RENEWABLE RESOURCES

Long-Term Renewable Resources Procurement Plan

Draft Plan for Public Comment September 29, 2017

Prepared in accordance with the Illinois Power Agency Act (20 ILCS 3855), and the Illinois Public Utilities Act (220 ILCS 5)

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1. Introduction

This is the first Long-Term Renewable Resources Procurement Plan ("Plan") developed by the Illinois Power Agency ("IPA" or "Agency") pursuant to the provisions of Sections 1-56(b) and 1-75(c) of the Illinois Power Agency Act ("Act" or "IPA Act"), and Section 16-111.5 of the Public Utilities Act ("PUA"). This Plan is the result of Public Act 99-0906 ("P.A. 99-0906"), enacted December 7, 2016, which substantially revised the Illinois Renewable Portfolio Standard ("Illinois RPS" or "RPS"). Public Act 99-0906 took effect on June 1, 2017 and provided for the Agency to develop this draft Plan within 120 days of that date.[1] The release of this draft Plan on September 29, 2017 fulfills that requirement.

This Plan addresses how the Agency will undertake a variety of programs and procurements for Ameren Illinois Company ("Ameren Illinois"), Commonwealth Edison Company ("ComEd"), and MidAmerican Energy Company ("MidAmerican") to meet their annual obligations to purchase Renewable Energy Credits ("RECs") to meet the goals of the Illinois RPS. It also describes how the Agency will develop and implement the Illinois Solar for All Program, which utilizes a combination of funds held by the Agency in the Renewable Energy Resources Fund ("RERF"), and funds supplied by the utilities from ratepayer collections, to develop a program to support the development of photovoltaic ("PV") resources that will benefit low-income households and communities.

Prior to the development of this Plan, the planning for the procurement of renewable energy resources by the Agency was contained in the Agency's annual procurement plan. With the enactment of Public Act 99-0906, the Agency is tasked to develop this separate Plan for the procurement of RECs for the utilities, while the annual procurement plan now focuses on the procurement of electricity and other "standard wholesale products" for the utilities (in addition, the Agency has developed a separate Zero Emission Standard Procurement Plan for the procurement of zero emission credits pursuant to the new Section 1-75(d-5) of the Act).

This Plan covers the Agency's proposals for procurements and programs to be conducted during calendar years 2018 and 2019. The Agency expects that as part of its procurement planning process conducted in calendar year 2019 for implementation starting in calendar year 2020, the Agency will update this Plan and propose procurements and programs (or refinements to existing programs) for subsequent years. These proposals are specifically designed to meet the Illinois RPS goals for the delivery years[2] 2017-2018 through 2019-2020 as well as to begin to put into place contracts for REC deliveries for future delivery years that will help to meet those future years' RPS goals.

1.1. Changing the RPS Planning Framework

With the changes to the Illinois RPS contained in Public Act 99-0906, there are several key impacts on the RPS which inform how the Agency has developed this Plan. These include:

- The phase-out of RPS obligations for Alternative Retail Electric Suppliers, and the associated phase-in of programs and procurements conducted by the Agency to cover the RPS obligations of all retail customers rather than just the eligible retail customers (the residential and small commercial customers who remained on utility default service). While

[1] Section 16.111.5(b)(5)(ii)(B) of the Public Utilities Act (220 ILCS 5) provides that the draft Plan shall be published "no later than 120 days" after the effective date of the Act, while Section 1-75(c)(1)(A) of the Illinois Power Agency Act (20 ILCS 3855) provides that the draft Plan "shall be released for comment no later than 160 days" after the Act's effective date. To ensure compliance with either provision, the Agency has released its draft Plan for comment 120 days after the effective date of the Act.

[2] An energy delivery year ("delivery year") runs from June 1 of a given year to May 31 of the following year.

overall RPS annual percentage goals remain the same, this change significantly increases the quantity of RECs under consideration in this Plan compared to previous procurement plans developed by the Agency.

- The introduction of a new public interest criteria for RECs from facilities in adjacent states, along with a prohibition on RECs from facilities that have their costs recovered through regulated rates, together decrease the pool of eligible RECs for IPA administered procurements. Combined with a more general goal to emphasize the procurement of RECs from new projects, the design of the range of procurements contained in this Plan, while building on previous procurements conducted by the Agency, focuses first on "Forward Procurements" that seek RECs from new projects, and secondarily on "Spot Procurements" to meet annual RPS percentage goals.
- While the RPS previously contained percentage-based carve-outs for specific technologies, the RPS now contains specific quantity-based targets for RECs from new wind and new solar and brownfield site solar projects. These goals must be considered and balanced with the need to meet annual percentage-based goals.
- In a change from the competitive procurement model previously employed by the Agency (which was based, in part, on how the Agency procures power to serve the utilities' eligible retail customers), the Agency is now directed to develop and implement an Adjustable Block Program for photovoltaic distributed generation and community solar that includes administratively determined REC prices rather than prices determined through pay-as-bid competitive procurements. The Agency also will now be managing an ongoing program rather than discrete procurement events.
- Recognizing the growing interest nationally in community solar, the Agency is now tasked with developing a community renewable generation program (to encompass both community solar as well as other renewable generating technologies). Community renewable generation projects allow residential and business customers to directly participate in the renewable energy economy even if they cannot host solar panels (or other renewable generation devices) on-site by subscribing to shares of a facility located within their electric utility service territory.
- To provide opportunities for low-income customers and communities, the Illinois Solar for All Program creates a separate set of incentives designed to overcome the barriers to participation in renewable energy programs that low-income customers have historically faced.

While this is not a comprehensive list of all changes to the Illinois RPS, it provides a high-level overview of the most significant items and constitutes a broad and ambitious vision for setting the Illinois RPS back on track and helping make Illinois a national leader in developing its clean energy economy. Given the scope of these changes and that this is the first Plan developed by the Agency to meet these new goals, the Agency views this draft Plan as a starting point. While it sets in place the approach and direction the Agency intends to take, this draft Plan is subject to a public comment process, and thoughtful comments are encouraged and appreciated. Further, the Agency notes that the Plan will be updated in two years' time, which will allow the Agency to adjust and adapt to what it learns as this initial Plan is implemented.

1.2. Plan Organization

This Plan contains eight chapters.

Chapter 1 is this Introduction. It contains a brief overview of the Plan and a set of Action Items that the Agency requests that the Illinois Commerce Commission ("Commission" or "ICC") expressly adopt as part of its approval of this Plan.

Chapter 2 provides an overview of the legislative/regulatory requirements contained in the Illinois Power Agency Act and the Public Utilities Act (particularly those that result from the enactment of Public Act 99-0906) that lead to the development of this Long-Term Renewable Resources Plan and the implementation of the resulting programs and procurements by the Illinois Power Agency.

Chapter 3 contains calculations of RPS targets, summaries of RPS portfolios, and summaries of RPS budgets.

Chapter 4 discusses the eligibility of RECs for use in the Illinois RPS. In particular, it addresses two new requirements of the RPS: eligibility of RECs from resources in adjacent states, and the requirement that RECs do not come from facilities that recover their costs through regulated rates.

Chapter 5 describes the competitive procurements the Agency proposes to conduct. These include:

- Spot Procurements for 2017-2018 and 2018-2019 delivery years (any resource)
- First Subsequent Forward Procurement (new utility-scale wind RECs)
- Brownfield Site Photovoltaic 15-Year Forward Procurement
- Forward Procurement for 1 Million new Photovoltaic RECs
- Spot Procurement for 2019-2020 delivery year (any resource)
- Second Subsequent Forward Procurement (new utility-scale wind RECs)
- Other Renewables 15-Year Forward Procurement (resources other than wind or photovoltaic)
- Community Renewable Generation Program 15-Year Forward Competitive Procurement for Non-Photovoltaic Projects

Chapter 6 describes the Adjustable Block Program. This includes details on the structure of the blocks, REC (and adder) prices and pricing model development, the application process, payment terms, the process for adjusting prices, the process for approving vendors, project specifications, consumer protections, delivery requirements, and more.

Chapter 7 describes the Community Renewable Generation Program including standards for co-location, eligibility of projects located in municipal utilities and rural electric cooperatives, subscriber requirements, consumer protections, legal issues around marketing claims related to RECs, and the responsibilities of utilities.

Chapter 8 describes the Illinois Solar for All Program including the program funding and design; customer terms, conditions, and eligibility; and an approach to designating environmental justice communities.

1.3. Action Plan

In this Plan, the IPA recommends the following items for ICC action as part of the Plan's approval:

1. Approve the RPS targets, and budget estimates for Ameren Illinois, ComEd, and MidAmerican for the delivery years 2017-2018 through 2019-2020 contained in Chapter 3.
2. Approve the Agency's proposed approach for considering and weighting the public interest criteria related to facilities located in adjacent states that is contained in Chapter 4.
3. Approve the proposed procurements contained in Chapter 5.
4. Approve the design of the Adjustable Block Program contained in Chapter 6, including the block design, schedule of REC prices (and adders), and program terms and conditions.
5. Approve the design and terms and conditions of the Community Renewable Generation Program contained in Chapter 7.
6. Approve the design and terms and conditions of the Illinois Solar for All Program contained in Chapter 8.

The Illinois Power Agency respectfully publishes this draft Long-Term Renewable Resources Procurement Plan, and invites the affected utilities and any interested parties to submit comments on the Plan to the Agency by November 13, 2017.[3]

[3] See Section 2.2.7 for more information on how interested parties may comment on this draft Plan.

2. Legislative/Regulatory Requirements of the Plan

This Section of the IPA's Long-Term Renewable Resources Plan describes the legislative and regulatory requirements applicable to the Long-Term Renewables Plan. A Legislative Compliance Index, Appendix A, provides a complete cross-index of regulatory/legislative requirements and the specific sections of this plan that address each requirement identified.

2.1. Renewable Energy Resource Procurement Prior to Public Act 99-0906

Public Act 99-0906 did not introduce a Renewable Portfolio Standard into Illinois law, and this Plan is not the first Plan that the Agency has produced addressing renewable energy resources procurement. Instead, the Agency has been producing procurement plans addressing renewable energy resource procurements since 2008 and conducting renewable energy resource procurements since 2009, and it is helpful to understand the background of the Illinois RPS's original structure and subsequent challenges in understanding the changes made through P.A. 99-0906 and the choices made in this Plan.

Prior to P.A. 99-0906, the Illinois RPS effectively had three compliance mechanisms depending on a customer's supply source: eligible retail customer procurements, Alternative Retail Electric Supplier ("ARES") compliance, and hourly pricing customer compliance payments.

2.1.1. Original RPS—Eligible Retail Customer Load

Of the three former RPS compliance mechanisms, the compliance pathway that looked most like the revised RPS enacted through P.A. 99-0906 was that which applied to "eligible retail customers," or those customers still taking default supply service from their electric utility (ComEd and Ameren Illinois, and starting in 2015, MidAmerican). The Agency's annual procurement plans (developed primarily to propose procurements intended to meet the energy, capacity, and other standard wholesale product requirements of eligible retail customers) also were required to include procurement proposals intended to meet annually-climbing, percentage-based renewable energy resource targets. As with block energy procured by the Agency, the applicable utility would be the counterparty to any resulting contracts.

Sub-targets were also introduced to the overall procurement volumes: of the renewable energy resources procured, 75% were required to come from wind, 6% from photovoltaics, and 1% from distributed generation. Prior to June 1, 2011, resources from Illinois were expressly prioritized (looking next to adjoining states if none was available, and then to elsewhere); after June 1, 2011, the RPS required looking to Illinois and adjoining states together as a first priority, and then to elsewhere. Funds available for use under RPS contracts were subject to a rate impact cap—a fixed bill impact cap percentage (2.015% of 2007 rates), which was then applied to eligible retail customer load to produce a renewable resources procurement budget.

This system may have worked more effectively had Illinois not experienced significant volatility in the size of its eligible retail customer load. But it did, primarily for the following reason: upon the establishment of the IPA in 2007, the General Assembly required that the electric utilities enter into relatively long-term energy supply contracts (known as the "swap contracts") to serve eligible retail customer load. But in the years that followed, energy prices plummeted in the wholesale market, and these agreements served to inflate the default supply rate well above that which could be offered by a competitive supplier. From 2011 to 2013, massive waves of default supply customers switched to

ARES, often through opt-out municipal aggregation (municipalities, whether individually or in a coalition with others, leveraging economies of scale to negotiate favorable electric supply rates for their residents, under authority of Section 1-92 of the Act), and eligible retail customer load dwindled—with the annual available renewable resources budget declining correspondingly.

As part of its 2009 Annual Procurement Plan, the Agency proposed, and the Commission approved, a procurement for "bundled" (energy and REC) long-term contracts from renewable energy suppliers. These contracts were executed through a 2010 procurement event, with winning suppliers receiving 20 year bundled contracts to help meet future years' targets in the RPS. While this helped facilitate significant new renewable energy development in Illinois (especially in the form of wind projects), it also provided a floor of annual payment obligations under the renewable resources budget for future years.

As the annual renewable resources budget declined due to customer switching, not only was funding unavailable to conduct additional renewable energy resource procurements, funding was no longer available to meet the full commitments in the Long-Term Power Purchase Agreements ("LTPPAs") described above—resulting in two years in which ComEd's LTPPAs were curtailed, or payment not made through the renewable resources budget for the full expected output. And while some load has switched back to default supply service in recent years, future budget uncertainty made entering into any additional long-term agreements unworkable (especially if such contracts were junior to the existing 2010 LTPPAs). As a result, outside of distributed generation ("DG") procurements (which were statutorily required to be at least 5 year contracts) the Agency's annual procurement plans after the 2010 LTPPAs proposed only the procurement of one-year contracts to meet each upcoming delivery year's renewable energy resource obligations—as the Agency simply did not and could not have visibility into budgets available in future years.

2.1.2. Original RPS—Hourly Pricing Customers

For hourly pricing customers, Section 1-75(c)(5) of the Act required that the applicable electric utility apply "the lesser of the maximum alternative compliance payment rate or the most recent estimated alternative compliance payment rate for its service territory for the corresponding compliance period" to hourly pricing customers. Those funds were held by the electric utility—and thus not subject to the transfer, sweep, and appropriation risks facing special state funds—and subject to the Agency's annual procurement planning process.

In recent years, because contracts with distributed generation systems required contracts of at least 5 years, the IPA used these hourly Alternative Compliance Payments ("ACPs") to serve as the funding source for DG procurements, including its most recent DG procurements approved in the IPA's 2017 Annual Procurement Plan.[4]

2.1.3. Original RPS—ARES Compliance

Lastly, adopted in 2009, the ARES RPS compliance mechanism was more complex. Under Section 16-115D of the Public Utilities Act, each ARES carried a percentage-based renewable portfolio standard requirement similar to the Section 1-75(c) requirement as a percentage of its sales, but could satisfy its obligation by making alternative compliance payments at a rate reflecting that rate paid by eligible

[4] The Agency understands that any remaining ACP funds will be rolled into the available RPS budget for planning purposes, but as funds are already collected, would not count against the rate impact cap.

retail customers for no less than 50% of its obligation, and could self-procure RECs for the remainder (with a requirement that any RECs be produced by facilities within the regional transmission territories of PJM Interconnection, L.L.C. ("PJM") and Midcontinent Independent System Operator, Inc. ("MISO"), a relatively broad geographic footprint).

With ARES competing with one another for customers (and, for residential and small commercial customers, also against default supply service), this paradigm created an incentive for an ARES to comply at the lowest cost possible.[5] Thus, alternative compliance payments were generally made for the minimum 50% amount (as the rate applicable to those ACPs reflected more expensive procurements made by the Agency to serve other ends, such as through the 2010 LTPPAs), and the self-procurement obligation was simply not structured in a way that was likely to lead to the development of new renewable energy generation in Illinois.

Alternative compliance payments were deposited into the IPA-administered Renewable Energy Resources Fund. Leveraging this fund for procurements carried significant challenges. As the IPA explained in its Supplemental Photovoltaic Procurement Plan (released in 2014 and approved in 2015):[6]

> *The procurement of renewable energy resources using the RERF is subject to a set of unique constraints. First, unlike with the utility renewable resources budgets, the RERF may only be used to procure renewable energy credits. While the term "renewable energy resources" is defined in the Illinois Power Agency Act as RECs or both renewable energy and associated RECs,[7] the Public Utilities Act makes clear that "alternative compliance payments . . . shall be deposited in the Illinois Power Agency Renewable Energy Resources Fund and used to procure renewable energy credits."[8]*
>
> *Second, Section 1-56(c) of the IPA Act calls on the IPA to use the RERF to "procure renewable energy resources at least once each year in conjunction with a procurement event for electric utilities required to comply with Section 1-75 of the Act."[9] Given the IPA's strategy of advance purchases to hedge load requirements and the unexpectedly high levels of migration to alternative retail electric suppliers, corresponding energy procurement events for electric utilities had not occurred since 2012.[10] This has left the Agency without a procurement event "in conjunction with" which it could procure RECs using the RERF.*
>
> *Third, Section 1-56(d) of the IPA Act requires that "the price paid to procure renewable energy credits" using the RERF "shall not exceed the winning bid prices paid for like resources procured for electric utilities required to comply with Section 1-75 of this Act."[11] The lack of a conjoining procurement event has also left the Agency without a*

[5] To the extent that a customer sought a more environmentally friendly product, the ARES could always offer a "green" product including 100% of megawatt-hours matched with renewable energy credits, disconnected from any RPS compliance obligation.

[6] The characterizations of state law in this excerpt refer to the requirements of the Illinois Power Agency Act prior to Public Act 99-0906.

[7] 20 ILCS 3855/1-10.

[8] 220 ILCS 5/16-115D(d)(4).

[9] 20 ILCS 3855/1-56(c).

[10] After not having procured energy in 2013, the Agency did conduct energy procurements in April 2014 and September 2014.

[11] 20 ILCS 3855/1-56(d).

> *statutorily envisioned price ceiling for "like resources," further constraining procurement using the RERF.*
>
> *Fourth, the IPA Act clearly articulates a preference for longer-term contracts using the RERF, presumably to provide a stable stream of revenue necessary to incent the development of new resources. Section 1-56(c) of the IPA Act calls for the Agency to, "whenever possible, enter into long-term contracts on an annual basis for a portion of the incremental requirement for the given procurement year."[12] Similarly, Section 1-56(b) of the Act requires that any contracts for resources from distributed generation ("DG") must run a minimum of 5 years.[13] But due to unsettled and dynamic load migration between utility and alternative supplier service, the Agency must approach long-term contracting with prudence and care, as the RERF's future balance is subject to the whims of future customer switching.[14]*

In addition to the above risks, as a special state fund, the RERF could always be—and indeed was—subject to the risks of borrowing and transfers. In 2010, $6.7 million was transferred out of the RERF, although ultimately repaid back into it. In 2015, $98 million was permanently transferred from the RERF to the state's General Revenue Fund ("GRF") to make up for insufficient Fiscal Year 2015 general revenues. And in August 2017, $150 million was temporarily transferred from the RERF to the GRF (after $12 million was permanently transferred from the RERF to the state's Public Utilities Fund in June 2017), leaving the RERF's balance below the level needed to cover existing contractual obligations.[15] Given these risks, and given recent periods in which the state failed to enact a budget (and thus the IPA lacked appropriation authority to make payments under contracts regardless of actual funds available), the State of Illinois could be an unattractive counterparty for a REC delivery contract.

