To: Anthony Star, Illinois Power Agency
Brian P. Granahan, Illinois Power Agency
From: Juliana Pino, Little Village Environmental Justice Organization
& Participants of the Illinois Solar for All Working Group
Date: 6/27/2017
Re: Illinois Solar for All Working Group

Dear Director Star and Mr. Granahan:

The Illinois Solar for All Working Group is pleased to deliver the enclosed comments on IPA's June 6, 2017 Request for Comments on the Long-Term Renewable Resources Procurement Plan. This memo describes an overview of the Illinois Solar for All Working Group.

Background: Illinois Solar for All Working Group

The Illinois Solar for All Working Group (the Working Group) formed from a subset of members of the Illinois Clean Jobs Coalition, who had comprised an Environmental Justice-Solar-Labor Caucus (the Caucus) during the negotiation of policies that would become FEJA. The group formed in order to bring the best practices and policies to the Illinois energy landscape that would serve to maximize benefits to the economically disadvantaged households and communities that targeted programs are intended to serve. The group was co-facilitated by a representative of a solar company, Amy Heart of Sunrun, and a representative of an environmental justice group, Juliana Pino of the Little Village Environmental Justice Organization.

Following passage of FEJA in December 2016, the Caucus expanded into the Illinois Solar for All Working Group, an open membership group including experts on environmental justice, environmental advocacy, consumer protection, solar business, low-income solar policy, energy efficiency, job training, program design, and other areas, who have substantive research and experience to bring to bear on implementation of Illinois Solar for All. Over 70 participants include representatives from the following organizations:

Blacks in Green	Midwest Renewable Energy Association
Central Road Energy	Natural Resources Defense Fund
Elevate Energy	New Life Ministries
Environmental Defense Fund	One Northside
Environmental Law and Policy Center	People For Community Recovery
Faith In Place	Seventh Generation Ahead
Futurez NFP Incorporation	Sierra Club Illinois
GRID Alternatives	Sierra Club Labor and Economic Justice Program
Illinois Environmental Council	Southeast Environmental Task Force
Illinois Green Economy Network	StraightUp Solar

Illinois People's Action	SunRun
Illinois Solar Energy Association	The People's Lobby
Lift Them Up Center	Trajectory Energy
Little Village Environmental Justice Organization	Union of Concerned Scientists
Metanoia Centers for Innovation	Vote Solar

Working Group Process

The Working Group began convening in January 2017, and has had six monthly full-group meetings. In tandem, the Working Group operates with sub-teams that focus on specific areas relevant to the policies at hand and future work on the program. These sub-teams include: Program Design & Incentives, Consumer Protection & Financing, Definitions, Job Training, and Project Workshop. Each sub-team was facilitated by leads and co-leads and met weekly to biweekly over the course of the past six months.

A draft White Paper was delivered to the IPA on May 5, 2017. Many Working Group participants attended IPA's May 2017 workshops and helped develop responses to IPA's June 6, 2017 Request for Comments on the Long-Term Renewable Resources Procurement Plan submitted as a separate document along with this memo.

Program Principles for IL Solar for All

During the negotiation of FEJA, the Caucus membership collectively agreed upon the following policy principles to guide our work moving forward. These principles were rooted in the *Low-Income Solar Policy Guide*[1] authored by GRID Alternatives, Vote Solar, and the Center for Social Inclusion; further adapted through iterative deliberations in the Caucus; and ultimately adopted by the Working Group. The principles include:

• **Affordability and Accessibility**. Offers opportunities for low-income residents to invest in solar through a combination of cost savings and support to overcome financial and access challenges Creates economic opportunities through a job training pipeline. Supports skill development for family-supporting jobs, including national certification and apprenticeship programs.

• **Community Engagement**. Recognizes community partnerships are key to development and implementation, ensuring community needs and challenges are addressed. Strive to maximize projects located in, and serving, environmental justice (EJ) communities. Allows for flexibility for non-profit/volunteer models to participate, and strives to meet potential trainees where they are, with community-led trainings.

• **Sustainability and Flexibility**. Encourages long-term market development, and will be flexible to best serve the unique low-income market segment over time and as conditions change. Program administrator ensures community engagement, statewide geographic equity,

[1] www.lowincomesolar.org

and flexibility to meet goals. Job training program includes all training partners in design and implementation. Training offerings should come through diverse channels including utilities, unions, tech schools, non-profits, government agencies, and existing community-based job training organizations.

• **Compatibility and Integration.** Low-income program adds to, and integrates with, existing renewable energy and energy efficiency programs, and supports piloting of financing tools such as pay-as-you-save, on-bill financing, PACE or community-led group buy programs. Jobs training program will strive to ensure low-income solar installations incorporate workforce development, including coordinating opportunities for job training partners and individual trainees from the same communities that the low-income solar program aims to serve.

The Working Group researched and prepared the enclosed comments to deliver high quality information and recommendations on implementation considerations for the Illinois Solar for All Program. The contents are not intended to reflect universal consensus on any point amongst working group members. These contents reflect extensive deliberation regarding aspects that the Working Group believes are important to the program's success moving forward.

In closing, we make these recommendations and identify options, considerations, questions, and examples with the aim to ensure high-quality implementation for Illinois communities. Communities throughout Illinois need the opportunities and services the Illinois Solar for All program will provide and the support of groups with substantive experience in the solar industry and low-income solar in particular. Please do not hesitate to contact us with questions or comments in regards to this matter.

ILLINOIS POWER AGENCY LONG-TERM RENEWABLE RESOURCES PROCUREMENT PLAN REQUEST FOR COMMENTS

RESPONSE FROM THE ILLINOIS SOLAR FOR ALL WORKING GROUP

JUNE 27, 2017

The Illinois Solar for All (ILSfA) Working Group recognizes the IPA requested ILSfA specific input in Section E. However, many questions in Sections A-D are applicable to the ILSfA Program. Therefore, we prepared responses accordingly as they are important questions in the context of the ILSfA Program. We encourage the Illinois Power Agency (IPA) to refer to our White Paper once it is published.

A. GEOGRAPHIC ELIGIBILITY OF RENEWABLE ENERGY RESOURCES

1. What level of documentation and analysis should be required from an adjacent state project as part of a request that the Agency consider determining that the project is eligible to provide RECs for the Illinois RPS?

The ILSfA Working Group is not commenting on this question.

2. ***What would be an appropriate methodology for the Agency to use to determine that a project located in a state adjacent to Illinois meets the public interest criteria enumerated in Section 1-75(c)(1)(I)? For example, should it be a weighted scoring system based upon each of the criteria outlined in the law contributing towards meeting a minimum aggregate score, or does a threshold level of compliance with each criterion have to be fully demonstrated?***

The ILSfA Working Group is not commenting on this question.

