

M E M O R A N D U M

TO: Indianapolis Power & Light Company Community Solar Program

FROM: Joint Community Solar Commenters

RE: 2019 IPL Local Green Power Advisory Committee Design Factors Worksheet

DATE: March 22, 2019

The Citizens Action Coalition, Earth Charter Indiana, Englewood Community Development Corporation, Environmental Law & Policy Center (ELPC), Greater Indianapolis Branch and Coalition partners (Tilliman Harpole American Legion Post, First Baptist Church North, Flanner House, Holy Angels Catholic Church, Ignite Achievement Academy, & Indiana Guide Right Foundation), Hoosier Interfaith Power and Light, Indiana Distributed Energy Alliance (IndianaDG), Solar United Neighbors of Indiana, and Sierra Club (collectively, “Joint Commenters”) envision a healthier, more equitable, and more prosperous energy future. Each of these organizations advocates for that vision by sharing its unique perspective or expertise when the opportunity arises.

The Joint Commenters appreciate IPL’s commitment to work in good faith with the Local Green Power Advisory Committee to develop a community solar pilot program. Continued price declines in solar energy are opening major new opportunities, and shared renewable energy projects, like community solar, represent a critical means of expanding access to renewable energy to more Americans. Through this potential community solar pilot project, IPL has the opportunity to realize tremendous benefits for its customers and to demonstrate regional leadership to its shareholders. The Joint Commenters are grateful for the chance to offer practical input that IPL can use to improve the potential insights from this project, while maximizing any potential benefits. Together we hope to help lay a foundation for a better and brighter future in Indianapolis.

1. **Design Factors**

At the initial February 22, 2019 meeting of the Local Green Power Advisory Committee, IPL shared a “design factor” worksheet and solicited feedback from stakeholders to help inform the development of draft pilot proposal options to be discussed at a subsequent meeting. Although not exhaustive, IPL’s design factor worksheet does a good job identifying several key questions related to the design of a community solar project. However, there are several additional design factors and goals that must be discussed in future meetings. Perhaps most importantly, the Joint Commenters recommend that IPL design its pilot program to help facilitate broad access by all types of IPL customers, including IPL’s low and moderate-income customers that have a strong interest in controlling their energy costs while also promoting a cleaner energy future. The Joint Commenters also recommend additional discussion around the methodology for determining subscriber bill credits to ensure that the program delivers tangible economic benefits from day one, as opposed to being designed as a “premium” product that is only attractive to wealthy customers or first adopters.

For any pilot project to achieve success, it must be designed with sensible goals, parameters, and learning objectives in mind, and implementation of the project must adhere to those key principles. Through these comments, the Joint Commenters hope to build consensus with IPL on the identified design values. In formulating these comments, the Joint Commenters drew on their individual experience as well as expert policy and best practices resources developed by organizations with significant national experience such as the Interstate Renewable Energy Council (“IREC”) and Vote Solar. These resources include the documents titled: (1) “A Checklist for Voluntary Utility-Led Community Solar Programs;” (2) “Inclusive Solar Finance Framework;” and (3) “Community Solar Works for Low-Income Communities.” The Joint Commenters have attached these resources to these comments for IPL’s consideration during these stakeholder proceedings.

The Joint Commenters have varying levels of experience with community solar policy, but look forward to further discussion with IPL and other stakeholders to develop a pilot project in Indianapolis that best advances local needs. Our initial design factor recommendations are included below. They are intended to identify issues for further conversation in future Advisory Committee meetings and do not represent the final position of any individual organization on any given design factor.

* 1. **Subscription**

*IPL Description: How subscribers participate in the program*

*Joint Commenter Recommendation: Flat rate ($/block/month)*

IPL has identified two subscription options for participation in the potential community solar project: a “flat rate” and a “variable rate.” The Joint Commenters take “flat rate” to mean a charge that is the same in all cases. Within the context of this potential community solar pilot project, each kilowatt-hour would presumably be charged at a pre-priced rate for a predefined term length. The Joint Advocates take “variable rate” to mean the opposite of a “flat rate”—a charge varying in proportion to something. Within the context of this potential pilot, the rate per kilowatt-hour would presumably be tied to market fluctuations and energy needs, meaning the rate linked to participating in the program could change each month. While either rate option can generate savings depending on the circumstances of the market, the Joint Commenters recommend a flat rate for this potential pilot. While variable rates can save customers money in an energy market where prices are falling, they may not be the best choice for customers with low risk tolerances since a spike in energy costs one month could potentially damage a subscriber’s finances. By contrast, flat rates provide consistency and reliability. Subscribers to the project would not be surprised by a sudden upswing in energy prices. This is especially appealing for those who want to avoid financial risk. Minimizing any kind of uncertainty through a flat rate would therefore be likely to make the product more attractive to low- and moderate-income customers, expanding the pool of interested subscribers. Expanding market access to a diverse pool of subscribers would better help IPL to determine the appeal and scalability of shared solar programs. In addition, this renewable energy product may be the first one some subscribers ever engage with. Properly setting expectations upfront should help to maintain positive perceptions of the program.

