 |
| Total | 21 |

Table VII-17 provides information on why respondents felt that the community educators did not do an excellent job presenting information in a way that was easy to understand. Three participants reported that the educators did not explain the benefits of the ILSFA, two said that the educators did not explain program eligibility, two said that the educators were not knowledgeable, and one said that the educators did not explain the next steps. Other reasons included the following.

- Educators did not provide any information other than a pamphlet
- Educators did not provide enough details about personal costs
- Presentation was rushed
- No particular reason

**Table VII-17
Areas for Community Educator Improvement**

| Why do you feel that the community educators did not do an excellent job? | |
|--|----------|
| | # |
| Observations | 9 |
| Did Not Explain Benefits of The Program | 3 |
| Did Not Explain Program Eligibility | 2 |
| They Were Not Knowledgeable | 2 |
| Did Not Explain Next Steps | 1 |
| Other | 6 |
| Don't Know | 2 |

*Totals do not add up as some participants provided more than one response.

Participants were asked to provide recommendations for the community educators and twelve respondents offered their recommendations. The most common recommendations include making the presentation more understandable, conducting more outreach, and providing more information on eligibility and costs.

**Table VII-18
Recommendations for Community Educators**

| Do you have any recommendations on how the community educators could improve in the future? | |
|--|-----------|
| | # |
| Make Presentation More Targeted and Understandable | 2 |
| More Outreach | 2 |
| Provide More Information on Eligibility and Costs | 2 |
| Provide Alternatives to Rooftop Solar | 1 |
| Include Bilingual Presenters | 1 |
| Invite ILSFA Participants to Meetings | 1 |
| Give Out More Information | 1 |
| Push for More Questions During Q&A Session | 1 |
| Provide Information on Follow-Up Meetings | 1 |
| Total | 12 |

- Participants were asked about additional resources the community educators provided. Table VII-19 shows that 18 of the 21 participants felt they had someone they could call to learn more about solar when they left the event. Nine participants said that the community educators contacted them after the event and seven participants reported that the

community educators provided more information after the event. More follow-up could lead to improved program understanding and increased potential for participation.

Table VII-19
Additional Resources

| | When you left the event, did you feel that you had someone you could call to learn more about solar? | Did the community educators contact you after the event? | Did the community educators provide more information after the event? |
|--------------|---|---|--|
| | # | # | # |
| Yes | 18 | 9 | 7 |
| No | 3 | 12 | 12 |
| Don't Know | 0 | 0 | 2 |
| Total | 21 | 21 | 21 |

Table VII-20 displays information on participant satisfaction with the GE event they attended. Twelve of the 21 respondents said they were very satisfied with the event, five said they were somewhat satisfied, three reported dissatisfaction with the event, and one said they did not know. The respondents who were dissatisfied reported that the educators did not explain the benefits of the program and that they did not understand the program.

Table VII-20
Participant Satisfaction

| Overall, how satisfied or dissatisfied were you with the event that you attended? | |
|--|-----------|
| | # |
| Very Satisfied | 12 |
| Somewhat Satisfied | 5 |
| Somewhat Dissatisfied | 1 |
| Very Dissatisfied | 2 |
| Don't Know | 1 |
| Total | 21 |

Ten participants provided recommendations for future ILSFA education events. The most common recommendations include providing more detailed information and holding the event in a better location.

**Table VII-21
Recommendations for Future Events**

| Do you have any recommendations for future education events about the ILSFA? | |
|---|-----------|
| | # |
| Provide More Detailed Information | 2 |
| Hold Event in a Better Location | 2 |
| Advertise More | 1 |
| Provide a List of AVs | 1 |
| Install Solar in Community so Others Want to Try It | 1 |
| Include More Information for Different Areas of IL | 1 |
| Provide More Time for Q&A | 1 |
| Hold In-Person Meetings After Pandemic | 1 |
| Total | 10 |

ILSFA Program Awareness and Understanding

This section summarizes participant responses to questions about their awareness and understanding of the ILSFA Program both before and after attending the GE event.

Participants were asked if they were familiar with the ILSFA Program before attending the GE event. Table VII-22 shows that three of the 21 respondents reported that they knew about the program before attending the event. One respondent learned about the ILSFA through personal research, one discovered the program through their local Community Action Agency, and one discovered the program at a community meeting.

**Table VII-22
ILSFA Awareness**

| Did you know about the Illinois Solar for All Program before attending the educational event? | |
|--|-----------|
| | # |
| Yes | 3 |
| No | 18 |
| Total | 21 |

Participants who knew about ILSFA before attending the GE event were asked how well they understood the program before the event and all participants were asked how well they understood the program after attending the GE event. Table VII-23 shows that most participants had a moderate or low level of understanding of the ILSFA Program after attending the education event.

**Table VII-23
Understanding of ILSFA**

| | How well did you understand the ILSFA Program before attending the event? | How well do you understand the ILSFA Program overall now that you have attended an ILSFA Education event? |
|---------------------------------|--|--|
| | # | # |
| High Level of Understanding | 1 | 3 |
| Moderate Level of Understanding | 1 | 10 |
| Low Level of Understanding | 1 | 8 |
| Total | 3 | 21 |

Participants were asked if they knew how to participate in the CS or DG sub-programs. Table VII-24 shows that nine respondents reported that they knew how to participate and 12 did not.