B. MEETING PERCENTAGE-BASED RPS TARGETS

1. ***To incent the development of new resources outside the Initial Forward Procurement requirements and the Adjustable Block Program, how should the Agency consider balancing short-term REC procurements for meeting annual RPS percentage goals with procurements of multi-year commitments for RECs? In responding to this question, please consider that the eligibility requirements under the revised RPS may reduce the availability of eligible RECs from existing projects, potentially necessitating the development of new generation.***

The ILSfA Working Group is not commenting on this question.

2. Should the IPA develop distinct procurements that target specific renewable generating technologies beyond wind and solar? And if so, what technologies?

The ILSfA Working Group is not commenting on this question.

C. ADJUSTABLE BLOCK PROGRAM

Importantly, the ILSfA Working Group stresses that ILSfA projects must have access to all available incentives, including the Adjustable Block Program (ABP), as low-income customers pay into these incentive pools as ratepayers, and these financing resources are essential to ensuring that impact for ILSfA Program is maximized. Without access to the ABP, the success of the ILSfA Program is in question.

Whatever the final mechanics of the ABP, the ILSfA incentive could be an adder to address the REC source concerns expressed by IPA at the May 2017 workshops. However, incentives for ILSfA installations should not decline or be tied to declines in corresponding general market incentives and may actually need to increase if paired with declining general market incentives.[1]

When pairing the ABP and ILSfA incentives, the end value must be an incentive level that allows developers, installers, or the non-profit third-party program administrators to offer solar at no upfront cost to the income-qualified participant with near term significant economic savings realized by the household.

Blocks

1. ***What approaches should the IPA consider for determining the size of blocks? What are the advantages/disadvantages of having a larger block size as opposed to a smaller block size?***

The IPA should account for the expected use of the ABP by ILSfA projects in setting block sizes.

Blocks design should account for accurate project development timelines, especially specific to project development timelines for low-income community solar projects.

IPA may consider offering a carve out, block or interconnection pathway specific to low-income projects. These projects often have longer development timelines, including for siting and pre-development, and therefore may be disadvantaged or discouraged with highly competitive blocks.

Please see D. Community Solar Blocks for further discussion as it relates to ILSfA community solar projects.

2. ***Should the category for systems between 10 kW and 2 MW be subdivided into distinct blocks? And if so, what are the appropriate break-points (e.g., 100 kW, 200 kW, 500 kW) between categories, and why?***

The ILSfA Working Group is not commenting on this question.

[1] The low-income incentives under the NY-Sun Affordable Solar program are too low and problematic because they declined alongside the non-low-income incentives, therefore disregarding the costs to market or build projects for this sector. To illustrate this point, during the second quarter of 2016 in New York State, only six solar installations were completed under the Affordable Solar program (which doubles the standard incentive), and applications for 16 installations were approved. During the same period, under the non-low income incentive program, 5,506 installations were completed and NYSERDA received applications for 4,108 projects. New York's beginning ranges were from $.60/watt to $1.40/watt (service territory dependent). From October 2015 through the end of 2016, only 102 projects were completed using the added Affordable Solar incentive, with an additional 66 projects in the pipeline.

3. ***Should the initial block or blocks have a different structure than subsequent blocks to account for expected pent up demand?***

Developers will likely incur higher costs at the opening of the program, as they navigate community solar project development, and challenges unique to low-income projects. If using a block system, including a larger block/incentive from the outset would help ensure project development targets are met.

4. ***What criteria should be used to prioritize projects within a block when applications exceed the remaining available capacity in a block? Should the projects be prioritized on a first-come first–served basis or by other criteria?***

IPA may consider prioritization for low-income projects, including criteria such as impact for low-income customers through electric bill savings, coordination with energy efficiency measures and complementary low-income energy programming, and job training provided during installation. Low-income projects typically face longer development timelines, and may not be able to compete with a first-come, first-serve approach for allocating block capacity.

5. ***How should the Agency handle the transition between blocks? Should a block close automatically upon being filled? Or should a block remain open until a predetermined date? Upon a block being closed, should the next block open immediately, or should there be some delay?***

Regardless of the method chosen for transition between blocks, there should be clear and transparent communication about the transition. There should be no delay between blocks closing and blocks opening to prevent a start-stop program. The ABP should be designed to be a continual and open incentive program with no disruption.

Prices

The IPA and/or third-party program administrators should allow themselves the flexibility to change or adjust the ABP and ILSfA incentives (if an adder to the ABP) as needed.

6. ***Should the ABP REC prices be based on a cost-based model which takes into account the revenue requirements for new projects in Illinois, or should it be based on market observations of pricing data as well as developments in other jurisdictions?***

Especially as it relates to the ILSfA Program, using a cost-based model allows IPA to set incentives at an appropriate level to cover a majority of system cost, but not over-incent projects. For example, in California's Single-family Affordable Solar Homes (SASH) program, incentives are deliberately set at a level to cover a significant percentage of the system cost. Any gaps in financing between the available incentive and the system cost are filled by the program administrator, a non-profit organization that contributes proceeds from a third-party ownership (TPO) arrangement and its own philanthropic fundraising to projects. Under the SASH TPO offering, participating households have no financial liability to the system owner.

The working group cautions IPA against using a market based approach for the ILSfA Program. A market based approach requires expertise in policy and regulatory considerations for that particular market. It is general knowledge that certain aspects of low-income solar development cost more (customer

acquisition, for example). Therefore, IPA should account for that to set incentive levels and in order to do that accurately, a cost-based approach is required.

a. For the cost-based approach please provide recommendations for data inputs that should considered for the model. If there are publicly available models that could be used as a template, please provide information about those models.

Elevate Energy has developed a comprehensive model for community solar projects in Illinois available at http://www.elevateenergy.org/community-solar/communitysolarbusinesscasetool/ . This model could be the basis for the initial community solar block prices. Developers could be invited to provide unit costs to the third-party administrator for consideration to incorporation in the model.

An important note for low-income projects is to consider both project costs as well as impact when modeling low-income projects and developing incentives. Incentives should be structured to enable significant low-income energy savings (e.g. at least 50% electric bill savings), not just program participation. The ILSfA Working Group acknowledges that energy only net metering may eventually make it difficult for any project to achieve greater than 50% electric bill savings, but urges the IPA to ensure that incentives from this program drive meaningful declines in energy burden for low-income households.

b. For the market observations approach, please identify the jurisdictions that could be considered, and any significant differentiators between those jurisdictions and Illinois that should be used to adjust results.

The ILSfA Working Group is not commenting on this question.

c. Does the methodology for determining REC pricing have to be either cost-based or market observation based, or can it be a combination of both? Are there any other approaches that should be considered?

The IPA should reserve its ability to do both cost-based and market-based. The first set of RECs should be cost-based. Then IPA may move to market-based once a bigger set of data is available from Illinois' own market.

7. How should the approach for determining REC prices take into account geographic differences in price or cost factors, e.g. local labor/land costs etc.? How narrowly or broadly should geographic factors be considered?