With the majority of Illinois electric load being served by ARES, this stood as no small problem—while the RPS covered the vast majority of electricity delivered in the state, little was produced through it. Significant amounts were being paid into the RERF each year to support renewable energy development, yet the money was unable to be effectively leveraged for that purpose. While ARES were procuring, in aggregate, millions of RECs each year, the incentive structure facing those suppliers made it highly unlikely that those RECs would be sourced from anything other than the lowest-priced seller: generally, facilities already built and financed, and potentially from projects in vertically integrated states with costs already being fully recovered through rates. Hence, parties seeking changes to this system often characterized it as a "broken RPS,"[16] and one that would require a comprehensive legislative overhaul to be properly fixed.

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[12] 20 ILCS 3855/1-56(c).

[13] 20 ILCS 3855/1-56(b).

[14] For further discussion of the challenges associated with entering into long-term contracts using funding streams subject to load migration changes, see filings made in Commission dockets approving the IPA's 2013 and 2014 annual procurement plans (Docket Nos. 12-0544 and 13-0546).

[15] The transfer of $150 million was pursuant to newly enacted Section 5h.5 of the State Finance Act (30 ILCS 105/5h.5 contained in Public Act 100-0023) that authorizes transfers from special funds to the General Revenue Fund. However, that Section also contains a provision that funds will be repaid within 24 months, as well as a provision to transfer funds back to special funds as needed to "satisfy outstanding expenditure obligations on a timely basis."

[16] One notable success story from the RERF was the Supplemental Photovoltaic Procurement process, which resulted in the development of roughly 30 MW of new distributed generation photovoltaics in Illinois through five-year REC contracts using the RERF. But even this process required legislative changes to be effectuated, with the Agency's authority to develop its Supplemental Photovoltaic Procurement Plan coming from Public Act 98-0672 (signed into law in 2014), which created new Section 1-56(i) of the IPA Act.

2.2. Public Act 99-0906

The Agency's obligation to develop a Long-Term Renewable Resources Procurement Plan stems from new requirements included in Public Act 99-0906, known colloquially as the "Future Energy Jobs Act" and referred to herein as P.A. 99-0906. P.A. 99-0906, then known as Senate Bill 2814, was passed by both the Illinois House and Senate during the last days of the 99th General Assembly on December 1, 2016, and was signed into law by Illinois Governor Bruce Rauner on December 7, 2016 with an effective date of June 1, 2017.

In addition to the requirement that the Agency develop this Long-Term Renewable Resources Procurement Plan and implement the programs and procurement discussed herein, P.A. 99-0906 also contained a number of other significant reforms to Illinois energy law. Among those reforms include the establishment of a zero emission standard requiring the Agency to develop a Zero Emission Standard Procurement Plan for the procurement of zero emission credits from zero emission (i.e., nuclear) generating facilities;[17] revisions to the state's energy efficiency portfolio standard found in Article VIII of the Public Utilities Act (220 ILCS 5) including the adoption of cumulative savings targets for energy efficiency programs and measures, and the elimination of the statutory pathway by which incremental energy efficiency programs were included in the IPA's annual procurement plans;[18] additional financial assistance for low-income ratepayers;[19] bill crediting for the energy production associated with subscriptions to community renewable generation;[20] and a smart inverter rebate for behind-the-meter generating facilities.[21]

More pertinently for purposes of this Plan, P.A. 99-0906 constituted a comprehensive overhaul of the state's renewable energy portfolio standard, elements of which can be found in Sections 1-56 and 1-75(c) of the IPA Act and Section 16-115D of the PUA. Under the prior Illinois RPS, compliance and planning depended on how a customer's supply requirements were met, with three separate compliance mechanisms for load service by default utility supply service, hourly-pricing customers, and load served by Alternative Retail Electric Suppliers. As discussed further below, changes to the Illinois RPS through P.A. 99-0906 will transition the state's RPS to a streamlined, centralized planning and procurement process, with both RPS targets and available budgets determined on the basis of an electric utility's load for all retail customers[22] with funding collected through a delivery services charge. Outside of the Initial Forward Procurements (discussed further below) and two remaining years[23] of ARES compliance requirements, the state's approach to meeting its RPS targets will be addressed through the development and continued refinement of this Long-Term Renewable Resources Procurement Plan, with the Plan proposing programs and procurements necessary to

[17] The Agency's Zero Emission Standard Procurement Plan, developed pursuant to new Section 1-75(d-5) of the Act, was filed with the Commission on July 31, 2017 and was approved by the Commission on September 11, 2017. See ICC Docket No. 17-0333.

[18] See 220 ILCS 5/16-111.5B.

[19] See 220 ILCS 5/8-103B(c) (requiring ComEd and Ameren Illinois to allocate $25 million and $8.5 million, respectively, annually for low-income energy efficiency programs); 305 ILCS 20/18(c)(5), (5.5), (7) (authorizing Percentage of Income Payment Plan ("PIPP") qualified customers to receive credits under a utility's Arrearage Reduction Program, and creating a new Supplemental Arrearage Reduction Program for utility customers who cannot join the PIPP due to timing or funding constraints); 220 ILCS 5/16-108.10 (creating new $10 million annual funding stream over five years for low-income assistance programs for ComEd customers).

[20] See 220 ILCS 5/16-107.5(*l*).

[21] See 220 ILCS 5/16-107.6.

[22] For MidAmerican, consistent with the Commission's Order in Docket No. 15-0541, the IPA understands that Section 1-75(c)'s renewable energy procurement targets should "only relate to that portion of the 'total supply' procured for MidAmerican's jurisdictional eligible retail customers," and not all retail sales in its service territory.

[23] This includes the current 2017-2018 delivery year.

meet the new requirements of Illinois law and satisfying the law's new emphasis on both using the RPS as a tool to facilitate the development of new generating facilities and expanding access to the benefits of renewable energy across a broader cross-section of the state's economy.

2.2.1. Legislative Findings

This new emphasis is reflected in the legislative findings associated with Public Act 99-0906. Specifically, in enacting P.A. 99-0906, the General Assembly found that "[t]o ensure that the State and its citizens, including low-income citizens, are equipped to enjoy the opportunities and benefits of the smart grid and evolving clean energy marketplace," P.A. 99-0906 should serve to "maximize the impact" of the state's RPS.[24] This includes direction that the State should "encourage . . . the adoption and deployment of cost-effective distributed energy resource technologies and devices, such as photovoltaics, which can encourage private investment in renewable energy resources, stimulate economic growth, enhance the continued diversification of Illinois' energy resource mix, and protect the Illinois environment; investment in renewable energy resources, including, but not limited to, photovoltaic distributed generation, which should benefit all citizens of the State, including low-income households."[25]

These themes are also found in the new legislative findings and declarations of the IPA Act enacted through P.A. 99-0906. The IPA Act now finds and declares that" [d]eveloping new renewable energy resources in Illinois, including brownfield solar projects and community solar projects, will help to diversify Illinois electricity supply, avoid and reduce pollution, reduce peak demand, and enhance public health and well-being of Illinois residents."[26] Other findings also reinforce the value of community solar in expanding access to renewable energy,[27] and the value of developing brownfield site solar projects to "help return blighted or contaminated land to productive use while enhancing public health and the well-being of Illinois residents."[28]

This approach to the state's RPS appears to constitute a meaningful shift in the logic governing the state's renewable energy requirements: in past years, the state's approach to its RPS could have been understood as governed by the logic that statutory compliance should be achieved at "the lowest total cost over time, taking into account any benefits of price stability,"[29] as this criteria governed the Agency's annual procurement plan, in which renewable energy procurements were proposed. Through changes effected by P.A. 99-0906, it is apparent that the General Assembly also seeks outcomes of specific types—more equitable and diverse access to the benefits of renewable energy, and an emphasis on facilitating the development of new generation and maximizing its environmental benefits—in achieving compliance with the technical requirements of the law.

Guidance found in the RPS law itself also reflects that approach. Specifically, Section 1-75(c)(1)(I) of the IPA Act requires that the IPA "shall design its long-term renewable energy procurement plan to maximize the State's interest in the health, safety, and welfare of its residents, including but not

[24] P.A. 99-0906, § 1(a).

[25] P.A. 99-0906, § 1(a)(1). In the legislative findings of P.A. 99-0906, the General Assembly also specifically found that "low-income customers should be included within the State's efforts to expand the use of distributed generation technologies and devices." P.A. 99-0906, § 1(b).

[26] 20 ILCS 3855/1-5(6).

[27] 20 ILCS 3855/1-5(7).

[28] 20 ILCS 3855/1-5(8).

[29] See 220 ILCS 5/16-111.5(d)(4).

limited to minimizing sulfur dioxide, nitrogen oxide, particulate matter and other pollution that adversely affects public health in this State, increasing fuel and resource diversity in this State, enhancing the reliability and resiliency of the electricity distribution system in this State, meeting goals to limit carbon dioxide emissions under federal or State law, and contributing to a cleaner and healthier environment for the citizens of this State." The Agency believes its initial Long-Term Renewable Resources Procurement Plan reflects these aspirations, but seeks feedback from any interested parties on how these benefits can best be maximized.

2.2.2. Changes to the RPS

To better meet these objectives, several changes were made to the RPS, including the introduction of new concepts and terms, and new prescriptive requirements. Several of these new concepts are discussed below, discussed further in the subsections later in this chapter, and in more detail in the Chapters that follow.

2.2.3. New Concepts and Terms

First, as discussed further below, P.A. 99-0906 demonstrates a shift in compliance focus from compliance through the procurement of "renewable energy resources"—which may be either 1) a renewable energy credit associated with a megawatt-hour ("MWh") of generation, or 2) that REC plus the associated generation—to compliance through the purchase and retirement of "renewable energy credits."[30] This makes intuitive sense; the purchase of energy is not addressed through this plan, and the Agency's planning for any energy purchases can only be for utility default supply customers (the "eligible retail customers") and is handled through the development of a separate procurement plan (which focuses on a shorter timeframe than many of the REC contracts envisioned in the revised RPS).

Second, P.A. 99-0906 introduced the concept of a "community renewable generation project" to the Illinois law. As defined by the IPA Act,[31] this is an electric generating facility that

> (1) is powered by wind, solar thermal energy, photovoltaic cells or panels, biodiesel, crops and untreated and unadulterated organic waste biomass, tree waste, and hydropower that does not involve new construction or significant expansion of hydropower dams;
>
> (2) is interconnected at the distribution system level of an electric utility as defined in this Section, a municipal utility as defined in this Section that owns or operates electric distribution facilities, a public utility as defined in Section 3-105 of the Public Utilities Act, or an electric cooperative, as defined in Section 3-119 of the Public Utilities Act;
>
> (3) credits the value of electricity generated by the facility to the subscribers of the facility; and
>
> (4) is limited in nameplate capacity to less than or equal to 2,000 kilowatts.

A subscriber's subscription to such a facility is an "interest" in that facility, "expressed in kilowatts" and sized primarily to offset part or all of the subscriber's electricity usage, and may not constitute

[30] See, e.g., 20 ILCS 3855/1-75(c)(1)(B), (C). The law appears to recognize that "renewable energy resources" may be used to satisfy the RPS, but appears to focus this plan only on the procurement of "renewable energy credits."

[31] See 20 ILCS 3855/1-10.

more than 40% of the facility's nameplate capacity.[32] Photovoltaic powered community renewable generating projects are frequently described herein as "community solar" projects, and feature distinct procurement targets in the Illinois RPS.

Third, P.A. 99-0906 requires the development of an "adjustable block program." Used to facilitate the development of new community solar and distributed photovoltaic generation, the Adjustable Block Program features a "transparent schedule of prices and quantities" for RECs "to enable the photovoltaic market to scale up and for renewable energy credit prices to adjust at a predictable rate over time."[33] This represents a significant shift in the state's approach to procuring renewable energy; past efforts to procure renewable energy resources focused on competitive sealed bidding, pay-as-bid procurement events. Most bidder and supplier information, including resulting contract prices and quantities for winning bidders, was kept confidential. While these competitive procurement elements are required for certain activities under the Illinois RPS (including initial and subsequent forward procurements), other compliance pathways now feature open application to a program featuring price and quantity transparency.

Fourth, for both the Illinois Solar for All Program and the Adjustable Block Program, P.A. 99-0906 contemplates "prepayment" for a stream of RECs to be delivered over the course of a 15-year contract. This likewise constitutes a departure from prior activities under the Illinois RPS, all of which featured payment for RECs only upon delivery and invoice. The specific prepayment schedules applicable to project types under the Adjustable Block Program are discussed further in Section 2.5 below.

This, of course, is not a comprehensive list; many other new terms and concepts were introduced through P.A. 99-0906, and the above list is not even a majority of the items. This non-exhaustive list is instead intended only to provide background for the discussions that follow.

2.2.4. Long-Term Renewable Resources Plan

As referenced above, P.A. 99-0906 requires the IPA to develop a Long-Term Renewable Resources Procurement Plan. This is a departure from past practice under the Illinois RPS; previously, Illinois law required that renewable energy resource procurements used to meet the requirements of Section 1-75(c) of the IPA Act be proposed through the Agency's annual procurement plan. Those plans were developed, published, filed with the ICC, and approved by the ICC on an annual basis (and still are, with a more limited focus) with a planning horizon of the five upcoming delivery years. By contrast, the Long-Term Renewable Resources Procurement Plan is initially prepared once, revised at least every two years, and "shall include procurement programs and competitive procurement events necessary to meet the goals"[34] set forth in Section 1-75(c) of the IPA Act—which contains annual targets out until 2030. As explained in the Chapters that follow, as budget availability and possible program successes or failures makes planning far into the future unwise or unworkable, in some cases the Agency proposes that certain decisions be deferred until future years' revisions of the Long-Term Renewable Resources Procurement Plan.

[32] Id.

[33] 20 ILCS 3855/1-75(c)(1)(K).

[34] 20 ILCS 3855/1-75(c)(1)(A).

2.2.5. Plan Requirements

While Illinois law lacks any single list of required elements for the Plan, both Section 16-111.5(b) of the PUA and Sections 1-56(b) and 1-75(c) of the IPA Act do contain discrete requirements.

2.2.5.1. Section 16-111.5(b) Requirements

Section 16-111.5(b)(5) of the PUA provides that "[t]he Agency shall prepare a long-term renewable resources procurement plan for the procurement of renewable energy credits under Sections 1-56 and 1-75 of the Illinois Power Agency Act for delivery beginning in the 2017 delivery year,"[35] with "delivery year" defined as "the consecutive 12-month period beginning June 1 of a given year and ending May 31 of the following year"[36]—i.e., the first delivery year for which the Plan is developed would be 2017-2018. As a consequence, the IPA believes that although its Plan may not be approved by the Commission until late March or early April of 2018, this Plan should propose procurements necessary to meet "2017 delivery year" targets, as well as targets for future delivery years. Further discussion of those proposed procurements can be found in Chapter 5.

The PUA contains three discrete requirements for what the Plan must contain:

First, the Plan must "[i]dentify the procurement programs and competitive procurement events consistent with the applicable requirements of the Illinois Power Agency Act and shall be designed to achieve the goals set forth in subsection (c) of Section 1-75 of that Act."[37] While the term "competitive procurement event" is not specifically defined in the IPA Act or the PUA, the IPA understands the term "competitive procurement event" to be an element of, if not commensurate with, a "competitive procurement process" or "competitive bid process," which the PUA describes subject to the requirements of Section 16-111.5(e)-(i) where applicable (i.e., conducted in a manner consistent with the Agency's prior competitive procurements).[38] The term "program" presumably refers to the programs specifically referenced in Section 1-56(b) and Section 1-75(c)(1)(K) and (N) of the IPA Act.

This raises the following question: does the Agency have the authority to propose (and does the Commission have the authority to approve) REC procurement structures different from a "competitive procurement event" or a statutorily-defined "program"? Stated differently, could the Agency propose the procurement of RECs to meet targets in Section 1-75(c) in a manner distinct from a competitive procurement process or "program"—such as, for instance, a standard offer price for a fixed quantity of RECs from a specific generating facility type, or a competitive procurement process in which bids are selected on a basis other than price—so long as it abides by the requirement to use those defined structures when specifically applicable? While no such alternative procurement processes are proposed as part of this Plan, the Agency believes the answer to this question is "yes," as the portions of the law which make clear when a competitive procurement process *must* be used effectively sanction the use of a *different* process (so long as not otherwise inconsistent with state law) in cases when they do not (such as meeting the percentage-based targets of Section 1-

[35] 220 ILCS 5/16-111.5(b)(5).

[36] 20 ILCS 3855/1-10.

[37] 220 ILCS 5/16-111.5(b)(5)(ii)(B)(aa).

[38] 220 ILCS 5/16-111.5(b)(5)(iii).

75(c)(1)(A), for instance). The Agency would be interested in feedback on this topic as part of comments on its draft Plan.

In this Plan, the specific procurement programs and procurement events designed to meet the goals of Section 1-75(c) can be found in Chapters 5 through 8.

Second, the Plan must "[i]nclude a schedule for procurements for renewable energy credits from utility-scale wind projects, utility-scale solar projects, and brownfield site photovoltaic projects consistent with subparagraph (G) of paragraph (1) of subsection (c) of Section 1-75 of the Illinois Power Agency Act."[39] As explained further below, this subparagraph concerns the quantitative procurement targets for RECs from new solar and wind facilities found in Section 1-75(c), and the schedule for those procurements can be found in Chapter 5.

Third, the Plan must "[i]dentify the process whereby the Agency will submit to the Commission for review and approval the proposed contracts to implement the programs required by such plan."[40] In the past, under Section 16-111.5(e), the IPA's procurement administrator developed standard contract forms in consultation with other parties. A Commission decision was required only if parties could not agree on the contract form, and the standard form contract was required to be executed by winning bidders after a competitive procurement result (the results of which were subject to Commission approval). Under this revised model, it appears that both REC delivery contracts and the IPA's program administrator contracts[41] must first be approved by the Commission prior to execution. The IPA's proposal for the process for submitting contracts to the Commission for review and approval can be found in Chapters 6 and 8 of the Plan.