**Table VII-24
Understanding of ILSFA Sub-Programs**

| Do you know what you need to do to participate in CS or install solar on your roof? | |
|--|-----------|
| | # |
| Yes | 9 |
| No | 12 |
| Total | 21 |

Participants were asked to describe the benefits of the ILSFA Program. Table VII-25 shows that the most common response, reported by nine respondents, was that the ILSFA Program can help program participants save money through reduced electric bills. Six participants reported that ILSFA is beneficial to the environment and six did not know the benefits of the ILSFA Program. Six respondents cited the following other benefits.

- Receive rebates from utility – 2
- Help power better appliances – 1
- Increase solar accessibility – 1
- Help participants afford solar panels – 1
- Educators are local and can help participants enroll in the program – 1

**Table VII-25
ILSFA Benefits**

| What are the benefits of the ILSFA Program? | |
|--|-----------|
| | # |
| Observations | 21 |
| Save Money Through Reduced Electric Bills | 9 |
| Beneficial to the Environment | 6 |
| Other | 6 |
| Don't Know | 6 |

*Totals do not add up as some participants provided more than one response.

Participants were asked if they received any materials about the ILSFA Program at the GE event. Table VII-26 shows that 12 respondents received materials and six respondents did not receive any materials about ILSFA.

**Table VII-26
ILSFA Materials**

| Did you receive any materials about the ILSFA Program at the Education event? | |
|--|-----------|
| | # |
| Yes | 12 |
| No | 6 |
| Don't Know | 2 |
| Received Call | 1 |
| Total | 21 |

The participants who reported that they received materials about the ILSFA Program were asked how easy or difficult it was to understand the information in the materials and how useful the materials were. Table VII-27 shows that nine of the 12 respondents reported that the information in the materials was very or somewhat easy to understand. Eleven of the 12 respondents reported that the information was very or somewhat useful.

**Table VII-27
ILSFA Materials**

| How easy or difficult was it to understand the information in the materials you received? | | How useful were the materials? | |
|---|-----------|--------------------------------|-----------|
| | # | | # |
| Somewhat Difficult | 3 | Very Useful | 4 |
| Somewhat Easy | 5 | Somewhat Useful | 7 |
| Very Easy | 4 | Don't Know | 1 |
| Total | 12 | Total | 12 |

Two participants who reported that they visited the ILSFA website were asked how easy or difficult it was to understand the information on the website and how useful the information on the website was. Both respondents reported that the website was very easy to use. One said that the information on the website was very useful and one said it was somewhat useful.

ILSFA Participation and Satisfaction

This section summarizes participant responses to questions about their plans or interest in participating in the ILSFA Program.

Table VII-28 displays information on whether participants were interested in or plan on installing solar on their roof through the ILSFA Program. Twelve of the 21 respondents were interested in participating in the DG sub-program but only six were planning on doing so.

**Table VII-28
Interest in Solar Installation**

| | Are you interested in having solar installed on your roof through the ILSFA? | Do you plan on doing so? |
|--------------|--|--------------------------|
| | # | # |
| Yes | 12 | 6 |
| No | 8 | 11 |
| Don't Know | 1 | 4 |
| Total | 21 | 21 |

Participants who were not planning to install solar panels on their roof were asked to provide their reasoning for not planning to move forward with a DG installation. Table VII-29 shows that three participants are not planning to participate in the DG sub-program because of the cost and three do not own their homes. Six respondents provided the following other reasons for withdrawal.

- Not enough information was provided – 2
- Rooftop solar would not lower bills – 1
- Cannot find a good vendor – 1

- Does not want to damage roof or increase roof insurance – 1
- Does not qualify – 1

**Table VII-29
DG Project Withdrawal Reasons**

| Why do you not plan to install DG solar panels? | |
|---|-----------|
| | # |
| Observations | 11 |
| Financial Concerns | 3 |
| Don't Own Home | 3 |
| Don't Understand How to Participate | 2 |
| Roof Is in Poor Condition | 1 |
| Other | 6 |

*Totals do not add up as some participants provided more than one response.

Participants were asked if they are now interested in subscribing to a Community Solar project through the ILSFA. Table VII-30 shows that nine of the 21 respondents are interested in subscribing and six are planning on doing so.

**Table VII-30
Interest in Community Solar Project**

| | Are you interested in subscribing to a Community Solar project? | Do you plan on doing so? |
|--------------|---|--------------------------|
| | # | # |
| Yes | 9 | 6 |
| No | 10 | 13 |
| Don't Know | 2 | 2 |
| Total | 21 | 21 |

Participants who are not planning on subscribing to an ILSFA CS project were asked to provide their reasoning. Table VII-31 shows that four respondents do not understand community solar, four do not understand how to participate, and two respondents cannot afford to subscribe. Respondents provided the following other reasons for withdrawal.

- Have other things to do/no time – 3
- More interested in DG – 2
- No reason to subscribe – 1
- Might sell house – 1
- House would not hold it on roof – 1

**Table VII-31
CS Project Withdrawal Reasons**

| Why do you not plan on subscribing to a Community Solar project? | |
|---|-----------|
| | # |
| Observations | 13 |
| Does Not Understand Community Solar | 4 |
| Does Not Understand How to Participate | 4 |
| Financial Concerns | 2 |
| Other | 8 |

*Totals do not add up as some participants provided more than one response.