IPA and third-party program administrators should consider the differences in project economics by service territory and project type/market segment and adjust REC prices as needed to ensure geographic diversity.

8. Besides geography and system size, are there other factors that should be considered to create differentiated pricing?

The federal Investment Tax Credit (ITC) step-down and change in value of the DG rebate should be considered. IPA should take care not to "over-incent" projects that will be using that rebate. Projects serving low-income participants may be costlier to develop and may need to provide higher levels of

financial benefits to participants than their market-rate peers. It will be important to incorporate these additional costs when developing pricing for ILSfA projects.

Project Development Process

9. ***How much time should be allowed between system application/contract approval and when a system must be energized? The time allowed could take into account issues like (i) the seasonality of applications, (ii) delays in permitting, interconnection, (iii) equipment availability and etc. Should this time vary by size of system, geographic location, or interconnecting utility?***

Developing projects that serve low-income customers may take longer and are costlier than equivalent market-rate projects. Additionally, non-profit developers are not as well resourced as larger for-profit companies, so milestones like siting take longer; larger blocks would help facilitate a longer development timeframe for ILSfA projects. IPA should allow low-income projects to be allotted additional time for project development than the broader market - i.e. 18 months for broader market, 24 months for low-income. This gives developers of low-income community solar projects additional time to overcome the unique challenges of these projects, including siting, customer acquisition and financing. The IPA should also allow for reservation extensions for ILSfA projects.

The Working Group recommends a minimum of 24 months for ILSfA community solar projects. If IPA uses a shorter time period, extensions should be offered, as appropriate..

10. ***What type of extensions to a guaranteed in-service date should be allowed, and what additional requirements should there be for extensions?***

If the utility has delays in interconnection authorization or a project faces legal challenges, there should be indefinite no-fee extensions allowed.

11. ***What information about a system should be required for a system to be qualified to participate in the program (e.g. site control, local permitting, interconnection status, etc.)? Should the requirements be different for smaller systems (e.g., under 10 kW) than larger systems? Should the requirements be different depending on whether the system is being interconnected with an investor-owned utility, a municipal utility, or a rural electric co-op?***

The ILSfA Working Group is not commenting on this question.

12. ***What development deposit/credit requirements should there be in addition to any program fees? And for how long should such requirements run?***

Minimize fees for the ILSfA Program, especially as it relates to non-profits that maximize savings for their clients. Any payments or fees imposed on non-profit solar installers and community-based organizations reduces the savings they would otherwise pass onto their low-income clients.

Projects that are developed or owned by non-profit and quasi-governmental entities (schools, local governments) should require minimal deposits.

13. ***Should there be intermediate project milestones to help ensure that projects that have***

reserved RECs out of a block are successfully developed, and that closure of blocks due to all RECs being allocated is effectively managed? If so, how should milestones and performance standards vary between smaller and larger projects?

The ILSfA Working Group is not commenting on this question.

14. ***For the Supplemental Photovoltaic Procurement, inverter readings were allowed for systems below 10 kW, and revenue grade meters were required for larger systems.[2] How should these standards be updated for the ABP?***

The ILSfA Working Group is not commenting on this question.

Clawback Provisions

Clawback provisions should be designed to avoid a scenario where a developer gets paid up front for a project and subsequently stops delivery of electricity - there must be a guaranteed delivery of energy. Equally important is that clawback provisions must apply and follow any change in ownership.

15. ***What clawback provisions would be appropriate for ensuring that RECs are delivered while not creating potentially prohibitive additional costs or burdens?***

Clawback provisions should be designed for the 15-year life of the RECs to avoid a scenario where a developer gets paid up front for a project and subsequently stops delivery of electricity - there must be a guaranteed delivery of energy. This can be achieved through annual reporting, checked by the third-party program administrators.

If a community solar developer takes the ILSfA incentive and then switches the project from benefitting low-income, they should be penalized. System capacity must be locked into low-income by use of ILSfA incentives.

The IPA could consider requiring a modest bond from community solar providers under the ILSfA Program. If bonds are required, the various types of developers, including non-profits, should be considered so that any such requirements do not impede the successful development of projects.[3]

16. ***What would be reasonable circumstances to allow for the waiving of clawback provisions? (e.g., fires, severe weather, etc.)***

The ILSfA Working Group is not commenting on this question.

[2]See: www.illinois.gov/sites/ipa/Documents/IPA-metering-accuracy-standard-5-14-15.pdf for the metering standard used for the Supplemental Photovoltaic procurement.

[3] For example, on February 15, 2017, the Maryland Public Service Commission issued a decision on proposed modifications to the Investor Owned Utility tariffs for the Community Solar Energy Generating System (CSEGS) Pilot Program. The decision required that most program applicants, at the time of applying to become a Subscriber Organization (SO), would have to provide a bond of $10,000 for projects up to 1 MW. Non-profit applicants would not be subject to any bond. For SOs proposing to develop projects larger than 1 MW, an additional $25,000 per MW of proposed CSEGS capacity is required. http://www.psc.state.md.us/electricity/community-solar-pilot-program/

17. Should clawback provisions vary based on system size? If so how should these provisions vary?

The ILSfA Working Group is not commenting on this question.

18. How should clawback provisions carry over when a system and/or system location is sold?

At any point in a project's life, if ownership changes the new owner must be required to deliver RECs for the remaining duration.

Consumer Protections

19. What consumer protection elements should the IPA consider adopting as part of the ABP program? How should those elements differ between distributed generation and Community Solar?

Please refer to the response to question E-11.

20. Should the ABP require the use of a standard disclosure form? If so, what elements should that form include?

Please refer to the response to question E-11.

21. Are there examples from other states of model approaches to consumer protection, and/or lessons learned regarding insufficient consumer protections?

As described in the response to question E-11, consumer protection issues will arise around financing solar if low-income families are not protected from subprime solar financing schemes or are offered options that will not have a long-term net positive economic benefit. If sufficient measures are put in place for the ILSfA Program, and dedicated third-party program administrators enforces those measures, Illinois residents and ILSfA Program participants will have a positive experience.

D. COMMUNITY SOLAR

Geographic Considerations

1. ***Should the IPA consider taking steps to encourage projects to be located geographically closer to subscribers? If so, what steps should be considered?***

The ILSfA Working Group believes multiple options should be preserved so that they meet the needs of multiple communities and accommodate both community driven and developer driven successes. Some communities will want hyperlocal community solar projects while others will not have siting capabilities. Neither should be prevented.

2. How can geographic diversity be ensured?

The IPA and/or third-party program administrators should preserve flexibility to adjust incentives/create adders to meet geographic diversity needs and ensure local job training opportunities are available.

