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# Comments on Behalf of the Coalition for Community Solar Access

## I. Introduction

The Coalition for Community Solar Access (CCSA) appreciates the ongoing efforts of the Illinois Power Agency (Agency) to carry out the requirements of the Future Energy Jobs Act and the incredible amount of work it has put into the Draft Long-Term Renewable Resources Plan (Draft Plan).

CCSA is a business-led trade organization, comprised of over 40 member companies, that works to expand access to clean, local, affordable energy nationwide through community solar. Our mission is to empower energy consumers, including renters, homeowners, businesses and households of all socio-economic levels, by increasing their access to reliable clean energy. CCSA, in partnership with a thriving network of non-profits, affiliate trade associations, and allied stakeholders, serves as the central voice for the community solar industry in developing vibrant and sustainable markets for community solar. CCSA members are active nationwide and we have been actively engaged in the informal Illinois stakeholder process to date, having submitted initial written input on June 27, 2017.

The Draft Plan is well structured and provides a reasonable path toward creating a competitive solar industry in the state. That said, there are several areas that require modification to provide a successful platform for community solar development as envisioned by the legislature and stakeholders. CCSA respectfully provides the following feedback on the Draft Plan, based on members' extensive experience working in other states and participating in a diverse array of policymaking efforts. CCSA's feedback is organized into three categories: 1) elements in the Draft Plan that CCSA supports, 2) recommended changes to better reflect the realities of community solar project development and customer engagement, and 3) areas of the Draft Plan that need further clarification.

## II. Elements that CCSA Supports

CCSA members support the following elements, many of which are consistent with CCSA's Initial Comments provided to the Agency on June 27:

- The general program structure, including the Approved Vendor process for community solar providers to participate in the program;

- The project development timelines and process to request extensions;
- The runway provided for community solar providers to continue to onboard subscribers after the project is energized (i.e. the proposal that 50% of the capacity of a project must be subscribed at the time of energization in order to receive payment for renewable energy credits (RECs));
- The flexibility for subscribers to participate in Community Solar projects across their service territory; and
- The Requirement that Adjustable Block applications include demonstration of: site control, interconnection agreement, non-ministerial permits.

## III. Critical Program Changes Needed

The following section provides CCSA's recommendations for changes to the Draft Plan to better reflect project development costs and application process changes that could streamline or enhance the program's viability.

### 1. REC Value Assumptions

CCSA understands community solar is a complex and rapidly evolving business model. As the industry association representing the vast majority of businesses involved in the community solar ecosystem, we offer the following input to further refine the REC Pricing Model and its underlying assumptions. CCSA supports the comments[1] that have already been filed by the Solar Energy Industries Association (SEIA), the Illinois Solar Energy Association and CCSA, which are focused on the Adjustable Block REC Pricing Model. The following section is simply intended to reiterate several important aspects from those comments and provide a few additional caveats.

#### *i. Residential Net Metering Values*

The Residential Net Metering credit should be based on a utility's fixed default supply rate, which already contains capacity. Including capacity as a separate line item amounts to double counting within the Model so these values should be removed. The Commission also ruled on September 27, in Docket 17-0305 that ComEd customers should not receive the transmission value in the Community Supply credit, which are currently included in the Model. Additionally, small commercial customers could be included in with the residential net metering values, as they are typically on the same rate. CCSA recommends the Agency work closely with each utility in developing the current and forecasted net metering values to ensure the assumptions associated with REC valuation as well as the mechanics of the crediting process are as accurate as possible.

#### *ii. Commercial and Industrial (C&I) Net Metering Values*

[1] SEIA. "Comments on the Draft LTRRPP for Public Comment on Behalf of the Solar Energy Industries

The C&I credit used in the Draft Plan appears to be based on a small commercial customer that is able to take a fixed default rate. If so, this assumption is incorrect, and the model must be revised to differentiate between small and large Commercial and Industrial (C&I) customers. Large C&I customers do not have a fixed default rate - their default is the hourly rate. Further, many take service from an ARES. In either case, the customer's energy rate is typically close to the wholesale LMP, which is significantly lower than the rates for small customers on default service. C&I customers on the hourly default rate do not receive a capacity or transmission credit.

To model the credit for large C&I customers, the Draft Plan should match the average production of a system to the historic (or future, if available) hourly energy price to determine the average rate that these customers will receive. CCSA recommends that the Hourly LMP (based on data that can be obtained from PJM and MISO) is the best proxy for the bill credit value that would actually be received by a large C&I customer. Again, CCSA recommends the Agency work closely with each utility in developing the current and forecasted net metering values to ensure the assumptions associated with REC valuation as well as the mechanics of the crediting process are as accurate as possible.

*iii. System Costs*

The inputs used for system costs on the NREL Benchmarking Study appear to be from Q1 2016 (updated to reflect 2018 costs) and seem to generally be somewhat high. CCSA recommends using updated figures from the 2017 NREL report, which was only just released in September.[2]

CCSA notes two important caveats regarding these cost assumptions. The NREL Benchmark report relies on California NEM Interconnection Applications Data Set for its cost assumptions for interconnection. Because California processes so many interconnections, the utilities' interconnection processes are much more streamlined and the state's grid, much more robust. The input used, $46,000 for a 2MW project, would be extremely optimistic for Illinois.

In addition, under Operations and Maintenance in the CREST Inputs tab, the REC Pricing Model does not include lease payments or property taxes. Under the CREST inputs tab, the Select Level of Detail field should be switched from a Simple O&M scenario to an Intermediate, and include some level of taxes and lease payments, as recommended by SEIA's comments.

Finally, CCSA agrees with the Agency's assumption of a slightly higher debt service coverage ratio (DSCR) for community solar projects compared to standard distributed generation (DG) projects. There is a higher level of risk associated with community solar

[2] See https://www.nrel.gov/docs/fy17osti/68925.pdf.

projects, though the specific rate can range widely based on the given project and subscription profile. Similarly, community solar projects with significant residential and small commercial customers require a higher internal rate of return (IRR), which should also be reflected in the model.