Participants who planned to participate in ILSFA in the future were asked how important the GE event had been in informing that interest. Six of the eight said it was very important and two said it was somewhat important.

Table VII-32 displays information on respondents' understanding of how to participate in the ILSFA Program. Eleven of the 21 respondents felt that they had a good understanding of how to participate, while the remaining ten did not.

**Table VII-32
ILSFA Participation**

| Do you feel that you have a good understanding of how to participate in the ILSFA Program? | |
|---|-----------|
| | # |
| Yes | 11 |
| No | 10 |
| Total | 21 |

Participants were asked about the barriers they have experienced or expect to experience if they choose to pursue participation in the ILSFA Program. The most common barrier reported was unexpected costs. Other barriers mentioned include lack of vendors or projects, poor roof conditions, income eligibility issues, and lack of program understanding. Five participants reported that they did not experience or anticipate any barriers.

**Table VII-33
Difficult Aspects of ILSFA Participation**

| What barriers have you experienced or expect to experience while participating in the ILSFA Program? | |
|---|-----------|
| | # |
| Observations | 21 |
| Unexpected Costs | 10 |
| Poor Roof Conditions | 2 |
| Lack of Vendors/Projects in My Area | 1 |
| Income Eligibility Issues | 1 |
| Do Not Understand the Program | 1 |
| No Barriers | 5 |
| Don't Know | 4 |

*Totals do not add up as some participants provided more than one response.

Participants were asked if they had reached out to an AV or if an AV had reached out to them. Only one of the 21 respondents had contacted an AV and three reported that an AV had reached out to them. One respondent discussed eligibility with the AV, one AV provided an estimate, one discussed the panels and financials.

Table VII-34 provides information on whether the respondents shared information about the ILSFA Program with their friends, family, or neighbors. About half of the respondents reported that they had exchanged information with others and about half had not.

**Table VII-34
Information Exchange with Others**

| Have you shared information about the ILSFA Program with your friends, family, or neighbors? | |
|---|-----------|
| | # |
| Yes | 10 |
| No | 11 |
| Total | 21 |

Table VII-35 displays recommendations the respondents provided for the ILSFA Program. The most common recommendations include conducting more outreach, making the program financially beneficial, and being upfront about costs.

Table VII-35
Recommendations for ILSFA Program

| Do you have any recommendations for the ILSFA Program? | |
|--|-----------|
| | # |
| Conduct More Outreach | 4 |
| Make the Program Financially Beneficial and Be Upfront About Costs | 2 |
| Offer More Alternatives to DG | 1 |
| Provide More Detailed Information | 1 |
| Make it Easier to Contact Property Owners | 1 |
| Provide Referral Numbers for Other Areas in Illinois | 1 |
| Add More Well-Known Vendors | 1 |
| Total | 11 |

VIII. Program Administrator Assessment

This section provides a summary of Elevate Energy's responsibilities in the ILSFA Program, challenges faced, tasks completed, and an assessment of Elevate Energy's performance to date. Findings in this section are based upon review of publicly available material on the ILSFA website and additional program information and data provided by Elevate; interviews with Elevate Energy managers and staff, Grassroots Educators, and Grassroots Education participants; and the AV survey.

A. Overview

Following approval of the Long-Term Plan, Elevate Energy was hired to administer the ILSFA Program. Elevate Energy is responsible for the DG, CS, and NP/PF sub-programs. NERA Economic Consulting (NERA), the IPA's Procurement Administrator, is responsible for the LICS Pilot sub-program.

B. Outreach

Elevate Energy has wide-ranging responsibilities with respect to outreach to stakeholders, low-income households, energy efficiency vendors, and job training organizations. Elevate has continued to work on increasing outreach, but still needs strengthen its work in this area to increase ILSFA Program knowledge and opportunities for collaboration. This includes more direct communication with Community Action Agencies (CAAs) and other local organizations that work with limited-income households, as well as utility energy efficiency staff and their implementers.

When asked specifically about efforts to expand the stakeholder audience, Elevate reported that they are continuing to increase their stakeholder list and have added approximately 80 workforce development and minority business development and advocacy groups. They developed a DG project case study to share with community action agencies and other organizations.

Elevate reported that they are working with the Illinois Department of Commerce and Economic Opportunity (DCEO) to better incorporate ILSFA with some of their programs, including LIHEAP, PIPP, and other income-eligible energy efficiency programs. They have been working with one CAA who is in the new cohort of Grassroots Educators, and they plan to share the DG case study, but have not directly communicated with the other CAAs.

Elevate reported that they reached out to Ameren and ComEd about integrating ILSFA information with their programs and inquired about speaking at the meetings, but that progress has been slow in getting on those agendas. They are also continuing to expand communication with job training organizations outside of FEJA. They reported that they have reached out to five job training organizations.

When asked about moving forward with a previously reported plan to screen potential program participants for ILSFA during LMI energy efficiency program delivery, Elevate

reported that the IPA approved their plan. Elevate is currently developing the website and forms, and they hope to implement the process by February, 2021.