IPA should work with rural non-regulated electric utilities (coops and munis) in Illinois to pro-actively make them aware of the ILSfA Program and ensure that they take steps to ensure that benefits can flow to their low-income ratepayers through a valuation of community solar that at least meets the minimum requirements of community solar as defined in the Future Energy Jobs Act. Establishment of a

community solar policy that at least meets these minimum requirements should be a prerequisite for accessing ILSfA and ABP incentives, to ensure that their ratepayers adequately benefit. The IPA does not have any authority to force rural electric cooperatives or municipal utilities to adopt the minimum policies necessary to enable ILSfA participation, however, every effort should be made to ensure the ILSfA Program is truly statewide.

Project Application Requirements

3. ***Should Community Solar projects have different application requirements than a comparably sized distributed generation project? What level of demonstration of subscriber interest should be required prior to approving an application from a Community Solar project?***

The ILSfA Working Group is not commenting on this question.

4. ***How should co-location of Community Solar projects be addressed in light of the definition of community renewable generation projects that is capped at 2 MW?***

The ILSfA Working Group notes that there is a mandate on geographic diversity, and co-location runs opposite of that. However, IPA should preserve the ability to co-locate if proven absolutely necessary; perhaps through a waiver process for co-location if the project meets certain criteria.

If IPA allows co-location, limitations should be placed on number of projects and/or developers on a single site, to avoid market monopolization and deviance from statute definition of community solar.

Community Solar Blocks

Under the ILSFA Program, it is important to have a definition for what constitutes a low-income community solar project (e.g. all 80% AMI subscribers, non-profit affordable housing, and/or non-profit, etc.) and request 100% dedicated low-income projects based on that definition, or at least a minimum requirement (i.e. 50% of system to low-income to be eligible to access ILSfA incentives).

If some percentage of the project is low-income, only that percentage of the project capacity should access the ILSfA incentive, and that percentage would need to maintain that level of low-income participation for the life of the system, as enforced through reporting to the third-party program administrator and clawback mechanisms.

The Future Energy Jobs Act states that for ILSfA Program Low-Income Community Solar Project Initiative, "Incentives should also be offered to community solar projects that are 100% low-income subscriber owned, which includes low-income households, not-for-profit organizations, and affordable housing owners." IPA may consider creating a block for 100% subscriber owned projects.

5. ***Should the design approach for blocks for Community Solar vary from that used for Distributed Generation (e.g., size of blocks, criteria for prioritizing applications)?***

The ILSfA Working Group is not commenting on this question.

6. ***What would be reasonable assumptions to make for the cost of acquiring and maintaining subscribers? How will these costs be expected to vary over time (e.g., the difference between initial subscriber recruitment and managing churn rates)? How will these costs differ between managing residential and commercial subscribers?***

While customer acquisition cost data will be market specific to Illinois and ultimate program / incentive structure, generally, residential customers are a higher cost to projects than commercial. Further, low-income residential customers are the most difficult customers to acquire and maintain, contributing in other states to 20-50% higher costs than average community solar residential customers.

7. ***Should the value proposition to the customer for a subscription to a Community Solar project be more, or less, attractive than for a comparable sized DG system at the customer's location?***

Community solar subscribers should be allowed to receive an equal value proposition to onsite solar participants. ILSfA Program low-income household participants should receive the highest value proposition, to entice customer participation and maximize program impact.

Development Milestones

Development milestones are important, especially as it relates to the ILSfA and ensuring consumer protection.

8. ***Should the time allowed for Community Solar project development be different than for comparably sized Distributed Generation systems?***

Community solar projects and especially low-income community solar projects face longer project development timelines, due to the inherent additional components of project development, and therefore should be allotted longer development timelines and reservation extensions.

9. ***What project development milestones should be required to demonstrate sufficient levels of subscriber interest before a contract may be terminated?***

In addition to maintaining the basic participation definition of community solar for the 15-year REC span of the project, projects that utilize ILSfA Program incentives should be required to maintain levels of low-income participation throughout the life of the project, included in annual reporting and verified by the non-profit third-party program administrator. The IPA should weigh options to best maintain low-income participation levels while minimizing the administrative cost of reporting and verification.

Residential versus Commercial Interest

IPA should monitor this segment and adjust the program as necessary to ensure robust residential participation.

The language of the Future Energy Jobs Act directly requires the IPA to ensure robust participation opportunities for small customers as well as customers that cannot put solar on their own roof. During the May workshops, we repeatedly heard about the challenges associated with serving small customers as well as examples of markets (e.g. Minnesota) where community solar had left small customer participation behind. Given this experience in other markets, the IPA has an obvious responsibility to take proactive measure to ensure this robust small customer participation. Without proactive measures, it seems clear these customers will be left behind.

The Illinois Solar for All Working Group understands that there are multiple proactive measures that the IPA could take, ranging from mandates to more market-driven approaches, to ensure this robust small customer participation. The Working Group is skeptical as to the ability of a market-based approach to

achieve robust participation and urges the IPA to consider other approaches that will not limit diverse types of projects and business models from participating in the Illinois market. Regardless of initial approach, IPA should monitor small customer participation and, if robust participation is not achieved, alter the program to ensure robust small customer participation.

10. ***What, if anything, should the IPA consider to ensure robust residential participation in Community Solar?***

Examples in other states include Nevada at 40% residential/25 kW or less[4] and Maryland and Massachusetts are similar.

11. ***Should REC pricing vary based on the portion of the project that is residential? How can this be verified, and what would be required over time to ensure ongoing residential participation?***

The ILSfA Working Group is not commenting on this question.

12. ***Should project application/viability requirements be different based on the mix of residential and commercial customers?***

The ILSfA Working Group is not commenting on this question.

13. ***Are there additional considerations that should be made for projects that are entirely subscribed with commercial customers, or entirely subscribed with residential customers?***

The ILSfA Working Group is not commenting on this question.

E. ILLINOIS SOLAR FOR ALL PROGRAM

Of highest priority is ensuring the ILSfA Program is designed to maximize savings and auxiliary benefits for participants, involve communities throughout the state, ensure consumer protection, provide hands-on training and access to solar jobs, and be adaptable, flexible and sustainable.

ILSfA Programs (i.e. distributed generation, non-profits and public facilities, community solar) should be run by multiple non-profit third-party program administrators to better align specific skill sets, constituencies, pipelines and similarities in program delivery and ensure enforcement of consumer protection. The third-party program administrators should all be non-profit organizations to ensure the maximized economic benefit and interests of income-eligible participants are at the forefront of the ILSfA Program, including ensuring opportunities for auxiliary benefits. Third-party program administrators should demonstrate their ability to collaborate across all ILSfA Programs and with low-income and environmental justice (EJ) communities; demonstrate strong partnerships with stakeholders; have experience in administering low-income energy programs and overseeing statewide clean energy or energy efficiency services.

1. ***How should the concept of "80% of area median income" be applied? What size area should be considered (e.g., municipality, county, utility service territory)?***

County is the most universal application.