2.2.5.2. Section 1-75(c) Requirements

Section 1-75(c) of the IPA Act contains the most robust set of requirements for the long-term plan; those include the following:

First, the Plan must "include the goals for procurement of renewable energy credits to meet at least the following overall percentages: 13% by the 2017 delivery year; increasing by at least 1.5% each delivery year thereafter to at least 25% by the 2025 delivery year; and continuing at no less than 25% for each delivery year thereafter."[42] As explained further below, these percentages are described as a portion of eligible retail sales, which currently includes some sales by alternative retail electric suppliers while transitioning to all retail sales within two years. The law also contains a requirement that "in the event of a conflict between these goals and the new wind and new photovoltaic procurement requirements," the long-term plan shall prioritize the new wind and photovoltaic requirements.[43] The IPA does not anticipate any such conflict prior to its next revision of this Plan, and has designed its Plan in a manner that reduces the likelihood of any such conflict

[39] 220 ILCS 5/16-111.5(b)(5)(ii)(B)(bb).

[40] 220 ILCS 5/16-111.5(b)(5)(ii)(B)(cc)

[41] For the Agency's third-party program administrators, Section 16-111.5(b)(5)(iii) provides that "[t]hird parties shall not begin implementing any programs or receive any payment under this Section until the Commission has approved the contract or contracts under the process authorized by the Commission in item (D) of subparagraph (ii) of paragraph (5) of this subsection (b) and the third party and the Agency or utility, as applicable, have executed the contract."

[42] 20 ILCS 3855/1-75(c)(1)(B).

[43] Id.

occurring (for instance, through using short-term contracts to meet percentage-based delivery year goals after new build is accounted for). Further discussion of these goals can be found in Chapter 3.

Second, the Plan "shall include the procurement of renewable energy credits in amounts equal to at least" the new wind and new photovoltaics targets found in Section 1-75(c)(1)(C) of the IPA Act. These targets are 2 million RECs from "new wind projects" by the 2020 delivery year, 3 million by 2025, and 4 million by 2030. "New photovoltaic projects" feature the same overall procurement targets, while also containing requirements that at least 50% of PV RECs be procured through the Adjustable Block Program (and thus from distributed generation or community solar projects), at least 40% from utility-scale (above 2 MW) photovoltaic projects, and at least 2% from brownfield site photovoltaic projects that are not community renewable generation projects. Further discussion of these quantitative new build targets can be found in Chapter 5.

Third, the law requires that, to the extent that annual RPS spending budgets[44] for each utility become a binding constraint, the Plan "shall prioritize compliance with the requirements of this subsection (c) regarding renewable energy credits" in the manner discussed in Section 1-75(c)(1)(F), which features the following priority ranking:

> (i) renewable energy credits under existing contractual obligations;
>
> (i-5) funding for the Illinois Solar for All Program as described in Section 1-75(c)(1)(O);[45]
>
> (ii) renewable energy credits necessary to comply with the new wind and new photovoltaic procurement requirements in Section 1-75(c)(1)(C); and
>
> (iii) renewable energy credits necessary to meet the remaining requirements of Section 1-75(c) (including the percentage-based delivery year goals in Section 1-75(c)(1)(B)).[46]

While it is too early in the planning process for any one requirement to potentially cannibalize the other, the IPA is committed to ensuring that this priority ranking is reflected in any future revisions to the Plan.

Fourth, the law requires that renewable energy credits procured under the Initial Forward Procurements shall be included in the Agency's long-term plan and shall apply to Section 1-75(c)'s goals;[47] while the Initial Forward Procurement for solar is yet to be completed, the expected results of the Initial Forward Procurements are reflected in the Agency's target procurement quantities found later in Chapter 3 of this Plan.

Fifth, the Plan must set forth the process by which adjustments may be made when the cumulative amount of renewable energy credits projected to be delivered from all new wind projects in a given delivery year exceeds the cumulative amount of renewable energy credits projected to be delivered from all new photovoltaic projects in that delivery year by 200,000 or more renewable energy credits.[48] This provision is presumably intended to provide some balancing between wind and solar

[44] The statutory cost cap and resulting budgets for RPS spending, directed in Section 1-75(c)(1)(E) of the Act, are discussed in more detail in Section 2.4.4 and Chapter 3 of this Plan.

[45] This requirement is discussed further in the subsection below.

[46] 20 ILCS 3855/1-75(c)(1)(F).

[47] 20 ILCS 3855/1-75(c)(1)(G)(i).

[48] 20 ILCS 3855/1-75(c)(1)(G)(iv).

quantities, and the Agency's proposal for how it would seek to procure RECs from additional PV projects to "rebalance" can be found in Chapter 5 of the Plan.

Sixth, the Plan must describe in detail how each "public interest factor" enumerated in Section 1-75(c)(1)(I) "shall be considered and weighted for facilities located in states adjacent to Illinois" in determining whether those facilities' RECs may be considered "eligible" to satisfy the Illinois RPS. This limitation of eligible RECs to Illinois and adjacent states constitutes a departure from past practice under the RPS, under which competitive procurements first looked to RECs from Illinois and adjoining states and then to "elsewhere" in attempting to satisfy targets, and may serve to significantly limit the pool of renewable energy credits eligible to meet the RPS. The Agency's proposal for how to apply this criteria can be found in Chapter 4.

Seventh, the Plan shall provide that renewable energy credits previously allocated from generating systems previously understood to not be rate-based for a state-regulated entity, but which end up being so rate-based, shall be made up through a procurement conducted in the Agency's next procurement event. This connects back to a new requirement in the law that "renewable energy credits shall not be eligible to be counted toward" RPS targets "if they are sourced from a generating unit whose costs were being recovered through rates regulated by this State or any other state or states on or after January 1, 2017."[49] It appears that this could easily be accomplished through an adjustment in procurement volumes for subsequent procurement events, and the IPA commits through this Plan to make any such adjustments (not described herein, as they are as yet unknown and unknowable).

Eighth, the Plan "shall include an Adjustable Block program for the procurement of renewable energy credits from new photovoltaic projects that are distributed renewable energy generation devices or new photovoltaic community renewable generation projects."[50] A description of the Agency's proposed Adjustable Block Program can be found in Chapter 6, and it includes the Agency's proposal for the allocation of the remaining 25% of RECs to be procured through that program not allocated to specific DG or community solar project types.

Ninth, and last among the requirements found in Section 1-75(c), the Plan "shall include a community renewable generation program," with a requirement that the Agency "establish the terms, conditions, and program requirements for community renewable generation projects with a goal to expand renewable energy generating facility access to a broader group of energy consumers, to ensure robust participation opportunities for residential and small commercial customers and those who cannot install renewable energy on their own properties" and that any subscriptions to such projects "be portable and transferable."[51] Presumably, although community solar photovoltaic is a subset of "community renewable generation projects"—which can include generating technologies such as wind, solar thermal, biodiesel, biomass, tree waste, and hydropower—this means that *only* establishing an Adjustable Block Program featuring a community solar photovoltaic component would not satisfy this statutory requirement, and a distinct non-PV community renewable generation

[49] 20 ILCS 3855/1-75(c)(1)(J).

[50] 20 ILCS 3855/1-75(c)(1)(K).

[51] 20 ILCS 3855/1-75(c)(1)(N).

program must also be established.[52] The Agency's proposed community renewable generation program, modeled on but distinct from its Adjustable Block Program, can be found in Chapter 7.

2.2.5.3. Illinois Solar for All Requirements

As discussed further below, in recognition of a finding that "the State should encourage . . . investment in renewable energy resources, including, but not limited to, photovoltaic distributed generation, which should benefit all citizens of the State, including low-income households," revisions to Section 1-56 of the IPA Act provide for the creation of "the Illinois Solar for All Program, which shall include incentives for low-income distributed generation and community solar projects [. . .] to bring photovoltaics to low-income communities in this State."[53] In so doing, the Agency must "include a description of its proposed approach to the design, administration, implementation and evaluation of the Illinois Solar for All Program" in the Plan and "propose the Illinois Solar for All Program terms, conditions, and requirements,"[54] including REC prices (which may be through a formula). The description of the Agency's proposed Illinois Solar for All Program can be found in Chapter 8.

In addition to describing what the Illinois Solar for All Program is and how it will be administered, the law also requires that should the IPA hire a third-party program administrator (or administrators) to assist with the administration of the Illinois Solar for All Program, the Plan shall identify at what interval it must report to the Agency and the Commission (provided that interval is at least quarterly). The Plan shall also provide for an independent evaluation of the program, and must contain a definition of the term "environmental justice" community. These issues are likewise addressed in Chapter 8.

The Plan must also ensure that the Illinois Solar for All program is funded. Specifically, Section 1-75(c)(1)(O) of the Act provides that the Plan "shall allocate 5% of the funds available under the plan for the applicable delivery year, or $10,000,000 per delivery year, whichever is greater, to fund the programs." This raises the question of what is meant by the phrase "funds available under the plan"—only those utility-collected funds available through Section 1-75(c), or all funds inclusive of any funds available from the Renewable Energy Resources Fund balance? In the former reading, the Agency would retain discretion to separately allocate funds from the RERF, but in the latter reading, the Agency could not do so. While the latter approach may be a fair reading of the law, the IPA believes this could not have been the drafters' intent; for instance, in a year in which the RERF balance remained high but the utility-collected budget under Section 1-75(c)(1)(E) was largely committed (i.e., unavailable), the Agency would be constrained to using only $10 million to support Illinois Solar for All, despite having significantly more money available and regardless of whatever success the Solar for All programs had been experiencing. Thus, the IPA believes that the intention of this language in Section 1-75(c)(1)(O) is that 5% of utility-collected funds, or $10 million, whichever is greater, would be made available annually for Illinois Solar for All—in addition to whatever may be

[52] More specifically, Section 1-75(c)(1)(N) provides that "[t]he Agency shall purchase renewable energy credits from subscribed shares of photovoltaic community renewable generation projects **through the Adjustable Block program** described in subparagraph (K) of this paragraph (1) or through the Illinois Solar for All Program described in Section 1-56 of this Act" (emphasis added). (As the IPA cannot be the counterparty to REC delivery contracts under Section 1-75(c), the Agency understands "purchase" to effectively mean "procure" in this context.)

[53] 20 ILCS 3855/1-56(b)(2).

[54] 20 ILCS 3855/1-56(b)(4).

spent in a given year through the RERF. Given the importance of this issue in budgeting for Solar for All, the Agency would appreciate feedback on its Draft Plan on this interpretation.

Notwithstanding the language discussed in the paragraph above, the law also requires that for each of three particular delivery years—"the delivery years beginning June 1, 2017, June 1, 2021, and June 1, 2025"—the Plan "shall allocate 10% of the funds available under the plan for the applicable delivery year, or $20,000,000 per delivery year, whichever is greater," and $10,000,000 of such funds shall be used by ComEd to implement its Commission-approved workforce development plan filed under Section 16-108.12 of the PUA.[55] If additional funding for Illinois Solar for All programs is available under Section 16-108(k)[56] of the PUA, then the Plan "shall provide for the Agency to procure contracts in an amount that does not exceed the funding," with the applicable utility or utilities as the counterparty to such contracts.[57]

2.2.6. Items Not Included in Long-Term Renewable Resource Procurement Plan

While the Plan sets forth the IPA's proposed approach to meeting the state's renewable energy resource procurement targets, it is not the sole mechanism for facilitating the development of renewable energy in Illinois or providing value for the environmental attributes of electricity generation. Thus, many items that may be of interest to readers of this Plan are not directly addressed in this Plan, and below is a non-exhaustive list of those items not addressed in the Plan:

- Contracts or tariffs for the sale of energy from renewable energy generating facilities, whether through bilateral contracts, wholesale market sales, community renewable generation bill crediting, or net metering;
- Renewable energy resource procurement obligations of alternative retail electric suppliers under Section 16-115D of the PUA;
- The procurement of zero emission credits from zero emission facilities (i.e., nuclear generating facilities) under Section 1-75(d-5) of the IPA Act;
- Workforce development plans produced by a utility pursuant to Section 16-108.12 of the PUA;
- Renewable energy generating device installer certification requirements developed pursuant to Section 16-128A of the PUA;
- Renewable energy provider supplier diversity goals under Section 5-117(b) of the PUA;
- Tariff filings or modifications for the collection of funds used by utilities to pay for renewable energy credit and zero emission credit delivery contracts;
- Specific renewable energy generating projects, proposals, or sites;
- "Green" or "clean energy" retail supply products marketed and sold by alternative retail electric suppliers.

These issues may indeed be of significant interest to the Agency, and in some cases, their presence or resolution informed decisions made in this Plan. However, as they do not fall within the scope and

[55] 20 ILCS 3855/1-75(c)(1)(O).

[56] As discussed in Sections 2.6.1 and 8.4.3, up to one-half of excess collections by utilities for RPS purposes in each of the 2017-2018, 2018-2019, and 2019-2020 delivery years will be used to expand the Solar for All budget. 220 ILCS 5/16-108(k).

[57] 220 ILCS 5/16-108(k).

jurisdiction of what the IPA may propose and the Commission may approve as part of this Plan, specific proposals related to the above-listed topics are not made within this document.

2.2.7. Plan Development and Approval

The Plan development and approval largely mirrors the processes applicable to the Agency's annual procurement plan and zero emission standard procurement plan, only with longer timelines.

The process begins with the Agency developing an initial draft of this Plan, while Section 1-75(c)(1)(A) of the IPA Act provides that the "initial," or draft, Plan "be released for comment no later than 160 days after" the effective date of P.A. 99-0906 (i.e., June 1, 2017). Section 16-111.5(b)(5)(ii)(B) of the PUA provides that the Agency "shall publish for comment the initial long-term renewable resources procurement plan no later than 120 days after the effective date." The Agency has chosen to comply with the tighter of the two requirements, ensuring compliance under either approach, and thus released its draft Plan on September 29. 2017. As with the IPA's annual procurement plan prepared pursuant to Section 16-111.5(d)(2) of the PUA, copies of the draft Plan "and all subsequent revisions" shall be posted to the IPA and ICC websites and provided to each affected electric utility.

The law then provides parties with 45 days to provide comment on the draft plan. Comments will be made publicly available through being posted on the IPA's and ICC's websites, and such comments are required to be "specific, supported by data or other detailed analyses, and, if objecting to all or a portion of the procurement plan, accompanied by specific alternative wording or proposals." As this requirement mirrors a similar requirement applicable to the IPA's annual procurement plan, the Agency encourages parties to review comments made on past annual procurement plans for an understanding of the law's expectations.

During the comment period, the Agency is also required to hold public hearings for receiving public comment on the Plan in the service territory of each affected utility. The Agency's tentative public hearing plans are for a public hearing on October 26th in Springfield (Ameren Illinois), October 31st in Chicago (ComEd), and November 3rd in Moline (MidAmerican).

With a Plan release date of September 29, 2017, comments will be due on this initial Plan by November 13, 2017 and should be sent to the IPA's Planning and Procurement Bureau Chief, Mario Bohorquez, by email at Mario.Bohorquez@Illinois.gov.

After the conclusion of the comment period, "the Agency may revise the long-term renewable resources procurement plan based on the comments received" and, within 21 days after the conclusion of that period, "shall file the plan with the Commission for review and approval."[58] This would leave the Agency with a filing deadline of December 4, 2017.

The Illinois Commerce Commission's Plan approval proceeding will take the form of a contested, docketed proceeding governed by the Commission's Rules of Practice (Title 83, Part 200 of the Illinois Administrative Code). Similar to the requirements applicable to the IPA's annual procurement plans, within 14 days after the filing of the Plan, "any person objecting to the plan may file an objection with the Commission."[59] Assuming a December 4, 2017 filing date, "objections" would be due by December 18, 2017. Within 21 days after the filing of the Plan, the Commission shall determine

[58] Id.

[59] 220 ILCS 5/16-111.5(b)(5)(ii)(C).

whether a hearing is necessary.[60] Other deadlines, such as for Responses, Replies, the Administrative Law Judge's ("ALJ") Proposed Order, and Briefs on Exception, will be set by the ALJ through a notice issued during the proceeding.

The Commission shall enter its order confirming or modifying the initial Long-Term Renewable Resources Procurement Plan or any subsequent revisions within 120 days after the filing of the plan by the Illinois Power Agency.[61] Again, assuming a December 4, 2017 filing date, this would leave the Commission with an April 3, 2018 deadline for issuing an Order confirming or modifying the plan. As for the Commission's standard of review, it shall approve the Plan if it determines "that the plan will reasonably and prudently accomplish the requirements of Section 1-56 and subsection (c) of Section 1-75 of the Illinois Power Agency Act."[62]

2.2.8. Plan Updates

While the Agency's long-term renewable resources procurement plan features a "long-term" focus, many elements informing future program and procurement decisions—technological progress, marketplace changes, the success or failure of work undertaken under a prior-approved approach—are simply unknowable at this time. As a result, updates to the Plan will be crucial in ensuring that goals of the RPS are efficiently met.

The PUA provides that the Agency "shall review, and may revise, the plan at least every 2 years" after the initial Plan, and "shall review and propose any revisions to the long-term renewable energy resources procurement plan in conjunction with the Agency's other planning and approval processes"[63] conducted under this Section 16-111.5 of the PUA—specifically, the annual procurement plan development and approval process referenced in Section 16-111.5(d).[64] The Agency develops its annual plan in July and August of each year, publishes that plan for comment by August 15, receives comments on that plan over 30 days, and then files that plan with the Commission 14 days later. As very little work under this Plan will have been done by the time the Agency begins developing its next annual procurement plan (July 2018), the Agency tentatively plans for its first revisions to its Long-Term Renewable Resources Procurement Plan to be proposed in 2019, as part of the development and approval process of the IPA's 2020 annual procurement plan, which will take effect in 2020.

Lastly, "the Commission shall hold an informal hearing for the purpose of receiving comments on the prior year's procurement process and any recommendations for change" on or before July 1 of each year.[65] In satisfying a similar requirement applicable to the annual procurement plan, this has taken the form of written recommendations, technical or substantive, being submitted to the Commission and posted publicly on the Commission's website.

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[60] Id.

[61] Id.

[62] 220 ILCS 5/16-111.5(b)(5)(ii)(D).

[63] 220 ILCS 5/16-111.5(b)(5)(ii)(B).

[64] Section 1-75(c)(1)(A) of the Act contains a similar provision, stating that "[t]he Agency shall review, and may revise on an expedited basis, the long-term renewable resources procurement plan at least every 2 years, which shall be conducted in conjunction with the procurement plan under Section 16-111.5 of the Public Utilities Act to the extent practicable to minimize administrative expense."

[65] 220 ILCS 5/16-111.5(b)(5)(vi).

