

To: Mario Bohorquez, Planning and Procurement Bureau Chief
From: Juliana Pino, Little Village Environmental Justice Organization
& Participants in the Illinois Solar for All Working Group
Date: 11/13/2017
Re: Illinois Solar for All Working Group Comments on the Draft Long-Term Renewable Resources Procurement Plan

Dear Mr. Bohorquez:

The Illinois Solar for All Working Group is pleased to deliver the enclosed comments on the Draft 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:

BIG: Blacks in Green	Central Road Energy, LLC
Elevate Energy	Environmental Defense Fund
Environmental Law and Policy Center	Faith in Place
Futurez NFP Incorporation	GRID Alternatives
Illinois Green Economy Network	Illinois People's Action
Little Village Environmental Justice Organization	Metanoia Centers for Innovation
Natural Resources Defense Council	ONE Northside
People for Community Recovery	Seven Generations Ahead
Sierra Club Illinois	Southeast Environmental Task Force
StraightUp Solar	Sunrun

The People's Lobby	Union of Concerned Scientists
Vote Solar	

Working Group Process

The Working Group began convening in January 2017, and has had eleven 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 depending on the time of year.

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 Plan¹. A final White Paper was published on July 11, 2017 on lowincomesolar.org².

Program Principles for Illinois 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*³ 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

¹ <https://www.illinois.gov/sites/ipa/Documents/ILSfA-Working-Group-Response-RequestforComments.pdf>

² http://www.lowincomesolar.org/wp-content/uploads/2017/07/20170711-ILSfA-Working-Group-White-Paper_Final_wAppendices.pdf

³ www.lowincomesolar.org

change. Program administrator ensures community engagement, statewide geographic equity, 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 comments 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.

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Introduction

November 13, 2017

Attention: Mario Bohorquez,
Planning and Procurement Bureau Chief
Via email: mario.bohorquez@illinois.gov

RE: Illinois Solar for All Working Group Response to Draft Long-Term Renewable Resources Procurement Plan

The Illinois Solar for All Working (“Working Group” or “We”) appreciates the opportunity to respond to the September 29, 2017 Illinois Power Agency (“Agency”) Draft Long-Term Renewable Resources Procurement Plan (“Draft Plan”).¹

The Working Group recognizes the obvious care and thought the Agency has given to the Illinois Solar for All Program. We are pleased that the Agency has, in its Draft Plan adopted some of the recommendations the Working Group outlined in the White Paper² on the Illinois Solar for All Program submitted by the Working Group earlier this year. Recommendations for alternative wording are offered here in the spirit of making what we believe are necessary and critical improvements to the Draft Plan to ensure the Illinois Solar for All 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. Our comments are focused on the following topics relative to the Solar for All Program: Incentives, Program Administration, Multifamily Affordable Housing, Consumer Protection, Training, Environmental Justice Communities, Community Solar, and the Adjustable Block Program.

1. Solar for All Incentives

Incentives should be structured to enable significant low-income household energy savings and true tangible economic benefit, not just enable program participation. In order to offer a tangible economic benefit that is attractive to a low-income customer and result in immediate and ongoing *significant* savings, the appropriate Renewable Energy Credit (“REC”) levels are critical. Therefore, the Working Group identified the following areas for comment as it relates to Solar for All incentives: 1A) Integration with the Adjustable Block Program; and 1B) REC Modeling Assumptions.

¹ https://www.illinois.gov/sites/ipa/Pages/Renewable_Resources.aspx

² http://www.lowincomesolar.org/wp-content/uploads/2017/07/20170711-ILSfA-Working-Group-White-Paper_Final_wAppendices.pdf

1.A. Adjustable Block Program and Solar for All Integration (Sections 2.6.1., 6.5., 8.2.1, and 8.4.5.)

While all ratepayers benefit from the investments to be made under the Adjustable Block Program, low-income ratepayers stand to most benefit through direct access. Additionally, because these programs are funded by all ratepayers through the Cost Cap Rate (as described on page 43 of the Draft Plan), low-income ratepayers should also have access to these incentives, to avoid cross-subsidization issues.

Solar for All projects must have access to all available incentives, including the Adjustable Block Program; these financing resources are essential to ensuring that impact for Solar for All Program is maximized. Separating the funding for the Solar for All Program from the funding for the Adjustable Block Program has the potential to create project competition that is disproportionate to the amount of money available. Using a Solar for All adder approach to the Adjustable Block Program will ensure tangible economic benefits are delivered to many more deserving Illinois residents.

The Working Group developed [alternative wording] for the following sections, addressed chronologically to follow the Draft Plan chapters: Chapter 2, Section 2.6.1. Illinois Solar for All - Overview; Chapter 6, Section 6.5. Adders; Chapter 8, Section 8.2.1. Relationship with the Adjustable Block Program; and Chapter 8, Section 8.4.5. Payment Structure.

- **[Alternative Wording Proposed]:**
 - Chapter 2, Section 2.6.1. Illinois Solar for All - Overview
 - (p 35) “As discussed further in Chapter 8, the IPA believes that the ~~former~~ [latter] approach is most appropriate; [fundamentally, the RECs contracted from projects receiving incentives under this program can also be] ultimately, the program is administered through awarding contracts for consideration, and that consideration is the delivery of a REC used to satisfy a compliance obligation under Section 1-75(c)(1) of the Act, [as described hereafter].-Ultimately, parsing REC delivery contracts into two components—the base payment for a REC ~~delivery contract~~ and a separate incentive adder, [will allow for the funds available under the Illinois Solar for All Program to support a greater number of projects than if the entire contract value was to be paid with Illinois Solar for All funds. As all projects will deliver multiple RECs over the 15-year time period, there will be no problem in dividing those RECs between two separate contracts. Contracts will be entered into for the delivery of RECs to either the Adjustable Block or Illinois Solar for all Program proportional to the amount of funding that comes from either funding source.] -potentially paid by a different counterparty—appears inconsistent with a program design built around “contracts” rather than rebates or grants.”
 - Chapter 6, Section 6.5. Adders

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- (p 100) “The following set of Adders are intended to adjust the base REC price to meet specific additional purposes. These include adjusting for system size, adjusting for the additional costs of community solar, [providing incentives to meet the objectives of the Solar for All Program,] and potentially accounting for the changes to net metering, smart inverter rebates and federal tax credits.”
- Chapter 8, Section 8.2.1. Relationship with the Adjustable Block Program
 - (p 137) “...the Agency will administer the Illinois Solar for All Program [in conjunction with] ~~separate from~~ the Adjustable Block Program, ~~but~~ building on the program design of the Adjustable Block Program, with additional considerations specific to Illinois Solar for All. These include ~~a different set of~~ [higher] incentives [via an adder], Illinois Solar for All specific contracts, and additional considerations to ensure community involvement, consumer protections, and eligibility.”
- Chapter 8, Section 8.4.5. Payment Structure
 - (p 144) “~~Projects that receive a contract through Illinois Solar for All will not be eligible to also receive a contract through the Adjustable Block Program.~~”
 - (p 144 Footnote 331) Section 1-56(b)(3) requires that for Illinois Solar for All contracts, “[t]he payment shall be in exchange for an assignment of all renewable energy credits generated by the system during the first 15 years of operation.” Sections 1-75(c)(1)(L)(ii) and (iii) both contain provisions related to the various components of the Adjustable Block Program that, “[t]he electric utility shall receive and retire all renewable energy credits generated by the project for the first 15 years of operation.” These two provisions from Section 1-56(b)(3) and Section 1- 75(c)(1)(L) [can be easily reconciled. As all projects will deliver multiple RECs over the 15-year time period, there will be no problem in dividing those RECs between the Adjustable Block or Illinois Solar for All Program proportional to the amount of funding that comes from either program. If determined to be legally necessary, the installations can be legally deemed two separate systems/projects for the sake of meeting the aforementioned requirements.] ~~are mutually exclusive as only one REC can be produced, transferred, and retired for each MWh of generation.~~
- **Discussion, Data or Detailed Analyses:**
 - As the Agency notes, the law structurally appears to permit an incentive premium applicable to Section 1-75(c)(1)(K) Adjustable Block Program REC contract prices (with the Illinois Solar for All Program simply entailing the administration of additional incentives). Therefore, please do not isolate and limit the Solar for All Program; instead, provide higher incentives in the Solar for All Program as an adder to the Adjustable Block Program. If the program is not structured in this way, low-income customers will have significantly reduced access to funding under this program. As the Adjustable Block Program declines, the adder from the Illinois Solar for All Program should increase to ensure the end value is an incentive level that allows developers, installers, or the non-profit third-party Program Administrator(s) to offer solar at no upfront cost to the

income-qualified participant and offer immediate and significant savings. An adder approach will result in tangible economic benefit for many more income-qualified Illinois residents.

- An example is the [Massachusetts Smart Program](#)³, which includes a \$.06 / kWh adder for low-income solar projects.

1.B. REC Modeling Assumptions

As the Draft Plan is written now, without emphasis placed on savings, participants could unfortunately experience an ongoing payment that is only a dollar (\$1) less than the expected energy savings, which technically counts as a cash-flow positive experience. Assumptions in modeling and the REC levels themselves are critical to providing *significant* tangible economic benefit to low-income households.

The Working Group agrees with SEIA and the guiding principles in their comments on REC pricing. That is, that the goal should not be to maximize (or, conversely, to minimize) the REC pricing, but rather to have the input values of the CREST model better reflect the expected conditions for solar development and operation in Illinois. We support SEIA's efforts to provide more robust input and data on the model assumptions shared by both the Adjustable Block and the Illinois Solar for All Programs.

We are pleased that the Agency recognizes costs associated with solar deployment vary widely and has reflected this in the Illinois Solar for All Program through distinct REC pricing for various system sizes, utility territory, and through Adders for other key components. However, some of the CREST model inputs used by the Agency to establish those REC prices are constants or change linearly with system size within a specific project type. It is our experience that this is not always reflective of real world experience and costs. Consequently, we have recommended more specific input values for:

- Capacity factors, which we have varied based on project type (i.e., DG versus community solar); and
- Subscriber management for community solar, which we have varied by system size and subscriber type.

We also question some of the assumptions that have been carried over from the Adjustable Block Program model. These include tax assumptions, project useful life, and customer savings.

Ultimately, our goal is for the Solar for All REC incentives to be structured, at least initially, at no cost for participation for low-income residential customers (not just no up-front cost, but no cost), and can step down from there as necessary.

1.B.1. Capacity Factor

The 17% AC capacity factor is too high. We recommend a **15% AC capacity factor, which is more realistic for residential solar installations** (i.e. fixed axis, non-ideal orientation, and some shading) with Illinois climate data.

³ <http://www.mass.gov/eea/docs/doer/rps-aps/final-program-design-1-31-17.pdf>

- The Energy Information Agency says the average capacity factor nationally is 15%:
<https://www.eia.gov/todayinenergy/detail.php?id=22832>
- While capacity factor will change regionally and by system, siting, etc., no data suggests regional changes to be 17% AC. The current NREL PV Watts uses 14.8% specifically for Chicago:
<http://pvwatts.nrel.gov/>
 - **Recommended Change:** CREST Inputs; Cell G11; Change from 17.00% to **15.00%** for residential distributed generation projects.

1.B.2. Subscriber Management for Community Solar Projects

Subscriber management costs are set in the model at \$4.98/MWh, with the addition of a \$7.89/MWh adder for more than 50% residential subscribers. Per SEIA's comments "*The proposed \$4.98/MWh cost adder for a basic large C&I offtake project (as few as three larger C&I customers) is likely too high. However, to the extent more smaller customers are added, the project operator's costs increase due to contract volume and the potential for more frequent customer service and customer turnover. The proposed \$7.89/MWh cost adder for 50% small customer participation is be too low for management of this customer group*" (see below). As is the assumed cost in the Crest model for subscriber management. For example, the results of a 20 year LCOE analyses based solely on system size using the Elevate cost model shows a range of \$19.87 to \$40.47. This is based on a 40% anchor and 60% small customer project, assumes a minimum of 50% small customer and ignores the <10kW range for community solar:

- **Recommended Change:** Crest Dashboard; Cell C4 and D4 change, in combination with residential adder, from \$4.98 to appropriate values to exceed the following ranges for a minimum of 50% residential:
 - <10 kW = NA
 - 10 kW - 100 kW = **\$40.47**
 - 100 kW - 200 kW = **\$26.11**
 - 200 kW to 500 kW = **\$22.08**
 - 500 kW to 1 MW = **\$19.87**
- The values should be proportionately higher for a 75% residential minimum.

1.B.3. Community Solar Inputs - Small Customer Subscription Costs

The incentive structure does not adequately incent low-income residential participation in projects (i.e. projects will need to rely on affordable housing, non-profit or other anchor partners for financing). Even if low-income customers are willing to pay for subscriptions, they still cannot be included in the financial modeling because they are perceived as high risk customers. This can be addressed through residential adders. GRID Alternatives recommends at least a \$.03 kWh residential adder.

1.B.4. Tax Assumptions

The model should not assume Solar for All projects for non-profits and Low-Income Distributed Generation Incentive projects will have owners with tax appetite and be financeable. Low-income households and non-profits do not have personal tax liability. Third party financing requires significant

transaction costs. This should also be reflected in anticipated cost of capital, interest rates and Debt Service Coverage Ratio assumptions.