[4] https://www.leg.state.nv.us/App/NELIS/REL/79th2017/Bill/5450/Text

2. What should be the balance between verifying individual income eligibility and using other criteria such as median income of census tract?

All low-income families in the state should have the opportunity to participate in and benefit from Illinois' investment in a clean energy future with SB2814 (Public Act 99-0906), regardless of geographic location.

To help with income qualification for ILSfA Program projects, ensure the non-profit ILSfA third-party program administrators develop clear guidelines for verifying income for qualified households (e.g. CA's Single Family Affordable Homes (SASH) program administrator is responsible for income verification and uses most recent available income tax return to verify 80% of Area Median Income (AMI)[5]; CA's Multifamily Affordable Solar Housing (MASH) program has set eligibility criteria[6]; and Maryland's Community Solar Energy Generating Systems (CSEGS) Pilot Program allows the Commission to establish alternate means aside from income verification including participation in low-income assistance programs where eligibility is at or below 80% AMI[7]). Allowing proxy verification assists community solar developers with the customer acquisition process and meeting requirements for residential participation.

3. What provisions in contract and REC payment structure should the IPA consider to ensure that any revenue received for RECs does not hinder participants' eligibility in other benefits programs?

The ILSfA Program should result in participants realizing meaningful and significant monthly savings on their monthly electricity bills, eliminating the need for enrollment in energy assistance programs and ultimately keeping their homes affordable. Income eligible participants would need to ensure they meet qualifications for other benefiting programs. Given the target of low-income households, it is unlikely participating in ILSfA would change their income level substantially enough so that they would no longer qualify for similar income-based programs. It would continue to be the responsibility of the participating household to ensure their income is reported accurately for various programs.

The non-profit third-party program administrator should be tasked with ensuring that community solar participants' subscriptions are coordinated with energy assistance benefits they may receive, and allocated to guarantee that significant benefit is achieved, and energy assistance customers are not negatively impacted. Any reduction of energy assistance subsidies due to participation in community solar should not be viewed as negative, as long as the benefits from the community solar subscription equal or exceed the energy assistance benefits.

IPA may wish to note a current point of inquiry in Maryland that relates to this issue. In that state, concern has arisen among advocates for low-income ratepayers that, if not structured correctly, the community solar pilot program could dilute energy assistance benefits for participating energy

[5] see SASH 2.0 Program Handbook pg. 7, Section 4.2.1
http://www.gosolarcalifornia.ca.gov/documents/SASH_Handbook.pdf

[6] SMASH Program Handbook pg. 16, Section 2.1.5
http://www.gosolarcalifornia.ca.gov/documents/MASH_Handbook.pdf

[7] COMAR 20.62.03.03 Pilot Project Application Process
http://www.dsd.state.md.us/comar/comarhtml/20/20.62.03.03.htm

assistance recipients, and could result in cash flow issues.[8] IPA should consider the recommendations of advocates relating to funding to cover low-income customers' subscription costs, and special consumer protections to notify these customers that there could be a problem if a solution is not arrived at in initial program design.

4. What distinct requirements and considerations should apply to multi-family buildings?

Multifamily affordable housing owners and buildings should be eligible as long as tenants meet 80% AMI or below income requirements. In the case that a building owner is a direct offtaker, serving as an intermediary to low-income tenants, a requirement must be included that benefit be demonstrated for low-income tenants. The non-profit third-party program administrator should be charged with developing a reporting mechanism and ensuring compliance.

Multifamily affordable housing properties should be included in all ILSfA Programs. Multifamily affordable housing building types should be clearly defined in order to limit eligibility among programs.[9] In unique cases where multifamily affordable housing buildings are eligible for multiple programs, those buildings shall only receive incentives from one program. Non-profit or publically owned affordable housing should be prioritized.

IPA may consider a different incentive for master-metered versus non-master metered buildings. In the California multifamily solar programs, they put solar systems in two buckets: Systems serving common areas versus tenants. Master metered buildings are lumped into the same bucket as common area because with both common area and master metered loads, the building owner is paying the power bill and can have a payback from solar just the same. They're also able to more easily finance their system.

In order to address the concern over including naturally occurring affordable housing (that it could become non-low-income), require rent restrictions in the eligibility for multifamily affordable housing.

Incentives should be set at a level that reduces project costs for multifamily affordable housing. Incentives can be based on achieving a range of savings for both tenants (e.g. 30%-50%) and common areas (based on max NEM or a percentage).

5. ***How should the concept of low-income be considered for non-profit and public facilities? Should all non-profits and public facilities be eligible for that Solar for All program, or should there be some nexus with low-income criteria?***

[8] http://www.psc.state.md.us/search-results/?keyword=215592&x.x=0&x.y=0&search=maillog

[9] Public Housing Authority or non-profit owned affordable housing with long-term rent restrictions; Establish minimum percentage (i.e. 50%) of affordable units. See details: California Public Utilities Code 2852 (a)(3)(A-B) as a reference for potential language http://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=PUC&sectionNum=2852

e non-profits and public facilities ILSfA incentive should go to non-profit and public facility organizations that act as critical service providers (e.g. youth centers, hospitals, schools, homeless shelters, senior centers, places of worship, affordable housing providers) and/or serve at-risk or low-income individuals, families, and communities, including environmental justice and historically underserved communities, in their missions. If applicable, those organizations should seek to provide and allocate the benefits of locally generated solar energy to income-eligible households.

vernment and non-profit entities should be required to submit verification of their tax-exempt status to be eligible for the public facilities and non-profit incentives.

rd-party program administrators should set qualification criteria to make sure disproportionate amount of incentive money does not go to any one category or entity and adjust definitions of non-profits and public facilities accordingly. An application process or definitions to be deemed an eligible organization should be developed by the non-profit third-party program administrator. Similarly, third-party program administrators should provide feedback to the IPA on program uptake and usage of funds regularly, at least at the end each program year or within a program year if the third-party program administrators believes program changes or fund reallocation is necessary. Allow for definition changes or flexibility, as the ILSfA Program gets underway.

e IPA should consider awarding higher incentives to non-profits, which are less likely to have the financial backing available to public facilities. This makes non-profit projects more difficult to finance.

6. ***For Illinois Solar for All grassroots education efforts in rural areas, what opportunities are there for partnering with community organizations and institutions?***

ere are many opportunities to partner with community organizations and institutions in rural areas of the state. The IPA should include in its RFQ or RFP a requirement that upon award, the third-party program administrators should identify and work with community-based groups located in rural areas to conduct outreach and education and ensure consistent messaging about the ILSfA Program.

the extent feasible, the third-party program administrators should endeavor to begin outreach and education ahead of program(s) launch to ensure awareness of the various program benefits effectively reaches those who need them most across segments and geographies. If programs are launched in a staggered fashion, education and outreach should ideally precede each launch and continue after to support uptake and awareness.

e third-party program administrators should develop standardized marketing collateral and messaging framework for community-based groups to use with their networks (in the most relevant format).