 In its most recent Local Green Power Advisory Committee meeting, IPL estimated that subscribers may be charged a premium of $1-12 a month for participation in the pilot. Lack of access to the capital or credit necessary to participate in a renewable energy system has traditionally been a barrier to renewable energy access for many customer classes, particularly members of low-income communities. This is reflected by the results of the surveys IPL conducted for its 2017 Local Green Power meetings, which indicated that customers were interested in community solar but were not interested in paying a premium for participation. As a result, upfront subscriptions that are at a premium do not meet best practices requirements for projects seeking to expand market access. The Joint Commenters therefore encourage IPL to find an alternative solution to its proposed premium fee. More discussion is needed regarding IPL’s approach to ensure that development costs are competitive and costs to subscribers are minimized. One alternative might be to site the project strategically in order to further reduce the anticipated costs of the pilot, eliminating any need for a premium.

* 1. **Customer Monthly Credit**

*IPL Description: Credits that are generated for the solar energy produced by a subscriber’s assigned portion of the solar facility each month*

*Joint Commenter Recommendation: Either a fixed or variable credit*

 During the 2017 Local Green Power meetings, customer surveys indicated that interest in solar is primarily driven by saving money. Deciding how to credit the benefits of participation in a shared renewable energy program is therefore critical in developing a successful project.

Customers should receive the fair valuation of the energy produced by the system, and that should be reflected by the savings subscribers receive. In order to achieve this goal, customers ideally should receive credits reflecting the full value of their interest in a shared renewable energy project. As indicated by IPL’s presentation materials during the last Local Green Power meeting, this value should account for the full range of benefits the new generation source provides to the utility, including the value of avoided transmission and distribution costs (such as system infrastructure costs and avoided line losses) as well as the capacity value of distributed solar. Bill credits should not be limited to traditional “avoided cost” calculations that reflect embedded system-wide costs for IPL’s existing generation fleet. Although sometimes more difficult to calculate, some programs and projects are considering including other elements in renewable energy valuation, such as avoided carbon dioxide emissions and associated costs, as well as improved security and resiliency in the face of natural disasters or acts of terrorism.

IPL has identified two monthly credit options for potential subscribers: a “fixed credit” and a “variable credit.” The Joint Commenters take “fixed credit” to mean a credit that maintains the same monetary value for the all kilowatt-hours produced each month. By contrast, the Joint Commenters take “variable credit” to mean a credit that varies for each kilowatt-hour, based on factors such as supply and demand, temperature, and weather conditions. Either option is acceptable so long as it reflects the full value of the project. The best option is one which reflects full value and maximizes customer savings. IPL should also consider managing the billing and crediting process to provide a seamless on-bill experience for customers that would ideally result in tangible economic benefits and bill savings from day one.

Joint Commenters recognize the trade-off between in-depth analysis and getting a program off the ground. It may make sense to identify a proxy value for the shared renewable energy project that can be applied while a longer-term cost-benefit study is undertaken.

In order to make the project more attractive to participants, subscribers should receive tangible economic benefits on their utility bills. By providing credits on participating customers’ utility bills, shared renewable energy programs offer a clear, intuitive way for customers to see the savings from their participation. The Joint Commenters recommend that credits for net excess generation be rolled over to the subscriber’s next bill in order to help spur continued interest through regular savings.

* 1. **Eligible Customers**

*IPL Description: Criteria to be a subscriber in the program*

*Joint Commenter Recommendation: IPL customer of any class*

As renewable energy becomes increasingly cost-competitive with traditional electricity sources, more Americans are turning to renewable sources to meet their energy needs. While hundreds of thousands of home and business owners across the country have already invested in renewable energy, the majority of residential and commercial energy consumers cannot install renewable energy systems on their own property.[[1]](#footnote-1) This may be because these consumers do not have adequate or appropriate roof area, because they rent, or due to some other reason.