2.3. The RPS and Percentage-Based Goals of the RPS

The Illinois RPS shares similarity with other state RPSs which require that a certain percentage of electricity sales be met with a climbing percentage of renewable energy or renewable energy credit procurement. For Illinois, this total is 25% by 2025: "13% by the 2017 delivery year; increasing by at least 1.5% each delivery year thereafter to at least 25% by the 2025 delivery year; and continuing at no less than 25% for each delivery year thereafter."[66]

2.3.1. Load Applicable to RPS Goals

At first blush, the Agency's 25% by 2025 goal appears to mirror the Section 1-75(c)(1) targets found in Illinois law prior to P.A. 99-0906. However, prior to P.A. 99-0906, only "eligible retail customer" load—meaning load associated with utility default supply customers, and not customers taking supply through alternative retail electric suppliers or through hourly pricing—was subject to this requirement. In recent years, only 30-50% of potentially eligible retail customer load actually received default supply service, while competitive class customers (including all medium to large commercial and industrial customers—who represent approximately half of total load) had no default supply option. Stated differently, while the RPS featured a "25% by 2025" requirement prior to P.A 99-0906, the vast majority of retail customer load in Illinois was not covered by Section 1-75(c)(1)'s "25% by 2025" RPS goal.

Over two delivery years (beginning with the 2017 delivery year), P.A. 99-0906 transitions those goals applicable to only "eligible retail customer" load to goals applicable to all "all load for retail customers." For the 2017 delivery year, those goals are "equal to at least 13% of each utility's load for eligible retail customers and 13% of the *applicable portion* of each utility's load for retail customers who are not eligible retail customers," with the applicable portion at 50%. For the 2018 delivery year, the percentage goal increases to 14.5% while the applicable portion increases to 75%. For the 2019 delivery year, the percentage goal increases to 16% and applies to all retail customer load, including load associated with ARES customers.[67]

One exception exists to this load calculation transition, however: under Section 1-75(c)(1)(H), if an ARES owned one or more renewable generating facilities that were not wind or photovoltaic as of December 31, 2015, then that ARES may elect "to supply its retail customers with renewable energy credits from the facility or facilities" so long as those facilities continued to be owned by that ARES. This self-procurement from ARES-owned facilities by the ARES thus serves to reduce the statutory renewable energy resource obligation by the amount of RECs self-procured.

Further discussion of how these percentage-based multipliers apply to retail customer load to create actual REC procurement targets can be found in Chapter 3. As further discussed within that Chapter, of the renewable energy credits procured under Section 1-75(c), "at least 75% shall come from wind and photovoltaic projects."[68]

Notably, these requirements only apply to load served by Illinois' major electric distribution utilities: ComEd, Ameren Illinois, and that portion of MidAmerican load for which the IPA conducts procurements. The Illinois RPS goals do not apply to load served by municipal electric utilities, rural

[66] 20 ILCS 3855/1-75(c)(1)(B).

[67] Id.

[68] 20 ILCS 3855/1-75(c)(1)(C).

electric cooperatives, or Mt. Carmel Public Utility, and those entities do not have renewable energy procurement obligations under Illinois law.

2.3.2. Eligible Projects for IL RPS

Not all renewable energy generating facilities are eligible to sell RECs into the Illinois RPS. Changes made through P.A. 99-0906 have significantly narrowed the universe of facilities capable of generating RECs which qualify for the RPS, and specific criteria applicable to RECs or facilities producing those RECs are discussed further below.

2.3.2.1. Eligible Generating Technologies

The Illinois Power Agency Act's definition of "renewable energy resource" sets forth the generating technologies capable of producing RECs eligible for the Illinois RPS. As set forth in Section 1-10 of the IPA Act, the underlying energy must be generated "from wind, solar thermal energy, photovoltaic cells and panels, biodiesel, anaerobic digestion, crops and untreated and unadulterated organic waste biomass, tree waste, and hydropower that does not involve new construction or significant expansion of hydropower dams," as well as "landfill gas produced in the State." While this language largely mirrors the definition of "renewable energy resource" prior to P.A. 99-0906, that Act deleted the inclusion of "other alternative sources of environmentally preferable energy" from the former definition, thus clarifying that only those generating technologies delineated in the definition may qualify.

The Act also sets forth certain generating technologies categorically incapable of producing RECs eligible for the Illinois RPS, which include "the incineration or burning of tires, garbage, general household, institutional, and commercial waste, industrial lunchroom or office waste, landscape waste other than tree waste, railroad crossties, utility poles, or construction or demolition debris, other than untreated and unadulterated waste wood."[69]

Please note that these requirements are merely threshold requirements for the Illinois RPS; specific programs, such as the Adjustable Block Program, or procurement targets may carry additional limitations.

2.3.2.2. Eligible Projects—Locational

P.A. 99-0906 also introduced new locational and public interest benefit requirements for generating facilities seeking to sell RECs into the Illinois RPS. From the introduction of the Illinois RPS in 2007 to June 1, 2011, Section 1-75(c) required the Agency to first look to renewable energy resources from Illinois, then to resources from states adjoining Illinois, and then to elsewhere. After June 1, 2011, the IPA first looked to resources from Illinois and adjoining states, and next to "elsewhere."

Through the new Section 1-75(c)(1)(I), P.A. 99-0906 shifts the focus of the Illinois RPS's approach to project location in both focus and approach. A generating facility's RECs are no longer prioritized based on location; instead, the facility either qualifies for the Illinois RPS, or it does not.

Section 1-75(c)(1)(I) provides that the Plan must be designed "to maximize the State's interest in the health, safety, and welfare of its residents, including but not limited to minimizing sulfur dioxide, nitrogen oxide, particulate matter and other pollution that adversely affects public health in this

[69] 20 ILCS 3855/1-10.

State, increasing fuel and resource diversity in this State, enhancing the reliability and resiliency of the electricity distribution system in this State, meeting goals to limit carbon dioxide emissions under federal or State law, and contributing to a cleaner and healthier environment for the citizens of this State." While the statute presumes that a facility located in-state provides those benefits at a sufficient level, the Agency may also "may qualify renewable energy credits from facilities located in states adjacent to Illinois if the generator demonstrates and the Agency determines that the operation of such facility or facilities will help promote the State's interest in the health, safety, and welfare of its residents" based on this public interest criteria. As the law provides no discussion of potentially qualifying facilities located in states not "adjacent to Illinois," the IPA believes facilities located in those states cannot produce RECs for satisfying the Illinois RPS.

The Agency's discussion of how to apply these criteria to adjacent state facilities, as well as a listing of which states are considered "adjacent" to Illinois, can be found in Chapter 4.

2.3.2.3. Eligible Projects—Cost Recovery

Through Section 1-75(c)(1)(J), P.A. 99-0906 introduces an additional requirement on generating facilities seeking to generate RECs eligible for the Illinois RPS: "a generating unit whose costs were being recovered through rates regulated by this State or any other state or states on or after January 1, 2017" is ineligible. The statute's rationale behind this change is to "promote the competitive development of renewable energy resources in furtherance of the State's interest in the health, safety, and welfare of its residents." This raises multiple questions, among which are the following: first, what criteria should be used for determining whether a facility's costs are being recovered through regulated rates? Second, what of municipal utilities or rural cooperatives that effectively serve as vertically-integrated utilities (insofar as they can achieve full cost recovery for the development of renewable energy generating facilities through rates), but may not be regulated by "this state or any other state or states"? The Agency's proposed approach to these issues is discussed in Chapter 4, and the Agency remains interested in further feedback on this point in comments on the Agency's draft Plan.

The law also offers more punitive consequences if a non-regulated rate facility becomes a regulated rate facility after the execution of an Illinois RPS contract; in such a situation, the contract must be terminated and "the supplier of the credits must return 110% of all payments received under the contract"[70] (with those payments then being used for the procurement of additional RECs from new wind or photovoltaic generation in the Agency's next procurement event).

2.3.2.4. Installer Requirements

Certain facilities seeking to participate in the RPS are also subject to an installer qualification requirement. Specifically, after June 1, 2017, "new photovoltaic projects or new distributed renewable energy generation devices [. . .] must be procured from devices installed by a qualified person in compliance with the requirements of Section 16-128A of the Public Utilities Act and any rules or regulations adopted thereunder."[71]

[70] 20 ILCS 3855/1-75(c)(1)(J).

[71] 20 ILCS 3855/1-75(c)(7).

In Docket No. 17-0268, the Illinois Commerce Commission adopted its Title 83, Part 461 administrative rules under Section 16-128A of the PUA. In that proceeding, the Commission adopted the following definition for the term "qualified person":

> *"Qualified person" means a person who performs installations on behalf of the certificate holder and who has completed at least one of the following programs requiring lab or field work and received a certification of satisfactory completion: an apprenticeship as a journeyman electrician from a USDOL-registered or an applicable state-agency-registered electrical apprenticeship and training program; a North American Board of Certified Energy Practitioners (NABCEP) distributed generation technology certification program; an electrical training program for in-house employees established and administered by an electric utility regulated by the Commission; or an Associate in Applied Science degree from an Illinois Community College Board or approved community college program in the appropriate generation technology; or a mandated apprentice or training program for an electrician in another state.*

The Part 461 rules also provide a definition of the term "install":

> *"Install" means to perform the electrical wiring and connections necessary to interconnect the new solar project with the electric utility's transmission or distribution system at the point of interconnection between the project and the utility. The meaning of "install" in this Part specifically does not include:*
>
> - *Electrical wiring and connections to interconnect the new solar project performed by utility workers;*
> - *Electrical wiring and connections internal to the new solar project performed by the manufacturer;*
> - *The on-site construction and installation of a solar panel or a collector substation; or*
> - *Tasks relating to construction, planning and project management performed by individuals such as an inspector, management planner, consultant, project designer, or contractor for the project or their employees.*

These definitions were approved by the Commission in a Second Notice Order entered on August 25, 2017; approval by the state's Joint Committee on Administrative Rules ("JCAR") is expected to occur sometime in October of 2017.[72] Any parties seeking to develop new photovoltaic projects or DG projects in Illinois should also be aware of the Commission's Part 461 and Part 468 rules (governing distributed generation installers) and certification process more generally as well.

2.3.3. Compliance Mechanism: RECs vs. "Renewable Energy Resources"

One other change to the Illinois RPS concerns what appears to be the exclusive use of RECs as the compliance mechanism for meeting Illinois renewable energy procurement targets. Prior to P.A. 99-0906, Section 1-75(c) required renewable energy procurement targets to be met through the procurement of "renewable energy resources"—either a REC, or the REC and its underlying energy.

[72] 5 ILCS 100/5-40(c).

While the vast majority of the IPA's procurement activities focused only on the procurement of RECs, the 2010 long-term power purchase agreements are 20-year contracts for the delivery of a "bundled" REC and energy product.

Rather than using the term "renewable energy resources," Section 1-75(c)(1)(B) requires that the Plan "shall include the goals for procurement of renewable energy credits"[73] to meet the statute's targets. While the description of the ARES load transition later in that same subparagraph (B) uses the term "renewable energy resources," subparagraph (C) and later subparagraphs also refer only to the procurement of "renewable energy credits" (although subparagraph (E) references "renewable energy resources").

A shift in focus from "resources" to "RECs" makes intuitive sense; the IPA's prior Section 1-75(c) renewable energy planning and procurement processes were conducted in conjunction with the development of its annual procurement plan for meeting the energy supply requirements of eligible retail customers, and used to meet procurement requirements specific to that customer base. While the IPA now conducts renewable energy planning and procurement processes to (eventually) meet targets applicable to all retail customer load, its energy procurements still focus only on eligible retail customer load—thus creating a disconnect between the universes of supply requirements served by these two exercises.

While the IPA has no position on whether it *could* procure a bundled REC and energy product through the Plan or future revisions to it, the Agency proposes no such bundled product procurements as part of this Plan and believes that no changes made to the law jeopardize prior-executed bundled "renewable energy resource" contracts (such as the 2010 LTTPAs).

2.3.4. RPS Funding and Rate Impact Cap

As before, the procurement of renewable energy credits continues to be constrained by an annual procurement budget established through a rate impact cap. Specifically, "the total of renewable energy resources procured under the procurement plan for any single year . . . shall be reduced for all retail customers based on the amount necessary to limit the annual estimated average net increase due to the costs of these resources included in the amounts paid by eligible retail customers in connection with electric service to no more than the greater of 2.015% of the amount paid per kilowatthour by those customers during the year ending May 31, 2007 or the incremental amount per kilowatthour paid for these resources in 2011."[74] The greater of these amounts—the 2007 amount per kilowatt-hour ("kWh"), as both amounts are known and, for each utility, it is greater[75]—then "shall be applied to the actual amount of kilowatthours of electricity delivered, or applicable portion of such amount [. . .] by the electric utility in the delivery year immediately prior to the procurement to all retail customers in its service territory." This produces an annual REC procurement budget for the "costs of those resources" in a given year.[76]

[73] Emphasis added.

[74] 20 ILCS 3855/1-75(c)(1)(E).

[75] The specific cost cap rate for each of the three utilities is shown in Table 3-1 in Chapter 3 of this Plan.

[76] The exception referenced above in Section 1-75(c)(1)(H) serves to reduce available budgets as well, as "the charges that would otherwise be applicable to the retail customers of the alternative retail electric supplier . . . shall be reduced by the ratio of the quantity of renewable energy credits supplied by the alternative retail electric supplier compared to that supplier's target renewable energy credit quantity."

For a limited period, P.A. 99-0906's changes to Section 16-108(k) of the PUA also allow for budget amounts to be rolled over to future years. Those changes provide that rather than conducting annual reconciliations of collections and costs, the Commission "shall instead conduct a single review, reconciliation, and true-up associated with renewable energy resources' collections and costs for the 4-year period beginning June 1, 2017 and ending May 31, 2021, provided that the review, reconciliation, and true-up shall not be initiated until after August 31, 2021." Over that four-year period prior to the eventual reconciliation, "the utility shall be permitted to collect and retain funds under this subsection (k) and to purchase renewable energy resources under an approved long-term renewable resources procurement plan using those funds regardless of the delivery year in which the funds were collected during the 4-year period."

Through the budgets established under the rate impact cap and the associated tariffs for the collection of funds, the applicable electric utility "shall be entitled to recover all of its costs associated with the procurement of renewable energy credits" under the Plan, including "associated reasonable expenses for implementing the procurement programs, including, but not limited to, the costs of administering and evaluating the Adjustable Block program."[77] As a result, annual procurement budgets based only on REC costs would be inaccurate, and some estimate of associated administrative expenses must be included and taken into account.

Further discussion of the rate impact cap, and the projected budgets produced under the rate impact cap, can be found in Chapter 3.

2.3.5. Employment Opportunities

The law also provides that "the renewable energy credit procurements, Adjustable Block solar program, and community renewable generation program shall provide employment opportunities for all segments of the population and workforce, including minority-owned and female-owned business enterprises, and shall not, consistent with State and federal law, discriminate based on race or socioeconomic status."[78] The IPA believes strongly in the principles outlined in this statement in the law, and believes that its Plan—including provisions to lower the barrier to entry in the Adjustable Block Program for minority-owned and female owned businesses, its Illinois Solar for All proposals, its approach to generation in adjacent states, and its approach to the geographic diversity of projects within Illinois—properly takes those considerations into account and will result in those opportunities being provided.

2.4. Quantitative New Build Targets of the RPS

Section 1-75(c)(1)(B) of the IPA Act establishes percentage-based umbrella goals for RECs required to be procured based on a percentage of applicable retail customer load, but within those umbrella requirements, other, more specific requirements must be also be met. One such requirement is the procurement of RECs from "new wind projects" and "new photovoltaic projects" found in Section 1-75(c)(1)(C). Rather than expressed as a percentage of load, these requirements are expressed on a quantitative basis (i.e., a fixed, statutorily-defined minimum number of RECs) while counting toward the overall renewables procurement requirements.

[77] 20 ILCS 3855/1-75(c)(6).

[78] 20 ILCS 3855/1-75(c)(7).

2.4.1. Quantitative Procurement Requirements

The quantitative targets found in Section 1-75(c)(1)(C) are straightforward and symmetrical, and operate as follows:

By the end of the 2020 delivery year (May 31, 2021):

- At least 2,000,000 renewable energy credits for each delivery year shall come from new wind projects; and
- At least 2,000,000 renewable energy credits for each delivery year shall come from new photovoltaic projects.

By the end of the 2025 delivery year (May 31, 2026):

- At least 3,000,000 renewable energy credits for each delivery year shall come from new wind projects; and
- At least 3,000,000 renewable energy credits for each delivery year shall come from new photovoltaic projects.

By the end of the 2030 delivery year (May 31, 2031):

- At least 4,000,000 renewable energy credits for each delivery year shall come from new wind projects; and
- At least 4,000,000 renewable energy credits for each delivery year shall come from new photovoltaic projects.

For the "new photovoltaic project" requirement, at least 50% must come from solar photovoltaic projects using the Adjustable Block Program (used to support distributed generation and community solar, as discussed further below), at least 40% from utility-scale solar projects, and at least 2% from non-community solar brownfield site photovoltaic projects. The Agency understands this "at least 50%" concept to be first, in terms of RECs (as opposed to budget or installed capacity), and also, of the quantitative target amounts listed in the law (as, in each of Sections 1-75(c)(1)(C)(i), (ii), and (iii) "of that amount" references the REC amount expressly preceding it in the law), and not necessarily 50% of the overall number of RECs procured.[79]

The Agency's proposed procurements for meeting these targets can be found in Chapter 5.

2.4.2. "New wind project" and "new photovoltaic project" Definition

The definitions of a "new wind project" and a "new photovoltaic project" are also addressed through the statute. What constitutes a "new photovoltaic project" is straightforward; it is a "photovoltaic renewable energy facility[y] that [is] energized after June 1, 2017."[80] Projects developed under Section 1-56 of the IPA Act (i.e., supplemental photovoltaic and Illinois Solar for All projects) are not eligible to meet quantitative "new photovoltaic project" targets.[81]

[79] Thus, were the Adjustable Block Program to be extremely successful very quickly and exceed the targets of 1,000,000 RECs by the end of 2020-2021 and 1,500,000 RECs by the end of 2025-2026, the "at least 40%" requirement for utility-scale photovoltaic projects remains at 40% of the new photovoltaic targets stated in the law, or 800,000 RECs by the end of the 2020 delivery year and 1,200,000 RECS by the end of the 2025 delivery year. 20 ILCS 3855/1-75(c)(1)(C)(i), (ii).

[80] 20 ILCS 3855/1-10.

[81] Id.

