

Illinois People's Action additional responses raised in the "White Paper" from members of the Illinois Clean Jobs Coalition/Climate Table

Note: Illinois People's Action endorses the White paper and wants to further emphasize three questions brought up in the beginning of the White Paper.

1. Are specific types of community groups/church groups acceptable to meet these criteria?
 - Church and community groups are certainly acceptable for meeting these criteria. In fact, churches are often the last institution that is truly "owned" by the community in low income and environmental justice neighborhoods. They are often attended by neighborhood residents, governed by members of the community and also provide services to those same individuals (e.g. food and clothing pantries, meeting places for community meetings, etc.) Furthermore, we make a distinction between groups controlled by and within the community rather than outside groups that come in and provide services for members of the community. The must be given preference to the latter in all cases.
2. Is the participation of one low-income community member enough?
 - No. One low income community member is NOT enough to qualify as a participant. This would simply be an example of tokenism. It would be way too easy for a city or developer to contact one member of the low income community and check off the box that they have reached out to the community. In order to be meaningful, there should be outreach in the form of community meetings or forums, as well as extensive engagement with community based institutions with deep roots and accountability to the communities they are based in and serve.
3. What counts as meaningful?
 - "Meaningful involvement" means longstanding involvement or standing of low income persons who have decision-making power, authority and accountability within their organization and community. Again, there cannot be tokenism or a phone-call to someone who knows someone who lives in a low income community. Rather meaningful involvement needs to engage existing community organizations and institutions, including places of worship, that are based in low-income communities, governed by members of that community and chartered so as to serve those communities. Partnership with such, community based institutions and organizations must form the foundation of meaningful engagement, to ensure that the widest array of community members are able to have meaningful and significant input on program design and implementation. This partnership must be aimed at ensuring on-bill energy savings for participants, job creation and other tangible benefits for community participants.

Illinois People's Action Responses to Illinois Power Agency's

Request (6 June 2017) for comments on FEJA renewable energy programs

Rather than answering all of the questions individually, we would like to group some questions into those directly or indirectly related to:

(1) Economic benefits and consumer protections (D1, D6, D7, E5, E8, E10-11);

(2) Availability of grassroots education funds (D3, D8, D10, E8);

We would like to place them within legitimate concerns the Illinois Power Agency has expressed about mercenary interests or bad actors undermining low-income solar through consumer fraud, deceptive business practices, aggressive marketing, poorly installed and maintained systems, and financial trip wires, such as subscription deposits, upfront fees, or transfer charges. These concerns were listed in the “Overview of adjustable block programs”, Slides 26, 28-30. We fully share IPA's concerns and believe we have some recommendations that could greatly reduce the chances of business fraud and financial exploitation of poor people.

In a nutshell, our recommendation is for the Agency to rely heavily on Part D, Community Solar Pilot Projects, with the “persons” or sponsors proposing the project to consist of consortia of churches and long-established social service agencies and nonprofits that have a track record of serving low-income communities. The integrity, visibility, and high reputation these institutions have earned in their communities will make recruiting of low-income families into solar projects, much, much easier. If these institutions also serve as anchor tenants with, say, a 20 to 40% share in a project, that will increase confidence further because it will show that the churches have also committed their own money to the enterprise. The best imprimatur a church can provide is to put its own skin in the game.

Next, a consortium could build bigger—projects in excess of 2 MW are conceivable—and, thanks to virtual metering, could ground mount arrays on nearby brownfield sites (which are common in low-income neighborhoods), under or unutilized public land, or on large, flat school rooftops (if protection of panels from theft is a major concern), and so forth. Economies of scale and siting on land with reduced construction costs and low rental charges would drive down costs per kWh thus providing significant benefits for project shareholders through reductions in electricity costs. The single best way to increase low-income recruitment into to community solar, is to provide meaningful economic value, and building bigger and on-the-ground or flat (and more secure) rooftops will help to achieve that goal.

Third, churches, agencies and nonprofits would use grassroots education funds (5% of SfA moneys) to hire, train, and employ low-income residents who will then become the agents who recruit project shareholders. In short, the pilot project salesforce will hail from the very churches and neighborhoods the solar project will serve. Training and work will take place in the neighborhoods where people live thus eliminating the transportation problems that training at more distant locations would involve. What better sales force for a community solar project than a community's residents? As importantly, this approach would provide low-income workers on-the-job experience that would prepare them for moving into solar sales after the completion of their own community solar project.