- **Recommended Change:** Crest Inputs; Cell G73; Change from Yes to No for Non-profit and Low-Income Distributed Generation Incentive projects.
- **Recommended Change:** Crest Inputs; Cell Q20,21,22 Change to reflect 0% tax benefits.
- **Recommended Change:** Crest Inputs; As appropriate in the “Permanent Financing section, inputs should be changed to reflect an overall cost increase to service DG, multifamily and non-profit entities, reflected in the Crest models that feed the REC prices for those programs.

1.B.5. Project Useful Life

The project useful life in the model is assumed to be 25 years but should be 20 years. While 25 years is a reasonable assumption for equipment life, generally projects are financed through a power purchase agreement (“PPA”) or prepaid PPA structure which are typically 20 years, so it is not appropriate to assume the economics extrapolate out to 25 years.

1.B.6. Customer Savings

Some measure of customer savings must be included in the models for all Solar for All Programs, including community solar. SEIA suggests in their comments that a reasonable assumption is 20% of the estimated annual net metering credit value and suggests an appropriate way to capture this cost in the model is by reducing the net metering credit value by 20%. **Solar for All Programs should reflect a higher level of savings - 100% savings for low-income distributed generation and 50% savings for low-income community solar is not unreasonable, based on experience in low-income solar programs in other markets.**

- A method for building this into the Crest model suggested in conversations with the industry is to provide that:
 - 1) Solar for All community solar projects are modeled to require a higher Internal Rate of Return (“IRR”) than any other solar projects (i.e. 14% instead of 10%); or
 - 2) That all Solar for All projects are modeled to require a higher IRR than other solar projects. This is because these projects are more complex, carry a higher risk and incur higher transaction costs associated with financing.
- **Recommended Change:** Crest Inputs; Cell G62; Change from 12.00% to 14.00% for community solar projects.

2. Solar for All Program Administration

At a minimum, the Adjustable Block Program and Solar for All Program need to have separate Program Administrators. We appreciate the Agency reflected this important program design measure in the Draft Plan. Using multiple non-profit Solar for All Program Administrators who have greater specialization in the diverse program areas will ensure dedicated expertise and experience goes into program design, management and optimization. It will also ensure that dedicated attention is given to outreach, participant services and consumer protections. The non-profit Solar for All Program Administrator(s) will

function as consumer advocates and provide mission-aligned guidance and services to ensure there is consistent statewide messaging. This includes the potential full range of services and co-benefits that should be integrated in the solar installations, such as energy efficiency, job training and education, etc.

Therefore, the Working Group identified the following areas for comment as it relates to program administration, addressed chronologically to follow the Draft Plan chapters: 2A) Dedicated Program Administration is a Critical Consumer Protection Measure; 2B) Roles of Program Administrator(s) in Standardization; 2C) Low-Income Distributed Generation Incentive Program Administrator as Contractor of Record; 2D) Role of Program Administrator(s) in Customer Referrals to Other Solar for All Programs; and 2E) Rural Electric Cooperatives and Municipal Utilities in Solar for All.

2.A. Low-Income Distributed Generation Incentive Program Administrator as Contractor of Record (Section 2.6.2.1.)

As California’s Single-Family Affordable Solar Homes Program (“SASH”) Program was the original template for what became Illinois Solar for All Program in the Future Energy Jobs Act (“FEJA”), this provision of the law is intended as a consumer protection measure. A consumer protection cornerstone of California’s SASH Program is that installation contracts are directly with the non-profit Program Administrator, who is also the primary installer, and who works with vetted sub-contractors to meet the needs of the statewide program.

The Working Group developed [alternative wording] for the following section: Chapter 2, Section 2.6.2.1 Low-Income Distributed Generation Incentive.

- **[Alternative Wording Proposed]:** (p 38) “The law also includes a provision that “[c]ontracts entered into under this paragraph may be entered into with an entity that will develop and administer the program,” ~~although it is presently unclear how the administrator could leverage state funds for this use.”~~

2.B. Municipal Utilities and Rural Electric Cooperatives in Solar for All (Section 7.4.)

Rural electric cooperatives and municipal utilities include environmental justice and economically disadvantaged communities.

The Working Group developed [alternative wording] for the following section: Chapter 7 Section 7.4. Eligibility of Projects Located in Rural Electric Cooperatives and Municipal Utilities.

- **[Alternative Wording Proposed]:** (p 128-129) [The Solar for All Program Administrator(s) and the Agency should engage rural electric cooperatives and municipal utilities to pro-actively make them aware of the Solar for All Program and ensure that they take steps to ensure that benefits can flow to their low-income ratepayers through a valuation of the Low-Income Community

Solar Project Initiative that at least meets the minimum requirements of the Low-Income Community Solar Project Initiative as defined in the Future Energy Jobs Act. The Solar for All Program Administrator(s) and the Agency do not have authority to force rural electric cooperatives or municipal utilities to adopt the minimum policies necessary to enable Solar for All participation, however, every effort should be made to ensure the Solar for All Program is truly statewide.]

2.C. Dedicated Program Administration is a Critical Consumer Protection Measure (Section 8.8.)

Low-income solar and energy efficiency programs across the country have learned that programs targeted at low-income households require a different approach than those for the general market. Marketing and communications need to be customized and standardized, the organizations delivering the message need to be trusted by members of the community, and more time needs to be dedicated to implementation in order to overcome existing barriers. We expect that the same principle holds true for the Solar for All Program, and therefore will require a more robust approach to Program Administration.

The Solar for All Program will benefit from multiple administrators. The Program Administrator(s) for Solar for All should be non-profit(s) and have a more robust role to ensure consumer protection and positive experience for income-qualified participants. Using multiple administrators who have greater specialization in the diverse program areas will ensure dedicated expertise and experience goes into program design, management and optimization. It will also ensure that dedicated attention is given to outreach, participant services and consumer protections. The non-profit Program Administrators will function as consumer advocates and provide mission-aligned guidance and services to ensure there is a consistent statewide message around the potential full range of services that could be integrated in the solar installations, such as energy efficiency, job training, etc.

Additionally, many smaller, non-profit and / or less-resourced organizations may want to develop one or multiple projects under Solar for All. Requirements like GATS or M-RETS registration may be entirely new for these organizations and technical assistance and dedicated attention from Program Administrator(s) to answer their questions would be expected.

The Agency may view multiple Solar for All Program Administrators as unnecessary or a single Administrator as more desirable because communication is more easily managed. If that is the case, it is extremely important the single Solar for All Program Administrator be required to hire dedicated non-profit implementers for the diverse array of programs offered under Solar for All to design and implement programs with the full breadth of their knowledge and experience, to design approaches that meet the needs of the target audiences they understand.

Related to the issue of Program Administration, the Working Group developed [alternative wording] for the following section: Chapter 8, Section 8.8, Program Administration.

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- **[Alternative Wording Proposed]:** (p 153)
 - [Program Administrator(s) are mission-based non-profit(s). Non-profit(s) function as consumer advocates and provide mission-based guidance and services to ensure there is a consistent statewide message around the potential full range of services that could be integrated in the solar installations, such as energy efficiency, job training, etc. Non-profit(s) are also better suited to leverage outside programs, resources, and dollars for the benefit of Solar for All.]
 - [The Agency may choose a single Administrator for Solar for All. If that is the case, it is extremely important the single Administrator be required to hire dedicated non-profit implementers for the diverse array of programs offered under Solar for All to design and implement programs with the full breadth of their knowledge and experience, to design approaches that meet the needs of the target audiences they understand.]
 - The Illinois Solar for All Program Administrator(s) will at minimum:
 - Verify project eligibility [Obtain lists, centralize, and conduct income eligibility and verification] in Illinois Solar for All and coordinate this information with the Adjustable Block Program Administrator (who will process the actual application materials). This will include, but is not limited to, income verification, review of community involvement in projects, review of job training coordination, and review of Illinois Solar for All consumer protections such as [especially] verification of ensuring tangible economic benefits flow to low-income participants. [Act as the centralized source for income verification in partnership with trusted community based organizations. Manages centralized database for all participants, including participant info, status, construction, incentive and financing data and materials. Program Administrator(s) will work with the Agency to determine and adjust eligibility criteria, as needed, to ensure an inclusive Solar for All Program that meets the goals of the statute.]
 - [Develop and provide contracts, disclosure forms and brochures for Approved Vendors and trusted community based organizations. Developing clear and consistent information on the relationship between the end customer and the Approved Vendor is critical to ensuring that the fiscal risks and controls of this program are properly and prudently managed.]
 - Coordinate the distribution of funding for grassroots education efforts by community-based organizations. A priority for this funding will be to promote the availability of the Illinois Solar for All Program in Environmental Justice Communities to achieve the goal of 25% of the incentives being allocated to those communities.
 - Facilitate Approved Vendors meeting the additional requirements of the Illinois Solar for All Program. In particular, the Program Administrator will act as a liaison between Approved Vendors participating in the programs and organizations providing job training. The Program Administrator will also work to inform Approved Vendors of energy efficiency, weatherization, lead

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abatement, and other program opportunities that could provide additional benefits to participants.

- Provide guidance and education to Approved Vendors, community groups, local government agencies, and others on how to leverage other governmental policies to facilitate low-income solar projects [and assist with energy burden reduction for low-income residents]. Other relevant policies include affordable housing, economic development, public finance, and tax policies, at the federal, state, and local level. The Administrator will act as liaison with other governmental agencies that administer such programs to facilitate their use on solar development.
 - Provide reports to the Agency and the Commission on a quarterly basis on the status of the Program including, but not limited to, number of applications received, number of applications approved, number of projects completed, REC payments, payments for and status of grassroots education efforts (if applicable), and a summary of technical assistance provided.
 - [Develop the Program Manual(s) and Program Guidelines in such a way as to ensure maximum savings / maximum benefit for income qualified participants. Publish and maintain a comprehensive Program Manual covering all aspects of the Solar for All Program.]
 - [Work with Approved Vendors to help meet Program requirements and provide technical assistance, if needed (e.g. GATS or M-RETS registration).]
 - [Provide recommendations for adjustment and improvement as part of the independent bi-annual independent evaluation of the Solar for All Program.]
 - [Work with the Agency to facilitate the relationship between the Adjustable Block Program and the Solar for All Program to ensure low-income ratepayers have access to all available incentives.]
 - [Work with the Agency to determine and adapt tangible economic benefit benchmarks to ensure low-income households realize meaningful savings from access to solar.]
- **Discussion, Data or Detailed Analyses:**
 - Consumer protection is paramount and the Program Administrator(s) must be consumer advocates and centralize important activities like income verification. Program Administrator(s) should be responsible for all marketing and outreach, developing translated materials, application intake, developing financing models, installations, coordination with Approved Vendors, program reports, and ensuring free hands-on and paid job training opportunities are available statewide. It is critical that oversight exists on the installation contracts and terms to ensure low-income families receive maximum benefits and risks are minimized. This can best be achieved by having the Program Administrator(s) role include development of standardized installation contracts that ensure participant benefit is maximized for all projects.

- California’s Low-Income Weatherization Program⁴ (“LIWP”) provides an example of a diverse program offering tasked to a single Program Administrator that hires dedicated sub-contractors based on program type. LIWP installs solar photovoltaics, solar hot water heaters, and energy efficiency measures in eligible low-income single family and multi-family dwellings in disadvantaged communities. Each of those offerings requires specialized focus to deliver in a cost effective and efficient manner, which is executed by hiring qualified non-profit sub-contractors.

2.D. Role of Program Administrator(s) in Preparing Marketing and Contractual Materials (Section 8.14.)

The role of Program Administrator(s) and defining tangible economic benefit is directly linked to the financial liability of low-income customers. Standardized information provided by Program Administrator(s) and higher and adequate REC levels will allow Approved Vendors to offer tangible economic benefits that will be attractive to low-income customers, ideally with no financial liability required on their part. While we agree that prohibiting loans secured by a low-income customer’s home or equity is a good idea, for example, the better and preferred approach is designing the Solar for All Program with adequate REC levels to eliminate the financial liability of low-income households and the overall need for such a loan prohibition.

The Working Group developed [alternative wording] for the following section: Chapter 8, Section 8.14 Consumer Protection.

- **[Alternative Wording Proposed]:**
 - (p 162) “Marketing and contractual materials must be in the language spoken by the customer [and prepared by the Program Administrator(s). Approved Vendors must participate in training programs offered by the Program Administrator(s) on guidelines for marketing and contracting with customers under the Program, as well as required standard disclosures.]”
 - (p 161) “[~~Standard Cc~~]ontracts ~~between Approved Vendors/installers and~~ [to be entered into by] program participants for Low-Income Distributed Generation projects will be required to offer clear disclosure of the costs seven days before consummation of the transaction, and the right to cancel the transaction within seven business days after consummation.”
 - (p 162) “[~~Standard Cc~~]ontracts for financial products must offer terms that include forbearance. If a program participant can show good cause in a request for forbearance, financiers must must offer a) suspension of total payments for up to three months, b) a suspension of interest payments for up to six months, or c) a reduction in interest rates for up to twelve months. Missed revenues may be recovered later in the stage of the contract, but no interest may be applied.”