The definition of a "new wind project" is more awkward. The law defines "new wind projects" as "wind renewable energy facilities that are energized after June 1, 2017 for the delivery year commencing June 1, 2017 or within 3 years after the date the Commission approves contracts for subsequent delivery years."[82] This could be understood in one of two ways: perhaps most literally, this means that for any delivery year after June 1, 2017 ("subsequent delivery years," beginning with the 2018 delivery year), a new wind project, once energized, is only "new" until the end of the 3 years after the date on which the Commission approves its REC delivery contract. While perhaps a fair reading of the language actually used, the IPA believes this could not have been the drafters' intent—many wind projects may take 3 years to develop, interconnect, and produce RECs, thus meaning that RECs produced from the facility would no longer be "new" around the time that the facility begins operation. As this interpretation would allow for wind projects to be "new" for only a brief, defined period before the facility may have begun operation, the IPA believes this could not have been the drafters' intent.

Instead, the IPA understands that "for subsequent delivery years"—projects for which contracts are entered into on or after June 1, 2018—the "3 years after the date" of contract approval is effectively a deadline by when the facility must be "energized" for it to retain its "new" status under the law going forward. Stated differently, if the facility is able to be energized within 3 years after the date on which the Commission approves its REC contract, then those RECs may be counted toward the "new wind project" procurement targets in the law over the life of the contract. However, if the wind project cannot energize within 3 years after Commission approval, its RECs may not be used to count toward quantitative "new wind project" targets, and resultant REC delivery contracts should reflect a consequence for that change in legal status (as the project's RECs would then have less value in meeting the requirements of the RPS; they would meet the percentage goals of Section 1-75(c)(1)(B) of the Act, but not the quantitative REC targets of Section 1-75(c)(1)(C)).

Of course, both of these definitions raise the question of what constitutes a facility being "energized." Unlike interconnection, where official approval is required and associated forms are produced and executed on a specific date, "energized" is more nebulous and, unfortunately, not defined through the law. Faced with a similar quandary in developing its Supplemental Photovoltaic Procurement Plan, the Agency settled on a definition of "energized" as being "the date by which the System has been turned on for a period of 24 consecutive hours and is operational for purposes of generating electricity regardless of whether the system has registered with a REC tracking system." Parties could then substantiate a system's energization through a certification accompanied by the submission of various forms establishing a system's energization timeline. The Agency notes that unlike the Supplemental Photovoltaic Procurement process, in which payment for RECs was made after REC generation and only upon delivery and invoice to the Agency, the Adjustable Block Program and the Illinois Solar for All Program feature prepayment for some, or all, of the RECs from a system upon energization. Therefore, as discussed in Chapters 6 and 8, some consideration should be made of a system being registered in a tracking system to generate RECs. On this draft Plan, the IPA seeks feedback on, first, what underlying activities should constitute a system being "energized" for purposes of a deadline in the law and, second, what documents or forms could be used to substantiate that this is, in fact, the system's "energized" date.

[82] 20 ILCS 3855/1-75(c)(1)(C).

2.4.3. Initial Forward Procurements

Independent of (and potentially prior to) the development of this Plan, P.A. 99-0906 called on the IPA to conduct "initial forward procurements" of RECs from "from new utility-scale wind projects" and "from new utility-scale solar projects and brownfield site photovoltaic projects."[83] Conducted through competitive procurement processes subject to applicable requirements of Section 16-111.5 of the PUA, the Initial Forward Procurement sought/seeks 15-year REC delivery contracts set to begin delivery on June 1, 2019 at the earliest and June 1, 2021 at the latest. For both wind and solar, the overall REC procurement quantities are 1,000,000 RECs, with the wind procurement required to take place within 160 days of June 1, 2017 and the solar procurement potentially conducted across multiple procurement events up to one year from June 1, 2017.[84]

The statute provides that RECs procured through the Initial Forward Procurement "shall be included in the Agency's Long-Term Renewable Resources Procurement Plan and shall apply to all renewable energy goals"[85] found in Section 1-75(c) of the IPA Act, including the quantitative "new wind" and "new photovoltaic" targets discussed above. The Agency's Initial Forward Procurement for new wind has concluded, as has the first of the Agency's procurement events for new photovoltaics; the expected results of the Initial Forward Procurement, as well as how those results inform remaining quantitative procurement targets, are discussed further in Chapters 3 and 5.

2.4.4. Subsequent Forward Procurements

Section 1-75(c)(1)(G)(iii) also floats the concept of "subsequent forward procurements." That section sets forth conditions applicable to subsequent forward procurements: they must be "for utility-scale wind projects," they "shall solicit at least 1,000,000 renewable energy credits delivered annually per procurement event," and they shall be "planned, scheduled, and designed such that the cumulative amount of [RECs] delivered from all new wind projects in each delivery year shall not exceed the Agency's projection of the cumulative amount of [RECs] that will be delivered from all new photovoltaic projects," in that same delivery year.

However, the law does not contain statements either requiring that the Agency conduct a subsequent forward procurement, or requiring that RECs from utility-scale wind projects may only be procured using a subsequent forward procurement model. Nevertheless, consistent with the spirit of the law and in recognition that the Agency will need to procure at least 1,000,000 additional new wind project RECs to meet its Section 1-75(c)(1)(C)(i) 2020 Delivery Year quantitative new wind target (as no more than 1,000,000 could be procured through the initial forward procurement to meet a 2,000,000 REC target for 2020-2021), the Agency has proposed a Subsequent Forward Procurement for RECs from new wind projects as part of the Plan. Further discussion of the Agency's proposed Subsequent Forward Procurement can be found in Chapter 5.

2.4.5. Balancing Expected Wind RECs vs. Solar RECs

In addition to the condition placed on subsequent forward procurements mentioned above, the law also contains a more general requirement that RECs under contract from new wind projects not significantly exceed RECs under contract from new photovoltaic projects. Specifically, if the

[83] 20 ILCS 3855/1-75(c)(1)(G)(i), (ii).

[84] Id.

[85] Id.

projected amount of RECs from new wind projects to be delivered in a given delivery year exceeds the projected amount of RECs from new photovoltaic projects by 200,000 or more RECs, then "the Agency shall within 60 days adjust the procurement programs in the long-term renewable resources procurement plan to ensure that the projected cumulative amount of renewable energy credits to be delivered from all new wind projects does not exceed the projected cumulative amount of renewable energy credits to be delivered from all new photovoltaic projects by 200,000 or more renewable energy credits."[86]

This requirement is not intended to be applicable to results from the Initial Forward Procurements, at least initially. Given that the Initial Forward Procurement calls for 1,000,000 RECs from "new wind projects" to be procured "within 160 days after the effective date" of P.A. 99-0906, but the Initial Forward Procurement from "new photovoltaic projects" is to be procured "within one year after the effective date," the law openly accommodates a longer time horizon for bringing solar RECs under contract from the initial forward procurements. As the law expressly establishes this matching requirement as only applicable "at any time after the time set for delivery of renewable energy credits pursuant to the initial procurements,"[87] the IPA understands that this requirement becomes applicable to its planning process after June 1, 2021, the latest date for first delivery of RECs from the initial forward procurements.

The law also provides that the Agency shall provide "its projection of the renewable energy credits to be delivered from all projects in each delivery year" on a "quarterly basis."[88]

2.5. Adjustable Block & Community Renewable Generation Programs

As referenced above, at least 50% of the quantitative new photovoltaic targets found in Section 1-75(c)(1)(C) of the IPA Act shall be procured "from solar photovoltaic projects using the program outlined in subparagraph (K) of this paragraph (1) from distributed renewable energy generation devices or community renewable generation projects"—i.e., using the Adjustable Block Program.

2.5.1. Adjustable Block Program

At its core, the Adjustable Block Program is perhaps most notable for what it is not: it is not a "competitive procurement event" using "pay as bid" pricing with selection of bids on the basis of price. Nor is it a project selection process through which public interest criteria, such as those set forth in Section 1-75(c)(1)(I) or those employed for the selection of winning bids under the Zero Emission Standard found in Section 1-75(d-5) of the IPA Act, determine the winning bidder.

Instead, the Adjustable Block Program provides "a transparent schedule of prices and quantities to enable the photovoltaic market to scale up and for renewable energy credit prices to adjust at a predictable rate over time."[89] Stated differently, a party seeking a REC contract—such as a photovoltaic distributed generation or community solar project developer—knows the REC price in advance, and has visibility into when and how that price may change. The law sets forth other requirements of the Adjustable Block Program: it must include "a schedule of standard block purchase prices to be offered; a series of steps, with associated nameplate capacity and purchase

[86] 20 ILCS 3855/1-75(c)(1)(G)(iv).

[87] Id.

[88] Id.

[89] 20 ILCS 3855/1-75(c)(1)(K).

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."[90] Thus, each block constitutes a quantity of nameplate capacity with a REC price[91] attached to that block, and when a block is fully subscribed by qualifying projects, projects may then qualify for the next block (which features a different price). The Agency understands that "automatic opening" as used in the law need not be "immediate" or "instantaneous," and instead that "automatic" refers to the ability for the block to open in a predictable manner not requiring additional administrative action.

2.5.1.1. Adjustable Block Program—Projects

The Adjustable Block Program is applicable to only two project types: photovoltaic distributed renewable energy generation devices (i.e., solar DG), and photovoltaic community renewable generation projects (i.e., community solar[92]).

Under Illinois law, a photovoltaic distributed renewable energy generation device must be:

(1) Powered by photovoltaics;
(2) interconnected at the distribution system level of either an electric utility as defined in this Section, a municipal utility as defined in this Section that owns or operates electric distribution facilities, or a rural electric cooperative as defined in Section 3-119 of the Public Utilities Act (and thus, must be located in Illinois to be interconnected to such an entity);
(3) located on the customer side of the customer's electric meter and is primarily used to offset that customer's electricity load; and
(4) limited in nameplate capacity to less than or equal to 2,000 kilowatts.[93]

Under Illinois law, a photovoltaic community renewable generation project is a generation facility that:

(1) is powered by photovoltaics;
(2) is interconnected at the distribution system level of an electric utility as defined in this Section, a municipal utility as defined in this Section that owns or operates electric distribution facilities, a public utility as defined in Section 3-105 of the Public Utilities Act, or an electric cooperative, as defined in Section 3-119 of the Public Utilities Act;
(3) credits the value of electricity generated by the facility to the subscribers of the facility; and
(4) is limited in nameplate capacity to less than or equal to 2,000 kilowatts.[94]

Only new projects—those "energized on or after June 1, 2017"—are eligible for the Adjustable Block Program (again raising the question of what constitutes an "energized" project).

[90] Id.

[91] Note that prices can be a set value, or established as the product of a formula.

[92] There are other forms of community solar recognized by Illinois law, including (A) properties owned or leased by multiple customers that contribute to the operation of an eligible renewable electrical generating facility, and (B) individual units, apartments, or properties located in a single building that are owned or leased by multiple customers and collectively served by a common eligible renewable electrical generating facility. 220 ILCS 5/16-107.5(*l*)(1). These forms of community solar are not eligible for the Adjustable Block Program.

[93] 20 ILCS 3855/1-10.

[94] Id.

In terms of what project types participate at what level within the Adjustable Block Program, the law provides the following delineation:

(1) At least 25% from distributed renewable energy generation devices with a nameplate capacity of no more than 10 kilowatts;
(2) At least 25% from distributed renewable energy generation devices with a nameplate capacity of more than 10 kilowatts and no more than 2,000 kilowatts.[95]
(3) At least 25% from photovoltaic community renewable generation projects.
(4) The remaining 25% shall be allocated as specified by the Agency in the long-term renewable resources procurement plan.[96]

The Agency believes that this remaining allocation requirement does not necessarily require a strict assignment of the remaining 25% to one of the prior three categories, and that the remainder can be allocated to adjust for ongoing program performance of the other categories.

The above categories also raise the question of "25% of what"—installed capacity? Budgets? RECs? While the statute is perhaps unclear, the IPA believes that, given that RECs are the standard compliance pathway in the revised Illinois RPS, 25% should be understood to refer to the number of RECs procured from projects of that type.

The law also provides that the Adjustable Block Program shall ensure that RECs are procured from "projects in diverse locations and are not concentrated in a few geographic areas." At present, the Agency believes that no special incentive or adder based only on geographic diversity is necessary to ensure that this objective is met, but commits to review this issue in the next revision to the Plan.

2.5.1.2. Adjustable Block Program—Contracts

Section 1-75(c)(1)(L) sets forth certain requirements applicable to REC delivery contracts entered into through the Adjustable Block Program. The first is that contracts must be "at least 15 years in length," which the Agency understands to require at least 15 years of REC deliveries under the contract. Payment for RECs is made by (and RECs are delivered to) the applicable electric utility (which is then required to retire the RECs), and payment is required by law to occur according to the following schedule:

For DG systems of no more than 10 kW, "the renewable energy credit purchase price shall be paid in full by the contracting utilities at the time that the facility producing the renewable energy credits is interconnected at the distribution system level of the utility and energized."[97] The Agency understands "purchase price" to refer to the sum of payments for RECs required to be made under the contract, or full prepayment.[98]

For larger DG systems and community solar projects, "20 percent of the renewable energy credit purchase price shall be paid by the contracting utilities at the time that the facility producing the

[95] The Agency may create sub-categories within this category to account for the differences between projects for small commercial customers, large commercial customers, and public or non-profit customers.

[96] 20 ILCS 3855/1-75(c)(1)(K).

[97] 20 ILCS 3855/1-75(c)(1)(L)(ii). The Agency understands this provision to mean that a system 10 kW in size would be included in this category.

[98] All prepayment remains subject to the amounts actually collected by the utilities under its Section 16-108(k) tariffs, however. (See Section 1-75(c)(1)(L)(vii)).

renewable energy credits is interconnected at the distribution system level of the utility and energized" with the remaining portion "paid ratably over the subsequent 4-year period."[99]

Prepayment poses unique challenges—while RECs are required to be delivered when generated to meet annual utility compliance obligations, prepayment reduces the incentive to actually deliver RECs. On this point, the law requires that each contract "shall include provisions to ensure the delivery of the renewable energy credits for the full term of the contract," and the Agency's approach to clawback provisions and other contract elements intended to ensure REC delivery can be found in Chapter 6.

2.5.1.3. Adjustable Block Program—Changes

Unlike a competitive procurement process, through which changes in market conditions may be reflected in bidders' bids, the Adjustable Block Program requires that the Agency project future market conditions through establishing future block sizes and prices.

The law envisions these changes occurring in two ways: first, the Agency "may periodically review its prior decisions establishing the number of blocks, the amount of generation capacity in each block, and the purchase price for each block, and may propose, on an expedited basis, changes to these previously set values" subject to the Section 16-111.5 plan revision process.[100]

Second, "[p]rogram modifications to any price, capacity block, or other program element that do not deviate from the Commission's approved value by more than 25% shall take effect immediately and are not subject to Commission review and approval."[101] This raises the question of what baseline the 25% deviation cap should be based on—would two 20% changes over the course of a year be permissible, as neither was above 25% even though both were in aggregate? If not, how long must the Agency wait until the next change is made? To prevent the requirement that the Agency seek formal administrative approval for large modifications from being effectively ignored, the Agency believes this threshold should be understood as a 25% change based on the last formally approved (i.e., through establishment or revision of the Plan via Commission's Section 16-111.5 approval process) level.

Section 1-75(c)(1)(M) of the Act requires that the Agency "consider stakeholder feedback when making adjustments to the Adjustable Block design" and "notify stakeholders in advance of any planned changes," and the Agency commits to do so, as discussed further in Chapter 6. Likewise, the law requires that "[t]he Agency and its consultant or consultants shall monitor block activity, share program activity with stakeholders and conduct regularly scheduled meetings to discuss program activity and market conditions." As described further in Chapter 6, the Agency plans to closely monitor program performance and shall seek to be proactive in communicating with stakeholders about program performance and making any necessary changes to the structure of the Adjustable Block Program.

[99] 20 ILCS 3855/1-75(c)(1)(L)(iii).

[100] 20 ILCS 3855/1-75(c)(1)(K).

[101] 20 ILCS 3855/1-75(c)(1)(M).

2.5.2. Community Renewable Generation Program

P.A. 99-0906 also calls for the establishment of a "community renewable generation program."[102] Unlike with the Adjustable Block Program, the law does not set forth procurement targets or a proposed contract structure for this program; the Agency thus understands that, legally, it has latitude to design its Community Renewable Generation Program in any manner otherwise consistent with state law and done "with a goal to expand renewable energy generating facility access to a broader group of energy consumers, to ensure robust participation opportunities for residential and small commercial customers and those who cannot install renewable energy on their own properties."[103]

From the law, the exact interaction and structure between the Agency's Community Renewable Generation Program, and the portion of the Agency's Adjustable Block Program set-aside for community solar, is unclear; the law simply references that "subscribed shares of photovoltaic community renewable generation projects" shall be purchased through the Adjustable Block Program.[104] Thus, the IPA understands the community solar portion of its Adjustable Block Program to be something of a subset of its Community Renewable Generation Program, with a standalone Community Renewable Generation Program still required to be established to provide support for community renewable generation projects using technology other than photovoltaics.

Along these lines, Section 1-75(c)(1)(N) requires that "subscriptions" to community renewable generation projects under the Community Renewable Generation Program must be portable (i.e., retained by the subscriber even if the subscriber relocates or changes its address within the same utility service territory) and transferable (i.e., a subscriber may assign or sell subscriptions to another person within the same utility service territory). The Agency believes that these requirements apply to subscriptions for community solar projects participating in the Adjustable Block Program as well.

Further discussion of the IPA's Community Renewable Generation Program can be found in Chapter 7.

2.6. Illinois Solar for All

Set forth in Section 1-56(b) of the IPA Act, the Illinois Solar for All Program shall "include incentives for low-income distributed generation and community solar projects, and other associated approved expenditures" in order "to bring photovoltaics to low-income communities in this State in a manner that maximizes the development of new photovoltaic generating facilities, to create a long-term, low-income solar marketplace throughout this State, to integrate, through interaction with stakeholders, with existing energy efficiency initiatives, and to minimize administrative costs." Further, the program shall be "designed to grow the low-income solar market."[105]

An overview of the Illinois Solar for All Program, as well as the individual sub-programs under the Illinois Solar for All banner, is below.

[102] 20 ILCS 3855/1-75(c)(1)(N).

[103] Id.

[104] Id.

[105] 20 ILCS 3855/1-56(b)(2).

2.6.1. Illinois Solar for All—Overview

At its core, the Illinois Solar for All Program is an incentive program—through more generous REC contracts, the Illinois Solar for All Program incents low-income participation in solar photovoltaic projects, whether as a system owner, community solar project subscriber, or system host. Those RECs are retired to satisfy Section 1-75(c) compliance obligations just as with the other procurements and programs described above, while the additional premium helps produce benefits specific to growing the low-income solar marketplace and ensuring more equitable access to the benefits of clean energy.