Elevate trained energy efficiency and other low-income program staff on the ILSFA Program so that these staff can refer their participants to the ILSFA. They can also conduct a solar pre-evaluation of the roof quality and electrical panel. To date, Elevate has received five referrals from outreach to past participants in Elevates' other programs and from community education teams, and some referrals from GE organizations that work on energy efficiency programs. Elevate referred two of these households to AVs; two had roof repair issues and will follow up after resolving those issues; and Elevate is still attempting to reach the others.

Elevate reported that they also have begun to conduct follow up calls to participants who contact their call center instead of only sending follow-up emails as was previously done.

Elevate has taken a more active role in working with the IPA to address barriers to DG participation.

As noted in the previous evaluation report, Elevate should increase their proactive outreach to the following groups.

- Low-Income Households
- Energy Efficiency Programs
- Other Low-Income Program Providers

Future success of the ILSFA may depend on forging greater connections. While Elevate is working on these connections, there has been limited progress and they should prioritize more outreach and communication with these audiences to promote these important linkages.

C. Call Center

Elevate Energy has a call center to field questions about the ILSFA Program and provide guidance and information. Elevate databases caller contact data in a Salesforce-driven system that records information about every call, such as the contact date, time of the call, caller contact information, phone number, nature of inquiry, etc. This information is shared with the IPA via a monthly email, and Elevate provided these reports for the evaluation.

Elevate's call center metrics report does a very good job of providing information on the volume and type of calls handled. The report shows that from June 2020 through October 2020, a total of 63 incoming calls were handled, 10 voicemails were received, and 24 outgoing calls were made. Calls were most likely to be received from vendors and homeowners. The most common topics covered were general program information, DG participation, and AV registration.

D. Program Materials

Elevate is responsible for developing the program manual and related documents for use by AVs. They are also responsible for assisting in the development of contracts, disclosure

forms, and brochures used by ILSFA AVs and CBOs. Elevate has developed most of these materials with detailed review and edits provided by the IPA.

Elevate reported that they have made the following updates to program materials and guidelines since May 2020.

ILSFA Program Announcements

- Program Budgets: The updated sub-program budgets available for the 2020-2021 year.
- Project Selection Announcements: Selected NP/PF project and CS project lists.
- Ameren Net Metering: Updates related to Ameren's net metering changes.
- Income Verification: Elevate's internal income verification process.
- Project Selection Protocol: Revised protocols for project selection and responses to stakeholder comments.

Outreach Materials

- NP/PF Brochures: Updated standard information brochures in English and Spanish. The brochures reflect updated program requirements from the revised Long-Term Plan.
- Grassroots Education Materials: Updated marketing materials for the GEs including two additional handouts and a simplified presentation that is also provided in Spanish.
- CS Subscriber Directory: An updated directory of CS projects that were accepting subscribers or would soon be accepting subscribers. The directory included the utility territory and contact information for households interested in subscribing. The October 2020 list included three projects in Ameren's service territory and two projects in ComEd's service territory.
- DG Offers: List that provides standardized summaries of the available DG offers. The September 2020 list included offers from four AVs that specified the regions, roof types, offer types (PPA or lease), date of expiration, contract length and the offer rate. Three of the four offers required no participant payments and the fourth offer required monthly payments equal to 50 percent of the current kWh rate.
- Case Study: Case study of a DG project installed in June 2020. The study included information on the first year monthly and annual savings as well as the expected savings over the contract's lifetime. Elevate plans to create additional case studies as projects are completed.

AV Materials

- AV Manual: An updated version of the AV manual and a video presentation on the updates.
- Project Submission Overview: An overview of requirements and supported documentation needed for the Part 1 submission process.
- Subcontractor Attestation: Form required for AVs, Aggregators, and/or Designees that will have direct interaction with end-use customers.
- DG Disclosures: Updated to allow for ongoing rate updates.
- CS Disclosures: Updated with revised utility rates.
- REC Extension Request FAQ: Information on REC Extension Requests.

- ILSFA RECs Contract Update: Addendum addressing an update to the CS anchor tenant rate and MWBE subcontractor requirements included in the updated Long-Term Plan.

Sub-Program Materials

- DG Certification and Consent: Updated to record income data for each household member and clarify report for zero-income household members.
- DG Referral Process: Draft process, feedback announcement, and revised draft.
- Critical Service Provider Requests: Instructions for entities requesting to be considered a critical service provider.

Job Training Materials

- Job Training Programs: List of 30 job training programs that are potentially eligible to become “Other Qualifying Programs” that can be used by AVs to satisfy the job training requirements if the AV is not able to find trainees from the FEJA Workforce Development programs.
- Other Qualifying Program Application: Job training programs that are not FEJA Workforce Development Programs can use this form to apply to become a Qualifying Job Training Program for ILSFA.
- Job Training Affidavits: Updated to clarify requirements based on the submission date.
- Project Summary Affidavit: For AVs to use when employing job trainees on ILSFA projects.
- Job Training Portal Video: A video explaining how to use the ComEd Job Training Portal.

As shown above, Elevate has developed and updated a large amount of materials over the past six months. They should place increased emphasis on simplicity and reading level for customer-facing materials.