*iv. ITC Eligibility*

It appears that the REC Pricing Model includes 100% of system costs as eligible for the Federal Investment Tax Credit (ITC). It is important to note that interconnection costs are not eligible for the ITC. It is unclear whether the Model tried to subtract these out elsewhere but, if not, interconnection costs should not be considered eligible for the ITC.

*v. Community Solar Administrative Costs*

The REC Pricing Model assumes $4.98/MWh for administrative costs associated with community solar projects that are 500 kW to 2,000 kW in size. In general, community solar administrative costs include a combination of upfront (one-time) customer acquisition costs, in addition to ongoing (year-over-year) costs to account for customer replacement and customer management and billing costs. It is difficult to land on a firm value for these costs given the range of project sizes and diverse sophistication levels of the respective project managers. These costs will also be impacted by the number and profile of subscribing customers. While the Agency proposes a REC "adder" (discussed more in Section 2) for administrative costs involved with projects that have 50% or more of their capacity allocated to residential subscribers, it does not mean that *all* other projects will be 2 MW in size and each have only three commercial or industrial subscribers (i.e., the minimum requirement of each community solar project).

A 2 MW project with only three large subscribers will face minimal administrative costs, potentially lower than the $4.98/MWh estimate assumed by the Agency. Though, it would remain critical that the Agency assume a savings to participating customers (as highlighted below in Section 1.vi), particularly given these larger rate classes are receiving hourly energy credit rates that are nearly half the value received by default residential and small commercial customers. CCSA is hesitant to recommend a much lower value for this base cost assumption since it is intended to capture such a wide range of project sizes and subscription profiles (e.g., smaller than 2 MW and with dozens of subscribers). For now, CCSA recommends the Draft Plan provide more clarity into the assumptions behind this input in the REC Pricing Model.

*vi. Subscriber Savings*

The REC Pricing Model does not appear to assume any subscriber savings, which is critical to a successful community solar business model, as it is to any successful solar business model. Developers must be capable of offering a reasonable value proposition to participating customers in order for the market to scale and ultimately achieve the established REC targets. It is not realistic to assume that a customer's entire net

metering credit value will be passed through to the project as revenue. Surveys have demonstrated that the primary driver of customer interest in solar generation – whether it be onsite or through community solar – is to reduce their energy costs and save money.[3] Therefore, the REC Pricing Model must incorporate subscriber cost savings.

CCSA supports SEIA's recommendation of a 20% assumed customer savings based on the net metering credit value. In other words, The Agency can incorporate this savings into the model by simply reducing the expected credit rate by 20%. Without making some assumption based on customer savings, the market will be hard pressed to achieve the mandated REC procurement levels.

**2. Residential Adder**

In its current form, the Draft Plan does not adequately address the legislative requirement of SB 2814 to "ensure robust participation opportunities for residential and small commercial customers" in community renewable energy projects.[4] As a result, CCSA believes the Draft Plan would not only come up short in achieving this policy mandate, but also potentially marginalize the majority of the state's residents and businesses.[5] Section 6.5.2 of the Draft Plan proposes there be a $7.89/REC adder for a community solar project with 50% or more of its subscriptions allocated to residential customers and an adder of $11.83/REC for one with 75% or more. This REC adder mechanism provides no assurance that developers will actually market to residential customers, particularly at the amounts proposed. Further, the Draft Plan does not include a provision intended to encourage participation by small commercial customers, as required by statute.

CCSA noted in its Initial Comments that the only way to truly ensure participation opportunities for residential and small commercial customers is to require a project-specific carveout. Specifically, CCSA's recommendation was to require at least 25% of every project be allocated to customers that receive subscriptions of 25 kW or less. It is a model that has been demonstrated to work in other markets, such as Massachusetts,

[3] Shelton Grp & SEPA. (2016)
What the Community Solar Customer Wants. Found here: https://sheltongrp.com/insights/what-the-community-solar-customer-wants/.
[4] Senate Bill 2814. Sec. 1-75(c)(1)(K). Pgs. 101-102.
[5] Residential customers (not including small commercial) make up about 90% of the IOU customers and 30% of their capacity (EIA-861 (2015)). Further, the U.S. Department of Energy (DOE/NREL 2015) estimates that about 50% of households and businesses are unable to host a PV system due to property constraints. GTM Research (2015) further estimates that 77% of U.S. households are locked out of the onsite rooftop market when accounting for policy and financial considerations.

where there are now well over 100 Megawatts of "community shared solar," defined as projects with at least 50% of their capacity allocated to subscriptions of 25 kW or less.[6]

With that said, CCSA understands that different companies in the community solar space have different business models, and that if the Draft Plan mandates a per-project small customer carveout approach, it may unintentionally discourage participation by some market entrants that are not as focused on the residential segment.

CCSA believes that an adder approach *could* work if it was designed appropriately, with a goal to incentivize and motivate developer engagement of those market segments. As such, should the Agency continue to pursue an adder-based approach to encourage residential and small commercial participation in community solar, CCSA urges several changes to the amounts and structures of these adders to meet legislative requirements and create a community solar program that can be accessed by a wider array of the state's residents.

*i. The Agency should set a goal for small customer participation in line with the legislative direction to achieve "robust participation opportunities".*

Given the legislative directive to address the "robust participation opportunities" for residential and small commercial customers, and the importance of ensuring these customers benefit from state energy programs, the Agency should define what "robust participation opportunities" means. Defining this term and setting a participation goal will enable the Agency to objectively evaluate its progress in meeting the legislative requirement.