There should be “ingredients/framework” provided by the third-party program administrators for the community-based groups to ensure consistent messaging about the programs, but it should be

up to the community-based groups to determine which communication tool(s) works best within their networks.

Utility Funded and Administered Job Training Programs

7. ***In some instances, trainees may be unavailable to participate in project development (due, for instance, to the time to complete training programs or geographical constraints). What flexibility should be considered to account for the potential lack of availability of trainees to work on projects?***

This program should guarantee sufficient time between project approval and commissioning. Every effort should be made to ensure that training program's trainees are taken from the program to assist with projects.

As the trainees complete the program, their name goes on a waiting list for a project.

When Illinois Solar for All funding is used for a project, the contractor must employ trainees (or if the installer is a non-profit, provide free hands-on training). If for any reason a contractor elects not to use trainees, a dollar amount penalty will be deposited back into the training funds. Program administration should share a clear definition of a trainee for contractors to comply with. An example from California's SASH program is the following:

> Eligible job trainees come from PV installation and design training programs including those offered by a California Community College or other PV-training programs offered to the public by local government workforce development programs, community nonprofits, private enterprises or the electrical workers union with 40+ hours of instruction and/or hands-on PV installation and design training.

A similar definition can be created in IL.

There should also be a limit set on how long someone can be considered a trainee, for instance 12 months after their first qualifying install as a trainee.

8. ***How can the IPA ensure that project developers offer meaningful employment opportunities and career advancement to job trainees and others in the workforce development pipeline?***

Each trainee's work performance will be evaluated by the contractor using a standardized rubric. This would also provide other potential employers with a tracking indicator of the trainees performance through the entire program. Timesheets will be used to track on the job training experiences by task.

A majority of the tasks given to trainees should fall in line with items on the NABCEP PV Installer Job Task Analysis.

When hiring new solar employees, project developers should show preference for qualified IS4A program trainees. In addition, eligible employers/contractors should provide trainees with a

brief overview of their company describing career pathways within the company and the necessary skills for advancement opportunities. Opportunities described should include the various career tracks in the company, within and outside of installation and operations.

Once hired, employees' formal or informal training, cross-training, certifications and degrees should be recognized in a plan for career advancement.

Contractors should allow for at least two weeks for recruitment of trainees to participate on projects, allowing time for training organizations to refer appropriate candidates.

Clear goals for trainee engagement should be articulated to contractors and trainees. Feedback should be collected from both sides to evaluate quality of experience.

Environmental Justice Communities

9. ***In defining an Environmental Justice Community, how should the IPA weigh factors such as (i) Income, (ii) Race/Ethnicity, (iii) Environmental Impacts, (iv) Regional Economic Conditions, or (v) Other demographic factors? What environmental impacts should the IPA prioritize, and what other factors should the IPA consider?***

We recommend that the IPA consider a combination of the following available resources in defining an environmental justice community (EJ community) and weighing various factors: the baseline policy from the Illinois Environmental Protection Agency (IEPA) for defining a "potential environmental justice community" and the definition from the United States Environmental Protection Agency (USEPA) of "overburdened community"paired with CalEnviroScreen indicators and methodology for "disadvantaged community" and the USEPA EJSCREEN environmental justice screening and assessment tool. In combination, critical factors such as income, race, environmental impacts, and more can and should be jointly considered when defining and locating EJ communities in Illinois.

The current IEPA policy for defining a "potential" EJ community was developed for use in implementing a public participation strategy for permits, programs and actions in potential EJ communities. We recommend that the IPA utilize additional indicators that go above and beyond this baseline to more accurately capture both the environmental context and demographic characteristics of communities as the initial means of assessment of environmental justice communities in the state. This should be paired with the option for self-identification as discussed in the subsequent response to Question 10.

IEPA Policy for Defining a "Potential" EJ Community

For thoroughness, the current IEPA definition and methods are included as a baseline reference. The definition is as follows:

> *A "potential" EJ community is a community with a low-income and/or minority population greater than twice the statewide average. In addition, a community may be considered a potential EJ community if the low-income and/or minority population is less than twice the*

statewide average but greater than the statewide average and that has identified itself as an EJ community. If the low-income and/or minority population percentage is equal to or less than the statewide average, the community should not be considered a potential EJ community.[10]

USEPA Definition of "Overburdened Community"

USEPA's definition of "overburdened community" considers demographic characteristics and adds crucial additional indications of vulnerability to environmental hazards:

> *Overburdened Community - Minority, low-income, tribal, or indigenous populations or geographic locations in the United States that potentially experience disproportionate environmental harms and risks. This disproportionality can be as a result of greater vulnerability to environmental hazards, lack of opportunity for public participation, or other factors. Increased vulnerability may be attributable to an accumulation of negative or lack of positive environmental, health, economic, or social conditions within these populations or places. The term describes situations where multiple factors, including both environmental and socio-economic stressors, may act cumulatively to affect health and the environment and contribute to persistent environmental health disparities.*[11]

CalEnviroScreen Indicators and Methodology

We recommend that the IPA look to a system utilized in California named CalEnviroScreen to assist in defining an EJ community as a guide for both a subset of specific indicators, as well as an accompanying methodology for implementing and weighing indicators that could be adopted in the State of Illinois. The set of indicators is more inclusive than the baseline definition utilized in Illinois that only focuses on demographic characteristics, as well as the USEPA guidance that points to categories of impact, but does not delineate specific indicators. While CalEnviroScreen includes a strong set of indicators, we recommend the IPA ensure that race is included in the ultimate set of indicators adopted by Illinois to reflect both the existing IEPA policy and the federal guidance on overburdened communities from USEPA.

California Environmental Protection Agency (CalEPA) Office of Environmental Health Hazard Assessment (OEHHA) developed CalEnviroScreen, and the tool has been utilized in defining "disadvantaged communities" for the purposes of receiving climate mitigation investment opportunities in California. Similarly, the definition of environmental justice communities for the Illinois Solar for All program is mandated for the purposes of distributing incentives and solar energy access in accordance with statutory goals.

CalEnviroScreen scores are calculated from the scores for two groups of indicators: Pollution Burden and Population Characteristics. Pollution Burden represents the potential exposures to pollutants and the adverse environmental conditions caused by pollution. The indicators for pollution burden include:

[10] http://www.epa.illinois.gov/topics/environmental-justice/ej-policy/index

[11] https://www.epa.gov/environmentaljustice/ej-2020-glossary

- Air Quality PM 2.5 and Ozone,
- Diesel Particulate Matter,
- Drinking Water Contaminants,
- Toxic Releases from Facilities,
- Traffic Density,
- Cleanup Sites,
- Groundwater Threats,
- Hazardous Waste Generators and Facilities,
- Impaired Water Bodies and Solid Waste Sites and Facilities.