⁴ <http://www.csd.ca.gov/LIWP.aspx>

- (p 162) “[Standard Cc]ontracts may not include prepayment penalties.”
- **Discussion, Data or Detailed Analyses:**
 - Low-income customers are more difficult to reach, and as such are costlier for installers and developers to serve. Under the Draft Plan, Approved Vendors have to show the Agency their marketing and contractual materials per Section 6.13; however, it makes more sense for the Program Administrator(s) to develop and provide standardized materials. This makes it easier for the Approved Vendors, and ensures consumer protections for the Program Administrator(s). In unique situations in which a standard contract may not apply, the Program Administrator(s) should provide technical assistance to arrive at a workable solution. Approved Vendors need not be precluded from using their own marketing materials, but they should be required to offer the standardized materials, as well.
 - Both California’s (SASH) program and LIWP program for single-family installations have utilized a third-party ownership (“TPO”) model since the California Commission approved the model in 2015. (TPO was not allowed at the onset of either program due to consumer protection concerns) However, the Commission required the Program Administrator to develop a model, and demonstrate the model met 12 baseline requirements, all ensuring consumer protection is paramount and participating households receive maximum benefit while minimizing risks to participation. The Commission approves installation contracts for TPO developed under the Program Administrator in a public, stakeholder-engaged process where contracts are filed publicly, and and major changes require a Commission resolution and voting process. The only installation contracts that can use TPO in either program are those developed by the Program Administrator and approved by the Commission.

2.E. Role of Program Administrator(s) for Customer Referrals to Other Solar for All Programs (Section 8.14.)

As a consumer advocate, the Program Administrator(s) should ensure low-income household participants in Solar for All Program have access to solar offerings best suited to their personal situations.

The Working Group developed [alternative wording] for the following section: Chapter 8, Section 8.14. Consumer Protection.

- **[Alternative Wording Proposed]:** (p 161) “For distributed generation projects, a roof [and electrical] inspection report is required to ensure that projects are being installed on roofs [and homes] that will not need substantial repairs. If repairs are needed, the Approved Vendor must identify the plan for the repairs and how they will be paid for, ensuring that such costs do not place an unsustainable financial burden on the participant. [The Program Administrator(s)]

should refer and help enroll those participants experiencing unsustainable financial burden to the Low-Income Community Solar Project Initiative.]”

- **Discussion, Data or Detailed Analyses:** Together, Millennium Solar Electric, GRID Alternatives, Quality Electrical Construction, and a crew of trainees participated in a demonstration project for an income-qualified homeowner in southeast Chicago in October 2017. In conducting outreach to find an income-qualified and willing homeowner, GRID Alternatives conducted eleven site visits. Three of the eleven homes were new construction and eight were existing construction. Of the eight existing construction homes, one had a bad roof and five needed electrical service upgrades. Electrical upgrades can cost between \$1800 - \$3000. While this is a small sampling of homes in southeast Chicago, it is indicative of housing stock and issues Approved Vendors and Certified Installers may encounter.

3. Multifamily Affordable Housing

Multifamily affordable housing solar is an exciting aspect of the Solar for All Program. In the legislation, the language that references multifamily housing is broad and sits outside of any specific program description.⁵ Individual program language is then included in subsequent sections.⁶ Significant percentages of households at or below 80% AMI live in multifamily properties across Illinois. Any low-income household qualified for benefits under Solar for All. While Solar for All language talks specifically about less than 80% AMI households in multifamily properties “where the low-income customer does not directly pay for energy” (referring to master-metered building), it also generally suggests that multifamily properties should be beneficiaries from Solar for All Programs.

Therefore, the Working Group identified the following areas for comment as it relates to multifamily affordable housing solar, addressed chronologically to follow the Draft Plan chapters: 3A) Dedicated Multifamily Program; and 3B) Illinois Solar for All Multifamily Eligibility and Income Verification.

3.A. Dedicated Multifamily Program (Section 8.6.1.)

Including multifamily buildings in the Low-Income Distributed Generation Incentive Program significantly reduces the number of single-family households that can be served in the Program. More so because the current Draft Plan does not stack benefits across the Adjustable Block Program and Illinois Solar for All. With the current design, the number of 1-4 unit buildings served annually would be about 350 to 450 and multifamily buildings about 30 to 50 buildings. This assumes a higher average installed capacity for multifamily buildings qualifying for a lower REC price. It also assumes multifamily buildings would make up about one third of the properties participating.

By creating a separate program for multifamily buildings and pulling funds from each of the four programs, 1-4 unit buildings would include 480 to 600 buildings and multifamily about 90 to 150

⁵ Section 20 ILCS 3855/1-56 (b) (2)

⁶ 20 ILCS 3855/1-56 (b) (2) A, B, C and D

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buildings. The programs will serve about 50% more properties with little impact to other program participants.

Both 1-4 unit and 5+ unit multifamily buildings would also be better served with separate programs because the target audiences are significantly different, income verification will be different and existing pipelines of participants from energy efficiency and other low-income programs are different. The skills and experience from Program Administrator(s), partners and vendors are also very different. We proposed that a formal fifth Illinois Solar for All Program be created with the following allocations:

Program:	%	2018-19 Allocation
Distributed Generation	20%	\$6.0M
Multifamily	15%	\$4.5M
Non-profits / Public Facilities	15%	\$4.5M
Low-income Community Solar	30%	\$9.0M
Community Solar Pilots	20%	\$6.0M

With this program distinction in mind, the REC prices used in the Low-income Distributed Generation Incentive Program, as well as the existing language in the Draft Plan around multifamily qualifications, tangible benefits and income verification all work for creating a framework for a new multifamily program.

The Working Group developed [alternative wording] for the following section: Chapter 8, Section 8.6.1 Low-income Distributed Generation Incentive.

- **[Alternative Wording Proposed]:** (p 146) “The Low-Income Distributed Generation Incentive is intended to provide funding for photovoltaic projects located on individual homes and [two-to-four unit] multi-family buildings.”
- **Discussion, Data or Detailed Analyses:**
 - In the legislation, the language that references multifamily housing is broad and sits outside of any specific program description.
 - Section 20 ILCS 3855/1-56 (b) (2): “*Contracts under the Illinois Solar for All Program shall include an approach, as set forth in the long-term renewable resources procurement plans, to ensure the wholesale market value of the energy is credited to participating low-income customers or organizations and to*

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ensure tangible economic benefits flow directly to program participants, except in the case of low-income multi-family housing where the low-income customer does not directly pay for energy.”

- Significant percentages of households at or below 80% Area Median Income (“AMI”) live in multifamily properties across Illinois. Any low-income household should qualify for benefits under Solar for All. While Solar for All language talks specifically about <80% AMI households in multifamily properties “where the low-income customer does not directly pay for energy” (referring to master-metered building), it also generally suggests that multifamily properties should be beneficiaries from Solar for All Programs. Elevate Energy proposes the Agency consider a distinct program that serves multifamily housing, separate from the four programs identified specifically in the legislation. Targeting multifamily property owners serving low-income households will require distinct marketing and outreach, compliance, consumer protection and quality assurance.
- Section 20 ILCS 3855/1-56 (b) (4): *“In the course of the Commission proceeding initiated to review and approve the plan, including the Illinois Solar for All Program proposed by the Agency, a party may propose an additional low-income solar or solar incentive program, or modifications to the programs proposed by the Agency, and the Commission may approve an additional program, or modifications to the Agency's proposed program, if the additional or modified program more effectively maximizes the benefits to low-income customers after taking into account all relevant factors, including, but not limited to, the extent to which a competitive market for low-income solar has developed. Following the Commission's approval of the Illinois Solar for All Program, the Agency or a party may propose adjustments to the program terms, conditions, and requirements, including the price offered to new systems, to ensure the long-term viability and success of the program.”*
- In Illinois, 33% of the 5.3 million housing units are multifamily and 50% of all affordable housing units in the state are multifamily. In Chicago, the percentage of multifamily housing is above 75%. This underscores the importance of recognizing multifamily properties as a distinct segment of the affordable housing market especially given that it often serves as housing for households of 80% or less AMI. Multifamily is commonly defined as 5+ unit residential properties and affordable housing is defined as households with rent less than 30% of monthly income. While affordable housing is not the same as households with income of 80% or less of AMI, there is a high correlation between the two – especially relevant because data is not available for housing unit types by 80% AMI or less.
- Significant percentages of households at or below 80% AMI live in multifamily properties across Illinois, according to analysis by Elevate Energy shown below: Note that Illinois has more than 400,000, 2-4 unit affordable housing properties. Elevate Energy recommends that these properties be included in the Low-Income Distributed Generation Incentive Program for single-family housing.

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- The Agency can consider an incentive based on a per watt value. For example: \$1.00 to \$1.25 per watt, which could represent 30% of the installation cost depending on system size. Private multifamily property owners can couple this incentive with RECs and tax benefits to make solar more affordable. Developers can do the same in order to offer discounted third-party ownership models or even models where full ownership of the system is transferred to property owners after asset depreciation (6 years).

	1-4 units		5+ units	
Average system size in kW	4	5	15	25
Average system cost \$\$/watt	\$3.00	\$3.00	\$2.75	\$2.75
Average system cost TOTAL	\$12,000	\$15,000	\$41,250	\$68,750
SREC value based on current LTRRPP	\$8,471	\$10,588	\$25,926	\$43,210
SREC value S/watt	\$2.12	\$2.12	\$1.73	\$1.73
ITC value	\$3,600	\$4,500	\$12,375	\$20,625
MACRs value	\$3,570	\$4,463	\$12,272	\$20,453
Total incentive value	\$15,641	\$19,551	\$50,573	\$84,288
Total incentive value S/watt	\$3.91	\$3.91	\$3.37	\$3.37
Total incentives bucket (85% of allocated amount)	\$3,788,400	\$3,788,400	\$1,288,056	\$1,288,056
Total # projects	447	358	50	30

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	DG w/ only 1-4		MF only	
Average system size in kW	4	5	15	25
Average system cost \$\$/watt	\$3.00	\$3.00	\$2.75	\$2.75
Average system cost TOTAL	\$12,000	\$15,000	\$41,250	\$68,750
SREC value based on current LTRRPP	\$8,471	\$10,588	\$25,926	\$43,210
SREC value S/watt	\$2.12	\$2.12	\$1.73	\$1.73
ITC value	\$3,600	\$4,500	\$12,375	\$20,625
MACRs value	\$3,570	\$4,463	\$12,272	\$20,453
Total incentive value	\$15,641	\$19,551	\$50,573	\$84,288
Total incentive value S/watt	\$3.91	\$3.91	\$3.37	\$3.37
Total incentives bucket (85% of allocated amount)	\$5,100,000	\$5,100,000	\$3,830,000	\$3,830,000
Total # projects	602	482	148	89

3.B. Illinois Solar for All Multifamily Eligibility and Income Verification (Section 8.13.2.)

It is important to ensure that low-income households are adequately and easily served by all programs. To accomplish this, we recommend that multifamily buildings that qualify for FEJA's energy efficiency programs receive reciprocal approval for Illinois Solar for All Programs. This serves to create a more streamlined experience for building owners, ease the burden on administrators, and create a strong pipeline for solar projects.

The Working Group developed [alternative wording] for the following section: Section 8.13.2. Determining Income Eligibility.

- **[Alternative Wording Proposed]:** (p 160) For two to four unit buildings, at least two of the households in the building must qualify. For a [5+ unit] multi-family building, [any building that qualifies for energy efficiency work will automatically qualify for the Low-income Distributed Generation Incentive Program and Multifamily Program, with eligibility criteria provided by Solar for All Program Administrator(s). If the building is not participating in energy efficiency programs for] either at least 50% of the households must qualify, or the building owner may demonstrate that the building meets the definition of “affordable housing” contained in the Illinois Affordable Housing Act, namely:
“Affordable housing’ means residential housing that, so long as the same is occupied by low-income households or very low-income households, requires payment of monthly housing costs, including utilities other than telephone, of no more than 30% of the maximum allowable income as stated for such households as defined in this Section.”

4. Solar for All Consumer Protection

The Working Group appreciates the obvious care and thought the Agency has given to crafting consumer protection measures for customers participating in the Illinois Solar for All Program. We are pleased that the Agency has, in its Draft Plan, adopted some of the recommendations that the Working Group outlined in the White Paper⁷ on the Illinois Solar for All Program submitted by the Working Group earlier this year. For example, Section 8.9 of the Draft Plan, “Quality Assurance,” adopts the Working Group’s recommendation to conduct random inspections of installations to assure customers receive high quality installations. And while we see the need to expand and clarify the role of the Program Administrator(s), we are pleased that the Agency has given thought to the important role this entity will play in making the Program a success. The Working Group agrees with many other consumer protection measures included in the Draft Plan, as well, such as the requirement for clear disclosures, requiring marketing and contractual materials to be in the customer’s preferred language, etc. Indeed, most of the comments in this section reflect agreement in a broad sense with the Agency’s draft consumer protection provisions. Suggestions here are offered in the spirit of making what we believe are necessary and critical improvements to the Agency’s already rather thorough draft consumer protections, especially and most importantly as it relates to cash-flow positive experience for low-income customers and ensuring tangible economic benefits actually result.

Therefore, the Working Group identified the following areas for comment as it relates to consumer protection, addressed chronologically to follow the Draft Plan chapters: 4A) Tangible Economic Benefit; 4B) Customer Information Requirements / Consumer Protections; 4C) Monitoring of Consumer

⁷ http://www.lowincomesolar.org/wp-content/uploads/2017/07/20170711-ILSfA-Working-Group-White-Paper_Final_wAppendices.pdf

Complaints; 4D) Residential Subscriptions; 4E) Defining Non-profits and Public Facilities; 4F) Determining Income Eligibility; 4G) Language Elected by the Customer; and 4H) Solar for All Program Evaluation.