Construction jobs should not be the only employment target in Solar for All. The solar industry has as many sales workers, project developers, and white-collar workers as construction workers. If the grassroots education component is well designed and implemented, it can provide another job conduit for eventually moving low-income workers into better paid and more meaningful jobs.

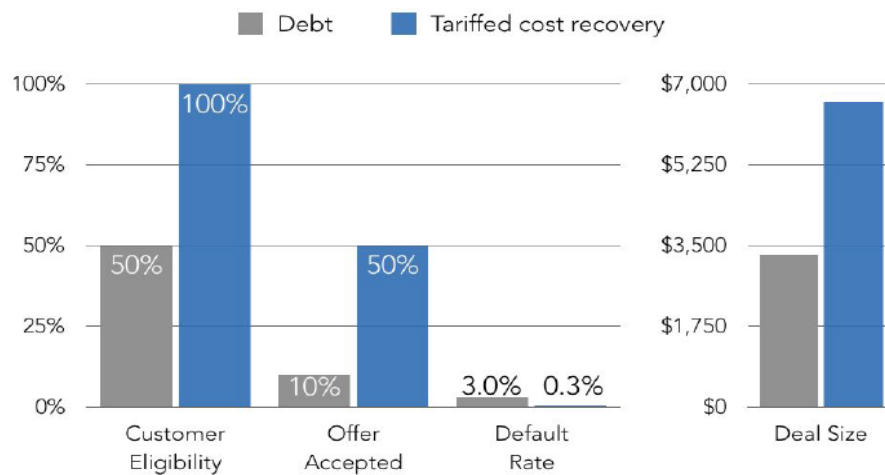
Finally, and perhaps most importantly, the Agency would approve requests for PAYS™, or Pay As You Save, under the provision in Part D Pilot Projects that allows sponsors to propose additional incentives and program modifications. What will make or break Solar for All are the means whereby low-income participants will pay for their shares in a project. This much is clear; if utility on-bill financing is the means chosen, then Solar for All will turn into a failure (see Figure 1).

In contrast to, say, Ameren’s on-bill program which, to reiterate, will almost certainly lead to failure, PAYS™ is an ideal mechanism for collecting solar shareholder payments until a low-income panel owner is free and clear. Under PAYS™, there are no promissory loans, no upfront fees or deposits, and monthly fee collection would be suspended if a solar array malfunctions (*system performance warranty*). PAYS™ would require the total utility bill (electricity charges + panel payments) after the panels are energized to be less than pre-solar bills (*guaranteed savings*). The electricity savings generated by the panels would have to be greater than the monthly charges for purchasing the panels. In short, low-income solar participants would pay less for electricity on day one.

To reiterate, PAYS™ does not require a promissory loan. Instead a monthly tariff is assigned to a utility meter. If a low-income family moves, they could choose to maintain ownership of the panels (*portability*), in which case the monthly tariff and electricity savings would also move to their new Ameren utility meter (assuming the same energy usage at the old and new residence). If they chose to sell, they would be reimbursed for the accumulated value of their investment, with their panels either assigned to a new, low-income resident at their former address, or offered for sale to what would hopefully be a waiting list of low-income families wishing to become shareholders. Again, if there is real economic value for participants in community solar—and real economic value is guaranteed under PAYS™—then churn rates (D7) will be low and manageable.

Our claim that utility on-bill financing will prove a failure in Solar for All grows out of the use of on-bill financing for utility energy efficiency programs as summarized in Figure 1. PAYS™ typically generates about a 50% acceptance rate among those who would benefit from EE work compared to about 10% for conventional on-bill programs. In addition, recipients of PAYS™ tariffs have a significantly lower default rate compared to those with debt-based financing (0.3% compared to 3.0%). Finally, the typical PAYS™ recipient opts for an EE package with a dollar value almost twice as large as one with standard on-bill financing.

Figure 1. Utility On-Bill (debt-based) v. PAYS® Opt-In Tariff
BENEFITS OF INCLUSIVE FINANCING



Source: Clean Energy Works

Source: Farrell & Weinmann. 2015. *Inclusive Financing for Efficiency and Renewable Energy*.