- Case Study: The study provides important information for potential participants. The study should be shortened, simplified, and adjusted for the appropriate reading level.
- Grassroots Educator Materials: These materials should include a summary of key information to ensure that the most critical program points are made. These points should include the following.
 - ILSFA reduces electric costs.
 - Renters can participate in CS.
 - Homeowners with roof issues can participate in CS.
 - Strict ILSFA rules protect participants.
 - No upfront costs or fees.
 - ILSFA means you will pay less than you currently pay.
 - List of DG offers and CS projects.

E. ILSFA Website

Elevate Energy created and updates the ILSFA website. This resource is meant to provide up-to-date ILSFA Program information. They use Google Analytics to track how individuals use the website and respond to marketing emails.

Users of the website acknowledged the vast amount of information that is available, and the usefulness of that information. However, the website is not well-organized and information can be difficult to locate. Elevate continues to work to address these concerns.

Elevate reported that they made the following improvements to the website since May 2020.

- Search Capabilities
- The “For Residents Webpage” now directs users by audience – renters, homeowners, or building owners.
- Job Training Materials and Programs

Elevate reported that they also have plans to update the home page to improve clarity.

Significant additional improvement to the website organization could make the program more accessible to the public, potential participants, and vendors. Often information is only available in the program announcements (however, this information may be needed by Approved Vendors and project developers rather than potential participants). Additional menus and links should be provided so that this information is easily found without searching or looking through the announcements.

F. Approved Vendor Portal

Elevate Energy maintains a portal that includes information on AVs, projects, participants, and Grassroots Education.

There are several users of the database system.

- Elevate Energy, AVs, and GEs, for data entry and review
- Grid Alternatives, for job training oversight
- Shelton Solutions and Elevate Energy staff responsible for recipient verification
- Elevate Energy IT staff
- Elevate Energy Call Center staff

This portal has many uses, including the following.

- Vendors complete applications to become AVs.
- AVs submit project applications.
- AVs submit job training, income verification, and other data during later project phases.
- GEs submit information on education events.
- Call center staff enter information on calls received.
- The quality control subcontractor will submit information on completed site inspections.

Elevate Energy designed the portal using the Salesforce platform. They have a team of developers and have also worked with external contractors to assist with the development. Elevate Energy reported that they worked to design the system to be as simple as possible for the users. However, they found that the AVs needed reinforcement of what is expected in each field, so they provided training sessions on this topic. The AVs reported many challenges

with the portal, and Elevate's vendor managers have spent a great deal of time supporting AVs in using the portal and responding to their questions and problems.

Elevate reported that they made the following changes to the AV portal.

- They made updates based on changes to the Long-Term Plan.
 - Vendors can select if they are working with MWBE subcontractors. Additional points are provided in the project selection process in this case.
 - Non-profit and public facility requirements were updated so they must be approved as both a Critical Service Provider and as having demonstrated community engagement.
 - Batch project requirement changes.
 - REC prices were updated.
- New Grassroots Educators were added and included in the data tracking capabilities.
- Grassroots Educators can track participants and make follow-up calls. They can send event links to attendees to assess understanding of the presentation and collect contact information for interested participants.
- Disclosures were updated with new utility rates.
- A data entry portal was created for the REC delivery Annual Report.
- The AV types and relationships have been updated to reflect what they are permitted to access in the portal.
- The DG disclosure calculations were updated.

Elevate reported that the portal worked well for the Year 3 Project Submissions and Elevate was able to fix issues with documents not uploading correctly during the process. They reported that all problems were resolved prior to the submission deadline. However, many of the AV survey respondents reported that the portal was still difficult to use in their most recent project submission.

Elevate reported that they have not faced additional challenges following those submissions but they would like to improve the portal. They are considering or planning the following updates.

- Having the calculations update when new data are entered.
- Including co-location calculations in the system.
- Automating the NP/PF disclosures.
- Allowing for easier utility rate updates in the disclosures.
- Streamlining the REC value calculation.
- Adding calculations for the Community Solar annual report.
- Transitioning to a different version of Salesforce with more capabilities.
- Adding a bulk upload feature so AVs with higher project volumes or those entering CS subscribers can upload spreadsheets into the portal instead of entering data per subscriber or per project.
- Developing code for Part Two submissions including checks of whether the installed systems are consistent with the approved systems and determining the amount that AVs are paid.

While they are working to make the portal easier to use, they are also training the AVs in the more difficult aspects of the portal. Additionally, they are developing the annual reporting capabilities.

Elevate should continue to advance and test the portal to make it easier for AVs to use.

G. Grassroots Education

Elevate Energy is responsible for coordinating the distribution of funding for Grassroots Education by CBOs and overseeing the Grassroots Educators' work. Elevate implemented the second Grassroots Education RFP, selected ten organizations, and developed an intensive onboarding and training process for those organizations. Elevate has worked to provide more information and support to these organizations than during the first round. Elevate has replaced many one-on-one check-ins with group or pod check-ins to provide opportunities for GEs to share best practices and to troubleshoot, and this has been well-received by the GEs.

Interviews with Grassroots Education participants show that more work needs to be done to have GEs emphasize the key messages that the program will reduce energy bills and that households can participate through DG on their roof or CS if DG does not work for them. All information should include a summary to increase the opportunity to instill these key issues for participants.

H. Energy Efficiency

Elevate has conducted the following activities related to energy efficiency.