4.A. Tangible Economic Benefit (Sections 2.6.3., 8.2.2., 8.11., and 8.14.)

The Working Group is thrilled that the Agency has directed no upfront costs and a cash flow positive experience for low-income residential participants in the Illinois Solar for All Program. However, without emphasis placed on savings, participants could unfortunately experience an ongoing payment that is only a dollar (\$1) less than the expected energy savings, which technically counts as a cash-flow positive experience. It is critical a savings goal be included for Approved Vendors and Program Administrator(s) to ensure solar offerings are designed for low-income residential customers to result in what is truly tangible economic benefit.

Some measure of customer savings must be included in the model for all Solar for All Programs, including the Low-Income Community Solar Project Initiative, as we discussed in Section 1.B.6. SEIA suggests in their comments that a reasonable assumption is 20% of the estimated annual net metering credit value and suggests an appropriate way to capture this cost in the model is by reducing the net metering credit value by 20%. **Solar for All low-income customer savings should be at a higher level - 100% savings for low-income distributed generation and 50% savings for low-income community solar is not unreasonable, based on experience in low-income solar programs in other markets.**

Importantly, the Working Group developed [alternative wording] for the following sections: Chapter 2, Section 2.6.3. Illinois Solar for All—Additional Requirements; Chapter 8, Section 8.2.2. Economic Benefits; Chapter 8, Section 8.11. Additional Requirements for Approved Vendors; and Chapter 8, Section 8.14. Consumer Protection.

- **[Alternative Wording Proposed]:**
 - Chapter 2, Section 2.6.3. Illinois Solar for All—Additional Requirements
 - (p 40) “[e]ach contract that provides for the installation of solar facilities shall provide that the solar facilities will produce energy and economic benefits, at a level determined by the Agency to be reasonable, for the participating low-income customer.” [For the purposes of the Solar for All Program, reasonable shall be defined as reducing low-income residential customers’ electric energy burden to be within the statewide average, or other savings metrics / targets deemed applicable by Program Administrator(s) and the Agency to ensure significant savings for participants. Savings targets may be achieved comprehensively, i.e. by coordinating a low-income customers services under the Solar for All Program with energy efficiency measures to be within average state electric energy burden, for example. The Program Administrator(s) should review Approved Vendors' proposed offerings to ensure maximum savings and tangible economic benefit for low-income residential customers. The Program

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Administrator(s) and the Agency will determine and assess savings metrics / targets on a regular basis and adjust if necessary.]

- Chapter 8, Section 8.2.2. Economic Benefits
 - (p 138) “To create “tangible economic benefits” at a “reasonable” level, the Agency has determined that eligible low-income residential participants in the Illinois Solar for All Program should not have to pay up-front costs for on-site distributed generation, or pay an up-front fee to subscribe to a community solar project. Further, participation in the program should result in immediate, [significant, and] reliable reductions in energy costs for those residents or subscribers. This means that any ongoing payment would be smaller than the expected energy savings [and support, for example, reducing low-income residential customers electric energy burden to be within average state energy burden, or other savings metrics / targets deemed applicable by the Program Administrator(s) and the Agency].”
 - (p 139) “Ensuring that tangible economic benefits flow directly to program participants can also be accomplished by providing documentation to the Agency that the project has no upfront cost to the participant, that the value of incentives are used by the project developer/installer to offset costs to the participant, and that there will not be ongoing costs or fees to the participant that exceed the value of energy produced. The resulting economic benefits to program participants will be accrued through the [entire] value they receive through net metering for the energy the system produces. As described in Section 8.11, Approved Vendors participating in the Illinois Solar for All Program will be required to document how they ensure ~~that this goal is~~ [significant savings are] met. [The Program Administrator(s) should review Approved Vendors' proposed offerings to ensure maximum savings and tangible economic benefit for low-income residential customers. The Program Administrator(s) and the Agency will determine and assess savings goals on a regular basis and adjust if necessary.]”
- Chapter 8, Section 8.11. Additional Requirements for Approved Vendors
 - (p 156) “Demonstration that for low-income distributed generation and community solar projects that [low-income residential] participants do not have any up-front payments [and experience significant ongoing savings.]”
- Chapter 8, Section 8.14. Consumer Protection
 - (p 161) “In order to “ensure tangible economic benefits flow directly to program participants,” Approved Vendors must also verify that for residential program participants there are no upfront payments for distributed generation projects, or up-front subscription fees for community solar projects. Approved Vendors must also provide documentation to both the program participant customer and to the Program Administrator[(s)] on how the projects will result in [significant ongoing savings for low-income residential customers and] a cash-flow positive experience for the participant(s). [The Program Administrator(s)]

should review Approved Vendors' proposed offerings to ensure maximum savings and tangible economic benefit for low-income residential customers. The Program Administrator(s) and the Agency will determine and assess savings goals on a regular basis and adjust if necessary.]

● **Discussion, Data or Detailed Analyses:**

- While some Solar for All Program customers may be able to pay for subscriptions and serve as financeable offtakers for projects, most low-income customers will not be able to. It is imperative that the Solar for All Program incentives are structured such that these customers - who are the hardest to serve - are still prioritized under this program. Without emphasis placed on savings, participants could unfortunately experience an ongoing payment that is only a dollar (\$1) less than the expected energy savings. As outlined in the Draft Plan, the Agency is already requiring documentation from Approved Vendors to prove they are delivering economic benefits and a cash flow positive experience. Offerings under the Solar for All Program should support reducing low-income residential customers' electric energy burden to be within average state electric energy burden; an average Illinois low-income customer energy burden is 13% statewide compared to an average state energy burden of 6%⁸. This savings target, or any other savings target deemed applicable by the Program Administrator(s) and the Agency, may be achieved comprehensively, i.e. by coordinating a low-income customers services under this program with energy efficiency measures. The Program Administrator(s) should review Approved Vendors' proposed offerings to ensure maximum savings and tangible economic benefit for low-income residential customers. The Program Administrator(s) and the Agency will determine and assess the savings goal on a regular basis and adjust if necessary.
- Examples where minimum savings is built into the low-income program design, statute and / or regulations:
 - District of Columbia Solar for All Program: D. C. Act A21-0466, Renewable Portfolio Standard Expansion Amendment Act of 2016, Section 216(a)⁹ ensures seniors, small local businesses, non-profits, and low-income households receive at least 50% of the savings, as compared to standard utility rates, from the solar generating equipment.
 - PAYS: Pay-As-You-Save (PAYS)¹⁰ 80% rule where a customer's estimated savings equals or exceeds their charges by 20%. PAYS financing for energy efficiency is being implemented by electric cooperatives in Kansas, Kentucky, and North Carolina (respectively called How\$martTM, How\$mart KY, and Upgrade to \$ave).¹¹
 - California SASH Program: The statewide program administrator for SASH

⁸ https://www.elevateenergy.org/wp/wp-content/uploads/Energy-burden-in-Illinois_final.pdf

⁹ <http://lims.dccouncil.us/Legislation/B21-0650>

¹⁰ <https://drive.google.com/file/d/0BzYyDNPW3cwwOFBzc3NyTTF2MEE/view>

¹¹ <http://cleanenergyworks.org/blog/pays-financing/>

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 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, including ensuring customers receive at least 50% of the savings, as compared to standard utility rates, from the solar generating equipment.¹² In practice, the minimum 50% savings is a "floor," as most SASH households participating in the TPO model realize 80% savings or higher.

4.B. Customer Information Requirements / Consumer Protections (Section 6.13.)

These comments address the Agency's consumer protection proposals for the Adjustable Block Program, Community Renewable Generation Projects, and the Illinois Solar For All Program. Each of these initiatives will create new interactions and transactions between businesses and consumers, customers and communities. The Illinois Solar for All Working Group agrees with the Agency that proactive consumer protections are essential to avoid unfair business practices that could harm vulnerable Illinois residents and consumers. Like the Agency, the Illinois Solar for All Working Group is aware of unfair, recurrent practices that have characterized some alternative retail energy business initiatives. Additionally, environmental justice community residents are particularly vulnerable to violations of consumer protection due to the economic status of residents, previous exposure to coercive financial mechanisms and predatory practices in economically disadvantaged communities, and the consequences of environmental harms for resident health, trust or mistrust of government institutions, and more. The Working Group affirmatively supports strong consumer protection provisions in the Plan as noted throughout.

Importantly, the Working Group developed [alternative wording] for the following section: Chapter 6, Section 6.13. Customer Information Requirements / Consumer Protections.

- **[Alternative Wording Proposed]:** (p 113) [The Agency specifies that Approved Vendors will be required to comply, at a minimum, with Part 412 consumer protection regulations. For entities operating in the Adjustable Block Community Renewable General, and Solar for All Programs that are not subject to Part 412 consumer protection regulations, the Agency identifies the following relevant consumer protection requirements as mandatory: 83 Ill. Admin. Code Sections 412.100 - 412.340, consisting of Subpart B, Subpart C and Subpart D of Part 412.]

¹² <http://www.lowincomesolar.org/wp-content/uploads/2016/07/California-Consumer-Protection.pdf>

- **Discussion, Data, or Detailed Analyses:** This standard – based on “an expectation” and “equivalence” with Part 412 - should be strengthened because it is vague, subjective and could be interpreted as merely an aspiration. The Illinois Solar for All Working Group recommends that the Agency specifically identify the regulated entities in the Adjustable Block, Community Renewable Generation and Solar For All initiatives that are subject to Part 412 consumer protection regulations and explicitly assert that these entities are required to meet these standards. For entities that will operate in these programs that are not subject to Part 412, the Agency should specifically identify relevant Part 412 consumer protection requirements, incorporate them by reference and mandate that these entities must comply with these standards. This will create more objective and verifiable consumer protection standards. The Illinois Solar for All Working Group agrees with the Agency that additional, tailored consumer protections - beyond the baseline Part 412 requirements – are also appropriate and necessary.

4.C. Monitoring of Consumer Complaints (Section 6.13.2)

Creating an organized system for tracking and monitoring consumer complaints functions as a consumer protection by increasing both transparency and accountability of participating Approved Vendors. As a consumer advocate, the Program Administrator(s) should integrate the creation and maintenance of a public database into their role to ensure the long-term success of the Solar for All Program.

The Working Group developed [alternative wording] for the following section: Chapter 6, Section 6.13.2. Monitoring of Consumer Complaints.

- **[Alternative Wording Proposed]:** (p 113) If warranted, the Program Administrator(s) will refer complaints to the Agency and to appropriate state and federal agencies, including the Consumer Protection Division of the Illinois Attorney General’s Office, or the Illinois Commerce Commission (e.g., for failure of installers to maintain their status as Certified Distributed Generation Installers). [The Program Administrator(s) should be directed to maintain a public database of all consumer complaints (excising, as appropriate, private consumer information). The information in this database should be integrated with information about complaints received directly by the Illinois Attorney General, Illinois Commerce Commission and other state regulatory and enforcement agencies. The public database should identify practices that give rise to consumer complaints by category, location and business.]
- **Discussion, Data, or Detailed Analyses:** This comprehensive, integrated database will enable a systematic analysis of business practices that give rise to consumer complaints by category, location and business. This will enable appropriately scaled regulatory and enforcement responses to recurrent consumer complaints, while also informing members of the public as they participate in interactions and evaluate potential transactions with business entities.

4.D. Residential Subscriptions (Section 7.6.2.)

The Illinois Solar for All Working Group acknowledges the Agency’s work to develop the omnibus list of

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existing federal and state laws that are designed to protect consumers from unfair business practices.

The Illinois Solar for All Working Group suggests the Agency identify the most important, substantive aspects of these existing consumer protection statutes that apply to the Adjustable Block, Community Renewable Generation and Solar For All initiatives. This will enable the Illinois Commerce Commission (“ICC”) and public participants to identify and comment on inconsistencies, redundancies and gaps in the complete package of consumer protections that would apply to interactions and transactions between businesses and consumers.

The Working Group developed [alternative wording] for the following section: Chapter 7, Section 7.6.2. Residential Subscribers.

Table 7-1: Federal Statutes that Apply to Community Solar

Statute	Topic
CAN-SPAM Act	Electronic marketing
Consumer Leasing Act	Leasing disclosures
Electronic Funds Transfer Act	Consumer rights in electronic fund transfers
Equal Credit Opportunity Act	Discrimination in credit transactions
Fair Credit Reporting Act	Collection and use of consumer information
Federal Trade Commission Act	Unfair and deceptive trade practices
Magnuson-Moss Warranty Act	Consumer product warranties
Right to Financial Privacy Act	Financial privacy from government intrusion
Truth in Lending Act	Lending disclosures and standardization
Telephone Consumer Protection Act	Telemarketing and automated telephone equipment
Unfair Deceptive Practices Act (UDAAP)	Misleading financial products and services
Uniform Commercial Code	Sales and commercial transactions

Table 7.2 Illinois Statutes that Apply to Community Solar

Statute	Topic
Consumer Fraud and Deceptive Business Practices Act (815 ILCS 505)	Enrollment, marketing, billing, and collection by electric service providers

Electronic Mail Act (EMA) (815 ILCS 511)	Regulates e-mail solicitations
Telephone Solicitations Act (815 ILCS 413) and the Restricted Call Registry Act (815 ILCS 402)	Regulates telemarketing practices
Personal Information Protection Act (815 ILCS 530)	Requires companies that collect personal information to take reasonable measures to protect it and report unauthorized access to consumer’s personal information.