Structurally, the law appears to permit two models for how those incentives operate—either through contracts for RECs at a premium price reflecting the additional incentive necessary to ensure low-income participation, or through an incentive premium applicable to Section 1-75(c)(1)(K) Adjustable Block Program REC contract prices (with the Illinois Solar for All Program simply entailing the administration of additional incentives). As discussed further in Chapter 8, the IPA believes that the former approach is most appropriate; ultimately, the program is administered through awarding contracts for consideration, and that consideration is the delivery of a REC used to satisfy a compliance obligation under Section 1-75(c)(1) of the Act. Ultimately, parsing REC delivery contracts into two components—the base payment-for-a-REC delivery contract and a separate incentive adder, potentially paid by a different counterparty—appears inconsistent with a program design built around "contracts" rather than rebates or grants.

The program features no hard targets or goals for RECs required to be procured, but does feature defined funding sources. First, Illinois Solar for All is funded through using the Renewable Energy Resources Fund. Unfortunately, at the time of this draft Plan's publishing (roughly one month after the unexpected transfer of $150 million out of the RERF), the existing balance of the RERF is below the current balance of already-committed contractual obligations, and the IPA considers any existing contractual obligations from the RERF (specifically, Supplemental Photovoltaic Procurement contracts) to be senior to any new obligations entered into through the Illinois Solar for All Program.[106] State law[107] requires that $150 million be transferred back into the RERF within 24 months of its transfer in August 2017, but no additional alternative compliance payments are due to be made into the RERF.[108]

Second, Illinois Solar for All is funded through a portion of funds collected by the utilities under their Section 16-108(k) RPS tariffs for purchases made under Section 1-75(c) of the IPA Act. Under Section 1-75(c)(1)(O), "5% of the funds available under the plan for the applicable delivery year, or $10,000,000 per delivery year, whichever is greater" is available for Illinois Solar for All annually in most years; while "for the delivery years beginning June 1, 2017, June 1, 2021, and June 1, 2025, the long-term renewable resources procurement plan shall allocate 10% of the funds available under the plan for the applicable delivery year, or $20,000,000 per delivery year, whichever is greater" with

[106] This appears to be the intent evident in Section 1-56(b) as well, as that section prefaces the percentage-based allocation of RERF funds with the qualifier "monies available in the Illinois Power Agency Renewable Energy Resources Fund and not otherwise committed to contracts executed under subsection (i) of this Section." (emphasis added)

[107] 30 ILCS 105/5h.5(b).

[108] Section 16-115D of the PUA provides that while "[t]hrough May 31, 2017, all alternative compliance payments by alternative retail electric suppliers shall be deposited in the Illinois Power Agency Renewable Energy Resources Fund," "beginning with the delivery year commencing June 1, 2017, all alternative compliance payments by alternative retail electric suppliers shall be remitted to the applicable electric utility" and not deposited into the RERF. (220 ILCS 5/16-115D(d)(4), (4.5).) See also 83 Ill Adm. Code Part 455 (rules pending before JCAR).

$10 million in each of those three delivery years going toward funding ComEd's workforce development plan. This mechanism ensures a base level of Illinois Solar for All funding annually, which is crucial given the uncertainty surrounding the RERF.

Third, Section 16-108(k) of the PUA contains the following provision:

> *If the amount of funds collected during the delivery year commencing June 1, 2017, exceeds the costs incurred during that delivery year, then up to half of this excess amount, as calculated on June 1, 2018, may be used to fund the programs under subsection (b) of Section 1-56 of the Illinois Power Agency Act in the same proportion the programs are funded under that subsection (b). However, any amount identified under this subsection (k) to fund programs under subsection (b) of Section 1-56 of the Illinois Power Agency Act shall be reduced if it exceeds the funding shortfall. For purposes of this Section, "funding shortfall" means the difference between $200,000,000 and the amount appropriated by the General Assembly to the Illinois Power Agency Renewable Energy Resources Fund during the period that commences on the effective date of this amendatory act of the 99th General Assembly and ends on August 1, 2018.*

Similar provisions exist in Section 16-108(k) for each of the delivery years commencing June 1, 2018 and June 1, 2019, and the meaning is unclear: there is no single "amount appropriated by the General Assembly to the Illinois Power Agency Renewable Energy Resources Fund" for the 14 months referenced in the paragraph above; instead, there are three separate fiscal year appropriations[109] covered by this period, one of which is currently unknown and will not be known for some time. The logic behind the provision is likewise unclear, as the Agency's appropriation is merely its legislatively-granted authority to spend and does not reflect actual expenditures made—and thus, the "amount appropriated" is a slightly awkward measuring tool for a "funding shortfall."

Should funding for Illinois Solar for All be available[110] under this mechanism (while unstated in the law, presumably for overcollections in the 2017-2018 delivery year, although the Agency would reserve the right to develop a revised procurement plan should overcollections occur in 2018-2019 or 2019-2020), then "the Agency shall submit a procurement plan to the Commission no later than September 1, 2018, that proposes how the Agency will procure programs on behalf of the applicable utility."[111] The Commission would have until November 1, 2018 to approve any such Plan.

Under the Illinois Solar for All Program, payments "shall be in exchange for an assignment of all renewable energy credits generated by the system during the first 15 years of operation and shall be structured to overcome barriers to participation in the solar market by the low-income community."[112] The contract "may pay for such renewable energy credits through an upfront payment per installed kilowatt of nameplate capacity paid once the device is interconnected at the

[109] These are the appropriations for Fiscal Year 2017 (July 1, 2016 through June 30, 2017), Fiscal Year 2018 (July 1, 2017 through June 30, 2017), and Fiscal Year 2019 (July 1, 2018 through June 30, 2019).

[110] Following each of the 2017-2018, 2018-2019, and 2019-2020 delivery years, the Agency will ask each of ComEd, Ameren Illinois, and MidAmerican to provide an accounting of the utility's RPS rider collections during the preceding delivery year and the costs it incurred for Section 1-75(c) contracts during that delivery year.

[111] 20 ILCS 3855/1-56(b)(7).

[112] 20 ILCS 3855/1-56(b)(3).

distribution system level of the utility and is energized," giving the Agency flexibility in proposing contract structures.[113]

The counterparty to Illinois Solar for All contracts entered into using RERF funds is the Agency, while the counterparty to contracts entered into using utility funds is the applicable utility.

In addition to payments for REC delivery contracts, the law provides that "[t]he Agency shall ensure collaboration with community agencies, and allocate up to 5% of the funds available under the Illinois Solar for All Program to community-based groups to assist in grassroots education efforts related to the Illinois Solar for All Program." Notably, for grassroots education efforts, this amount is not based only on the balance of the RERF; it is instead "up to 5% of the funds available under the Illinois Solar for All Program," and thus also inclusive of any Section 1-75(c) or 16-108(k) funds. In addition to grassroots education, "costs associated with procuring experts, consultants, and the program administrator . . . and related incremental costs, and costs related to the evaluation of the Illinois Solar for All Program" may be paid out of the RERF.

2.6.2. Illinois Solar for All—Sub-programs

Illinois Solar for All is designed to incent specific defined project types, and to this end, Illinois Solar for All features four sub-programs with percentage-based Fund balance allocations applicable to each. Notably, the Agency understands these percentage-based allocations to be applicable only to RERF funds, and not to funds collected by the utilities but available for Illinois Solar for All use (as the law uses the phrasing "monies available in the Illinois Power Agency Renewable Energy Resources Fund"[114] in making those percentage-based assignments). For the first three sub-programs, these allocations may be changed if, after stakeholder input through a stakeholder process, the Agency or its administrator determines that incentives for any those three subprograms "have not been adequately subscribed to fully utilize the Illinois Power Agency Renewable Energy Resources Fund."[115]

The first three sub-programs also contain "a goal . . . that a minimum of 25% of the incentives for this program be allocated to community photovoltaic projects in environmental justice communities."[116] The Agency's definition offered to the term "environmental justice community" is discussed further in Chapter 8.

Discussion of the four sub-programs is below. In addition to these four sub-programs, "a party may propose an additional low-income solar or solar incentive program, or modifications to the programs proposed" and that additional program or modification will be approved "if the additional or modified program more effectively maximizes the benefits to low-income customers after taking into account all relevant factors, including, but not limited to, the extent to which a competitive market for low-income solar has developed."[117]

[113] Id.

[114] 20 ILCS 3855/1-56(b)(2).

[115] Id.

[116] 20 ILCS 3855/1-56(b)(2)(A), (B), (C).

[117] 20 ILCS 3855/1-56(b)(4).

2.6.2.1. Low-Income Distributed Generation Incentive

This sub-program "provide incentives to low-income customers, either directly or through solar providers, to increase the participation of low-income households in photovoltaic on-site distributed generation."[118] Used for this sub-program and others, the term "solar provider" is undefined and unclear; for purposes of allowing the market to determine appropriate models, the Agency believes that "solar providers" can refer to any entity which has a contractual relationship with the low-income customer in connection with the underlying photovoltaic system (whether in the form of purchase, leasing, installation, aggregation, or financing).

This program contains a firm, unequivocal commitment to using job trainees; the law provides that "companies participating in this program that install solar panels shall commit to hiring job trainees for a portion of their low-income installations,"[119] although the term "portion" is undefined in the law. Nevertheless, the IPA believes that "portion" should not be understood as too small to be de minimis, nor too large to be a "majority" (a term which likely would have been used had it been intended).

For this sub-program, the law also requires that "an administrator shall facilitate partnering the companies that install solar panels with entities that provide solar panel installation job training."[120] The IPA understands this to mean its third-party Program Administrator engaging in such facilitation, and commits to having its Program Administrator do the same.

The law also includes a provision that "[c]ontracts entered into under this paragraph may be entered into with an entity that will develop and administer the program,"[121] although it is presently unclear how the administrator could leverage state funds for this use.

This sub-program is allocated 22.5% of available RERF funds.

2.6.2.2. Low-Income Community Solar Project Initiative

Through the low-income community solar project initiative, "[i]ncentives shall be offered to low-income customers, either directly or through developers, to increase the participation of low-income subscribers of community solar projects."[122] Again, the term "developer" is undefined; as community solar project subscriptions may be actively marketed by entities other than the literal definition of photovoltaic project "developers," it is unclear whether this phrasing is intended to include all entities marketing such subscriptions or only the project's actual developer. The Agency will interpret "developer" to be an Approved Vendor or their project partner.

A requirement of this program is that each participating project's developer "shall identify its partnership with community stakeholders regarding the location, development, and participation in the project."[123] Unclear from this phrasing is what constitutes a "community stakeholder," or whether the project itself must include "community stakeholders" from the community in which the

[118] 20 ILCS 3855/1-56(b)(2)(A).

[119] Id.

[120] Id.

[121] Id.

[122] 20 ILCS 3855/1-56(b)(2)(B).

[123] Id.

project is located (presumably so), the community of any subscribers (unclear), or both (also unclear).

The law further provides that "[i]ncentives should also be offered to community solar projects that are 100% low-income subscriber owned, which includes low-income households, not-for-profit organizations, and affordable housing owners."[124] This phrasing leaves program eligibility unclear—must all subscribers be "low-income" for eligibility, or—as the law uses the term "also" in designating 100% low-income projects for eligibility—only a portion (and if so, what portion)? Not all subscriptions are "ownership"; does ownership matter, and should it result in a heightened incentive? These questions have no obvious answer, and the phrasing is too ambiguous to reveal any clear intent.

The law also provides that "[c]ontracts entered into under this paragraph may be entered into with developers,"[125] which the IPA understands to mean that a project developer, upon a sufficient showing of low-income participation, may qualify for a contract award.

This sub-program is allocated 37.5% of available RERF funds.

2.6.2.3. Incentives for Non-profits and Public Facilities

The third sub-program provides that funding "shall be used to support on-site photovoltaic distributed renewable energy generation devices to serve the load associated with not-for-profit customers and to support photovoltaic distributed renewable energy generation that uses photovoltaic technology to serve the load associated with public sector customers taking service at public buildings."[126] Stated differently, the program operates similarly to the first sub-program—an incentive for on-site DG through a higher-priced REC contract—only with different eligibility requirements (not-for-profit customers and public sector customers taking service at public buildings).

This raises the question of whether all non-profits and all public sector entities may qualify for the sub-program, or whether some nexus with the broader "low-income" intent of Illinois Solar for All is required. As the law provides very specific thresholds (such as 25% from environmental justice communities) when a specific threshold is intended, the IPA believes that the law may provide for participation from all non-profit and public sector customers taking service at public buildings, but believes that some level of community involvement may be required to maintain consistency with the spirit of the law (as discussed further in Chapter 8).

This sub-program also combined referenced elements of each of the prior programs, stating that "[c]ontracts may be entered into with an entity that will develop and administer the program or with developers,"[127] which carries similar challenges and open questions to those referenced above.

This sub-program is allocated 15% of available RERF funds.

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[124] Id.

[125] Id.

[126] 20 ILCS 3855/1-56(b)(2)(C).

[127] Id.

2.6.2.4. Low-Income Community Solar Pilot Projects

The fourth sub-program allows that "persons, including, but not limited to, electric utilities, shall propose pilot community solar projects."[128] Such projects are allowed by law to be larger than 2 megawatts ("MW"), but "the amount paid per project under this program may not exceed $20,000,000."[129] Such projects "must result in economic benefits for the members of the community in which the project will be located" and "must include a partnership with at least one community-based organization" (with that term again undefined). [130]

Beyond the allowance that the project may be proposed by an electric utility and may be larger than the law otherwise allows, it is not clear what other requirements make such facilities sufficiently distinct so as to be considered a "pilot project." While it may be tempting to require demonstration of innovation through this program, the IPA does not believe that any additional limitations or conditions on such projects should be inferred.

While the manner through which contracts are entered into in the other subprograms is not established in the statute, the low-income community solar pilot project sub-program must be "competitively bid by the Agency," which the Agency understands to be consistent with the procurement requirements of Section 16-111.5 of the PUA where applicable.

The law further provides that funding under this sub-program "may not be distributed solely to a utility," and that some funds "must include a project partnership that includes community ownership by the project subscribers." The IPA thus understands that, for bid selection purposes, disbursement to an entity other than a utility is a prerequisite for a utility bid to win, while satisfying the referenced partnership through a winning bid is a prerequisite for any other bid to win.

This sub-program is allocated 25% of available RERF funds.

2.6.3. Illinois Solar for All—Additional Requirements

Section 1-56(b) also provides that under Illinois Solar for All, "[e]ach contract that provides for the installation of solar facilities shall provide that the solar facilities will produce energy and economic benefits, at a level determined by the Agency to be reasonable, for the participating low income customer."[131] The Agency believes that this requirement is in part met through the premium attached to the REC price under Illinois Solar for All (and "energy benefits" for community solar and distributed generation projects are already handled though bill crediting and net metering provisions over which the Agency lacks jurisdiction), and provides support for consumer protections to ensure that low income customers indeed receive benefits in entering into contractual arrangements with installers, project developers, aggregators, or other intermediaries.

Illinois Solar for All contracts must also "ensure the wholesale market value of the energy is credited to participating low-income customers or organizations,"[132] which, again, is an issue handled through net metering, but can be emphasized in resulting contracts. Contracts must also ensure that "tangible

[128] 20 ILCS 3855/1-56(b)(2)(D).

[129] Id.

[130] Id.

[131] 20 ILCS 3855/1-56(b)(2).

[132] Id.

economic benefits flow directly to program participants, except in the case of low-income multi-family housing where the low-income customer does not directly pay for energy;"[133] while it is unclear what constitutes a "tangible economic benefit" (or, for that matter, a "program participant," especially if the underlying contract is with a project developer or other such entity). this language appears to provide further support for ensuring that marketing practices are standardized such that low-income customers receive clear, standardized information about the benefits to be expected from an Illinois Solar for All project.

The law also seeks for priority to be given to projects that "demonstrate meaningful involvement of low-income community members in designing the initial proposal."[134] Here again, the law provides no definition of "meaningful involvement" nor does it define a "low-income community member," and it is unclear whether this would be distinct from an "environmental justice community" or what constitutes a community "member." The law further provides that "[a]cceptable proposals to implement projects must demonstrate the applicant's ability to conduct initial community outreach, education, and recruitment of low-income participants in the community;" again, the term "participants in the community" is undefined and entirely unclear, but the Agency does understand this language as providing that entities seeking to market installations or community solar subscriptions using Illinois Solar for All contracts must, at a minimum, be certified by the Agency and possess some baseline level of demonstrated competency. The Agency's approach to vendor certification is discussed further in Chapter 6.

As growing the low-income solar market involves more than just REC delivery contracts making photovoltaics more economic, the law also requires that projects "must include job training opportunities if available," and seeks that such job training opportunities should be effected through coordination with the job training programs proposed in ComEd's Workforce Development Plan. The Agency's approach to encouraging that projects use job trainees to help build the low-income solar marketplace is discussed further in Chapter 8.

2.6.4. Illinois Solar for All—Third-party program administrator

To assist the Agency in its administration of the Illinois Solar for All Program, the Agency may retain a third-party program administrator (or administrators) through a Request For Qualifications and competitive bid process. The selection criteria and requirements must include, but are not limited to, "experience in administering low-income energy programs and overseeing statewide clean energy or energy efficiency services."

As both its Illinois Solar for All third-party program administrator and the "expert consulting firms" to assist with implementing and operating the Adjustable Block Program merely "may" be retained, the Agency understands that it could, in theory, use the same entity to assist it with the implementation of both programs (and is not prohibited from using either third-party administrator to assist it with the implementation of the Community Renewable Generation Program).

[133] Id.

[134] Id.

3. RPS Goals, Targets, and Budgets

The original Illinois Renewable Portfolio Standard was established in 2007 through Public Act 95-0481 and became effective on June 1, 2008. That RPS set annual percentage goals relative to eligible retail loads in the state for the procurement of renewable resources, starting with at least 2% by the beginning of the 2008-2009 delivery year and rising to 25% by the 2025-2026 delivery year.[135] These goals initially applied only to the load associated with eligible retail customers—the residential and small commercial customers who receive fixed-price bundled service from the utilities, rather than switching to hourly priced service or to service from an Alternative Retail Electric Supplier. In 2009, Public Act 96-0033 added Section 16-115D to the Public Utilities Act, which created RPS obligations for ARES. The ARES RPS goals were based on the quantity of metered electricity delivered by the ARES to retail customers in Illinois.

P.A. 99-0906 revised the RPS to apply the goals to all retail customers and to phase out the ARES compliance obligations over a two-year period terminating on May 31, 2019 (see Section 3.2 for more information). These revisions also consolidate the RPS into a single, centralized planning mechanism for procurements and programs as described in this Plan. Significantly, the revisions to the RPS shift the focus from the procurement of renewable energy resources to the procurement of renewable energy credits or RECs.[136]

The revisions to the RPS include a number of REC procurement goals and targets. The Agency considers a "goal" to be an overall percentage of load to be procured in the form of RECs for a given year based upon that year's mandated RPS requirement.[137] A "target," on the other hand, is the number of RECs for a specific procurement event or program based upon the specific goal or numerical mandate.