In the end, for whatever reason, the majority of energy customers are currently unable to invest in renewable energy generation, despite their desire to green their energy supply.[[2]](#footnote-2) Shared renewables programs can allow customers to access a market that is currently underserved but potentially quite large. For example, if just five percent of U.S. households were to invest in five-kilowatt (kW) interest in a shared solar system—the size of a typical residential rooftop solar installation—it would result in over 28 gigawatts (GW) of additional solar capacity, equivalent to the output of over 50 coal-burning power plants.[[3]](#footnote-3)

There are good reasons to allow larger commercial customers to participate in community solar projects as “anchor tenants,” however it is important to pursue a diverse customer subscription base that is inclusive and representative of all of IPL’s customers, whether large or small, or rich or poor. For example, it is our understanding that up to half of IPL’s residential customers are not homeowners. In general, these customers likely move more frequently and have less available capital than average homeowners do. It is important to design the project with the characteristics of these customers in mind so that they are encouraged to participate. This potential pilot project presents an opportunity for IPL to explore this largely untapped market segment. By allowing customers of any class to participate, IPL can gain deeper insight into how appealing and scalable a potential community solar program could be. By enhancing access to renewable energy, particularly to low-income communities who have been traditionally left behind, IPL can help to expand the market for renewable energy products. By enhancing access to renewable energy, particularly to low-income communities who have been traditionally left behind, IPL can help to expand the market for renewable energy products.

At previous Local Green Power stakeholder meetings, attendees expressed an interest in seeing a diverse range of customers counted into the project. Outside of providing the data-based benefits identified above, participation by a diverse class of customers can help to lay a foundation for addressing environmental equity issues traditionally faced by low-income communities and communities of color. IPL can leverage this pilot as an opportunity to partner with community-based organizations on outreach and education efforts, allowing for increased engagement with low-income customers.

* 1. **Customer Participation Limit**

*IPL Description: The amount of a customer’s average usage that can be subscribed to the program*

*Joint Commenter Recommendation: 100% of average usage*

 At the most recent Local Green Power Stakeholder meeting, IPL mentioned that it was considering customer participation limits in order to ensure that multiple subscribers can benefit from the program. The Joint Commenters support such an idea to the extent that it ensures participation by a diverse range of customers for the reasons outlined above. Customers should be able to fully subscribe into the project, however, in order to fully realize the benefits of the project. The Joint Commenters support a program design that would enable subscribers to select the amount of their average usage, up to 100%, that they would like to offset through their subscription to the project.

In order to ensure that project subscriptions are representative of IPL’s customer base, IPL can create carve-outs in the project to serve different customer classes. For example, commercial and industrial customers may be limited to 40% of the project capacity, while residential customers can subscribe in the remaining 60% of capacity. Allowing an anchor tenant or tenants to subscribe in the project could help to lower the project costs for other participants, maximizing their savings from the project. As a pilot, this opportunity can help IPL to hone its insight on previously unexplored subscription models.

* 1. **Minimum Term**

*IPL Description: Identifies a minimum contract length for the subscriber*

*Joint Commenter Recommendation: No minimum contract length*

 At the 2017 Local Green Power meetings, customer surveys indicated that long commitment terms are a barrier to customer participation. Most of the customers surveyed preferred a commitment term of one year, with respondents drawing comparisons to other retail subscriptions, like cell phone contracts and Netflix memberships. Two to three year program terms were deal-breakers for many participants, and renters were particularly adverse to commitments longer than a year. Based on the data, IPL can attract greater participation by keeping the minimum contract term as short as possible. If the pilot program is designed well, it should be able to gain enough popularity for IPL to create a subscriber waiting list, allowing for even shorter commitments from participants. The Joint Commenters support further discussion of design elements such as specific cancellation windows in order to address administrative burden and customer acquisition uncertainty associated with shorter minimum terms.

* 1. **Subscription Transfers**

*IPL Description: Subscription management if a customer moves out of the service territory*

*Joint Commenter Recommendation: IPL manages*

As mentioned above, interested participants may include renters, or others who may need to move on short notice. Some potential subscribers may be hesitant to participate because of an anticipated need to modify or discontinue their participation in the project. Participants should therefore be provided as much flexibility as possible in this regard, allowing for both “portability” and “transferability” of remaining subscription terms. “Portability” refers to allowing participants to keep their subscription in the project if they move within the project’s service territory. “Transferability” refers to allowing participants to transfer their subscription in the project to another energy consumer within the project’s service territory if the participant moves outside of said territory. Portability and transferability pose some level of administrative burden. Given its administrative experience, IPL may be in the best position to handle subscription transfers.

* 1. **Unsubscribed Blocks**

*IPL Description: Treatment of unsubscribed blocks in the program*

*Joint Commenter Recommendation: IPL covers*

 Diversifying IPL’s generation mix to include a higher percentage of solar power would provide significant benefits to IPL and its customers. Generation not consumed by the program’s participants should simply become part of IPL’s generation mix to benefit all of its customers. These customers would benefit from a more diverse load, reduced line losses, additional capacity value, avoided transmission and distribution line investments, etc. In addition, having IPL cover unsubscribed blocks simplifies administration of the project.