- **[Alternative Wording Proposed]:** (p 133) [“These laws and regulations provide a starting point for protecting consumers, but their enforcement agencies typically only track and enforce good marketing practices if triggered by consumer complaints. In order to ensure that subscribers are well-informed and thus afforded adequate consumer protections, the Agency will require that all projects adhere to the following terms and conditions for subscriptions.” As part of its submission to the Illinois Commerce Commission, the Agency will include an Appendix that identifies the most important protections in the referenced consumer protection laws.]

4.E. Defining Non-profits and Public Facilities (Section 8.6.3.)

Input is requested by the Agency on the appropriate determination of non-profit and public facilities that should be eligible for incentives in the program.

The non-profits and public facilities able to access this incentive stream of the Solar for All Program should be serving low-income community members to adhere to the statutory goals of the Program. The proposed language below provides some guidelines on the ways through which serving low-income community members can be identified, as well as a specification for adjusting or adapting the definition if uptake is low.

The Working Group developed [alternative wording] for the following section: Chapter 8 Section 8.6.3. Incentives for Non-profits and Public Facilities.

- **[Alternative Wording Proposed]:** (p 150)
 - [The non-profits and public sector customers that in some manner serve low-income communities should be given specific consideration given the objective of the Illinois Solar for All Program is in part, “to bring photovoltaics to low-income communities.”]
 - [Eligible non-profits and public facilities are organizations that act as critical service providers (e.g. youth centers, hospitals, schools, homeless shelters, senior centers, community centers, places of worship, churches, affordable housing providers including public housing sites) 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.]
- [Government, non-profit, and tax-exempt entities, including those with IRS 501(c)(3) or 501(c)(4) determinations, should be required to submit verification of their tax-exempt status to be eligible for the public facilities and non-profit incentives.]
 - [Any non-profit or public facility must meet the standards described in Section 8.11 related to projects having sufficient connection to, and input from, low-income community members.]
 - [The Program Administrator(s) for Solar for All should work with the Agency and community stakeholders to adjust or adapt the definition of eligibility if program uptake is low or otherwise difficult by the time of the first independent evaluation. The Program Administrator(s) and / or the Agency may consider additional public facilities and community stakeholders should suggest additional public or non-profit facilities that directly serve low-income communities in ways beyond those explicitly specified".]

4.F. Determining Income Eligibility (Section 8.13.2.)

A centralized income/eligibility verification process executed by the chosen Solar for All Program Administrator(s) is a necessary consumer protection the Agency should adopt. This measure would protect customer information as well as reduce Agency burden by minimizing required direct communication with Approved Vendors.

As noted in Section 8.8, income verification should be centralized by the Program Administrator(s) to ensure consumer protection. Approved Vendors will not want to deal with the added cost of income verification, and participating households should not be required to provide sensitive income information to all Approved Vendors; rather, they should work with the Program Administrator(s) directly and in a standardized way to provide this income information. The Program Administrator(s) can obtain lists of income-qualified individuals from other programs, or conduct outreach to qualified clients. Rather than having the Program Administrator spot check all the Approved Vendor's methods, materials, and reporting, a centralized approach to income verification greatly increases the efficiency of the program and minimizes or eliminates misinformation or bad actors.

The Working Group developed [alternative wording] for the following section: Chapter 8, Section 8.13.2 Determining Income Eligibility.

- **[Alternative Wording Proposed]:**
 - (p 160) "The Agency proposes several approaches to determining [the Program Administrator(s) handle and centralize] income eligibility for the Illinois Solar for All Program, [and that customers that can demonstrate participation in other low-income programs (LEAP, SNAP, federally-assisted housing, etc.) will automatically qualify without further need to demonstrate income eligibility. The Program Administrator(s) will publish a list of pre-qualified organizations, who may apply to be included on this list on an annual basis]."

- (p 161) “It will be the responsibility of the ~~Approved Vendor~~ Program Administrator or its designated authority to ~~track subscribers and~~ document income eligibility for community solar projects. Approved Vendors will be required to report to the Agency on subscription rates once a year and work with the Program Administrator(s) or its designated authority to maintain subscription rates.”

4.G. Language Elected by the Customer (Section 8.14.)

The Working Group notes the Agency’s work to develop enhanced consumer protection protocols for Solar For All Program initiatives in Environmental Justice Communities (“EJCs”) and suggests specific changes regarding language needs of community members.

The Illinois Solar for All Working Group supports the “language elected by the customer” standard because it is objective and verifiable. This standard is qualitatively better than the ARES-derived alternative - what a “reasonable person” would conclude is the correct language to use to transact business. “Elected by the consumer” is also a more protective standard than “spoken by the consumer” because an interaction may be initiated in English, causing a consumer to continue in English, even though that individual may prefer to interact and conduct business in another language.

The Working Group developed [alternative wording] for the following section: Chapter 8, Section 8.14. Consumer Protections.

- **[Alternative Wording Proposed]:** (p 162) [All communications between business entities and consumers as part of the Adjustable Block, Community Renewable Generation and Solar for All Program Initiatives, as well as all marketing and contractual materials, must be in the language elected by the consumer.]

4.H. Solar for All Program Evaluation (Section 8.17.)

The Working Group supports the use of a public stakeholder process to develop criteria for the independent evaluator to use in review of and reporting on the program and performance of the third-party Program Administrator(s). We recommend supplementary measures be taken to facilitate meaningful participation of environmental justice communities in the process and suggest one category of measures to be included in the initial list in the Plan.

The Working Group developed [alternative wording] for the following section: Chapter 8, Section 8.17.

- **[Alternative Wording Proposed]:** (p 168) “Section 1-56(b)(6) requires that this Plan include an approach for independent evaluation of the Illinois Solar for All Program. Specifically, it calls for: At least every 2 years, the Agency shall select an independent evaluator to review and report on the Illinois Solar for All Program and the performance of the third-party program administrator of the Illinois Solar for All Program. The evaluation shall be based on objective criteria developed through a public stakeholder process. The process shall include feedback and participation from

Illinois Solar for All Program stakeholders, including participants and organizations in environmental justice and historically underserved communities. The report shall include a summary of the evaluation of the Illinois Solar for All Program based on the stakeholder developed objective criteria. The report shall include, [but is not limited to], the number of projects installed; the total installed capacity in kilowatts; the average cost per kilowatt of installed capacity to the extent reasonably obtainable by the Agency; the number of jobs or job opportunities created; economic, social, and environmental benefits created; [measures to evaluate partnerships between developers and community stakeholders,] and the total administrative costs expended by the Agency and [P]program [A]administrator[(s)] to implement and evaluate the program. [The independent evaluator will take additional measures based on recommendations specified in the *Model Guidelines for Public Participation* developed by the National Environmental Justice Advisory Council to the U.S. Environmental Protection Agency to facilitate meaningful involvement in the public participation process by both environmental justice communities and the broader set of community stakeholders that participated in the program, including the meaningful involvement of environmental justice communities and economically disadvantaged communities in development of stakeholder developed objective criteria or other measures used in evaluation of the program.]”

- **Discussion, Data or Detailed Analyses:** We recommend that supplementary measures be taken to facilitate meaningful participation of community stakeholders in the process and direct the Agency to best practices developed for use in regulatory public participation for the U.S. Environmental Protection Agency, which can be adapted for use in the public process around program evaluation. We also put forward a category of measures to be included in the initial list in the Plan to reflect the need to consider how partnerships in and with environmental justice community stakeholders and residents, as well as economically disadvantaged community stakeholders and residents, are working in evaluating the performance of the Solar for All Program.

5. Training

The objectives of Solar for All are to positively impact local Illinois economies by helping overcome common barriers and develop a pipeline for trainees from low-income populations to enter the workforce. We appreciate the Agency taking time to consider the role of job trainees within Solar for All and their meaningful involvement in the program. We also appreciated that the Program Administrator(s) were tasked with maintaining a clearinghouse of training program information for Approved Vendors/Illinois Solar for All Certified Installers to access. This clearinghouse will become a useful tool in ensuring that job trainees are able to find relevant and sustainable employment in the solar industry. The recommendations in this section seek to expand and clarify Agency proposals relating to job training opportunities.

Therefore, the Working Group identified the following areas for comments as it relates to training, addressed chronologically to follow the Draft Plan chapters: 5A) Agency Training; 5B) Coordination with Job Training Programs - Job Requirements; 5C) Waivers and Non-profit Requirements; 5D) Expanding

the Definition of Job Trainee; 5E) Coordination with Job Training Programs - Forms; 5F) Consistent Use of 33% and Defining Trainee Work; and 5G) Illinois Solar for All Certified Installers.

5.A. Agency Training (Section 6.9)

The Agency's stated commitment to facilitating the employment of job trainees is acknowledged by the Working Group. This commitment is essential to ensuring that 2,000 job trainees by 2029, have employment within the solar industry especially when considering the additional barriers people from low-income communities face when seeking employment. We believe that the Agency's commitment to increasing job opportunities could be bolstered by increasing the required education of Approved Vendors/Illinois Solar for All Certified Installers.

The Working Group developed [alternative wording] for the following section: Chapter 6, Section 6.9 Approved Vendors.

- **[Alternative Wording Proposed]:** (p107) "Approved Vendors [will be recognized as "Illinois Solar for All Certified Installers, and] will have to agree to the following terms: Participate in registration and complete any training developed by the Agency [, including training for hiring, retaining, and promoting returning citizens and foster care alumni.]"
- **Discussion, Data or Detailed Analyses:** It is important the Agency use its commitment to training to facilitate access to jobs for all, especially communities with lower incomes, people of color, women, foster care alumni and returning citizens. In providing this training to industry players, the Agency plays an active role in ensuring access to communities historically underrepresented in the energy technology workforce.

5.B. Coordination with Job Training Programs - Job Requirements (Section 8.10)

The Agency proposes Approved Vendors/Illinois Solar for All Certified Installers demonstrate at least 33% of their projects include one or more trainees from the solar training pipeline. The Plan does not define which projects would be considered eligible to meet the 33% requirement. It is important to define the scope of considered projects by stating applicable projects include all FEJA installations except for utility scale solar.

The Working Group therefore developed [alternative wording] for the following section: Chapter 8, Section 8.10 Coordination with Job Training Programs.

[Alternative Wording Proposed]: (p 155) "IPA proposes that Approved Vendors [/Illinois Solar for All Certified Installers] who participate in the Illinois Solar for All Program should demonstrate that at least 33% of projects include the use of one or more job trainee(s) from the solar training pipeline program or other classification of "job trainee" provided by IPA for Solar for All. For the 33% of projects that are used to meet this qualification, the number of trainees on each of those installation projects would be based on the size of the each installation. For

installs up to 10kW, at least 1 job trainee would meet the training requirement. Larger installs would require a proportional addition of trainees getting a minimum of 8 hours of work experience each per 10kW of installation size [through one of the following options in the program: community solar, distributed residential and/or public facilities distributed generation]..”

5.C. Waivers and Non-Profit Requirements (Section 8.10)

In order to maximize the employment of job trainees, the Agency should provide more detail on how the Program Administrator(s) ensure that Approved Vendors/Illinois Solar for All Certified Installers take every step possible to find trainees for a project before applying for a waiver and what this process could look like. To maximize benefits to low-income communities, the Agency should also provide options for less resourced organizations like non-profits or community based organizations to still meet the hiring requirement.

The Working Group developed [alternative wording] for the following section: Chapter 8, Section 8.10. Coordination with Job Training Programs.

- **[Alternative Wording Proposed]:** (p 155) “The Agency will consider requests for waivers of this requirement on a case by case basis if an Approved Vendor can demonstrate that job trainees are not available in the area where projects are being installed [or if the Illinois Solar for All Certified Installer is a non-profit, for example, and they instead provide free hands-on training to solar job seekers in lieu, or in addition to, hiring job trainees. This on the job training would have to be at a minimum of 7 hours, with a minimum of 2 trainees, and cover skills within NABCEP PV Associate Knowledge Content Domains, NABCEP’s PV Professional Job Task Analysis categories, or NABCEP’s PV Technical Sales Job Task Analysis major topic areas as listed below:
NABCEP PV Associate Knowledge Content Domains:

- PV Markets and Applications
- Safety Basics
- Electricity Basics
- Solar Energy Fundamentals
- PV Module Fundamentals
- System Components
- PV System Sizing Principles
- PV System Electrical Design
- PV System Mechanical Design
- Performance Analysis, Maintenance and Troubleshooting

NABCEP PV Professional Job Training Analysis areas

- Direction working on the Installation
- System Design
- and System Commissioning

NABCEP's PV Technical Sales Job Task Analysis major topic areas of: Qualify the Customer;

- Site Analysis;
- Conceptual Design;
- Financial Costs, Incentives, and Savings;
- Financial Benefit Analysis and Financing;
- Non-financial Benefit Analysis;
- Performance Analysis;
- Prepare Proposals
- NABCEP Job Tasks Analyses get updated at various intervals. Solar for All requirements associated with NABCEP job task analyses shall be updated to their comparable descriptions, within 2 months of NABCEP's release of updates. The Agency will require the administrator provide an annual assessment meeting with community groups, trainers & industry to assist with determining gaps in recruitment, training, and job placement.]”
- **Discussion, Data or Detailed Analyses:** The Agency should be sensitive to the various business models, including non-profits, that may develop projects under the Solar for All Program. The Program Administrator(s) should create a feedback mechanism for program participants. Since job training has not been identified yet, waivers are important to better adapt the program and identify specific training needs in regions across the state.