CCSA suggests the Agency could define "participation opportunity" as either actual residential and small commercial subscription levels in the program or confirmed applications for REC adders associated with projects incorporating those customers. An "opportunity" only exists if the customers themselves are actual targets of a developer's marketing and customer acquisition strategy, and these criteria - subscription uptake or developer applications for REC adders - would be objective and easy for the Program Administrator to track.

Furthermore, CCSA recommends establishing a goal of achieving at least 40% residential and small commercial participation within the Adjustable Block Program. This level is supported by the fact that residential and small commercial customers account for nearly 45% of the combined load for ComEd and Ameren, and over 95% of the actual

[6] As of the end of August 2017, there were 97 projects in 54 towns totaling 136 MW. See http://www.mass.gov/eea/docs/doer/rps-aps/solar-carve-out-ii-qualified-units.xlsx.

customers.[7] Establishing a goal would help the Agency in making REC adder adjustments based on high or low response rates to meeting the mandate for a "robust" result. Absent a goal, the Agency would have no yardstick or guidance for evaluating this important aspect of the program.

*ii. The Draft Plan assumptions regarding residential interest are incorrect.*

In section 7.6.1, the Draft Plan provides its rationale for using an adder approach to facilitating small customer participation, stating "the Act refers to "robust participation **opportunities**" for small customers, and does not mandate robust participation."[8] As CCSA noted in its initial comments, the market will naturally gravitate toward lower cost, larger customers if mechanisms are not in place to facilitate smaller customer acquisition. In other words, there will not be participation opportunities if developers opt to not solicit those customers. As it stands, there is no assurance of robust opportunities being available in the Draft Plan.

The Draft Plan further points to Minnesota to imply that there may not be much interest on the part of residential customers: "The level of interest in community renewable generation is still unknown, and it is possible that the interest and uptake of subscriptions may be stronger from commercial customers. Experience to date from Minnesota has shown that 89% of community solar garden sales have been to commercial customers..."[9] This presumption is not accurate. Many national studies have shown that residential customers are interested in participating in rooftop[10] and community solar. For example, a survey by the Smart Electric Power Alliance (SEPA) found that 47% of residential customers were interested in community solar after being provided with basic information about it.[11]

In light of the evidence of significant residential customer interest in community solar, Minnesota provides a good example of community solar providers not having the right market signals to market to residential customers, rather than residential customers not being interested. As a result, the Minnesota PUC is considering proposals to provide an additional adder to incentivize community solar developers to pursue residential customers.[12]

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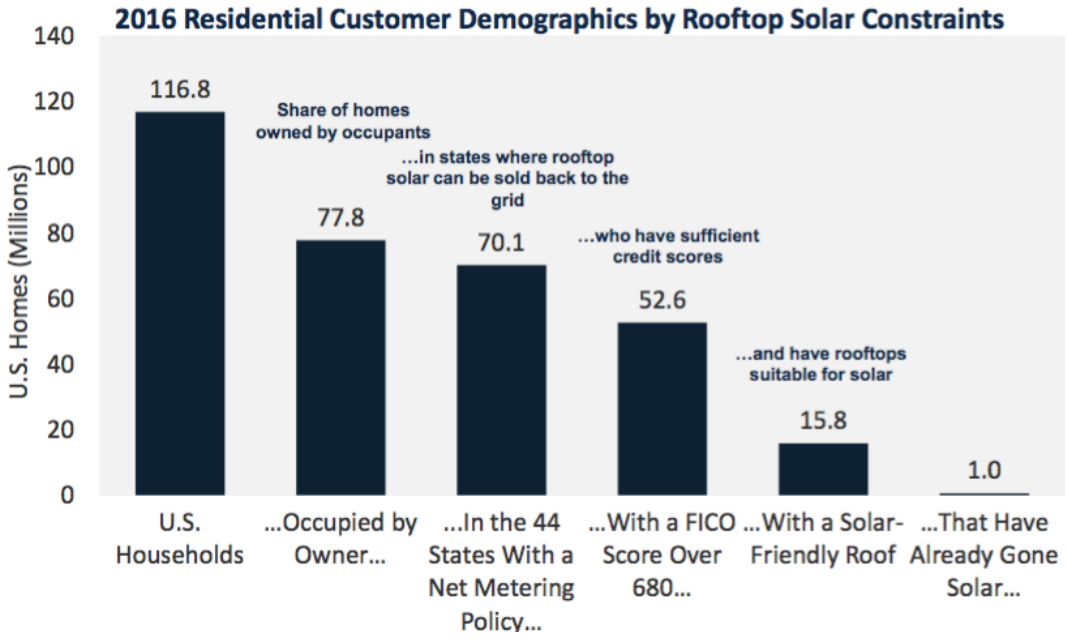
[7] Illinois Switching Statistics. Based on July 2015 data for ComEd and Ameren residential customers and non-residential customers of 100 kW or less in size.
[8] Draft Plan at 130.
[9] Draft Plan at 131.
[10] SEIA. The residential sector has been and is projected to continue to be the second largest solar development segment – below utility-scale solar, but above commercial solar – in the country.
[11] Smart Electric Power Alliance, "What the Community Solar Customer Wants," available at https://sepapower.org/resource/what-the-community-solar-customer-wants/.
[12] http://www.renewableenergyworld.com/ugc/articles/2017/09/18/residential-subscribers-in-focus-as-minnesota-weighs-community-solar-incentives.html.

Moreover, the majority of residences in the U.S. cannot install solar on their property, despite their interest. The following graphic from GTM shows that the addressable residential market for community solar (U.S. Households) is more than 7 times larger than rooftop solar (…with a solar friendly roof).[13] Similar challenges exist for the commercial market as well.




CCSA agrees with the Draft Plan's assertion that Illinois has many corporations with sustainability commitments; however, it would be remiss to downplay the participation interest of residential and small commercial customers.