Why does PAYS™ enable more comprehensive EE retrofits, lower default rates and, a 5-fold increase in customer acceptance of retrofit offers? Four major differences are crucial.

- 1) Most utility on-bill programs, such as Ameren’s, exclude renters whereas PAYS™ does not. Renters make up 37% of Bloomington households, for example. This exclusion, if carried over to Solar-for-All, would be troubling because community solar was designed to include renters.
- 2) The financier for Ameren’s on-bill program requires a credit check; PAYS™ does not. Those with lower credit scores—a common problem among the young with high student loan debt and those with limited income—are also excluded. Automatically excluded from a program that would cut their bills and improve their quality of life are people who spend a disproportionate share of their disposable income on utility bills.

As a result of #1 & #2, it is likely that close to one-half of Bloomington households, for example, would not clear Ameren’s on-bill screening hurdles whereas the same excluded households would be eligible for PAYS™ opt-in tariffs. More generally, one must question the extension of consumer credit underwriting criteria to cost recovery for either EE work or purchase of solar shares. It is prudent and fiscally responsible to apply credit checks to unsecured consumer purchases that increase monthly out-of-pocket expenses. *Extension of credit for EE fixes or solar does the exact opposite; PAYS™ reduces monthly out-of-pocket expenses and therefore also reduces the probability of utility bill nonpayment.* The reduction in utility bills that PAYS™ facilitates is no doubt one of the reasons why its default rate is so low.

Table 1. PAYS® Compared to Current Ameren On-Bill Financing

FEATURE	PAYS® (tariff-based)	On-Bill (loan-based)
Eligibility		
Home owner	Yes	Yes
Renter	Yes	No
Credit check	No	Yes
Pass financier’s underwriting criteria	No	Yes
Features of Energy Efficiency Upgrade		
Energy audit details cost-effective upgrades	Yes	Yes
Customer chooses contractor	Yes	Yes
Any upfront costs?	No	No
Savings to exceed cost recovery charges?	Yes¹	??
Charges end if measure fails & not repaired	Yes	??
Financial Terms & Cost Recovery		
Service cost ²	3.0%-4.5%	5.74%
Maximum length of loan (years)	12-15 ³	10
Fixed charge on utility bill	Yes	Yes
Promissory note for debt obligation	No	Yes
Tariff/loan tied to meter / not loanee	Yes	No
Charges end when participant moves	Yes	No
Utility disconnection for nonpayment	Yes	No

¹ PAYS® strives to achieve post-EE utility bills at ≤80% of the cost of pre-EE bills. They also plan on complete cost recovery with 20% of the expected life span still remaining on such items as furnaces, heat pumps, and hot water tanks.

² These are the interest rates for electricity co-ops, such as How\$martKY, that self-finance.

³ As noted, the maximum length of a PAYS[®] tariff is set at 80% of the life expectancy of the EE measures. It appears that Ameren on-bill loans are capped at 10 years, a rule that may limit the range of EE and RE measures that can be covered. Solar panels, for example, have a life expectancy exceeding 25 years.

- 3) Once more, moneys available through Ameren’s on-bill program are defined as unsecured loans that require promissory notes. If a person moves, the loan moves with them even though paid improvements remain behind. In contrast, PAYS[™] is assigned to and remains with the meter for the property that has been improved—in the same manner that a PACE loan is assigned to a property title and not the occupant of the commercial property that is improved through the PACE loan. Some adjustments would be necessary for solar because virtual metering allows portability of shares.
- 4) PAYS[™] projects, as noted, are structured to be cash-flow positive on day 1. Professionally certified energy auditors (BPI, RESNET) identify a suite of EE improvements that will result in cost savings that exceed pre-retrofit bills and with cost recovery completed before the end of an efficiency measure’s life expectancy. Moreover, contractors must be certified by Ameren which ensures high levels of workmanship. Should a particular efficiency application fail, the PAYS[®] recipient is not responsible for paying the tariff until the item is fixed. Like an Energy Saving Performance Contract, PAYS[™] adopts “pay for performance” expectations. This approach can, and should, be adopted for solar.