5.D. Expanding the Definition of Job Trainee (Section 8.10)

To ensure that as many trainees throughout the state are able to access the job opportunities available in the growing solar industry, the Agency should not limit the definition of trainee to the very narrowly funded solar training pipeline program.

To expand this definition the Working group developed [alternative wording] for the following section: Chapter 8, Section 8.10 Coordination with Job Training Programs.

- **[Alternative Wording Proposed]:**
 - (p 154) “The availability of job training opportunities for Solar for All projects depends, in part, on the availability of graduates of the solar training pipeline program [and other training models that may exist or are developed as the solar industry grows].”
 - (p 155) “The Agency infers that graduates of those programs [or other training models] could reasonably be considered “job trainees” for the purposes of the Low-income Distributed Generation Incentive within Solar for All.”
- **Discussion, Data or Detailed Analyses:** It is important the Agency expand the definition of job trainee to facilitate access to training and jobs for all, not just the graduates of the solar training pipeline program. Considering additional training programs also expands the opportunities trainees consider, as other job trainings also include preparation for non-installation positions in the spheres of education, outreach, recruiting and customer service for subscribers, sales, and marketing.

5.E. Coordination with Job Training Programs - Forms (Section 8.10)

In order to track trainees, gain insight into their experience throughout the program, and integrate feedback mechanisms into training, we suggest the Solar for All Program Administrator(s) create and provide a standardized form to facilitate this information gathering.

The Working Group developed [alternative wording] for the following section: Chapter 8, Section 8.10 Coordination with Job Training Programs.

- **[Alternative Wording Proposed]:** (p 155) “The Approved Vendors[/ Illinois Solar for All Certified Installers] will be required to document the use of job trainees, and to provide a [filled out standardized tracking documentation developed by Program Administrator(s), with a detailed record of on the job training experiences and prospects of hiring the trainee for official work outside of the training context. Follow up documentation for each trainee hired will be prepared each year to assess long term success of the program].”
- **Discussion, Data or Detailed Analyses:** This completed form would provide information on each trainee's' experience with skills assessments, training, job placement, and next steps after accepting a job offer. For instance whether they continue with advanced training, career advancement, etc.? We recommend follow-up with trainees at least once a year for long term tracking of successes that result from the program.

5.F. Consistent Use of 33% and Defining Trainee Work (Sections 8.10. and 8.11.)

The word “portion” should refer back to the requirements for the Approved Vendors/Illinois Solar for All Certified Installers and specifically say “33%” consistently throughout the Plan to provide quantifiable benchmarks rather than general requirements.

The Working Group developed [alternative wording] for the following sections: Chapter 8, Section 8.10. Coordination with Job Training Programs and Section 8.11. Additional Requirements for Approved Vendors.

- **[Alternative Wording Proposed]:**
 - Chapter 8, Section 8.10. Coordination with Job Training Programs
 - (p 155) “companies participating in this program...shall commit to hiring job trainees for [33%] of their low-income installations”.
 - Chapter 8, Section 8.11. Additional Requirements for Approved Vendors
 - (p 156) “For projects that receive the Low-income distributed generation incentive, a commitment to hire job trainees for [at least 33%] of the projects. [If for every 3 consecutive Solar for All installation projects by an Approved Vendor/Illinois Solar for All Certified Installer, there isn't one project that includes approved participation of a trainee, the Approved Vendor/Illinois Solar

for All Certified Installer must submit a waiver to continue working on Solar For All projects. Work completed by the trainee must fit into 3 categories that are in line with the [NABCEP PV Installer job task analysis](#)¹³ categories:

- Directly Working on the Installation
 - Safeguard against hazards
 - Install raceways
 - Install DC PV system conductors
 - Install AC PV system conductors
 - Install grounding and bonding systems
 - Complete utility interconnection point
 - Install system monitoring, control, and communication hardware
 - Install battery equipment
 - Install ground-mounted structure
 - Install building-mounted system
 - Install PV modules
- System Design
 - Prepare system equipment configuration recommendations
 - Prepare system sizing recommendations
 - Prepare an electrical diagram
 - Prepare structural requirement considerations
- System Commissioning
 - Review or develop commissioning protocol
 - Complete visual and mechanical inspection
 - Conduct mechanical tests
 - Conduct electrical tests
 - Verify system operation
 - Confirm project completion
 - Orient end user to system]

5.G. Illinois Solar for All Certified Installers (Sections 8.10., 8.11., and New Section)

The Approved Vendor program is meant to qualify developers, whether for-profit or non-profit, to reserve REC contracts for projects. These developers may choose to self-perform installation, but many will hire installers to conduct the actual construction of the solar plant. It is these installers, not the developers, that would hire the job trainees that will be coming out of the Illinois Solar for All job training programs. Unless they will hold REC contracts, installers are not, nor should they be, required to participate in the Approved Vendor program.

A certification system ran by the Illinois Solar for All Program Administrator(s) would simplify the low-

¹³ <http://www.nabcep.org/wp-content/uploads/2017/10/NABCEP-PV-Installation-JTA-10-11-17.pdf>

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income solar development process and provide greater transparency to the Illinois Solar for All REC contracting process. Installers would be able to see the qualifications necessary to participate in Solar for All projects and decide to make the investment to qualify for this work. Developers would have a list of installers that are pre-qualified to conduct Illinois Solar for All work. The Agency would be able to more easily administer the Illinois Solar for All REC contracting process because a REC procurement application would designate the Certified Installer. We believe a certification system better meets the intent of 20 ILCS 3855/1-56(b)(2)(A) for “an administrator [to] facilitate partnering the companies that install solar panels with entities that provide solar panel installation job training.” We also believe this one-time certification program could be a simple, easy process, especially for installers with limited or overburdened staff.

The Working Group developed [alternative wording] for the following sections: Chapter 8, Section 8.10. Coordination with Job Training Programs; [NEW SECTION] Chapter 8, Section 8.10.1 Illinois Solar for All Certified Installers; and Chapter 8, Section 8.11 Additional Requirements for Approved Vendors.

- **[Alternative Wording Proposed]:**

- Chapter 8, Section 8.10. Coordination with Job Training Programs

- (p 155) “To ensure that “a portion” of projects use job trainees, the Agency proposes that Approved Vendors who participate in the Illinois Solar for All Program should demonstrate that ~~at least 33% of projects include the use of one or more job trainees from the solar training pipeline program~~[they are, or will use, an Illinois Solar for All Certified Installer]. The Approved Vendors [that will use a Certified installer to complete a Solar for All project] ~~will be required to document the use of job trainees, and to~~ will be required to provide a summary of their work. The Agency will consider requests for waivers of this requirement on a case by case basis if an Approved Vendor can demonstrate that ~~job trainees~~ [Illinois Solar for All Certified Installers] are not available in the area where projects are being installed.

~~The Illinois Solar for All Program Administrator will coordinate with the entities providing job training to maintain a clearinghouse of information that Approved Vendors can use to identify potential job training program graduates to hire.~~

The Agency and its Program Administrator(s) will not run the job training programs, and therefore, the Agency has limited ability to ensure the success of those programs in effectively training new workers. Rather, the Agency will seek to ensure that the Illinois Solar for All Program creates employment opportunities for those new workers [through the Illinois Solar for All Certified Installers program].”

- **NEW SECTION:** Chapter 8, Section 8.10.1 Illinois Solar for All Certified Installers Program

- (p 155) [The Illinois Solar for All Program Administrator(s) will create an Illinois Solar for All Certification in coordination with installers, job training program coordinators, stakeholders, and the Agency. The goal of this program is to define the requirements, application and reporting processes for an installer to qualify for, and maintain, a

certification to perform Illinois Solar for All installations. The minimum qualifications that will be defined for the certification include participation in job training, hiring, and utilization of job trainees. An Illinois Solar for All Certified Installer must commit to using Illinois Solar for All job trainees for at least 33% of the installation projects for any Illinois Solar for All installation.]

- Chapter 8, Section 8.11. Additional Requirements for Approved Vendors.
 - (p 156) “The additional requirements for Illinois Solar for All include:
 - Description of plans for community involvement in projects (where applicable)
 - Plan for inclusion of job training opportunities [or a commitment to use Illinois Solar for All Certified Installers]
 - For projects that receive the Low-income distributed generation incentive, a commitment to ~~hire job trainees~~ [use Illinois Solar for All Certified Installers for] a portion of the projects
 - Coordination with the Program Administrator on income verification
 - Agreement to allow the Agency to review and approve marketing materials geared towards the Illinois Solar for All Program
 - Agreement to ensure additional consumer protections as described in Section 8.14
 - Demonstration that for low-income distributed generation and community solar projects that participants do not have any up-front payments”

6. Environmental Justice Communities

We appreciate the consideration given to defining and serving environmental justice communities and recognize that the Agency has already integrated many of our previous recommendations. Addressing the needs of as many environmental justice communities as possible is of the utmost importance to the Working Group. The comments below are suggested in the spirit of increasing the number of communities served and ensuring that funds allocated to serving environmental justice communities are distributed with long-term impact in mind and in a way that acknowledges and addresses the challenges these communities may face.

Therefore, the Working Group identified the following areas for comment as it relates to environmental justice communities, addressed chronologically to follow the Draft Plan chapters: 6A) Defining Environmental Justice Communities; 6B) Community Designations; 6C) Environmental Justice Communities 25% Goal.

6.A. Defining Environmental Justice Communities (Section 8.15.2)

The Illinois Solar for All Working Group strongly supports the the Illinois Power Agency’s use of a methodology sourced from the CalEnviroScreen approach to mapping environmental justice communities, including the use of federal databases for the key indicators listed for environmental and demographic indicators, which follows from recommendations of the Illinois Commission on

Environmental Justice (“EJ Commission”) submitted to the Agency in May 2017 and subsequent recommendations by the Working Group in July 2017. The Working Group strongly supports the indicators themselves as they line up closely with what is utilized in the CalEnviroScreen methodology and recommend additional indicators and database sources for indicators to augment the designation and mapping process.

The inclusion of minority percentage in the list of demographic indicators is strongly supported by the Working Group as it follows closely the U.S. Environmental Protection Agency definition of “overburdened community” and reflects numerous studies indicating the disproportionate impacts of environmental harm on communities of color. Additionally, we recommend a change from Census tracts to Census blocks in the methodology, as well as a process for testing the model and ongoing evaluation of the mapping process moving forward.

Therefore, the Working Group recommends [alternative wording] for the following section: Chapter 8, Section 8.15.2 Proposed Approach for Defining Environmental Justice Communities.

- **[Alternative Wording Proposed]:**

- (p 165-166) “Individuals over age 64”

[And the following demographic indicators for Sensitive Population Characteristics sourced from the Illinois Department of Public Health (“IDPH”):

- Asthma Emergency Department Visits
- Low Birth Weight Infants

And the following database sources for demographic indicators for Sensitive Population Characteristics sourced from the Illinois Department of Public Health:

- Asthma Emergency Department Visits
- Low Birth Weight Infants

And the following database sources for environmental indicators from the Illinois Environmental Protection Agency (“Illinois EPA”):

- Drinking Water Watch
- Site remediation program
- Leaking Underground Storage Tank Incident Tracking (“LUST”)
- State Response Action Program
- Solid Waste facilities

- **[Alternative Wording Proposed]:** *CHANGE from tract to [block(s)] throughout*

- (p 165) “The Agency proposes to determine Environmental Justice Communities by analyzing data from Illinois Census [blocks] for the following environmental and demographic indicators, as described by the EJ SCREEN Tool:”
- (p 165) “The Agency would then weight each factor using an approach adapted from CalEnviroScreen: Census blocks would be ranked for each environmental and demographic indicator, a resulting percentile score would be found for each [block], and the percentile scores would be averaged, resulting in an environmental and

demographic score for each [block]. The two averages would be multiplied together to determine a score.”

- **Discussion, Data or Detailed Analyses:**

- *On addition of Sensitive Population Characteristics for asthma, low birth weight infants:* As identified in CalEnviro Screen 3.0 Identification Methodology, Illinois should also consider Sensitive Population Characteristics. Asthma Emergency Department Visits and Low Birth Weight Infants should be considered as additional indicators. The IDPH maintains data on asthma and has incorporated it into an interactive map, which can be found here: <http://www.healthcarereportcard.illinois.gov/map>. The IDPH is a member of the EJ Commission and will continue to be a valuable resource concerning the asthma data that it collects. Low birth weight infants data can be pulled from birth records, as well as hospital discharge records. There are some statistics at the county level posted on the IDPH Birth Statistics webpage, under the heading “BirthCharacteristics”: <http://www.dph.illinois.gov/data-statistics/vital-statistics/birth-statistics/more-statistics>
- *On use of census blocks instead of census tracts:* The Draft Plan states that demographic and environmental factors will be evaluated at the census tract level, when USEPA EJ SCREEN utilizes census blocks. The Working Group recommends that demographic and environmental factors be evaluated at the census block level in accordance with USEPA EJ SCREEN measures. The primary rationale for this is that census blocks are the smallest available unit of land for both sets of indicators, and inclusion of data that is aggregated for larger units of land in census tracts may dilute how closely indicators approximate localized environmental justice community impacts for census blocks directly adjacent to census blocks that are less impacted by specific indicators.
- *On the use of Drinking Water Watch as a data source:* The current list of indicators incorporates one drinking water indicator. The Working Group recommends incorporation of the Drinking Water Watch database, which gives access to Water System Facilities, Sample Schedules, Sample Results, Violations, and Enforcement Actions. The database is located at <http://water.epa.state.il.us/dww/index.jsp>. These factors can augment the designation and mapping of environmental justice communities, as well as provide additional context for factors that could contribute to self-designation.
- *Illinois Environmental Protection Agency Bureau of Land database information:* Only one indicator used in EJSCREEN directly concerns remediation activities: proximity to National Priorities List (“NPL”) sites. Illinois EPA’s site remediation database, Leaking Underground Storage Tank Incident Tracking (“LUST”) database and state sites in Illinois EPA’s State Response Action Program are additional sources of information that could augment the designation and mapping of environmental justice communities, as well as provide additional context for factors that could contribute to self-designation by painting a fuller picture of environmental conditions in the state. Additionally, the Illinois EPA issues permits for the management of non-hazardous waste at landfills, transfer stations, compost, and waste storage, treatment, processing, and recovery facilities and that information is accessible via the solid waste database. Solid waste

permit information is another source of information reflective of the relative environmental burden impacting a community.