*iii. The proposed adder levels underestimate actual costs.*

It is unclear what specific data points and assumptions were used in the Draft Plan to develop both the base-level Community Solar Administration Costs of $4.98/REC as well as the residential adder values of $7.89 and $11.83. Appendix D of the Draft Plan references comments submitted by Elevate Energy,[14] which based its analysis of community solar costs on model runs using the Community Solar Business Case Tool.[15] While this tool is elaborate and could be useful for developing scenarios, there are several default input values that undermine the market reality of administrative costs associated with community solar projects, particularly those that incorporate residential

[13] *See* Greentech Media U.S. Community Solar Market Outlook, June 2015.
[14] https://www.illinois.gov/sites/ipa/Documents/Elevate-Energy-L-RRPP-Request-Comments-20170714-Updated.pdf.
[15] http://www.elevateenergy.org/community-solar/communitysolarbusinesscasetool/.

and small commercial subscriptions. For example, when adjusting the "Illinois-specific tool[16]" to calculate costs associated with a 2 MW-dc project that has 50% of its capacity subscribed by smaller (~5 kW) subscriptions at a "moderate" acquisition difficulty setting, the tool appears to suggest total upfront costs in year 1 (e.g., marketing, customer acquisition, and other) will be about $0.05/Watt, and total ongoing costs accumulated between years 2-25 (e.g., administrative billing, etc.) will be $0.24/W. Again, it is unclear whether the Agency used these direct assumptions or even Elevate's tool, and whether they made other assumptions regarding duration (e.g., 15 years as opposed to 25 years) or the use of a discount rate. Regardless, the end result in both the tool's output and in the Agency's REC value of $12.87/MWh[17] is that neither correctly addresses the cost of a large community solar project with half of its capacity allocated to numerous smaller-sized subscriptions.

CCSA recommends looking to an analysis by Sustainable Energy Advantage (SEA) in consultancy for the Rhode Island Office of Energy Resources (OER) on cost assumptions for community solar.[18] Specifically, SEA surveyed the industry to ascertain the community solar administrative costs associated with projects that allocate at least 50% of their capacity to subscription sizes of 25 kW or less. They found that the upfront (one time) customer acquisition costs associated with these projects are about $0.25/W[19] and that the ongoing (annual) costs associated with customer replacement is $0.02/W/year, and the ongoing (annual) cost of customer management and billing is about $0.01/W/year.[20] Based on its survey of the industry, SEA highlights that educating, signing up, and retaining – including billing functions – potentially hundreds of customers requires substantial effort, and that most developers hire 3rd-party lead generation and experience a conversion rate on prospects of 5%-10%.[21]

In the simplest comparison, the Rhode Island analysis suggests the administrative costs of community solar for projects incorporating significant levels of residential and/or small commercial customers is multiple times higher than the cost assumed in Elevate's tool. This is more consistent with the minimum costs experienced in the market, though

[16] https://www.elevateenergy.org/wp/wp-content/uploads/Illinois-Community-Solar-Business-Case-Tool.xlsm.

[17] Calculated as the sum of the base community solar admin cost of $4.98/MWh plus the $7.89/MWh adder.

[18] SEA. (2016) Rhode Island Renewable Energy Growth Program: 2017 2nd Draft Ceiling Price Recommendations. Found at: http://sos.ri.gov/documents/publicinfo/omdocs/minutes/6154/2016/49211.pdf.

[19] As a point of comparison, NREL finds customer acquisition costs for residential rooftop (i.e., non-community) solar projects to be between $0.29-0.42/W. https://www.nrel.gov/docs/fy17osti/68925.pdf

[20] Note that the REG program uses a 20-year contract duration for community solar projects, and that legislation limits the premium paid for community solar to no more than 15% above the costs of a similarly sized non-community solar project.

[21] This is a simple back of envelope calculation and does not assume a discount rate. Also note that these values are in direct current (DC).

as discussed in the next section, covering the minimum costs will not necessarily drive sufficient developer interest.

*iv. The Agency must set adder levels sufficient to trigger a market response to pursue residential and small commercial participation.*

Simply covering the base administrative and customer acquisition costs for this sector will not adequately drive developers to pursue residential and small commercial customer participation. Beyond considering what is reasonable for recovering costs associated with projects that incorporate significant levels of residential and/or small commercial customers, the Agency should also be considering what is needed to actually attract developers into targeting those market segments. When all costs are equal, developers are more likely to take the path of least resistance and partner with a handful of commercial customers rather than solicit hundreds of smaller-sized customers.

The Draft Plan includes the following observation of the Minnesota market: "Experience to date from Minnesota has shown that 89% of community solar garden sales have been to commercial customers (although state-specific program design parameters may also be a driver of the residential versus commercial interest)."[22] Minnesota is an interesting case study because projects that applied into the program prior to 2017 (which is nearly the entire reserved market capacity) are able to leverage credit rates for a duration of 25 years, that for residential customers are about $0.03 higher than the rates applied to large commercial customers. Yet, that higher rate has failed to drive more balance in market participation. This is more a testament to project developers seeking the lowest hanging fruit rather than a lack of residential interest in community solar. The adders proposed in Illinois, paid over 15 years and only at $0.01-0.02/kWh, would drive even less developer engagement to incorporate residential and small commercial customers in their projects and would not meet the "robust" participation standard required by the enabling legislation.[23]

There are additional market examples that may help in determining the tipping point for driving developer interest - and therefore participation opportunities - for residential and small commercial customers. In Massachusetts, where "community shared solar" is defined as projects with at least 50% of their capacity allocated to subscriptions of 25 kW or less, the SREC II program provided an additional value of about $0.08/kWh to projects over a 10-year period and has proven very successful.[24] In the successor

[22] Draft Plan at 131.

[23] Senate Bill 2814. Sec. 1-75(c)(1)(K). Pgs. 101-102.