- Developed the Program Resource Guide for AVs and updated it in March 2020.
- Conducted in-house training to ensure that their management-level team members are knowledgeable about the ILSFA Program, so they can refer requests to Elevate's ILSFA Program managers.
- Trained energy efficiency and other low-income program staff on the ILSFA Program so that these staff can refer their participants to the ILSFA. They can also conduct a solar pre-evaluation of the roof quality and electrical panel.
- Reached out to Ameren and ComEd about integrating ILSFA information with their programs.
- Developed a plan to screen LMI energy efficiency participants for the ILSFA Program.

Elevate should continue to take more action to coordinate the ILSFA Program with income-qualified energy efficiency programs in Illinois, both to provide leads for the ILSFA Program and to ensure that ILSFA participants undertake beneficial energy efficiency actions prior to ILSFA Program participation.

I. Vendor Administration and Support

Elevate Energy has responsibilities for administering and supporting the vendor registration and project submission process. They are responsible for assisting the AVs to meet the ILSFA Program requirements by acting as a liaison with job training organizations and informing

AVs of energy efficiency, weatherization, lead abatement, and other program opportunities that could provide additional benefits to participants.

Elevate's vendor management team works directly with the vendors. This involves supporting vendors through the application and vetting process, reviewing vendor applications, and making recommendations to the IPA about whether they should approve each vendor. Once vendors are approved, Elevate performs the vendor onboarding process, provides them with vendor credentials to access the portal, trains them on how to access the system, helps them submit projects, and answers questions on their projects. Elevate assesses the needs of each AV and tailors specialized training to those needs.

Elevate reported that because there are now over 50 AVs, it is challenging to address all of their needs. AVs call in with questions that may be nuanced and require additional discussion, research and inter-agency coordination. Some questions can be answered in-house, but some require the IPA's perspective. Elevate continues to maintain a relationship with each AV, but as the number of AVs grow, Elevate has less individual time for each one.

For the Year 3 submissions, Elevate had one submission window for DG and NP/PF and a separate window for CS. The purpose of this change was to allow for enough time to review all applications as they came in. Elevate reported that they were able to streamline the project review process by dividing the labor. These are the types of proactive changes that Elevate should continue to implement to improve program management.

Elevate held trainings for AVs to help them understand the changes implemented in PY3 and they held an AV manual update training. They put together many short videos to provide information on submitting projects. These videos are available on the ILSFA website.

Elevate has provided extensions to AVs who have not completed their projects in time. Some of these were due to COVID-19.

As in previous evaluations, we recommend that Elevate take a more active role in providing proactive assistance to AVs in other areas where it has become apparent that additional support is needed. This includes the following areas.

- The Interconnection Process
- MWBE Participation
- Energy Efficiency

J. Environmental Justice

Elevate was responsible for working with the IPA to develop the EJ determination process and the self-designation process. They developed a rigorous and well-documented process for determining the EJ communities, and the map and list of EJ communities is provided on the ILSFA website.

Elevate now continues to work with the IPA and community groups to score incoming EJ self-designation applications. They have also developed a systematic process for this scoring

and meet with the scoring group on a regular basis to score EJ self-designation applications as they come in.

Since the initial applications in May 2019, 21 communities submitted EJ self-designation applications and five re-submitted for a total of 26 reviews. Eight of these communities received EJ self-designation status.

K. Reporting

Elevate is responsible for providing quarterly reports to the IPA and the ICC on the status of the program, including number of applications received, number of applications approved, number of projects completed, REC payments, payments for Grassroots Education efforts, status of Grassroots Education, and technical assistance provided. Elevate has submitted three of these quarterly reports to the IPA (the last one covering the third quarter of calendar year 2020).

Elevate has also developed the following reports to update the IPA on the ILSFA progress and has met with the IPA on a regular basis to provide updates.

- **Call Center Metrics:** This report provides information on the number of calls by month, inbound versus outbound, type of caller, and topic. This report does a good job of presenting the important information about the call center.
- **Technical Assistance:** This separate report provides information on the date, organization, contact, and nature of inquiries each month. This is a useful report to understand the types of questions received by Elevate Energy.
- **Newsletter Report:** This report provides information on the date of the report, the recipients, a summary of the information provided, a link to the report, the delivery and opening rate, the rate at which hyperlinks were clicked, and a table that provides statistics for all newsletters, and recommendations for future newsletters. This is a detailed and informative report that does a good job of presenting the information.
- **Website Report:** This report provides information on use of the ILSFA website, where users originate from (such as search, email, and referral), specific referral sources (such as Illinois.gov and elevateenergy.org), the pages within the ILSFA website that had the most views, and the email campaign that led to the website visit. This is a detailed and informative report that does a good job of presenting the information.
- **Salesforce Reports:** These reports allow the IPA to view project details.
- **Project Dashboard:** This provides an overview of submitted projects, selected projects, and project funding.
- **Grassroots Educator Invoicing:** These invoices provide an update on Grassroots Education activities.

Elevate has done a good job of developing reports that provide important information to the IPA.

L. Quality Assurance

Elevate is responsible for developing a process for quality assurance, including photos of projects under construction and on-site inspection of a random sample of installations. Elevate has developed a comprehensive Onsite Inspection Checklist and contracted with a subcontractor to conduct the inspections. The Onsite Inspection Checklist systematically collects important information on the quality of the installation and the AV's work.