- The database locations include: www.epa.illinois.gov/topics/cleanup-programs/bol-database/index
- Site remediation: epadata.epa.state.il.us/land/srp/index.asp
- The Leaking Underground Storage Tank Incident Tracking ("LUST") database: www.epa.illinois.gov/topics/cleanup-programs/bol-database/leaking-ust/index
- State sites in IEPA State Response Action Program: epadata.epa.state.il.us/land/ssu/index.asp
- Solid waste: epadata.epa.state.il.us/land/solidwaste/index.asp

6.B. Community Designations (Section 8.15.3)

The Illinois Solar for All Working Group strongly supports the Agency's proposal to post on its website draft maps and data and invite stakeholders to review and comment on the results, as well as utilization of this as an initial opportunity to request self-designation as an Environmental Justice Community, in addition to semi-annual updating of maps to reflect self-designation changes. We also support the Agency's proposal that community boundaries could be changed or expanded to better align with real-world understandings of geographic, cultural, and other factors by residents of the boundaries of environmental justice communities. In addition, the Illinois Solar for All Working Group recommends a sample test of the mapping methodology prior to the commencement of a proceeding run in collaboration between the Agency and the EJ Commission, as well as ongoing evaluation moving forward every two years.

The Working Group developed [\[alternative wording\]](#) for the following section: Chapter 8, Section 8.15.3 Environmental Justice Community Designations.

- [\[Alternative Wording Proposed\]](#):
 - (p 167) "The maps will be updated on a semiannual basis to reflect any additional requests for self-designation." [\[The Agency will run a trial of the proposed methodology listed in the Plan and will share the results of the sample run with the Illinois Commission on Environmental Justice. The Agency and the EJ Commission will collaborate to evaluate the model prior to the commencement of a proceeding in front of the Illinois Commerce Commission. Additionally, the Agency will review the methodology for identification of environmental justice communities every two years in collaboration with the EJ Commission and interested community stakeholders, which is to include a public process where comments are solicited on the model and what additional indicators should be included moving forward.\]](#)
 - (p 167) "This will also provide an initial opportunity for communities to request self-designation as an environmental justice community." [\[Communities requesting self-designation will be able to submit qualitative and quantitative evidence for purposes of describing environmental harms in their communities and subsequent impacts.\]](#)

Communities may include descriptions of personal experiences of environmental harms and/or health and economic consequences by community members, media coverage of relevant situations of environmental harms or impacts, and any other relevant evidence submitted and designated as such by community members of any community requesting self-designation.]

- **Discussion, Data or Detailed Analyses:** The Illinois Solar for All Working Group supports that the Illinois Power Agency run a sample community analysis for a single community using the proposed methodology with the addition of proposed indicators and share the results of such an analysis with the EJ Commission. We strongly recommend that the EJ Commission and the Agency continue to collaborate to refine the methodology for Illinois and determine how the method approximates qualitative understandings of environmental justice communities in the state leading up to the initiation of a case process at the ICC. In addition to the initial proposed feedback process already listed in the Draft Plan, we also strongly recommends that the EJC designations methodology be subject to an evaluation every two years in collaboration with the EJ Commission and interested community stakeholders from EJs to ensure that additional indicators are being incorporated where relevant.

6. C. Environmental Justice Communities 25% Goal (Section 8.15.4)

The Illinois Solar for All Working Group supports allocating 25% of the Agency's annual budget in accordance with the 25% goal per the statute for environmental justice communities for the Low-Income Distributed Generation Incentive, the Low-Income Community Solar Project Initiative, and the Incentives for Non-profits and Public Facilities as specified in the Plan. However, the Illinois Solar for All Working Group also recommends amendment of the structure for reserving such funds as subsequently detailed in order to allow for appropriate capacity-building needed for the process of proposing projects. Additionally, the Illinois Solar for All Working Group supports the prioritization of grassroots education funding for environmental justice communities and recommends further specifications on the meaning of prioritization below.

The Working Group therefore developed the following [alternative wording] to frame these recommendations for the following section: Chapter 8, Section 8.15.4 Environmental Justice Communities 25% Goal.

- **[Alternative Wording Proposed]:**
 - (p 167) "For the Low-income Distributed Generation Incentive, the Low-Income Community Solar Project Initiative, and the Incentives for Non-profits and Public Facilities, the Agency will reserve 25% of each category's annual budget to support projects in environmental justice communities. [In each delivery year 2018, 2019, and 2020 for each of the three aforementioned incentives, the reserved funds will be preserved through the end of the delivery year and rolled over into the budget for the next delivery year until the following delivery year for projects in environmental justice communities. A review of the reallocation process and program years selected will be

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included in the next iteration of plan development in 2019. Beginning with delivery year 2021, the Agency will reserve 25% of each category's annual budget to support projects in environmental justice communities, and if after nine months these reserved funds are remaining and unallocated to projects in environmental justice communities, the funds will be released for use by projects not in environmental justice communities. In all delivery years,] if the funds are fully allocated to projects in environmental justice communities, then subsequent projects in environmental justice communities would still be eligible using the general available budgets."

- (p 167) "The Act also directs the Agency to "allocate up to 5% of the funds available under the Illinois Solar for All Program to community-based groups to assist in grassroots education." As noted in Section 8.8, that funding will be prioritized towards Environmental Justice Communities to help meet this goal. [For the purposes of prioritization, 3% of the funds available under the Illinois Solar for All Program will be directed toward Environmental Justice Communities to help meet this goal. The Agency will utilize results from the Environmental Justice Community Designations (Chapter 8, Section 8.15.3 Environmental Justice Community Designations) of this Plan to identify the communities from which community stakeholders will be prioritized in receiving funds to assist in grassroots education under the prioritized funds. Funds may be used for activities including research in preparation of materials for communities, community meetings or forums hosted to disseminate materials, printing costs, and translation costs of materials for communities requiring materials in languages other than English. The Agency will collaborate with the EJ Commission for technical assistance on best practices to connect communities with the opportunity to engage in grassroots education. The Agency will allocate 1% of the funds available under the Illinois Solar for All Program for grassroots education for each of the first five program years - 2018 through 2022 - such that grassroots education funding be available to community stakeholders for the outset of the program and to prevent early exhaustion of the funds. The Agency will solicit proposals from communities in the first quarter of each program year beginning in 2018 until funds are exhausted. Materials developed for grassroots education under this funding will be made available to members of the public on the Agency's website so that community stakeholders from economically disadvantaged communities throughout Illinois can utilize and adapt these materials for their community's use in grassroots education even if such communities are not direct recipients of grassroots education funds.]"

- **Discussion, Data or Detailed Analyses:**

- *On changes to reservation and reallocation of funds:* The Illinois Solar for All Working Group recommends that reallocation of reserved funds not commence until after the first three program years of the Illinois Solar for All Program, and be accompanied by an evaluation of how the mechanism is functioning as part of the next iteration of the development of the Long-Term Renewable Resources Procurement Plan in 2019. The rationale comes directly from representatives of environmental justice communities

throughout the state who are concerned that rural communities, smaller communities without local organizations working on environmental justice issues, and communities needing to go through the self-identification process prior to submitting projects for reserved funds will need additional time to prepare to submit projects. These communities will also need the opportunity to grow their capacity to manage project submissions and respective partnerships; and take the time needed to vet solar energy concepts, specific project ideas, and respective characteristics with members of their communities. This time will be needed most at the front end of deploying the program.

- *On grassroots education prioritization and selection:* The Illinois Solar for All Working Group recommends specificity around what amount of funds is intended by prioritization of EJ Communities, how such recipients will be identified, how funds can be used, and what process will be used is critical to the function of the education component. The Illinois Solar for All Working Group also supports the recommendation of a timeline and model for the utilization of funds to maximize the ability of community stakeholders to engage in grassroots education for the outset of the program and to prevent funds from being exhausted early in the program period. Additionally, transparency, consistency, and public availability of materials developed for these programs will be key, as this will maximize the use of the money toward grassroots education for the benefit of economically disadvantaged communities throughout the state.

7. Community Solar

Community solar is an exciting aspect of the Adjustable Block Program and Solar for All Program. We appreciate the amount of time and thought the Agency has given this topic in the Draft Plan. Our comments are focused on improvements to enable equitable access to solar and tangible economic benefit for low-income households.

Therefore, the Working Group identified the following areas for comment as it relates to community solar, addressed chronologically to follow the Draft Plan chapters: 7A) Low-Income Community Solar Pilot Projects; 7B) Incentive for 100% Low-income Ownership of Community Solar Projects; 7C) Co-location and Co-location at Brownfields; 7D) Project Expansion (New Section); and 7E) Low-Income Community Solar Project Initiative.

7.A. Low-Income Community Solar Pilot Projects (Sections 2.6.2.4 and 8.6.4)

It is imperative that this pilot project investment maximizes benefits for low-income customers. As currently proposed and in accordance with the requirements for low-income community solar included in the Draft Plan, the lowest REC cost would be achieved by maximizing both the amount of the Power Purchase Agreements with the low-income subscribers (e.g., have them pay 99% of their energy supply charge offset) and the size of the anchor tenant. This would maximize cash flow and, thus financeability,

drive down the REC price necessary to make the project work. The result is low-income subscribers will receive minimal benefit from the project. It is therefore essential to include additional factors in the RFP for this capacity.

The Working Group developed [alternative wording] for the following sections: Chapter 2 Section 2.6.2.4. Low-Income Community Solar Pilot Projects and Chapter 8 Section 8.6.4. Low-Income Community Solar Pilot Projects.

- **[Alternative Wording Proposed]:**
 - Chapter 2 Section 2.6.2.4. Low-Income Community Solar Pilot Projects
 - (p 40) “the low-income community solar pilot project sub-program must be “competitively bid by the Agency,” which the Agency understands to be consistent with the procurement requirements of Section 16-111.5 of the PUA where applicable. [The procurement process should ensure that benefits to low-income customers are maximized through the pilot projects. In addition to cost, request for proposals should consider: benefit to low-income customers, percentage of electric bill savings and energy burden reduction for these customers, coordination with energy efficiency measures and complementary low-income programming, and job training opportunity provided during project installation. These additional request for proposal factors should be weighted as highly as cost to ensure that the benefits of this procurement are maximized for low-income customers.
 - Chapter 8 Section 8.6.4. Low-Income Community Solar Pilot Projects
 - (p 151) “Second, projects “must result in economic benefits for the members of the community in which the project will be located.” ~~The Agency believes that this provision can be partially met by requiring projects to adhere to the same provisions as the Low-Income Community Solar Projects.~~ [To ensure this requirement is met, in addition to cost the request for proposal procurement process will weigh benefits to low-income customers, including percentage of electric bill savings and energy burden reduction for these customers, coordination with energy efficiency measures and complementary low-income programming, and workforce training opportunity provided during project installation. These additional request for proposal factors should be weighted as highly as cost to ensure that the benefits of this procurement are maximized for low-income customers. The application for a Low-Income Community Solar Pilot Project should clearly state the low-income beneficiaries targeted by the project, reasonably estimate and describe tangible economic benefit, the projected number of beneficiaries served, and the yearly dollar value of the benefits per beneficiary. The assumptions (e.g., power pricing, electrical usage of the low-income beneficiary) and calculations used in this determination should be documented.]”
- **Discussion, Data or Detailed Analyses:** Xcel Energy Colorado’s Low-income Community Solar RFP is an example, as detailed on page 71 of a recent settlement agreement.¹⁴

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https://www.dora.state.co.us/pls/efi/efi_p2_v2_demo.show_document?p_dms_document_id=828545&p_session_id=

7.B. Incentive for 100% Low-income Ownership of Community Solar Projects (Section 6.6.2.)

The \$5/REC adder for 100% low-income ownership of community solar projects should be extended to projects that transfer ownership to the low-income residents, not-for-profit organizations, and/or affordable housing owners.

The Working Group developed [alternative wording] for the following section: Chapter 8, Section 6.6.2. Low-Income Community Solar Project Initiative.