Population Characteristics indicators represent biological traits, health status, or community characteristics that can result in increased vulnerability to pollution. The indicators for population characteristics are:

- Age: Children and Elderly,
- Asthma,
- Low Birth Weight Infants,
- Educational Attainment,
- Linguistic Isolation,
- Poverty and Unemployment.

Many environmental indicators utilized in CalEnviroScreen 2.0 are publicly available via Illinois databases housed at IEPA and Illinois Department of Public Health (IDPH), among others. CalEnviroScreen also utilizes federal public databases available through USEPA. The information from Illinois agencies can be paired with federal databases for use in Geographic Information Systems mapping and implementation of identification methodology.

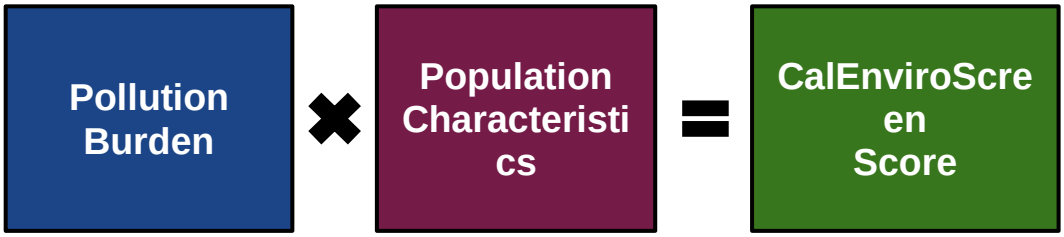
CalEnviroScreen Identification Methodology

The methodology that OEHHA uses to identify census tracts as disadvantaged communities in California combines the Pollution Burden and Population Characteristics. The overall score is calculated by combining the individual indicator scores within each of the two groups, then multiplying the Pollution Burden and Population Characteristics scores to produce a final score. Based on these final scores the census tracts across California are ranked relative to one another. Please see the text and models below for an explanation of how this method is used:

- Each census tract receives scores for as many of the 19 indicators as possible. Some census tracts will not have scores for every one of the indicators.
- For each indicator, the scores are put in order from highest to lowest. This allows us to calculate a percentile for all areas that have a score.
- The Population Characteristics score for a census tract is the average of the percentiles for all the Sensitive Populations indicators and Socioeconomic Factors indicators for that census tract.
- The Pollution Burden score is the average of the percentile scores from Environmental Effects and Exposures indicators.
- The Environmental Effects indicator percentiles are divided in half because California considers environmental effects to make a smaller contribution to pollution burden than exposures do.

- To get the CalEnviroScreen score, multiply the Pollution Burden score by the Population Characteristics score.
- Communities at the top 25% of scores relative to the state's range of scores qualify as disadvantaged.

Pollution Burden	***Population Characteristics***
posures • Ozone Concentrations • PM2.5 Concentrations • Diesel PM Emissions • Drinking Water Contaminants • Pesticide Use • Toxic Releases from Facilities • Traffic Density	nsitive Populations • Age: Children and Elderly • Asthma Emergency Department Visits • Low Birth Weight Infants
vironmental Effects • Cleanup Sites • Groundwater Threats • Hazardous Waste • Impaired Water Bodies • Solid Waste Sites and Facilities	cioeconomic Factors • Educational Attainment • Linguistic Isolation • Poverty • Unemployment



USEPA EJSCREEN

EJSCREEN[12] is a USEPA environmental justice screening and mapping tool that utilizes standard and nationally-consistent data to highlight places that may have higher environmental burdens and vulnerable populations. The tool provides both summary and detailed information at a high geographic resolution for both demographic and environmental indicators. While as a standalone tool, it is inappropriate to utilize EJSCREEN in identification of EJ communities, combined with the methodology from CalEnviroScreen and guidance from existing IEPA and USEPA baseline policies, it serves as a unique mapping resource that IPA can leverage in implementation.

Collaboration & Ongoing Updating

We recommend the IPA collaborate closely with the Illinois Commission on Environmental Justice, the IEPA,

[12] http://www.epa.gov/ejscreen

the Illinois Department of Public Health, and the USEPA in both obtaining the necessary indicator data and leveraging mapping tools and capacity to implement methodology that allows the agency to weigh and incorporate the environmental and demographic indicators. We also recommend that the IPA include in its program design annual updates and additions to the initial criteria used in identification of "EJ communities" as state and federal databases are updated and new indicators are added and as additional relevant factors for environmental burdens and demographic vulnerability come to light via self-designation.

10. ***What level of community self-designation should be considered (or community ability to decline designation)?***

Self-designation and ability to decline designation is critically important. Self-designation is particularly for communities who are in rural areas captured with less accuracy in environmental harms data, communities affected by recent environmental harms that would not be tracked in the most recent national and state databases, and communities affected by environmental harms for which database-level indicators and tracking is unavailable. Such communities should be given a means through which they can demonstrate environmental harms, demographic vulnerabilities, and qualitative and quantitative justification for self-designation as a supplement to methodology proposed on mapping environmental justice communities.

Additionally, the current IEPA policy for defining a "potential" EJ community referenced above in our response to Question 9 sets a baseline precedent for self-identification based on core demographic characteristics in Illinois. As with initial identification of environmental justice communities per our response to Question 9 above, we recommend that the IPA consider a broad range of indicators that speak to both environmental and demographic characteristics of communities when reviewing self-identification of environmental justice status from communities that are not clearly captured in any initial identification.

Consumer Protections

11. ***What additional consumer protections should be specific to the Illinois Solar for All programs above and beyond the consumer protections offered more generally to participants in the Adjustable Block Program?***[13]

The most insurmountable barrier for low-income homeowners is the financial barrier to access solar.[14] Low-income homeowners generally are unable to contribute out-of-pocket financing toward a solar electric system. They typically are adverse to taking on more debt with a loan, even a low or no interest loan, and generally lack the credit-worthiness or capital necessary to purchase or finance rooftop solar. Moreover, income-eligible homeowners are less likely to have the tax liability to allow them to take

[13] See slides 41 to 46 of the Illinois Solar for All workshop presentation, https://www.illinois.gov/sites/ipa/Documents/Solar-forAll-presentation-20170518.pdf, for an overview of some possible consumer protections.

[14] "SB 350 Low-Income Barriers Study, Part A - Commission Final Report," December 15, 2016, pg. 35-37. http://docketpublic.energy.ca.gov/PublicDocuments/16-OIR-02/TN214830_20161215T184655_SB_350_LowIncome_Barriers_Study_Part_A__Commission_Final_Report.pdf

advantage of the federal Investment Tax Credit (ITC). Consumer protection issues can arise from this financial barrier if families are offered a subprime solar deal that may not result in long-term savings, or a solar loan/lease product that could result in a negative economic outcome.