[24] The $0.08/kWh is derived by taking an SREC Factor for a community shared solar project at a factor of 1.0 and comparing it to an SREC factor of 0.7 for a single-C&I off-taker VNEM project (which are only

program in MA (which has not yet launched, the Solar Massachusetts Renewable Target (SMART) Program) includes a $0.05/kWh REC adder payment for community shared solar to be paid over 20 years.[25] In New York, Orange and Rockland Utilities provides residential customers in community solar projects with an incremental credit value (defined as a "market transition credit") of $0.09/kWh over 25 years and small commercial customers receive $0.06/kWh.[26] The Orange and Rockland Utilities program does not yet have results to analyze; however, it is anticipated to drive strong interest by developers to pursue residential and small commercial customers.

While program designs and requirements vary, CCSA hopes the information provided here will help the Agency in determining a reasonable adder value for not only covering the administrative costs of community solar but also driving developer interest and ultimately participation opportunities for more customers.

*v. The adder should be applied to residential and to small commercial customers who subscribe to shares of 25 kW or less, and should include an additional lower threshold.*

SB 2814 clearly states that robust participation opportunities should be made available to residential customers and small commercial customers. The costs of serving small commercial customers are similar to those of residential customers and the small commercial customer market is similarly underserved by on-site solar due to siting[27] and credit quality issues. Small commercial customers have also shown interest in community solar in other states.

The Draft Plan notes that, "While small commercial customers were little discussed in comments or at the workshop, the Agency considers that it would be infeasible to mandate minimum levels of residential customers only without also considering small commercial subscribers."[28] CCSA finds this first sentiment – "that small commercial customers were little discussed" – to be misleading if not incorrect, as evidenced by numerous comment submissions.[29] Further, the Draft Plan's second assertion that a mandate would somehow preclude small commercial customers is inconsistent with

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eligible for the Managed Growth category). The SREC II price is ~$270, and a factor difference of .3 equals ~$80/MWh. See http://www.srectrade.com/srec_markets/massachusetts for SREC pricing information and http://www.mass.gov/eea/energy-utilities-clean-tech/renewable-energy/solar/rps-solar-carve-out-2/current-status-solar-carve-out-ii.html for information on the Solar Carve-Out II (SREC II) program.

[25] https://www.mass.gov/files/documents/2017/10/02/225cmr20.pdf.

[26] Orange and Rockland Utilities. Case 15-E-0751. Value Stack Compliance Filing. https://www2.dps.ny.gov/ETS/search/searchSubmissionID.cfm?sub_id=2794113.

[27] U.S. Department of Energy (DOE/NREL 2015) estimates that about 50% households and businesses are unable to host a PV system due to property constraints.

[28] Draft Plan at 130-131.

[29] *See, e.g.,* CCSA Initial Comments at 17, ELPC Initial Comments at 10, EDF/CUB/RHA Initial Comments at 2, SEIA Initial Comments at 30.

CCSA's previous comments[30] recommending at least 25% of every project be allocated to "customers that receive shares of 25 kW or less," rather than delineating one rate class over another.

CCSA maintains our recommendation to leverage subscription size, rather than customer class, as the criteria for establishing eligibility in meeting the REC adder requirements. Twenty-five kW has become the standard for several markets including Massachusetts, New York, and Rhode Island. This level makes sense, in large part because anything much larger than 25 kW could result in projects not acquiring enough customers – and therefore not incurring enough cost – to justify the need for a REC adder. In Illinois, small commercial customers are generally defined as those that are 100 kW or less in ComEd territory and 150 kW or less in Ameren territory. However, based on available data for at least Ameren, it appears small commercial customers of 25 kW or less far outweigh small commercial customers of larger sizes.[31] In addition, nothing should prevent small commercial customers that are larger than 25 kW from obtaining a subscription at that level.

Separately, the Draft Plan should include an adder at a lower threshold for projects that attain 25% small customer participation. This could be the equivalent of signing up 100 small customers with 5 kW shares each or 20 small customers with shares of 25 kW in a 2 MW project. The level of effort required for community solar providers to reach these levels of small customer subscribers is significant and should be incentivized.

In summary, community solar represents an option for expanding the benefits of distributed generation to all types of customers and the Agency has been tasked through legislation to ensure this opportunity is not missed in the program. CCSA stresses that getting this aspect right from the start will avoid a situation where adjustment needs are not identified until after the category capacity has already been allocated to projects with primarily only C&I customers.

### 3. REC accounting for subscribed shares

In Section 6.15.4., the Draft Plan notes that "The calculation of the number of RECs for payment will be updated after one year of operation to allow for the acquisition of additional subscribers."[32]

[30] https://www.illinois.gov/sites/ipa/Documents/CCSA-comments-LTRRPP-design-6-27-17.pdf.
[31] See the Switching Statistics for Ameren customers, broken down by residential and non-residential load sizes.
[32] Draft Plan at 118.

Because REC payments are made for subscribed shares only and only 50% of shares are required to be subscribed at energization, community solar providers will be able to make up that additional 50% following the project start date. It is unclear from the Plan how RECs for those subscribers that are added after energization will be treated. If subscribers are not accounted for on a pro rata basis during that first year, it could essentially amount to a forfeiture of up to three-years worth of RECs for those subscribers. CCSA recommends the same draft language proposed by SEIA in its comments.

*Proposed Language (Section 6.15.4):*
The Approved Vendor will update the subscription levels on a monthly basis over the first year. The final subscription level in those monthly updates will determine the second payment, which will include an *additional* proportionate amount of the first year payment the corresponds to the filled subscription level over 50%. If the system is not fully subscribed after the first year, the Approved Vendor will continue to update the subscription levels on a monthly basis, and additional prorated REC payments will be made with the third REC payment. ~~The calculation of the number of RECs for payment will be updated after one year of operation to allow for the acquisition of additional subscribers.~~

And

The Approved Vendor will update the residential participation percentage on a monthly basis, and future payments will include the adder in the payment for past months, as described above. ~~If the residential subscription rate is met, then the full value of the adder will be added pro-rata to the remaining payments~~.