Elevate's subcontractor schedules inspections on a calendar directly with the AVs when the projects are verified as inspection ready. When the inspection is complete, the subcontractor provides a report to Elevate that identifies the score, the results, and any deficiencies that were found that would indicate the project is not ready to be paid out or completed. In that scenario, the AV would then be provided with information on whatever deficiency they need to correct.

To date, approximately six projects have been inspected using mostly off-site video review due to the COVID pandemic. These inspections have found that the projects are consistent with their plans and with the ILSFA requirements.

IX. Findings and Recommendations

This section provides a summary of findings and recommendations from all of the research summarized in this report.

A. Key Findings

The key findings are summarized below.

- **AV Participation:** The ILSFA Program has achieved good participation by solar vendors and participation has continued to increase. However, there is still need for greater participation in the DG sub-program.
 - As of November 2020, there were 51 AVs.
 - Thirty-two different AVs submitted projects and 20 different AVs had selected projects.
 - Only four AVs submitted DG projects and only two have had DG projects selected. While there are 41 projects currently under development, the AVs actively working on submitting more DG projects are only in the Chicago area.
- **Project Diversity and FEJA Goals:** The ILSFA Program is meeting some of the important program goals regarding EJ communities and low-income communities.
 - **Urbanity of Project Locations:** Thirty-seven selected projects were characterized as being in urban locations, 19 in suburban locations, and 16 in rural locations. Twelve percent of the REC value was in urban areas, 24 percent was in suburban areas, and 64 percent was in rural areas.
 - **Minority Composition of Project Locations:** The census tracts that had selected projects were comprised of an average of 58 percent minorities (non-white), compared to an average of 30 percent minorities in census tracts that did not have selected projects.
 - **EJ Communities:** Fifty-one of the 72 selected projects were in EJ communities. Seventy-three percent of the REC value was in EJ communities.
 - **Low-Income Census Tracts:** Sixty-eight of the 72 selected projects were in low-income Census Tracts. Almost all of the REC value was in low-income Census Tracts.
- **Job Trainees:** Nine AVs with a combined portfolio of 15 projects submitted 41 job training affidavits as of December 2020. Across all projects, job trainees worked an average of 21 percent of total project hours. On average, 90 percent of trainee hours were spent on installation.

AVs reported a mean annual salary for trainees of approximately \$40,000. While 45 percent said they expected to work with job trainees on all future work, four percent said it was just for the ILSFA Program, and the others could not provide a response because it was too early to say or they were not involved in installation.

- Solar Panels: Many AVs said they were using or planned to use foreign-produced panels because switching to domestic panels would cost an average increase of 32 percent.
- ILSFA Impacts: The ILSFA Program's expected solar production will have large impacts as calculated in this report. These impacts are equivalent to the following.
 - Homes powered: 2,453
 - iPhones charged: 2,260 million
 - Cars taken off the road for one year: 4,727
 - Trees planted over 10-year growth period: 344,192

The estimated value of avoided emissions is over \$2 million dollars in first year benefits and \$32.8 million in lifetime benefits from the first two ILSFA Program years.

The estimated value of the increase in economic output in Illinois is over \$24 million dollars in first year benefits and \$27.8 million in lifetime benefits from the first two ILSFA Program years.

The ILSFA Program is estimated to create 61 full-time job years from first-year economic benefits and 164 job years from lifetime economic benefits from the first two ILSFA Program years.

- COVID-19 Impact: The pandemic has impacted the ILSFA by reducing in-person opportunities for outreach, sales of solar systems, and on-site inspections of completed projects.
- AV Challenges: AVs reported challenges providing the high volume of information required, understanding the project submission application, understanding eligibility requirements for program participants, obtaining an interconnection agreement, and meeting the program timeline. With respect to the portal, AVs reported challenges uploading information, understanding portal instructions, accessing portal applications, saving applications in progress, and using the calculators for Alternate Capacity Factor and REC value.
- Elevate Energy Assessment: Elevate implemented the complicated ILSFA Program in a short time period; developed numerous materials, the website, and portal; recruited and supported numerous solar vendors; and selected projects in all sub-programs. They focused on core responsibilities and ensured that program requirements were met. They have been taking more proactive steps to address challenges, increase outreach, and forge connections. To achieve greater program success, they need to continue on this path.
 - Outreach: Elevate has taken steps to increase outreach to critical groups including adding to their stakeholder list, discussions with the Illinois Department of Commerce and Economic Opportunity (DCEO), reaching out to utility energy efficiency managers, developing a system to screen potential program participants for ILSFA during LMI energy efficiency program delivery, and developing a DG referral process.