Under the changes to the RPS made via P.A. 99-0906, the annual RPS percentage goal remains the same as in P.A. 95-0481—13% in the 2017 delivery year, rising incrementally by 1.5 percentage points annually to 25% by 2025—but this goal will now be applied to all retail electricity sales rather than sales limited to eligible retail customers. Meeting the RPS goals of the Act starts with the need to procure an additional 7.5 million RECs for the 2017-2018 delivery year, increasing to the forecasted procurement of 31.5 million RECs for the 2030-2031 delivery year.

In addition, while staying within the mandated goals, specific REC targets call for various quantities of RECs to be procured in increasing steps starting with the 2017-2018 delivery year through the end of the 2030-2031 delivery year, including:

- 1,000,000 new wind and 1,000,000 new solar RECs to be delivered annually (with delivery beginning no earlier than June 1, 2019, and no later than June 1, 2021) that are procured through the Initial Forward Procurement conducted separately from this Plan; and

- A total of 2,000,000 RECs annually each from new wind and new photovoltaic projects by the end of the 2020-2021 delivery year, ramping up to 3,000,000 annually each from new wind and new photovoltaic projects by the end of the 2025-2026 delivery year, and reaching

[135] 220 ILCS 5/16-111.5(a)

[136] 20 ILCS 3855/1-75(c)(1)(B).

[137] For example, the RPS "goal" for the 2020-2021 delivery year is 17.5% of the retail load.

4,000,000 RECs annually each from new wind and new photovoltaic projects by the end of 2030-2031. (RECs from the Initial Forward Procurement count toward these targets.)

This Chapter contains calculations of RPS targets, summaries of RPS portfolios, and summaries of RPS budgets. Additional details are available in Appendix B.

3.1. Statewide Goals and Allocation of Cost and RECs from RPS Procurements to Each Utility

Specific numerical targets included in the Act are statewide targets which do not specify individualized REC targets for each utility. The Agency thus proposes to conduct the procurement of RECs under this Plan based on statewide RPS goals and targets, rather than viewing those targets by utility. The cost of the RECs associated with RPS procurements will be allocated to each utility, through REC procurement contracts, based on each utility's Renewable Portfolio Standard Budget ("RPS Budget"); Table 3-1 shows the proposed allocation.[138]

Table 3-1: Utility REC Cost Allocations

Utility	Reference Year Forecasted Delivered Volume (MWh)[139]	Cost Cap Rate[140] ($/MWh)	RPS Budget for 2020-2021 Delivery Year ($)[141]	Allocation Based on RPS Budget for 2020-2021 Delivery Year (%)
Ameren Illinois	38,017,110	1.8054	68,636,091	29.33%
ComEd	87,012,436	1.8917	164,601,426	70.34%
MidAmerican*	616,844	1.2415	765,812	0.33%

*Load covered by IPA procurements

This means that for every $1,000,000 of cost incurred to procure RECs, $293,300 and associated REC contracts would be allocated to Ameren Illinois, $703,400 and associated RECs to ComEd, and $3,300 and associated RECs to MidAmerican. The IPA plans to review and update this allocation in its next Plan in 2019.

3.2. Impact of the Phase out of Alternative Retail Electric Supplier RPS Obligations

P.A. 99-0906 resulted in changes to the requirements for ARES RPS compliance. Prior to the RPS revisions contained in Section 16-115D of the Public Utilities Act, ARES could meet their compliance

[138] This allocation method was initially developed to allocate the RECs from the August 31, 2017 Initial Forward Procurement and was based on the RPS Budget for 2020-2021, which uses the prior year delivered volumes as reference. The 2019-2020 reference delivery year was used because it will be the first year when all load, including that served by ARES, will be under the IPA's REC procurements, thus making the resulting RPS Budget a better representation of future RPS Budgets. As shown in Table 3-1, the allocation to each utility is based on the utility's share of the 2020-2021 delivery year RPS Budget. As noted in Chapter 6, the same allocation will be used for the Adjustable Block Program procurements to each utility.

[139] The 2019-2020 delivery year is the reference year for the 2020-2021 delivery year.

[140] The Cost Cap Rate for each utility is defined in Section 1-75(c)(1)(F) of the Act as "the greater of 2.015% of the amount paid per kilowatthour by [eligible retail] customers during the year ending May 31, 2007 or the incremental amount per kilowatthour paid for these resources in 2011." 2.015% of the bundled price paid per kWh by eligible retail customers in the 2006-2007 delivery year was 0.18054 cents for Ameren Illinois, 0.18917 cents for ComEd, and 0.12415 cents for MidAmerican. The incremental amount per kWh paid for renewable resources in 2011 was 0.00584 cents for Ameren Illinois, and 0.0057 cents for ComEd. MidAmerican did not participate in IPA-administered renewable energy procurements in 2011; therefore, it did not have an incremental amount for that year.

[141] Beginning with the 2019-2020 delivery year, the RPS Budget for each utility is calculated by multiplying the values of the preceding two columns of the table, as specified by Section 1-75(c)(1)(F) of the Act ("To arrive at a maximum dollar amount of renewable energy resources to be procured for the particular delivery year, the resulting per kilowatthour amount shall be applied to the actual amount of kilowatthours of electricity delivered [...] by the electric utility in the delivery year immediately prior to the procurement to all retail customers in its service territory.").

requirements through Alternative Compliance Payments or through a combination of ACPs, generation using eligible renewable resources, purchasing electricity generated using eligible renewable resources, and purchasing RECs. A maximum of 50% of the ARES requirements could be met with self-procurement or generation, while ACPs could account for a minimum of 50% up to a maximum of 100% of the requirements. In general practice, the ARES tended toward the use of the minimum 50% ACP requirement, relying on the procurement of eligible renewable energy resources to meet the remaining compliance requirement. In order to be eligible for ARES compliance, the renewable resources producing the RECs could be located in Illinois, states that adjoin Illinois, or within the U.S. footprints of PJM or MISO.[142]

Under the new RPS requirements, after a two-year transition period, the IPA will be responsible for procuring RECs for virtually all retail load in Illinois, including load served by ARES. During the transition period, the REC quantity associated with ARES load to be covered by the Agency's programs and procurements will be based on 50% of ARES load for the 2017-2018 delivery year, 75% for the 2018-2019 delivery year, and 100% for each delivery year thereafter.[143]

Starting with the 2017-2018 delivery year, ARES will have to certify that the RECs used for compliance were not produced by facilities whose costs were being recovered through rates regulated by any state or states on or after January 1, 2017.[144] Starting with the 2019-2020 delivery year and continuing for subsequent delivery years, ARES do not have an obligation to procure RECs or make ACPs for RPS compliance.

The impact of the ARES RPS compliance obligations phase out is that the volume of RECs to be procured by the IPA increases significantly.

3.3. Section 1-75(c)(1)(H)(i) ARES Option to Supply RECs for their Retail Customers

Section 1-75(c)(1)(H) of the Act provides an exception to the phase out of ARES RPS obligations described in Section 3.2. Under this exception, an ARES could use self-supplied RECs to meet a portion (and possibly all) of its REC requirements. To do so, the ARES had to first make an informational filing to the ICC within 45 days of the effective date of Public Act 99-0906, indicating that it owned a generating facility or facilities as of December 31, 2015, that produced RECs eligible to meet the RPS, provided that those facilities were not powered by wind or solar photovoltaics. The ARES must also notify the Agency and the applicable utility by February 28 of each year of its election to supply RECs to its retail customers and include the amount of RECs to be supplied.

One ARES informational filing covering an owned generation facility outside of Illinois was submitted on a confidential basis to the ICC by the deadline of July 15, 2017.

Section 1-75(c)(1)(H) of the Act provides that the procurement of renewable energy resources for a given year shall be reduced if the ARES uses RECs from an ARES-owned generation facility to supply its retail customers. The amount of RECs that can be supplied by ARES-owned/ generation is subject to several limitations. Specifically, the Act provides that:

> *"For the delivery year beginning June 1, 2018, the maximum amount of renewable energy credits to be supplied by an alternative retail electric supplier under this*

[142] MISO also includes the Canadian province of Manitoba, as well as parts or all of several U.S. states.

[143] 20 ILCS 3855/1-75(c)(1)(B).

[144] 83 Ill. Adm. Code § 455.120(b)(4).

> *subparagraph (H) shall be 68% multiplied by 25% multiplied by 14.5% multiplied by the amount of metered electricity (megawatt-hours) delivered by the alternative retail electric supplier to Illinois retail customers during the delivery year ending May 31, 2016."* [145]
>
> *"For delivery years beginning June 1, 2019 and each year thereafter, the maximum amount of renewable energy credits to be supplied by an alternative retail electric supplier under this subparagraph (H) shall be 68% multiplied by 50% multiplied by 16% multiplied by the amount of metered electricity (megawatt-hours) delivered by the alternative retail electric supplier to Illinois retail customers during the delivery year ending May 31, 2016, provided that the 16% value shall increase by 1.5% each delivery year thereafter to 25% by the delivery year beginning June 1, 2025, and thereafter the 25% value shall apply to each delivery year."* [146]

The Act limits the total amount of RECs that can be supplied by all ARES through owned generation:

> *"For each delivery year, the total amount of renewable energy credits supplied by all alternative retail electric suppliers shall not exceed 9% of the Illinois target renewable energy credit quantity. The Illinois target renewable energy credit quantity for the delivery year beginning June 1, 2018 is 14.5% multiplied by the total amount of metered electricity (megawatt-hours) delivered in the delivery year immediately preceding that delivery year, provided that the 14.5% shall increase by 1.5% each delivery year thereafter to 25% by the delivery year beginning June 1, 2025, and thereafter the 25% value shall apply to each delivery year."*[147]

In order to take into account the self-supply by the ARES, the Act requires that the charges which are applicable to the retail customers of the ARES be reduced by the ratio of the RECs supplied by the ARES to the ARES's RPS target. Specifically, the Act states that:

> *"If the requirements set forth in items (i) through (iii) of this subparagraph (H) are met, the charges that would otherwise be applicable to the retail customers of the alternative retail electric supplier under paragraph (6) of this subsection (c) for the applicable delivery year shall be reduced by the ratio of the quantity of renewable energy credits supplied by the alternative retail electric supplier compared to that supplier's target renewable energy credit quantity. The supplier's target renewable energy credit quantity for the delivery year beginning June 1, 2018 is 14.5% multiplied by the total amount of metered electricity (megawatt-hours) delivered by the alternative retail supplier in that delivery year, provided that the 14.5% shall increase by 1.5% each delivery year thereafter to 25% by the delivery year beginning June 1, 2025, and thereafter the 25% value shall apply to each delivery year."*[148]

The Agency will post on its website by April 1 of each year a report on the aggregate number of RECs being supplied by the ARES for the upcoming delivery year, starting June 1. This quantity will be

[145] 20 ILCS 3855/1-75(c)(1)(H)(iii).

[146] Id.

[147] Id.

[148] Id.

accounted as RECs from "other technologies" (i.e., other than wind or solar) and will reduce the overall RPS Target for that delivery year. Those targets are shown (unadjusted) in Table 3-10.

3.4. MidAmerican Volumes

MidAmerican's status as a multi-jurisdictional utility which uses its own generating resources to meet a portion of its Illinois load creates a unique situation for RPS compliance. Unlike Ameren Illinois and ComEd, for which all retail load is subject to the RPS goals and targets, the MidAmerican load for which the RPS goals and targets are applicable is only the load that is subject to the IPA procurement process for conventional power. That amount is the load which is in excess of MidAmerican's Illinois-allocated generation in any given delivery year, which is approximately only 25-35% of its total jurisdictional load.[149] As a consequence, the number of RECs to be procured for MidAmerican is a very small portion of the total number of RECs to be procured statewide. Based on the data presented in Table 3-1, for the 2017-2018 through 2020-2021 period, MidAmerican's applicable retail load is 0.55% of the statewide applicable load.

3.5. Cost Cap and Cost Recovery

The IPA's procurement of RECs is subject to monetary limitations in the form of a cost cap based on limiting the annual average net increase to all eligible retail customers to "no more than the greater of 2.015% of the amount paid per kilowatt-hour by those customers during the year ending May 31, 2007 or the incremental amount per kilowatt-hour paid for these resources in 2011."[150] The cost cap determined under these criteria is unchanged from the prior RPS cost cap; however, it is now applied to the actual quantity of electricity delivered in the prior delivery year to all applicable retail customers in the utility's service territory.[151] The cost cap rate, in cents per kilowatt-hour, is provided in Table 3-2.

Table 3-2. REC Procurement Cost Cap Rate by Utility[152]

Utility	RPS Cost Cap Rate (¢/kWh)
Ameren Illinois	0.18054
ComEd	0.18917
MidAmerican	0.12415

Each utility is entitled to recover the costs of the RECs procured to meet the RPS compliance requirements, subject to the cost cap limitations, along with "…the reasonable costs that the utility

[149] The Commission specified this approach for the procurement of renewable resources to meet the RPS compliance targets applicable to MidAmerican in Docket No. 15-0541, determining that only the portion of MidAmerican's load subject to the IPA's planning and procurement process is subject to Section 1-75(c) of the Act's requirements.

[150] 20 ILCS 3855/1-75(c)(1)(E).

[151] Id.

[152] These figures are the same used in the IPA's 2017 Electricity Procurement Plan approved by the Commission. See: https://www.illinois.gov/sites/ipa/Documents/2017ProcurementPlan/2017-IPA-Procurement-Plan.pdf at 12.

incurs as part of the procurement process and to implement and comply with plans and processes approved by the Commission…"[153]

Beginning with the 2017-2018 delivery year, the utilities will be able to recover all of their costs associated with the RECs previously procured and procured through the implementation of the IPA's long-term renewable resource procurement plans through tariffs applicable to all of the utilities' customers. These tariffs took effect as of the June 2017 billing period and will allow collections by utilities to recover the costs of RECs procured by the IPA. The Commission will conduct a single review, reconciliation and true-up of the utility's collections covering REC costs for the 2017-2018, 2018-2019, 2019-2020, and 2020-2021 delivery years no earlier than August 31, 2021. Subject to limits (discussed in Chapters 2 and 8 of this Plan) based on any shortfall of funding to the IPA's Renewable Energy Resources Fund, a portion of any over-collection, up to half, will be used to fund the Illinois Solar for All Program. This funding for the Illinois Solar for All Program will not reduce the overall RPS Budget.

3.6. RPS Compliance Procurement Priorities

The Act provides guidelines for prioritizing the REC procurements in the event that the cost cap limitations conflict with the RPS goals and targets such that the IPA cannot procure sufficient additional quantities of RECs to meet goals or targets.[154] These priorities regarding the procurement of RECs take the following order, arranged based on descending priority:

- RECs procured under existing contracts;
- RECs procured with funding for the Illinois Solar for All Program;
- RECs procured to comply with the new wind and solar photovoltaic procurement requirements;
- RECs procured to meet the remaining RPS targets (REC Gap).

Based on the list above, the procurement of RECs under existing contractual obligations will have the highest priority, with the procurement of RECs to meet remaining RPS requirements having the lowest priority. The RPS Budget will therefore be allocated to the highest priority first, followed by the next highest priority, until there are no remaining funds.

3.7. Wind/Solar Matching Requirement and Solar Split

The Act defines the annual REC targets for wind and solar resources in terms of the timing of the annual quantities to be procured and the technology preferences for the renewable resources generating the RECs.[155] The overall quantity of RECs procured to meet the RPS goals must include at least a combined 75% from wind and photovoltaic projects. This is a change from the prior RPS construct, under which there was a goal that 75% of the renewable energy resources come from wind, 6% from photovoltaics, and 1% from distributed generation.[156]

In addition to the wind and photovoltaic requirements that apply to the overall RPS goals, there are also specific numerical targets that apply to RECs from new wind and new photovoltaic projects. New

[153] 220 ILCS 5/16-108(k).

[154] 20 ILCS 3855/1-75(c)(1)(F).

[155] 20 ILCS 3855/1-75(c)(1)(C)

[156] 220 ILCS 5/16-111.5(a).

projects are those projects energized after June 1, 2017.[157] The REC target deliveries from new projects from each technology are 2,000,000 RECs by the end of the 2020-2021 delivery year, 3,000,000 RECs by the end of the 2025-2026 delivery year, and 4,000,000 RECs by the end of the 2030-2031 delivery year. The new photovoltaic project REC procurement targets are further broken down to reflect the procurement of 50% from distributed photovoltaic renewable generation projects or photovoltaic community renewable generation projects using the Adjustable Block Program, 40% from utility-scale photovoltaic projects, 2% from brownfield site photovoltaic projects that are not community solar projects, and the remaining 8% not specified but determined through this Plan. Furthermore, the total amount of RECs targeted for delivery from all new wind sources is intended not to exceed the total amount of RECs to be delivered from all new photovoltaic projects. In the event that the projected cumulative quantity of new wind project RECs to be delivered exceeds the quantity of new solar project RECs projected to be delivered by 200,000 RECs or more, the procurement targets for the programs contained in the Plan will be adjusted as needed. Per the definition of "new photovoltaic projects" in the Act, RECs procured as part of the Illinois Solar for All Program (see Chapter 8) cannot be counted as new photovoltaic RECs and therefore are not accounted as such in this Plan, although these RECs would count toward the overall 75% of RECs coming from wind or photovoltaic resources.[158]

3.8. REC Portfolio

For the planning and development of the various procurements and programs under this Plan, it is necessary to aggregate the utility level portfolios of existing RECs under contract and RECs from the Initial Forward Procurement mandated in the Act into a single, statewide portfolio of RECs That resulting statewide portfolio can then be examined against REC goals and targets mandated in the Act to estimate gaps that need to be closed through the procurement of RECs. The following sections examine existing REC portfolios and the resulting statewide REC Portfolio after accounting for expected deliveries of RECs resulting from the Initial Forward Procurement.

3.9. Existing REC Portfolios - RECs Already Under Contract

Each of the three utilities has an existing portfolio of RECs from prior IPA procurements. The tables that follow show the REC portfolio of each utility and the aggregated statewide portfolio.[159] In these tables, "LTPPA" means the Long-Term Power Purchase Agreements entered into in 2010; "Rate Stability" means the Rate Stability Block Procurement conducted in 2012;[160] and "DG" means the Distributed Generation procurements conducted by the IPA in 2015, 2016, and 2017.

[157] The IPA, in accounting for RECs from new projects towards the Section 1-75(c)(1)(C) REC targets, excludes RECs procured from DG projects in 2017 because of their relative small quantity and uncertainty around their energized date. They are, however, included in compliance calculations to ensure that at least a combined 75% of RECs be from wind and photovoltaic projects.