### 4. Siting and Property Requirements

As noted in CCSA's Initial Comments, locating projects near one another can be a valuable tool that allows project developers to achieve lower costs for community solar subscribers. While the statute is explicit about setting the size of community solar at 2MW, the statute did not contemplate how they may be sited. CCSA mirrors the comments put forth by SEIA on this issue.

There are real benefits to limited co-location. First and foremost, co-location helps to lower some risks inherent in project development. Currently, REC prices are based on certain assumptions, including the cost of interconnection. Most projects will not have completed the interconnection process by the time the Long Term Plan is finalized, or even by the time the REC prices are updated. Even then, interconnection costs (and other costs) are estimates. Developers will strive to develop projects where they expect costs to be equal to or lower than the assumptions in the REC model in order to make the project pencil, but it takes time to determine those locations, and community solar projects will likely trigger distribution upgrades, particularly in areas where there may

not have been distribution investment for many years. For the foreseeable future, some level of co-location will help project economics and allow the initial phase of projects to succeed. Furthermore, limited co-location will help communities that have limited number of sites available for development. Particularly in urban areas, there may be only one or two parcels that are suitable for development.

CCSA recognizes the desire of both the legislature and the IPA to encourage a geographically diverse program, limit gaming of the system and limit the possibility of one developer leasing multiple contiguous parcels and selling them to different entities in order to get around the co-location standard. For instance, there is a real risk to projects if the Long Term Plan imposes restrictions based simply on a gross number of projects or megawatts without considering project ownership. At this early stage of the program, developers (and ultimately the financiers who will likely be project owners) have little knowledge of the exact location of where other developers (and ultimately owners) are developing projects. CCSA speculates that the possibility of more than 4 MW of contiguous projects is unlikely, both because of landowner limitations, and of interconnection limitations. Nonetheless, there may be situations where one project under development is close to another and the project developers will not be aware of the each other until well into the development process. Even then, it is not a foregone conclusion that both developers will be able to successfully develop their projects. Therefore, adjacent ownership should not be unfairly targeted.

CCSA respectfully suggests that co-location should be limited by the Approved Vendor that is submitting the application to the Adjustable Block Program. In most cases a developer that does not intend to be the long-term owner of the asset will have to apply to the ABP before selling the project. Limiting the Approved Vendor to two projects in one location (on a single parcel or contiguous parcels) will limit the possibility of development on contiguous parcels beyond what the recommendation that CCSA proposes below would allow. CCSA submits the following co-location standard and suggest the IPA examines the issue in the first revision of the Plan.

*Proposed language (Section 7.3.1 Co-location Standard):*

- With respect to this Section, "Contiguous" means touching along a boundary or a point. For example, parcels touching along a boundary are contiguous, as are parcels that meet only at a corner. Parcels, however near to each other, that are separated by a third parcel and do not touch along a boundary or a point, are not contiguous. "Affiliate" means, with respect to any entity, any other entity that, directly, or indirectly through one or more intermediaries, controls, is controlled by, or is under common control with each other or a third entity. "Control" means the possession, directly or indirectly, of the power to direct the management and policies of an entity, whether through the ownership of voting securities, by contract, or otherwise.
- ~~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.~~

- No Approved Vendor may apply for the Adjustable Block Program for more than 4 MW of Community Solar projects on the same or contiguous parcels. These projects may be co-located in one of two ways. Either a) two 2-MW projects on one parcel, or b) one 2-MW project on each of two contiguous parcels.
    - A parcel of land may not have been divided into multiple parcels in the two years prior to the project application (for the Adjustable Block Program), or bid (for competitive procurements) in order to circumvent this policy. If a parcel has been divided within that time period, the requirement will apply to the boundaries of the larger parcel prior to its division.
- If there are multiple projects owned by a single entity (or, ~~non-separate~~ affiliated entities) located on one parcel of land, or on contiguous parcels of land, any size-based adders will be based on the total size of the projects on each parcel that are owned by the entity(ies).
- ~~Projects owned by separate entities may be located on contiguous parcels.~~ If there is a naturally good location from an interconnection standpoint, one owner should not be allowed to prevent another owner from developing a project in that location.
- ~~For projects located on contiguous parcels, if the total combined size of the projects is greater than 2 MW, then the projects must be owned by separate entities.~~
- Projects must have separate interconnection points.

**5. Consumer Protection**

Consumer education and engagement is absolutely critical to building a successful market. Any negative press or anecdotes about community solar hurt the entire market, which is why CCSA has included consumer protection among our core principles and require members to adopt the SEIA Solar Business Code.[33] CCSA supports consumer protection measures that are right-sized to foster a healthy, competitive and reliable market. Because CCSA is not aware of any major consumer protection problems in other states, the most logical approach is one focused on customer education.

CCSA acknowledges the consumer protection challenges that retail suppliers have created for states but it is crucial to note several important differences between retail suppliers and community solar providers. Community solar providers engage in long-term relationships with their customers—because integrated billing options do not exist, community solar providers need to continually interact with customers. If customers are well educated up-front and understand the terms of their contract, it greatly reduces the number of questions and complaints that providers need to field, lowering customer management costs for providers. Moreover, providers need to keep

[33] Available at: https://www.seia.org/initiatives/seia-solar-business-code.

customers happy to ensure that the project continues to remain subscribed. There are also a finite number of customers, subscribing to a single project. This fact alone implies a smaller risk than that posed by the retail supply market. Additionally, community solar projects represent real, long-term assets that have inherent value, unlike retail suppliers that are speculating on energy futures. And finally, there is no threat of electricity shut-off as a result of non-payment of community solar subscription fees. These characteristics should be kept in mind when determining how to balance consumer protection with innovation and administrative efficiency.