- As noted in previous evaluation reports, Elevate should increase their proactive outreach to the following groups.
- Low-Income Households
 - Energy Efficiency Programs
 - Other Low-Income Program Providers
- Call Center: Elevate Energy has a call center to field questions about the ILSFA and provide guidance and information. Elevate’s call center metrics report does a very good job of providing information on the volume and type of calls handled.
 - Program Materials: Elevate has developed and updated a large amount of materials over the past six months. These include available DG and CS projects, a case study of a completed DG project, and updated Grassroots Education materials. Elevate should place increased emphasis on simplicity and reading level for customer-facing materials.
 - ILSFA Website: Elevate made some improvements to the ILSFA website and plan to update the home page to improve clarity. Significant additional improvement to the website organization could make the program more accessible to the public, potential participants, and AVs. Often information is only available in the program announcements. Additional menus and links should be provided so that this information is easily found without searching or looking through the announcements.
 - Approved Vendor Portal: Elevate has continued to update the portal with additional capabilities that are needed as projects move forward, as well as to improve the process for AVs. Many AVs still report that using the portal for project submission is challenging. Elevate should continue to advance and test the portal to make it easier for AVs to use.
 - Grassroots Education: Elevate implemented the second Grassroots Education RFP, selected ten organizations, and developed an intensive onboarding and training process for those organizations. Elevate has worked to provide more information and support to these organizations than during the first round. Interviews with Grassroots Education participants show that more work needs to be done to emphasize the key messages that the program will reduce energy bills and that households can participate through DG on their roof or CS if DG does not work for them. All information should include a summary to increase the opportunity to instill these key issues for participants.
 - Energy Efficiency: Elevate has taken actions to improve coordination of the ILSFA with energy efficiency programs. They should continue to take more action to coordinate the ILSFA Program with income-qualified energy efficiency programs in Illinois, both to provide leads for the ILSFA Program and to ensure that ILSFA participants undertake beneficial energy efficiency actions prior to ILSFA Program participation.

- Vendor Administration and Support: Elevate Energy has responsibilities for administering and supporting the vendor registration and project submission process. Elevate has provided extensive support to the AVs and they speak favorably about their experience with Elevate and the tremendous assistance that Elevate has provided.

As in previous evaluations, we recommend that Elevate take a more active role in providing proactive assistance to AVs in other areas where it has become apparent that additional support is needed. This includes the following areas.

- The Interconnection Process
 - MWBE Participation
 - Energy Efficiency
- Environmental Justice Communities: Elevate was responsible for working with the IPA to develop the EJ community determination process and the self-designation process. They developed a rigorous and well-documented process for determining the EJ communities, and the map and list of EJ communities is provided on the ILSFA website. Elevate continues to work with the IPA and community groups to score incoming EJ self-designation applications. They have also developed a systematic process for this scoring and meet with the scoring group on a regular basis to score EJ self-designation applications as they come in.
 - Reporting: Elevate is responsible for providing quarterly reports to the IPA and the ICC on the status of the program, including number of applications received, number of applications approved, number of projects completed, REC payments, payments for Grassroots Education efforts, status of Grassroots Education, and technical assistance provided. Elevate has submitted three of these quarterly reports. Elevate has also developed comprehensive and useful reports on call center metrics, technical assistance, newsletters, and use of the ILSFA website.
 - Quality Assurance: Elevate is responsible for developing a process for quality assurance, including photos of projects under construction and on-site inspection of a random sample of installations. To date, approximately six projects have been inspected using mostly off-site video review due to the COVID pandemic. These inspections have found that the projects are consistent with their plans and with the ILSFA requirements.

B. Recommendations

Recommendations from the Phase II Third Interim Evaluation are summarized below.

ILSFA Program Design

Recommendations relating to the ILSFA Program design are summarized below.

- ILSFA Requirements: Assess where requirements can be simplified both within the current Long-Term Plan and with changes to the Long-Term Plan.

- ILSFA Program Materials: Include a list of the most important points for potential participants to understand in all Grassroots Education materials. Ensure that customer-facing materials are simplified and at the appropriate reading level.
- ILSFA Website: Include additional menus and links so information can be found without a search or a review of the program announcements. For example, this could include links to available projects at the top of the Illinois Residents pages, a link to a “How to Get Started” document, a link to program brochures, and a link to job training programs.
- ILSFA Portal: Continue to improve, remove glitches, and increase user-friendly design elements.
- Job Training and Job Creation: Continue to qualify and permit alternative job training programs if FEJA programs are not available.
- DG Sub-Program: Consider more substantial changes to this sub-program if DG projects do not increase significantly and expand throughout the state by the end of the open submission period. This may require a movement away from the current market-based approach and changes to the Long-Term Plan.

Program Implementation

Recommendations relating to the ILSFA Program implementation are summarized below.

- Outreach: Prioritize outreach to low-income organizations and energy efficiency program implementers.
- DG Participation: Conduct additional outreach to AVs outside of the Chicago area to encourage participation in the DG sub-program and submission of projects for inclusion in the DG offer list. Provide additional support where possible to help AVs overcome barriers to participation. Specific areas reported by AVs are financing, finding eligible participants, obtaining interconnection agreements, finding community partners, securing permits, and meeting program requirements.
- Grassroots Education: Continue to provide the enhanced support to GEs that has been done with the second cohort. Collect information on all participants for additional outreach and follow up.
- Energy Efficiency: Prioritize coordination of the ILSFA Program with income-qualified energy efficiency programs in Illinois.
- Proactive Solutions: Continue to explore proactive solutions to ILSFA Program challenges. Expand revisions to past procedures if there are opportunities to increase efficiency and effectiveness as was done with the staggered project submission periods and division of labor in project review in Program Year 3.