- **[Alternative Wording Proposed]:**
 - (p148 and 149) “For projects that can demonstrate that they are 100% owned by low-income subscribers (including not-for-profit organizations, and affordable housing owners), the incentive level will be increased by \$5/REC. Projects where ownership is transferred to low-income subscribers, not-for-profit organizations, or affordable housing owners will receive the adder starting at \$4/REC and being reduced by \$1/REC per year for each year the project has been in operation prior to the ownership transfer. Operation is deemed to begin at energization. The commitment for ownership transfer must be demonstrated at the time the project applies for the REC contract and the adder paid out at the time of the ownership transfer.”
- **Discussion, Data or Detailed Analyses:** Financial modeling shows that for-profit development provides the best return on investment for the REC contracts. However, FEJA directs the Agency to encourage ownership by low-income subscribers, not-for-profit organizations, and affordable housing owners. Consequently, not just development but transfer of ownership to the low-income subscribers, community organization partner and/or affordable housing owners should be encouraged. By providing a sliding incentive that encourages transfer of ownership, the Agency will ensure that the benefits of the low-income community solar project extend beyond the 15 years of the REC contract.

7.C. Co-location and Co-location at Brownfields (Section 7.3.1)

The Agency should preserve the ability to co-locate if it encourages citing partnerships for low-income projects, and /or economies of scale for low-income projects. Furthermore, the Agency should allow limited conditional co-location at brownfields.

The Working Group developed [alternative wording] for the following section: Chapter 7, Section 7.3.1. Co-location Standard.

- **[Alternative Wording Proposed]:** (p 127) “For each parcel of land (as defined by the County the parcel is located in), no more than 2 MW of community renewable generation may be installed. [Up to an additional 2 MW may be co-located if the second project is low-income community

solar. Additionally, the co-location restriction may be waived for brownfields for up to 8 MW of projects, provided that at least one of the proposed projects is a Solar for All community solar project of at least one quarter of the total aggregated MW of the projects and that each no-greater-than 2 MW project, except for the Solar for All project, be owned by non-related parties. The waiver request will be submitted prior to reserving REC contract prices through the ABP or the Solar for All programs for any co-located projects. Such waivers should only be granted where they will further policy goals set forth in the Future Energy Jobs Act, such as returning blighted land to productive use or otherwise promoting the health, safety and welfare of the residents of Illinois. The REC contract on any co-located project(s) will not be paid until the Solar for All portion of the project is energized.]”

- **Discussion, Data or Detailed Analyses:**
 - Projects that are built in and/or serve low-income communities face additional economic barriers, and are predominantly developed by non-profits with limited resources who may not be able to acquire sites as easily as for-profit institutions.
 - One of the goals of FEJA is to “help return blighted or contaminated land to productive use while enhancing public health and the well-being of Illinois residents” (20 ILCS 3855/1-5(8)). For the majority of brownfield sites in the state, the available acreage does not support utility scale projects, the default PV project that will be bid under the brownfield forward procurement, especially if the projected project size of the first forward procurement results is any indication of future utility-scale projects.
 - Brownfield owners often face ongoing remediation efforts, such as cap maintenance, and are acutely aware of the large liabilities associated with environmental impairment. The amount of land that a non-utility scale solar project can occupy (~10 acres for the 2 MWac maximum sized project) and the resulting payment for that land (on the order of \$800 to \$1,200/acre/yr) is not likely to be worth the potential disruptions to the remedial systems, contracting effort, and ongoing inconvenience of a PV project for the brownfield owner. Allowing co-location on brownfields would incentivize the utilization of these smaller but often PV-friendly sites both for developers and brownfield owners. In exchange for the benefits of co-location, the landowner and/or the developers interested in co-location will need to develop, or team with another developer, to construct and operate a Solar for All community solar project. This project must be the first or second project energized at the site. This project can be owned by one (or all) of the co-locating developers. This encourages siting partnerships for low-income projects, and /or economies of scale for low-income projects.

7.D. Project Expansion (New Section)

The Agency should provide a mechanism for project expansion. Project expansions should be conducted in such a way that avoids the situation in which a small project would receive multiple contracts with higher small system adders as the system is expanded.

The Working Group developed [alternative wording] for a new section, possibly located after 7.3.1 Co-location of Projects (p 128).

- **[Alternative Wording Proposed]:** (p 128)

“[7.4 Project Expansion.

As previously noted, the General Assembly expressly included a size limit for community renewable generation projects of 2,000 kW. The General Assembly did not restrict or prohibit the expansion of an existing project, so long as the total project size does not exceed the 2,000 kW maximum. Projects that choose to expand will have the current offered Adjustable Block Program or Solar for All REC price for the new portion of the project set at the total size of the project after the expansion. Furthermore, the REC price for the new contract will be adjusted to correct for any size-based adder that the initial project was paid using the following formula:

REC Contract for the expansion = (Project Expansion Size x CF x REC Price for the total project size) - ((number of REC payments received on original project/number of REC payments total on original contract)* (Initial Project Size x CF x (REC Price at time of initial contract - REC Price for the total project size at the time of the initial contract)))

Where Project Expansion Size is the size of the expansion in kW_{ac} and CF is the capacity factor.]”

- **Discussion, Data, or Detailed Analysis:**
 - There is no prohibition against project expansion in the FEJA. However, there is no mechanism in the Draft Plan to handle expansions. Due to the existing co-location rules, the initial construction of a project could be interpreted to preclude any further solar construction on that parcel. Project expansion is especially pertinent for low-income projects located in Environmental Justice Communities (“EJCs”). In EJCs, suitable land for solar development may be challenging to find. Allowing expansion could help fulfill the goal of encouraging solar development in EJCs.
 - For example, a 0.5 MW_{ac} community solar received an \$80/REC price. At that time, a 2 MW_{ac} project was offered at \$65/REC. At a later date, the project decides to expand up to the maximum 2 MW_{ac}. At the time of the expansion, the 2 MW_{ac} REC is now at \$60/REC. The aforementioned formula reduces the REC payment for the new portion of the project by the \$15 difference that existed between the 2 MW and 0.5 MW REC prices when the original portion of the plant was constructed.

7.E. Low-Income Community Solar Project Initiative (Section 8.6.2.)

It is imperative that the term “community stakeholder” be defined such that project vendors are partnering with stakeholders that have a long standing commitment to community residents and addressing community issues that are identified and defined by residents.

The Working Group developed [alternative wording] for the following section: Chapter 8, Section 8.6.2. Low-Income Community Solar Project.

- **[Alternative Wording Proposed]:**
 1. (p 148) “For the first provision, all Approved Vendors submitting a Low-Income Community Solar Project will need to include in their application a description of a partnership with community stakeholders in the community where the project will be located. While the Act does not define the term “community stakeholders,” primary guidance for this term pursuant to this Act shall be found in the National Community-Based Organization Network (“NCBON”) definition. The NCBON defines a community-based organization as one in which:
 - The majority of the governing body and staff consists of local residents,
 - The main operating offices are in the community,
 - Priority issue areas are identified and defined by residents,
 - Solutions to address priority issues are developed with residents, and
 - Program design, implementation, and evaluation components have residents intimately involved, in leadership positions.”
- **Discussion, Data or Detailed Analyses:** The latter definition of a “Community-Based Organization” from the NCBON serves as the strongest guidance on how to identify what bodies are identified as community stakeholders. Thus, the Draft Plan should change the order to indicate primary guidance from the NCBON definition.

7.F. Determining Income Eligibility - Community Solar (Section 8.13.2.)

The Working Group agrees with the Agency's proposal for a geographic-based eligibility at the census tract level for community solar subscribers. However, there are a few limitations to HUD Qualified Census Tracts to note.

The Working Group developed [alternative wording] for the following section: Chapter 8, Section 8.13.2. Determining Income Eligibility.

- **[Alternative Wording Proposed]:** (p 161) It will be the responsibility of the Approved Vendor to track subscribers and document income eligibility for community solar projects. Approved Vendors will be required to report to the Agency on subscription rates once a year. [If after one year, subscription rates are not at full capacity, the Agency will consider broadening the income verification approach to include those census tracts where at least 50% of the households make <80% AMI.]
- **Discussion, Data and Analysis:**

- HUD QCTS are currently calculated using data from 2010. Internal Elevate research from the American Community Survey shows that from 2010-2014, 10% of IL census tracts experienced a median household income decrease of more than \$10,000. The recent volatility of household income makes a strong argument for using the most current possible data.
- As the Agency noted, Qualified Census Tracts must have 50 percent of households with incomes below 60 percent of the Area Median Gross Income (AMGI) or have a poverty rate of 25 percent or more. Therefore, the QCT definition is stricter than the original statute proposed. If due to this more limited scope, the community solar administrator has difficulty filling the subscriber quota in the first year, Elevate recommends that they revisit using QCTs
- An alternative methodology would be where all households in census tracts qualify where at the least 50 percent of the households make below 80% AMI. In effect, HUD income limits and ACS income brackets data, at the census tract level, should be used to determine the number of households in each tract that fall below the 80% AMI threshold for that area, adjusted for household size. This number should be divided by the total number of households in the tract to give a percentage of households below 80% AMI. Census tracts should then be designated as qualifying or not qualifying at a given density threshold of 80% AMI. For the recommended 50% density eligibility standard, any tract with more than 50% of households at or below 80% AMI would be considered qualifying. Effectively, any census tract with a median household income below 80% AMI for that rental market would qualify and all housing units would be considered affordable. In the attached map, you will see that using this method would increase the number of eligible households by more than 800,000. It also highlights the municipalities that would be impacted the most.
- For community solar projects, the Agency recognizes that transaction costs of proving income eligibility compared to the value of the incentive may be higher than for an installation of a project on-site, and therefore proposes a streamlined income verification approach.
 - A subscriber can be verified as low-income via the same provisions used for the Low-Income Distributed Generation Incentive.
 - A subscriber can be verified as low-income if they reside in a HUD Qualified Census Tract and provide a signed affidavit that they meet the income qualification level.

8. Adjustable Block Program Requirements

The Solar for All Program will be similar to the Adjustable Block Program; administrative burden should be minimized or eliminated for less resourced organizations that want to participate in Solar for All.

8.A. Minimize Administrative Burden for Non-profits (Sections 6.10., 6.14.3., 6.16., and 8.12.)

The Agency declared the Solar for All Program will be similar to the Adjustable Block Program; in the Program Manual for both programs, fees for non-profits should be waived or significantly reduced and administrative burden should be minimized or eliminated for less resourced organizations that want to participate in Solar for All. Importantly, the Solar for All Program will have smaller and less-resourced organizations developing only one or two projects, and who therefore don't have the luxury or ability to manage REC obligations at the portfolio level or batch sizes suggested.

The Working Group developed [alternative wording] for the following sections: Chapter 6, Section 6.10 Program Administrator; Chapter 6, Section 6.14.3 Batch Size; Chapter 6, Section 6.16. Ongoing Performance Requirements; and Chapter 8, Section 8.12. Application Process.

- **[Alternative Wording Proposed]:**
 - Chapter 6, Section 6.10. Program Administrator
 - (p 109) “The Program Administrator will be authorized to charge [and waive] fees to Approved Vendors as described in Section 6.14.4 for processing applications, subject to review by the Agency.”
 - Chapter 6, Section 6.14.3. Batch Size
 - (p 115) “To provide employment opportunities for minority-owned and female-owned business enterprises as specified in Section 1-75(c)(7) of the Act, a minority-owned or female-owned business may request to submit an initial batch of only 50 kW, with any subsequent batches subject to the standard 100 kW (or more) requirement. [In order to ease burdens on entities serving low-income and environmental justice communities through the Illinois Solar for all Program this relaxation on batch size requirements also applies to non-profits and any batch with 100% Illinois Solar for All projects.]”
 - Chapter 6, Section 6.16. Ongoing Performance Requirements
 - (p 119) “REC delivery obligations will be managed at a portfolio level. [In order to ease burdens on entities serving low-income and environmental justice communities through the Illinois Solar for all Program, a relaxation on portfolio requirements also applies to non-profits and any batch with 100% Illinois Solar for All projects.] As projects get completed and energized, each Approved Vendor will therefore have a portfolio of systems with REC delivery obligations from the various contracts that it has with each utility. The obligation to ensure REC delivery will be at the contract level rather than the individual project level. In this way, the natural variation that some systems will produce more RECs than forecast and others fewer RECs will reduce the risk of contract default, compared to project-level contracts, and allow for some ease in contract administration.”
 - Chapter 8, 8.12. Application Process
 - (p 157) “Projects will be submitted by Illinois Solar for All Approved Vendors through the same batch process as the Adjustable Block Program [and subject to the waivers and relaxations to ease burdens on entities serving low-income

and environmental justice communities.”

8.B. Collateral (Section 6.16.1.)

Approved Vendors will post collateral equal to 10% of the total contract value when a batch is approved and the same requirement applies under Solar for All (p 157). This requirement should be significantly reduced for Solar for All projects, especially for non-profits and community based organizations interested in smaller distributed generation projects that maximize benefits for low-income participants.

The Working Group developed [alternative wording] for the following sections: Chapter 6, Section 6.16.1. Credit Requirements.

- **[Alternative Wording Proposed]:**
 - a. (p 120) “An Approved Vendor is required to post collateral equivalent to 10% of the total contract value when each Batch’s contract is approved. [If the Approved Vendor is a non-profit this requirement is eliminated or reduced to 1% of the total contract value.]”

Thank you for the opportunity to provide comments.

Respectfully Submitted,

The Illinois Solar for All Working Group