Features #3 & #4 eliminate major psychological and economic constraints that prevent both homeowners and renters from approving an offer for energy efficiency work or solar panels. Should they have to move, they are not stuck with payment of a promissory note that then benefits someone else. They are guaranteed a utility bill that is lower than what they presently pay, and they can choose a contractor that is utility-certified. In sum, PAYS[™] *creates a streamlined, simplified, non-exploitative process with built in quality assurance*. Some modifications are necessary for solar but the strengths of PAYS[™] would carry over to solar.

We therefore strongly recommend that PAYS[™] be an allowable program modification under the Part D Pilot Project Program.

Some more particulars on grassroots education funds—questions related to these funds:

- D3: Level of subscriber interest required to approve a Community Solar project application;
- D6: Cost of acquiring subscribers;
- D8: Time allowed for Community Solar project development;
- E8: Project developers offering meaningful employment opportunities, career advancement, etc.;
- E11: Consumer protections; and
- E12: Tangible economic benefits.

Providing *upfront* grassroots education funds to the churches, social service agencies, and nonprofits mentioned in the Part D Pilot Project would greatly assist in efforts to recruit low-income project participants because they would be able to train and employ low-income residents to staff a robust education and outreach program. Hopefully, the Agency can prevent a Catch-22 situation because the members of a consortium who would prove most capable in this outreach do not have the resources to do so without receiving money early on.

The trick will be to provide money quickly while also building in early checks to ensure that these moneys are yielding tangible dividends: employment opportunities and successful enrolment numbers in Community Solar projects. The goal should be to achieve a balance between quick delivery of funds to groups engaged in grassroots education and shareholder recruitment along with timely, simple accounting controls that can red-flag projects that are NOT yielding deliverables. As importantly, this approach should lower the cost of acquiring subscribers (D6), have greater sensitivity to protecting consumers (E11), but it will take longer to train and deploy a low-income outreach staff. These projects should therefore be given more time to get off the ground and generate low-income shareholders in projects..

So here is a counter question. Can grassroots education funds be provided *before* a Community Solar project is approved by the Agency, or must these moneys await approval? If the latter, then the Agency is setting up a Catch-22 situation. The very moneys need to achieve project success cannot be made available until *after* success is achieved!

E5: Nonprofit/public facility connection with low-income families or communities?

We recommend a strong connection between public facilities/nonprofits and low-income shareholders and communities. Public facilities solar projects should focus on low-income housing and senior high-rise buildings, and public service buildings (libraries, fire & police stations, etc.) that are located in low-income neighborhoods. Nonprofits and churches that serve as anchor tenants should either have low-income clientele or congregants, or well-developed outreach programs with low-income communities.

However, this rule should be interpreted liberally with exceptions allowed. For example, the YWCA in Bloomington would be considered by many to be a middle class nonprofit. At the same time, it has a robust and comprehensive outreach and social services for poor women, children and the elderly (see http://www.ywcamclean.org/site/c.bsIMI3NHKfK4F/b.8085661/k.262D/What_We_Do.htm). Nonprofits like the YWCA are ideally suited to serve as anchor tenants in a Community Solar project. They also have the contacts and personal relations among many of Bloomington's low-income families to effectively recruit the same into a solar project. Some affluent churches are similarly situated. Anyone familiar with the finances of many of these churches knows that the Pareto Rule holds: 20% of the congregants (sometimes less) contribute 80% or more of church donations. Affluent churches can have a large number or modest income and some low-income families. And some of these churches also have active "community concerns/social justice" committees, a monthly Sunday service plate turned over to social service agencies, and many congregants who do volunteer work with the same agencies. Many so-called affluent churches may also be good choices as anchor tenants in a Community Solar project.

Counter question. Are hybrid financial models combining Adjustable Block + Solar for All participants possible? In other words, can a project combine both low-income *and* modest to high income shareholders in the same project? The Agency power points do not speak to this issue. We recommend such hybrid models *provided that strong, written safeguards are put in place to prevent solar gentrification*. For example, if an anchor has a 20% share, and the balance is split 40-40 between low-income and modest/high income shareholders, then future sales of low-income shares should be restricted to new low-income participants. If this is not done, the percentage of low-income shareholders could drop to 30%, then 20%. We don't want to see low-income representation to decline in successful projects.