In Section 7.6.2, the Draft Plan identifies the federal and state statutes that already apply to community solar. The plan notes, "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."[34] Regardless of how these laws are enforced, providers must still comply with them and build them into their business models. Rather than adding additional mechanisms to essentially carry out the role of these existing laws, CCSA recommends that consumer protection be focused on customer education and disclosure.

As noted in CCSA's Initial Comments, a standard disclosure checklist allows subscribers to review subscriber agreements and, in the process, educate themselves about the aspects of participation in community solar that they should understand. CCSA has found that this is a good approach – it specifies the information that should be provided to customers without overregulating or being overly burdensome for providers.

In a similar vein, customer disclosures should focus on information that customers need to know in their contract, rather than extraneous information about the project. For example, while some customers may like to know the long-term maintenance plan for the project, that type of information is typically not of interest or use to most customers. Overloading customers with numerous disclosures may risk drowning out the important information that consumers need to know about the financial arrangements of their contract. To serve the purpose of customer education, a standard disclosure should be simple, easy to understand, and only contain information that is relevant to the customer.

Moreover, most or all of these disclosures are typically addressed in customer contracts but the Draft Plan is unclear as to how these disclosures would be made. The Draft Plan references Maryland's rules in regard to this list of disclosures but there is an important distinction to be made between Maryland's rules and the language in the Draft Plan. Maryland's rules require these items to be included in customer contracts (they are called "Minimum Contract Requirements") whereas the Draft Plan refers to them as disclosures. Further, Maryland regulations stipulate the use of a simple Contract

[34] Draft Plan at 133.

Disclosure Summary form, which in essence serves as a contract cover page, highlighting the important financial details of the customer's contract. CCSA supports this concept and is in the process of developing a sample Standard Disclosure Form that is very similar to the form that has been developed by the ratepayer advocate's office in Maryland.

Finally, regarding the consumer protection requirements in the Sections 6.13 and 7.6.2 of the Draft Plan, it is unclear which requirements will apply to community solar. In particular, the draft plan notes that Section 6.13 requirements apply to community solar, "to the extent applicable," which is somewhat vague at this point. CCSA is particularly opposed to any provision that requires community solar providers to use standardized or pre-approved contracts with customers. Community solar business models can vary widely. The industry is still new and continuing to refine and innovate new options for customers. Requiring standard or pre-approved contracts would have a significant negative impact on innovation and Illinois customers. Moreover, contracts are private agreements between customers and community solar providers. It is not appropriate, nor within the purview of the Agency, to require the use of preapproved or standard contracts. It is also important to consider the enormous administrative burden the Agency would be placing on the Program Administrator by requiring such an undertaking. The time it takes to analyze potentially hundreds of different contracts and their revisions on an ongoing basis would be an unfortunate and unnecessary waste of program funding. As such, CCSA recommends removing any reference to standard or preapproved contracts.

**6. Agency's discretionary RECs**

In Section 6.3 the Draft Plan proposes that the 25% of RECs that are left to the Agency's discretion will be evenly allocated across the three categories. Because the demand for different programs is currently unknown, the Agency should take an approach that would be more responsive to market forces and drivers. CCSA recommends reserving the unallocated 25% of RECs in this first Draft Plan. This approach will allow the Agency to observe the market's development and adjust the programs accordingly to ensure they are being shaped in response to customer demand and economics of Illinois' energy market. This approach both serves consumers participating in the solar programs, and ratepayers in general.

*Proposed language (Section 6.3, p. 94):*

Within each group, the blocks will be divided by the allocations specified in Section 1-75(c)(1)(K) of the Act, which are 25% for systems up to 10 kW, 25% for systems greater than 10 kW and up to 2,000 kW, 25% for photovoltaic community renewable generation, and 25% to be allocated by the Agency. At this point in time, it is premature for the Agency to predict which sector will experience the strongest demand. Therefore, the 25% that is left to the Agency's discretion will ~~be evenly allocated across the three categories~~ allocated as future blocks to market segments that exhibit demand for

additional capacity. In the Plan Update, the Agency will review and reallocate that 25% amount as needed. In the Plan Update, the Agency will review and reallocate that 25% amount if needed.

The allocations will be:
• ~~33.3~~25% for DG PV systems up to 10 kW (Small systems)
• ~~33.3~~25% for DG PV systems greater than 10 kW and up to 2,000 kW (Large systems)
• ~~33.3~~25% for photovoltaic community renewable generation projects (Community Solar)
• 25% to be allocated as needed in future revisions of the IPA's Long-Term Plan

Table 6.1. would also need to be updated to reflect lower initial capacity.

### 7. Capacity Factors

As specified in Section 6.14.5, the Draft Plan proposes the use of standard capacity factors of 16.4177% for fixed-mount systems and 19.3149% (AC) for tracking systems. CCSA is concerned that these factors will not incentivize project developers to find the most efficient solar sites, unnecessarily inflating costs and potentially leaving additional RECs that cannot be monetized.

A 2.6% difference in Capacity Factors between sites – a difference easily achievable in a state as long North to South as Illinois – yields at least a 16% difference in RECs produced. Instead of bringing all projects to the middle, CCSA believes developers should be challenged to find the best sites. Certainly, Capacity Factors are one of many components of the site selection process. Setting a standard rate removes this competitive aspect of the market and program.

Furthermore, because smart inverters will be required for community solar projects to help utilities plan and understand grid impacts, using a set capacity requirement seems somewhat anachronistic.

CCSA recommends allowing Approved Vendors to propose the capacity factor that they will attain. The collateral requirements and smart meter data collection in the Draft Plan will ensure that accurate REC delivery is achieved so allowing project developers to set their own capacity factor would promote competition and more efficient solar generation. We recommend that vendors be allowed to submit a projected capacity factor/output for each project that takes into account anticipated production declines. We additionally recommend that the IPA set an upper limit around capacity factors to ensure developers are not proposing unreasonable production abilities.