The ILSfA third-party program administrators should all be non-profits to ensure that the maximum economic benefit and interests of income-eligible participants are at the forefront of the ILSfA Program areas, including ensuring opportunities for auxiliary benefits. A dedicated third-party program administrator that can act as a consumer advocate and offer participants contractual support and guidance throughout the process. The IPA should utilize multiple third-party program administrators that have expertise in certain project types and program areas. Using multiple administrators who have greater specialization in the program areas will ensure dedicated commitment to consumer protections within each program area, especially for single-family rooftop projects.

Consumer protection issues will arise around financing solar if low-income families are not protected from subprime solar financing schemes or are offered options that will not have a long-term net positive economic benefit. Dedicated attention to prevention is a critical role for the third-party program administrators.

Distributed Generation

Under ILSfA, the DG Program should adopt a similar third-party program administrator role to California's Single-family Affordable Solar Homes (SASH) program to ensure consumer protections for single-family rooftop projects – both host customer owned and third-party owned (TPO) systems. The statewide program administrator for SASH ensures that all systems are cash-flow positive for a low-income household from day one. Incentives are deliberately set at a level to cover a significant percentage of the system cost. Any gaps in financing between the available incentive and the system cost are filled by the program administrator, a non-profit organization that contributes proceeds from a third-party ownership (TPO) arrangement and its own philanthropic fundraising to projects. Under the SASH TPO offering, participating households have no financial liability to the system owner. The SASH program's TPO model must meet 12 baseline consumer protection minimum standards[15], including ensuring customers receive at least 50% of the savings, as compared to standard utility rates, from the solar generating equipment. The baseline consumer protection standards are listed below and were developed with stakeholder input, including extensive input from the SASH program administrator.

1. Ensure SASH customers receive at least 50% of the savings, as compared to standard utility rates, from the solar generating equipment;
2. Reduce or eliminate barriers for customers with poor credit (low FICO scores) to qualify and participate;
3. Address concerns that homeowners may have about moving or selling their home during the TPO contract term;
4. Cover maintenance, operations, inverter replacement, and monitoring;
5. Prohibit liens on homes;

[15] Decision 15-01-027, January 29, 2015. "Decision Extending the Multifamily Affordable Solar Housing and Single-family Affordable Solar Homes Programs within the California Solar Initiative," pg. 56.

6. Minimize the risk to the low-income customer that the solar system would be removed for delinquent payments;
7. Ensure that all costs are apparent and up front and that there is no risk that the TPO deal would result in an additional financial burden to the family;
8. Standardize financial terms for low-income customers where possible;
9. Protect the customer against terms that could change after contract signing;
10. Require that TPO agreements note the potential for additional costs associated with the contract, if applicable;
11. Require the TPO provider to clearly explain that rate changes will affect the economics of a power purchase agreement; and
12. Require that TPO agreement provisions spell out what happens in the event that the solar financing company defaults.

In practice, the minimum 50% savings is a "floor," as most SASH households participating in the TPO model realize 80% savings or higher. (However, the ILSfA notes that if the appropriate incentives do not exist, then developers should not be required to meet a 50% reduction in energy bill savings but should still be responsible for providing tangible economic benefits flow directly to program participants.) The SASH program administrator serves as a liaison between the third-party system owner and the low-income household, and functions as a consumer advocate. In addition to the ILSfA DG Program TPO offering meeting or exceeding the 12 baseline consumer protection standards in the SASH TPO model, it is important that participating families in the TPO structure:

- Have support and guidance from a trusted, third-party (such as a program administrator) to review contractual terms, rights, and obligations.
- Receive accurate cost savings estimates based on current utility rates and net energy metering, and system production, and are advised that utility rates and structures can change.
- Understand all rights and obligations, specifically around maintaining shading at the site, allowing access for service calls, etc.
- Understand options for system removal at the end of the agreement term.
- Are aware of the process for transferring the agreement if they move or sell their house during the agreement term.
- Are provided a production guarantee and operations and maintenance coverage for the entire agreement term.
- Have marketing materials, documents and contractual explanations translated into the language they speak in the home.

The DG Program third-party program administrator should be responsible for all marketing and outreach (via its direct outreach partners, including community based organizations (CBOs)), application intake/income verification, developing financing models (including TPO), installations, coordinating with subcontractors, publishing semi-annual program reports, and ensuring free hands-on and paid job training opportunities are available statewide. Installation contracts should also be directly with the program administrator (i.e. contractor of record).

Community Solar

Capacity. Developers that take advantage of ILSfA incentives should be required to keep capacity allocated to low-income subscribers for the life of the project years (so developers don't switch capacity to non low-income after 5 years).

Disclosures and Marketing Materials. The third-party program administrator should produce a disclosure form and guide(s) similar to the materials used in Minnesota's Xcel Energy Community Solar Garden program.[16] Additionally, the third-party administrator should produce standardized marketing and outreach material. The third-party program administrator should offer training to prospective community solar providers regarding marketing guidelines and disclosures.

Standard contracts. The third-party program administrator should develop standard contracts that community solar operators will use to transact with low-income subscribers. In unique situations in which a standard contract may not apply, the third-party program administrator can provide technical assistance to arrive at a workable solution.

Creditworthiness. Similar to Maryland's three-year Community Solar Energy Generating Systems (CSEGS) pilot program, a developer or subscriber organization should apply uniform income, security deposit, and credit standards for the purpose of making a decision as to whether to offer a subscription to customers within a given class, provided that the developer or subscriber organization may apply separate sets of uniform standards for the purpose of promoting participation by income-eligible retail electric customers.

Consumer Protection Measures. All of the California SASH TPO program consumer protection measures that are not solely applicable to rooftop installation should apply to community solar. The minimum standards are described above.

Bonds. The IPA could consider requiring a modest bond from community solar providers under the ILSfA Program. As described in our answer to question C-15, care should be taken to ensure any such requirements do not impede the successful development of projects.

12. *What does providing that "tangible economic benefits flow directly to program participants" imply in terms of either upfront payments to participants and/or assurances that participation creates a positive cash flow?*

Income-eligible household participants in ILSfA should have a cash-flow positive experience from day one and have, ideally, no financial liability to the system owner; however, should any particular financing model require financial liability from eligible households, then the savings from the solar should far exceed the payment.

Additional value/benefits/incentives should be added to the wholesale market value of the energy for eligible low-income participants in order to get to a tangible economic benefit that ensures eligible participants are cash-flow positive from day one and receive maximized savings at the household level

[16] http://www.cleanenergyresourceteams.org/sites/default/files/CommunitySolarGarden_DisclosureChecklist_12-11-14_0.pdf

as a result of solar access under ILSfA. Yet another reason it is imperative that projects built under the ILSfA Program have access to the ABP to ensure a cash-flow positive experience and that tangible economic benefits flow directly to program participants.