With protections in place to prevent solar gentrification, there are at least two major advantages to hybrid financial models:

- 1) Higher assurance of financial stability and fiduciary responsibility. Churches and nonprofits as anchor tenants will not only increase confidence in project integrity, it will also help to ensure beneficial financial outcomes. A hybrid SfA/ABP ownership mix, which would include modest and high income shareholders would help to reduce shareholder turnover (the "churn rate" problem in D6) thus

increasing financial stability. Having a larger percentage of long-term shareholders, along with some actuarially sophisticated investors, is likely to guarantee greater oversight of project management thus ensuring that all shareholders are protected.

This issue has special relevance for churches. Most churches have a range of family incomes. African-American churches with many low-income members will also have a goodly number of modest and some high income congregants. If such a church serves as an anchor tenant in a low-income Community Solar project, does it have to prohibit its modest and high income congregants from holding shares? Such a rule would prove divisive and could undermine or prevent project success.

- 2) Bridging social capital. Social capital is the web of human networks that provides conduits for the movement of a lot of a community's social and economic exchange. For example, the contacts these networks provide help people find jobs and housing, as well as good deals on things to buy. Social capital can be limited to ethnic, religious, occupational, and social class groupings—*bonding social capital*, which has advantages for participants at the same time that it balkanizes communities. Or networks can cut across and combine these social groupings. The latter, *cross-cutting or bridging social capital*, while more difficult to create, also generates benefits for individuals, but has the added advantage of helping to stitch a community together. Bridging social capital is particularly beneficial for minorities, low-income individuals, and other marginalized groups to the extent that they are included in a bridging network. *Hybrid SfA/ABP ownership will create bridging social capital.*

Summary Statement: We therefore recommend hybrid solar projects provided that ICC rules prevent solar gentrification.

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Question B2: Should the IPA develop distinct procurements that target renewable generating technologies beyond wind and solar?

Response: Yes. The Agency should include carbon-neutral biomass, with an emphasis on *Miscanthus x giganteus*, to be used in combined heat and power and biomass-fed power plants. Biomass energy production is more expensive than wind or solar, but it has compensating advantages:

- 1) Biomass can generate electricity 24-7 and can therefore provide power when the sun is not shining and the wind is not blowing—an over hyped issue, but an issue nonetheless.
- 2) Biomass power generation is particularly well suited to the poorest area in the state, Southern Illinois, because: (1) it is outside the Illinois wind belt (until turbines reach a hub height of ≥ 110 meters) and therefore must rely on solar with much lower capacity factors than wind [14-18% for solar versus ~35-38% capacity factors for the latest wind turbines]; (2) Southern Illinois is the best *Miscanthus* area in the state—it will have the highest yields; (3) *Miscanthus* might help to reclaim areas strip mined for coal; (4) It has the potential to create rural employment [pelletizing *Miscanthus*, installing biomass CHP units]; (5) many rural areas in Illinois lack natural gas service and therefore use expensive propane for heating. The life cycle cost of biomass CHP might be cheaper than propane-fired furnaces.
- 3) *Miscanthus*, a +10-foot, C4 grass, is one of the most productive sources of biomass on the planet. It is well suited to Illinois climate and farms. It is a sterile perennial that is productive for 20-years. After two years, it needs no herbicides, requires little or no fertilizer, and can be harvested in January or February when Illinois farmers have free time. It is well suited to the corn-bean planting and harvesting cycle.

- 4) Miscanthus would create another cash crop for farmers who are presently hard pressed financially due to the low prices of corn and beans.
- 5) Miscanthus is a good corridor crop for planting along tributaries that feed city water reservoirs. Miscanthus reduces fertilizer runoff from corn fields and can therefore help to reduce nitrate buildup in reservoirs. Unacceptably high (>10 ppm) nitrate levels are a major problem for Lake Bloomington, for example, and turning Miscanthus into a cash crop would help the city to convince farmers to switch from corn to cash-cropping Miscanthus along the streams that feed the reservoir.
- 6) The University of Illinois is a Miscanthus research center, is using Miscanthus to heat one of its major research greenhouses, and is evaluating the potential use of Miscanthus in the U of I's Abbott Power Plant which provides both heat and power for the campus, and also over half of its greenhouse gases. In sum, the U of I would be a major resource in this endeavor.