If the Agency is interested in further verification of outputs, CCSA recommends looking to the Massachusetts system of REC verification. Here the third party – the Mass Clean Energy Center – monitors and verifies project output to ensure compliance.

*Proposed language (Section 6.14.5, p115-116):*
For each system that is approved, a project-specific 15-year REC obligation will be calculated for that system and that will be included in the contract. The calculation will be based on the projected 15-year production provided in the project application, and may take into account declining production over time. In order to prevent unreasonable production projections, the Agency will establish upper and lower capacity factors within which projects must bid to be eligible.

**8. Marketing Claims around RECs**

CCSA is cognizant of the challenges that surround marketing claims for community solar subscriptions. It is vital that consumers receive accurate marketing information that fairly describes the benefits of community solar and does not allow unscrupulous firms to market RECs in a way that allows "double-counting" of RECs.

Existing guidance from the Federal Trade Commission or various think tanks is a helpful starting point, but many of the existing resources on this topic do not contemplate community solar programs that are structured like Illinois'. To address the idiosyncrasies of the state's market, the IPA should create a specific solution that allows for fair and accurate marketing, ensures consumer confidence, and above all, prevents any double-counting or gaming of the marketplace.

At the core of fair marketing of community solar is the concept of "additionality," or the question of whether a consumer's action is leading to the addition of another unit of renewable energy on the electric grid. The debate around additionality is ongoing throughout the country, and many voices have stated that RECs used for compliance with an RPS (like those in Illinois) cannot be used to demonstrate that a particular ratepayer is "buying clean energy," "using local solar" or other similar claim. While it would be unfair for a consumer on default utility service to claim they are buying clean energy simply because their utility is buying renewables to comply with an RPS, the same is not true for community solar subscribers in Illinois.

Although Illinois utilities are buying RECs as a compliance mechanism, those kilowatt hours of community solar simply would not be added to the grid *but for the action of the consumer*. In Illinois, the consumer's voluntary action creates additionality, and the consumer should be able to fairly claim the use of clean energy or local solar as a result.

With that said, the Agency should establish a simple measure that ensures fair marketing. But to avoid having to play the role of REC-claim regulator, which is not the purpose of the Agency, CCSA suggests the Program Administrator could develop some Illinois-specific brand or certification to identify participation in the Adjustable Block Program. This certification would clearly convey to subscribers that the project they are subscribing to is being developed as part of a credible program that is bringing solar to

Illinois. This option could both ease the administrative burden on the program administrator and allow community solar providers to communicate to subscribers that they are contributing to solar development in their state.

Developers could be given access to the brand or certification once they are determined to be a qualified vendor for the adjustable block program. Developers would then benefit from the branding program because their projects would be certified as part of a credible, state program with environmental value and because they would receive guidance on what marketing claims are permissible. Participants would benefit from increased confidence in the program and a better understanding of the environmental benefits. Ideally, participants would understand that the adjustable block program incentivizes new, local renewable energy projects, with corresponding benefits to the local communities.

Of course, this Illinois-specific marketing claim will force commercial off-takers that need to make marketing claims to bifurcate messaging about their renewable energy procurement. This may present challenges for large commercial customers that are inclined to be anchor tenants for community solar projects or have unique challenges that encourage such customers to utilize community solar in Illinois. While there is no easy solution to this challenge, we also recommend the Agency engage in a discussion with Federal Trade Commission to pursue a longer term solution that will prevent customers of community solar projects from having to permanently make marketing claims with a footnote or addendum for participation in Illinois's program.

## IV. Additional Clarification or Information is Needed in the Following Areas

In addition to the recommended changes above, there are a number of places in the Draft Plan that need additional clarification.

### 9. RECs for unsubscribed energy

The Draft Plan does not seem to address RECs for unsubscribed energy from a community solar project. While the statute is specific that the Agency will purchase RECs from the subscribed shares of a community renewable generation project, it is important to specify that the RECs associated with unsubscribed energy belong to the project owner and will not count toward utility compliance.

### 10. Queue transparency

Based on presentations the Agency has made about the Draft Plan, CCSA inferred that the Adjustable Block Incentive will have some measure of queue transparency to show the remaining capacity available in each block. Even if it is not included explicitly in the Draft Plan, CCSA emphasizes the need for a transparent queue process so that

community solar providers can make informed decisions about their application to the program.

### 11. Definition of non-ministerial permits

As noted in the first section of these comments, CCSA supports the process outlined for REC capacity applications. Because this issue has come up during IPA presentations on the Draft Plan, it might be helpful to include a further definition and explanation of what types of permits are included in this category. CCSA suggests adding a footnote or explanation on page 110. For example, Massachusetts clarifies these permits with the following explanation:

> A ministerial permit is a permit that is granted based upon a determination that the request complies with established standards. Such determinations are arrived at objectively, involve little or no discretionary judgment, and are usually issued by a single official or his/her designee. Non-ministerial permits are permits in which one or more officials consider(s) various factors and exercise(s) some discretion in deciding whether to issue (typically with conditions) or deny permits.
>
> Examples of ministerial permits include, but are not limited to building permits and electrical permits.
>
> Examples of non-ministerial permits include, but are not limited to wetlands Order of Conditions, Special Permit, Zoning Variance, Endangered Species, and MEPA Certificate.[35]

## V. Conclusion

CCSA greatly appreciates the considerable time and work that has gone into the Draft Plan and in particular the amount of outreach that the Agency has done to incorporate a wide array of stakeholder feedback. CCSA is available to answer additional questions the Agency might have in further developing the Draft Plan.

Respectfully,

Jeff Cramer,
Executive Director,
Coalition for Community Solar Access

[35] See the Mass ACA FAQs, available at: http://www.massaca.org/pdf/FAQ.pdf.