* 1. **Ownership**

*IPL Description: Who will own the solar facility?*

*Joint Commenter Recommendation: Third-Party owned or IPL owned*

The best ownership structure is one which maximizes benefits for project participants.

Over the long term, the most successful and sustainable programs will likely be based on a robust third-party community solar market with a range of choices for potential subscribers rather than just one utility-sponsored choice.

In the short term, however, given that various components of shared renewable energy programs necessitate a formal program structure (*i.e.,* program design; marketing and consumer sign up; facility maintenance; utility interface; participant changes, etc.), IPL may be in the best position to manage this initial pilot project. Beyond this pilot, the market should allow for third-party ownership. Regardless of who owns this project, it should be competitively bid for construction to keep costs as low as possible. To the extent that IPL intends to own this initial pilot project, the Joint Commenters design recommendations regarding equity and access become even more important. A utility-owned community solar project must provide access to all of the utility’s customers, not just a subset of the customers with means to purchase a premium product.

* 1. **System Size**

*IPL Description: How large of a facility to build for a pilot project?*

*Joint Commenter Recommendation: Other*

A properly sized system is one which meets the identified needs and preferences of its stakeholders and subscribers. Given the imminent reduction in federal tax incentives, the economies of scale related to larger projects, and the popularity of well-designed community solar programs, the Joint Commenters urge IPL to consider an initial project of at least 5-10 MW in size. However, IPL may consider dividing the overall program capacity into several smaller locations that are more visible to the public (i.e. on public facilities) and/or in strategic locations that can result in grid benefits as a non-wires alternative. Given that customer surveys have indicated savings are the primary basis for interest in solar, the Company should keep overall costs in mind as a primary factor in choosing the size and location of the project.

* 1. **Location of Solar Array**

*IPL Description: Where should the facility be located?*

*Joint Commenter Recommendation: No preference among the options listed (Available IPL land/Brownfield site/In Indianapolis); ideally there is a site which falls within all of these categories*

The ability to site shared renewable energy facilities in diverse range of locations opens the door to multiple worthwhile opportunities. For the purposes of expanding consumer access however, preference should be given to whichever site lowers the overall project cost most. Strategic siting and savings from lower construction costs can eliminate the need for a premium, expanding the customer base for the project. The Joint Commenters urge IPL to engage in further conversation with community groups to identify locations that may have multiple benefits, such as redevelopment of urban brownfields or job training opportunities.

* 1. **Program Length**

*IPL Description: The amount of time a subscriber can receive benefits from the program*

*Joint Commenter Recommendation: 25 years (Asset Life)*

 There should not be any barrier to participation so long as long as a customer remains interested in participating in the program.

* 1. **Additional Comments/Questions/Thoughts**
1. IPL Should Prioritize Broad Access and Equity

As discussed throughout these comments, IPL should consider customer access and equity in every design factor choice. This should be a primary consideration in the design of this project. The Joint Commenters will not consider this pilot project a success if large segments of IPL’s customer base are unable to participate.

1. IPL Should Establish a Process for Project Evaluation and Improvement

In order for the project to achieve its intended outcomes, there must be a process for regular program evaluation, assessment, and adjustment in conjunction with interested stakeholders. The program evaluation process should include, at minimum: an assessment of available capacity; the opportunity for additional capacity to meet customer demand; the customer value proposition; the current subscriber mix; and the effectiveness of marketing, education, and outreach strategies. Interested stakeholders should be called on to engage in the evaluation process to add input on the direction and parameters of the project. IPL should also initiate regular customer outreach and engagement about the program in order to determine how to best meet customer needs and how to make the project as attractive to subscribers as possible.

1. IPL Should Retire RECs on Behalf of Customers

The Joint Commenters propose that IPL retire the project’s RECs on behalf of its subscribers. Doing so would address customer interest in clean energy, allowing subscribers to claim the benefits of renewable energy production. It would also relieve any administrative burden related to REC transfers.

1. **Conclusion**

The Joint Commenters view this memorandum as a high-level starting point for discussion on how to best maximize the potential benefits of this project. The group looks forward to seeing IPL’s draft pilot proposal options and will continue to coordinate with IPL whenever the opportunity for stakeholder input arises.

Respectfully submitted,

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1. Interstate Renewable Energy Council, Model Rules for Shared Renewable Energy Programs 2 (2013), *available at* http://www.irecusa.org/wp-content/uploads/2013/06/IREC-Model-Rules-for-Shared-Renewable-Energy-Programs-2013.pdf [↑](#footnote-ref-1)
2. *Id.* at 3. [↑](#footnote-ref-2)
3. *Id.* [↑](#footnote-ref-3)