We therefore recommend that the Agency contact the Institute for Sustainability, Energy and the Environment (iSEE) at the University of Illinois to explore this possibility. The Miscanthus experts at the U of I are affiliated with iSEE. The Director of iSEE is Evan DeLuca: delucia@uiuc.edu

Miscanthus at maximum biomass topping 11 feet, shown with Emily Doherty for contrast

Photo Illustration courtesy S. Long Lab, University of Illinois, 2006;

<http://www.flickr.com/photos/36691150@N00/461854880/in/set-72157594565510795/>



Illinois People's Action Responses to the Illinois Power Agency
LONG-TERM RENEWABLE RESOURCES PROCUREMENT PLAN

Section E.

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

Response: County level AMI geography will allow for more variation given that the utility service territories are extremely large and contain a lot of income diversity that could be erased or disguised if used instead and given the varying size of municipalities.

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

Response: Individual income verification should be used alongside median-income of census tract data, but the primary consideration for any such guidelines around income eligibility must be ensuring that all low-income households in Illinois are fully able to participate in the Illinois Solar-for-All program. Third-party administrators should be required to hold an open and public process to determine the exact parameters of individual vs. geographic/census tract income eligibility, and held accountable to ensuring access to all low-income families. Wherever possible, enrollment or participation in other 80% AMI or less eligible social assistance programs should be used as an alternate means of income verification to simplify the process, and reduce the administrative burden on potential participants.

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

Response: The REC's should serve as motivation to low to moderate residential participants to utilize community solar, as well as create the structural and economic opportunity for that participation. REC's must not be interpreted by other benefit programs as a monetary taxable income, as this would markedly discourage and impede low-income community members from participating. Renewable Energy Credits ought to serve as motivation especially to residential stakeholders to participate both in individual residence programs, and especially in community owned solar projects.

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

Response: Multi-family buildings should be included provided the majority of tenants meet or fall below overall 80% AMI requirement. Upfront investment costs should be minimized for residents of multi-family buildings, incentives should be structured to reduce project and maintenance costs for affordable housing multi-family units. Multi-family buildings that meet income requirements must be included in all Illinois Solar For All Programs. Additionally, income-eligible rented multi-family buildings that participate in the program must ensure rent restrictions to ensure that “naturally occurring” affordable housing is not eliminated through participation in the program.

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

Response: Eligible non-profit facilities should be defined as community based organizations and facilities that serve, are governed by or in some other way accountable to members of low-income

communities. Examples of organizations that meet these criteria should include houses of worship, which often play an important role in terms of providing social services and are in many parts composed of, governed by and/or accountable to members of the communities they are located in or serve. Community based non-profit organizations that are based in and serve specific low-income communities (defined regionally, demographically or geographically) must also be included, as should social service agencies which can demonstrate that they predominately serve and engage low-income populations. Governance by and accountability to low-income community members who are the intended beneficiaries of the broader program must be emphasized in defining non-profit facilities to ensure full empowerment of participants from low-income communities. Eligible public facilities should be defined as public facilities that predominantly serve low-income communities, either through the direct provision of social services targeted at or largely benefiting low-income communities/population. Broader definitions that include public facilities writ large (for example public universities) without regard to the demographics of the populations and communities they serve, must be rejected to ensure that benefits, RECs and assorted economic benefits accrue to low-income communities who have been historically excluded from the benefits of clean energy.

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

Response: Meaningful partnership and engagement with churches and faith institutions must be a cornerstone of grassroots education in rural areas. In many downstate rural areas, the ONLY institution left in some of the rural communities is the church, with almost everything else being boarded up. While partnerships grassroots education efforts should not exclude other rural community organizations (and should actively include them where possible), rural ILSFA program grassroots education must include robust partnership with rural faith institutions.

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

Response: The Illinois Solar-for-All program must guarantee sufficient time between project approval and commissioning. Every effort should be made to ensure that training program's trainees are taken from the program to assist with projects. As the trainees complete the program, their name goes on a waiting list for a project. When Illinois Solar-for-All funding is used for a project, the contractor must employ trainees (or if the installer is a non-profit, provide free hands-on training). If for any reason a contractor elects not to use trainees, a dollar amount penalty will be deposited back into the training funds.

Flexibility for trainees during the period of training should also include resourcing non-profit organizations to provide transportation if necessary to help trainees get to training sessions at difficult geographical locations. Make-up sessions can be offered to trainees who miss sessions and who are earnestly engaged in becoming employable workers. Much like high schools offer some form of credit repair, some make up sessions should be allowed especially when the "trainer" believes the trainee is earnest in his or her intention. Training programs should theoretically have close proximity to the non-profit organizations/rural grassroots education providing their training.

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

Response: Illinois Power Agency must give priority to projects that commit to using contractors who commit to and actually demonstrate follow through in hiring trainees or community members who need to get into the workforce development pipeline. IPA must ensure that project developers are required to use contractors that pay area living wages needed to support a household of 4, if not higher. Project

developers will have to develop a general hierarchy of graduated job, beginning with graduated unskilled and skilled jobs that start on the simple end and that graduate into more technical and skilled positions, with room for advancement from less skilled jobs to higher skilled jobs.

Question 9. In defining an Environmental Justice Community, how should the IPA weigh factors such as:

- i. **Income,**
- ii. **Race/Ethnicity,**
- iii. **Environmental Impacts,**
- iv. **Regional Economic Conditions, or**
- v. **Other demographic factors?**

What environmental impacts should the IPA prioritize, and what other factors should the IPA consider?

Response: Race/Ethnicity and Lack of Income are particularly important factors in determining exposure to environmental injustice and should be weighted accordingly. Furthermore, consideration should be shown for communities that demonstrate pronounced racial or ethnic disparities in economic outcomes (employment, income, health, etc).

More broadly, we recommend that that the IPA use a subset of the indicators utilized by CalEnviroScreen to assist in defining an Environmental Justice (EJ) community in the State of Illinois. The set of indicators reflects a more inclusive set of indicators reflecting EJ communities. California Environmental Protection Agency (CalEPA) Office of Environmental Health Hazard Assessment (OEHHA) developed CalEnviroScreen, and the tool has been utilized in defining “disadvantaged communities” for the purposes of receiving climate mitigation investment opportunities. US Environmental Protection Agency’s (USEPA) EJ mapping tool, EJ Screen, contains many data sources that mirror the indicators used by California. Combining state databases and federal databases provides the indicator set needed to implement the CalEnviroScreen standard.

We recommend the IPA collaborate closely with the Illinois Commission on Environmental Justice, the IEPA, the IDPH, and the USEPA in both obtaining the necessary indicator data per the recommendations and leveraging mapping capacity to implement the accompanying methodology from CalEnviroScreen and IEPA. We recommend that the IPA utilize additional indicators above and beyond the existing method to more accurately capture both environmental and demographic characteristics of communities, including race.

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

Response: Communities should be able to define themselves if not otherwise defined as Environmental Justice communities by presenting evidence of disparate historical and/or ongoing impacts.

Question 11: What additional consumer protections should be specific to the Illinois Solar-for-All programs above and beyond the consumer protections offered more generally to participants in the Adjustable Block Program?

Response: Consumer protections must include safe installation of solar panels, contracts, answers to preliminary questions, finding out your local utilities policies on integrating and connecting solar (Access), the Interstate Renewable Energy Council’s (IREC’s) Bill of Rights, and other protections that have not manifested themselves in this relatively new and uncharted industry. Adjustable Block programs or ABP will also help the Consumer protection dimension because it will provide a transparent schedule of prices and quantities to enable the photovoltaic market to scale up and for REC prices to adjust at a predictable rate over time. The prices set by the ABP can be reflected as a set value or as the

product of a formula. The ABP will include for each category of eligible projects: a schedule of standard block purchase prices to be offered; a series of steps, with associated nameplate capacity and purchase prices that adjust from step to step; and automatic opening of the next step as soon as the nameplate capacity and available purchase prices for an open step are fully committed or reserved.

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

Response: Tangible economic benefits flow directly to program participants” must mean that community members see tangible on-bill and job creation benefits that emanate from participating in ISFA programs. This must mean that program participation leads to positive cash flow and/or bill reduction to community based participants. Rule-making should consider the incorporation of upfront payments as appropriate to ensure accessibility to low-income participants, but should prioritize stable, long-term benefits.