[158] 20 ILCS 3855/1-75(c)(1)(B), (C).

[159] RECs from Fall 2017 DG procurements will be added to all the portfolios after the conclusion of the Procurement Event.

[160] Procurement conducted pursuant to 220 ILCS/16-111.5(k-5) (Repealed, effective June 1, 2017).

Table 3-3. Ameren Illinois Existing REC Portfolio

Delivery Year	LTPPA Wind	LTPPA Solar	Rate Stability Wind	Rate Stability Solar	DG Wind	DG Solar	Total Wind	Total Solar	Total All RECs
2017-2018	596,571	3,429	251,767	2,629	18	6,797	848,356	12,855	861,211
2018-2019	596,571	3,429			18	6,797	596,589	10,226	606,815
2019-2020	596,571	3,429			18	6,797	596,589	10,226	606,815
2020-2021	596,571	3,429				5,861	596,571	9,290	605,861

Table 3-4. ComEd Existing REC Portfolio

Delivery Year	LTPPA Wind	LTPPA Solar	Rate Stability Other	DG Wind	DG Solar	Total Wind	Total Solar	Total All RECs
2017-2018	1,233,838	27,887	271,473	22	16,556	1,233,860	44,443	1,549,776
2018-2019	1,233,838	27,887		22	16,556	1,233,860	44,443	1,278,303
2019-2020	1,233,838	27,887		22	16,556	1,233,860	44,443	1,278,303
2020-2021	1,233,838	27,887			14,642	1,233,838	42,529	1,276,367

Table 3-5. MidAmerican Existing REC Portfolio

Delivery Year	DG Solar	Total All RECs
2017-2018	655	655
2018-2019	655	655
2019-2020	655	655
2020-2021	655	655

3.10. Initial Forward Procurement

The Act requires the IPA to conduct an Initial Forward Procurement for RECs generated by new utility-scale wind projects, new utility-scale solar projects, and new brownfield site photovoltaic projects through 15-year contracts with the goal of procuring 1,000,000 new wind project and

1,000,000 new solar project RECs annually.[161] The utility-scale projects are specified as those with a generating capacity that is greater than 2,000 kW,[162] while there is no minimum size requirement for the capacity of the brownfield site solar projects. The Initial Forward Procurement is being held as a single procurement event for wind RECs and multiple procurement events for solar RECs.

The first procurement event was held on August 31, 2017 with procurement targets of 1 million wind RECs and 200,000 solar RECs to be generated by utility-scale and brownfield site projects.[163] Additional procurement events to be conducted as part of the Initial Forward Procurement will focus on procuring the remaining 800,000 solar RECs. For procurement and budget planning purposes, the IPA assumes that RECs from the Initial Forward Procurement will be delivered starting in the 2019-2020 delivery year as shown in Table 3-6. This assumption allows the Agency to be conservative in terms of estimating future expenditures; the Agency will monitor when actual deliveries commence and will in the future update actual goals and budgets accordingly.

Table 3-6. Initial Forward Procurement REC[164]

Delivery Year	Wind	Solar	Total All RECs
2017-2018			
2018-2019			
2019-2020	965,000	1,000,000	1,965,000
2020-2021	965,000	1,000,000	1,965,000

3.11. Statewide REC Portfolio

The utilities' existing REC portfolios and the resulting RECs from the Initial Forward Procurements shown above, in the aggregate, produce the Statewide REC Portfolio presented in Table 3-7. This table indicates the volume of RECs available to meet the various RPS goals and targets mandated in the Act.

[161] 20 ILCS 3855/1-75(c)(1)(G)(i), (ii).

[162] 20 ILCS 3855/1-10.

[163] Results of the August 31, 2017 procurement are available at https://www.icc.illinois.gov/downloads/public/Public%20Notice%20of%202017%20Wind%20and%20Solar%20REC%20Procurement%20Results%202017-09-07.docx. Note that after the Commission's approval of the results, one winning wind bidder declined to accept its portion of the procurement volume (which represented a prorated amount of that bidder's bid, given the Initial Forward Procurement's statutory limitation of a 1,000,000 REC procurement volume). The quantities listed in Table 3-1 reflect that decision.

[164] Section 1-75(c)(1)(G) of the Act contemplates that deliveries from the Initial Forward Procurement will begin delivery "on June 1, 2019, if available, but not later than June 1, 2021." Therefore, no RECs are indicated for delivery years 2017-2018 and 2018-2019.

Table 3-7. Statewide REC Portfolio

Del. Year	Existing Wind	Existing Solar	Existing Other [165]	Initial Forward Wind	Initial Forward Solar	Total Wind	Total Solar	Total Other	Total All RECs
2017-2018	2,082,216	57,953	271,473			2,082,216	57,953	271,473	2,411,642
2018-2019	1,830,449	55,324				1,830,449	55,324		1,885,773
2019-2020	1,830,449	55,324		965,000	1,000,000	2,795,449	1,055,324		3,850,773
2020-2021	1,830,409	52,474		965,000	1,000,000	2,795,409	1,052,474		3,847,883

3.12. Loads, RPS Goals and Targets, and REC Gaps

The various procurements and programs under this Plan are designed to meet RPS goals and targets mandated by the Act. To start the procurement planning process, it is necessary first to calculate the annual REC targets and the gaps that to be filled. In the prior Section, a statewide REC portfolio was presented. The RECs in that portfolio will be used in conjunction with the REC targets developed in this Section to estimate the gaps.

3.13. Applicable Retail Customer Load

The table below shows the forecasted retail customer load subject to RPS compliance through the 2020-2021 delivery year.[166] The Act mandates the transition to a single RPS procurement mechanism in which statewide RPS goals are applied to all retail customer load by the 2019-2020 delivery year and beyond. This table takes into account the transition provisions as explained in Section 3.2.

Table 3-8. Retail Customer Load Applicable to the Compliance Year

Compliance Delivery Year	Reference Delivery Year	Ameren Illinois [MWh]	ComEd [MWh]	MidAmerican [MWh] [167]	Statewide [MWh]
2017-2018	2016-2017	21,152,970	54,420,529	539,165	76,112,664
2018-2019	2017-2018	29,995,820	71,460,380	503,181	101,959,381
2019-2020	2018-2019	37,993,441	87,121,731	704,364	125,819,536
2020-2021	2019-2020	38,017,110	87,012,436	616,844	125,646,391

[165] "Other" refers to RECs from other technologies, other than wind or solar.

[166] As customary, in support of the IPA procurement processes, the utilities developed and provided the actual and forecast loads used in this Plan.

[167] As noted in Section 3.4, unlike Ameren Illinois and ComEd for which all retail load is subject to the RPS goals and targets, the MidAmerican applicable load subject to the RPS goals and targets is only the load that is subject to the IPA procurement process.

3.14. RPS Goals and Targets

RPS annual goals are mandated in the Act. To determine the number of RECs required to meet the goals (the "Overall RPS Target"), the delivery year RPS goal is applied to the reference year applicable retail customer load ("Applicable Load") as shown in equation (1).

(1) Delivery Year Overall RPS Target = Delivery Year RPS Goal * Reference Year Applicable Load

The statewide RPS Goals and Targets for 2017-2018 through 2020-2021 are shown in the table below.

Table 3-9. Statewide RPS Goals and Targets

Delivery Year	RPS Goal	Reference Year	Reference Year Applicable Load [MWh]	Overall RPS Target [RECs]
2017-2018	13.0%	2016-2017	76,112,664	9,894,646
2018-2019	14.5%	2017-2018	101,959,381	14,784,110
2019-2020	16.0%	2018-2019	125,819,536	20,131,126
2020-2021	17.5%	2019-2020	125,646,391	21,988,118

3.15. Overall REC Procurement Targets (REC Gaps)

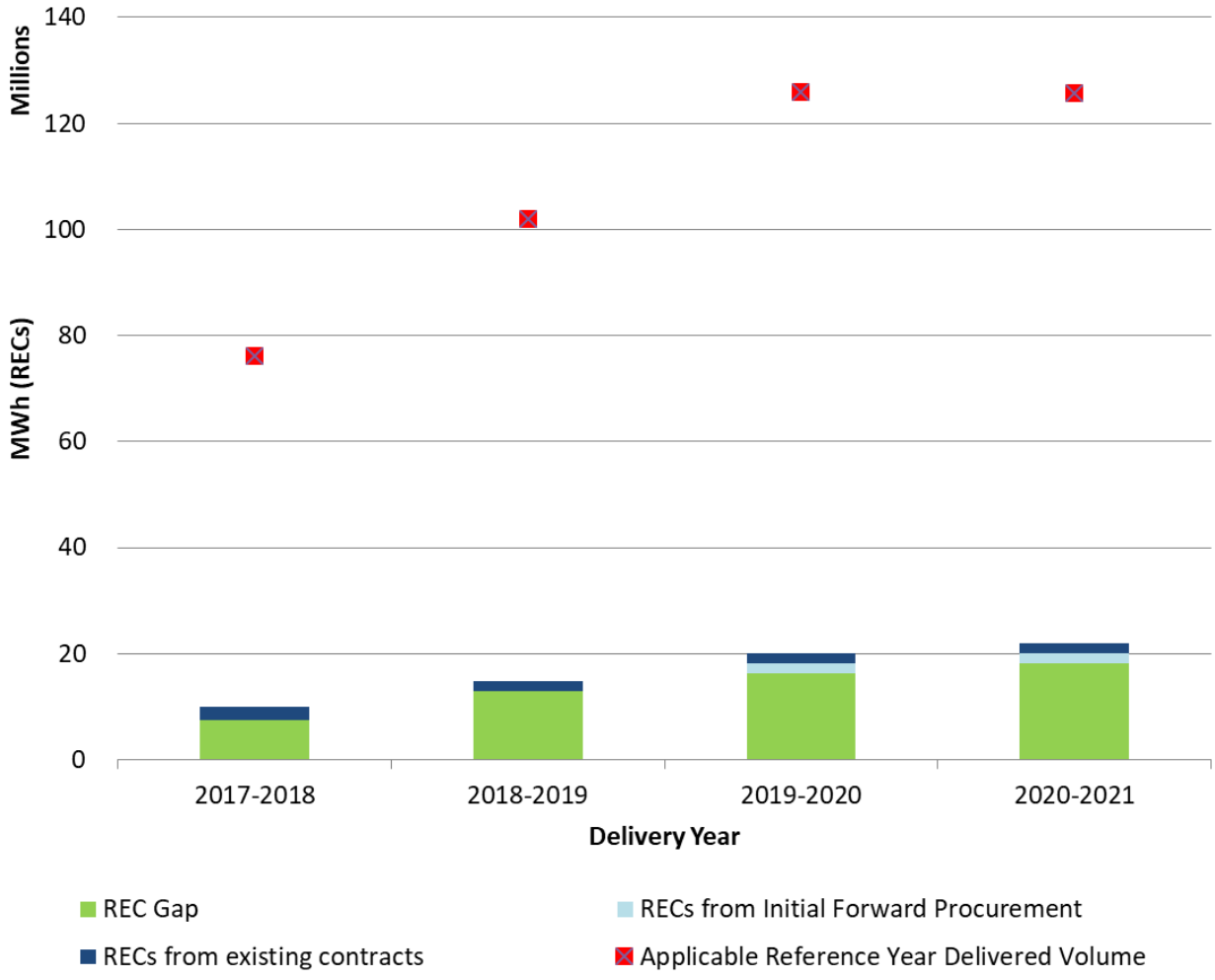
The overall number of RECs targeted for procurement for each year under this Plan ("REC Gap") is simply the difference between the RPS Target RECs and the total number of RECs in the Statewide REC Portfolio as shown below.

Table 3-10. Statewide Overall REC Gap

Delivery Year	Overall RPS Target RECs	Statewide Portfolio Total All RECs	Overall REC Procurement Target (REC Gap)
2017-2018	9,894,646	2,411,642	7,483,004
2018-2019	14,784,110	1,885,773	12,898,337
2019-2020	20,131,126	3,850,773	16,280,353
2020-2021	21,988,118	3,847,883	18,140,235

Figure 3-1 below provides a visual representation of the Applicable Loads, REC Portfolio, and Overall REC Gaps discussed in this Section.

Figure 3-1. Statewide Applicable Retail Load, REC Portfolio and Overall REC Gap



3.16. Procurement Targets to Meet Specific Wind-Solar Requirement and Overall RPS Targets

Section 1-75(c)(1)(C) of the Act, as explained in Section 3.1, requires that the overall quantity of RECs procured to meet the RPS goals must include at least a combined 75% from wind and photovoltaic projects. Analysis of the Statewide REC Portfolio against the overall RPS Target produces minimum REC Procurement Targets for wind and photovoltaics. Table 3-11 below shows the minimum REC Procurement Targets for wind and solar (i.e., photovoltaic) projects and RECs of any technology to meet the overall RPS Targets.

Table 3-11. Statewide REC Portfolio and Minimum REC Procurement Targets

Del. Year	Overall RPS Target [RECs] (a)	Combined 75% Wind/Solar REC Requirement (b) = (a) * 0.75	Sum of Wind and Solar in REC Portfolio (c)	Minimum REC Procurement Target for Wind and Solar (d) = (b) - (c)	Existing Plus ARES Supplied Other Tech. RECs (e)	Targeted Residual REC Procurement of any Technology to Meet Overall RPS Target (f) = (a) - (c) - (d) - (e)	Overall REC Procurement Target (REC Gap) (g) = (a) - (c) - (e)
2017 - 2018	9,894,646	7,420,985	2,140,169	5,280,816	271,473	2,202,189	7,483,004
2018 - 2019	14,784,110	11,088,083	1,885,773	9,202,310		3,696,028	12,898,337
2019 - 2020	20,131,126	15,098,344	3,850,773	11,247,571		5,032,781	16,280,353
2020 - 2021	21,988,118	16,491,089	3,847,883	12,643,206		5,497,030	18,140,235

3.17. RPS Budget

As described in Section 3.5, the Act imposes monetary limitations on the RPS in the form of a cost cap that limits the annual average net increase in rates to all eligible retail customers. The cost cap rate, in cents per kilowatt-hour, is unique to each utility and is provided in Table 3-2. The cents per kilowatt-hour rate is applied to the actual electricity (expressed in kilowatt-hours) delivered in the delivery year immediately prior to determine a maximum dollar amount which constitutes the RPS Budget for the delivery year. Specifically, the Act states that:

> *"Notwithstanding the requirements of this subsection (c), the total of renewable energy resources procured under the procurement plan for any single year shall be subject to the limitations of this subparagraph (E). Such procurement shall be reduced for all retail customers based on the amount necessary to limit the annual estimated average net increase due to the costs of these resources included in the amounts paid by eligible retail customers in connection with electric service to no more than the greater of 2.015% of the amount paid per kilowatthour by those customers during the year ending May 31, 2007 or the incremental amount per kilowatthour paid for these resources in 2011. To arrive at a maximum dollar amount of renewable energy resources to be procured for the particular delivery year, the resulting per kilowatthour amount shall be applied to the actual amount of kilowatthours of electricity delivered, or applicable portion of such amount as specified in paragraph (1) of this subsection (c), as applicable, by the electric utility in the delivery year immediately prior to the procurement to all*

> *retail customers in its service territory. The calculations required by this subparagraph (E) shall be made only once for each delivery year at the time that the renewable energy resources are procured. Once the determination as to the amount of renewable energy resources to procure is made based on the calculations set forth in this subparagraph (E) and the contracts procuring those amounts are executed, no subsequent rate impact determinations shall be made and no adjustments to those contract amounts shall be allowed. All costs incurred under such contracts shall be fully recoverable by the electric utility as provided in this Section."*[168]

A utility's annual RPS Budget is calculated as shown in equation (2).

(2) Annual RPS Budget ($/Year) = Prior Year Delivered Electricity (MWh) * Cost Cap Rate ($/MWh)

A utility's delivery year remaining available RPS Budget ("Available RPS Budget") is determined by subtracting from the utility's total RPS Budget the financial obligations associated with existing REC contracts ("Contracted REC Spend") and the estimated financial obligations associated with the Initial Forward Procurement ("Estimated REC Spend"), as shown in equation (3).[169]

(3) Delivery Year Available RPS Budget = Annual RPS Budget (equation 2) – Contracted REC Spend – Estimated REC Spend

3.17.1. Utilities Budgets

Table 3-12 through Table 3-14 show, for each utility, the corresponding Cost Cap Rate, the RPS Budget, the Prior Year Delivered Electricity, Contracted REC Spend, Estimated REC Spend associated with the Initial Forward Procurement, and the Available RPS Budget for delivery years 2017-2018 through 2020-2021. The Available RPS budget is an estimate that will be updated prior to conducting competitive REC procurements and prior to the implementation of Programs under this Plan that depend on the RPS Budget.

In addition to direct expenditures on RECs, RPS budgets will also feature allocations for several additional purposes. First, pursuant to Section 1-75(c)(1)(O) of the Act, the greater of 5% or $10,000,000 (of the combined RPS budgets of the utilities) each year will be allocated to the Illinois Solar for All Program. See Section 8.4 for details on that allocation. Second, also pursuant to Section 1-75(c)(1)(O), in each of the delivery years 2017-2018, 2021-2022, and 2025-2026, $10,000,000 of ComEd's RPS budget will be allocated to fund job training programs pursuant to Section 16-108.12 of the PUA. Third, a reasonable amount of each budget will be set aside for administrative expenses (including, but not limited to, expenses related to development of this Plan and future updates, the management of procurements and programs, Adjustable Block Program Administrator expenses not covered by fees charged to participants, and fees charged by tracking systems for the retirement of RECs). The IPA proposes initially to set aside 3% of the budget for these administrative expenses, and will refine this set aside as more information becomes available.

[168] 20 ILCS 3855/1-75(c)(1)(E).

[169] In the event that the cost cap limitations conflict with the RPS goals and targets such that the IPA cannot procure sufficient additional quantities of RECs to meet the RPS goals or targets, priority for procurement shall first be given to RECs under existing contractual obligations, followed by RECs for the Illinois Solar for All Program, followed by RECs necessary to comply with the new wind and solar procurement requirements, and finally RECs necessary to meet the remaining RPS requirements. 20 ILCS 3855/1-75(c)(1)(F).

Unspent funds for delivery years 2017-2018 through 2020-2021 will roll over and be available for the subsequent delivery year, although up to half of any roll over funds may be allocated to cover any "funding shortfall" for the Illinois Solar for All Program (see Sections 2.6.1 and 8.4.3 for more details).[170] The Agency will update RPS budgets on an annual basis to reflect these various adjustments.

Table 3-12. Ameren Illinois RPS Budget[171]

Delivery Year	Prior Year Delivered Electricity (MWh)	Cost Cap Rate ($/MWh)	RPS Budget	Contracted REC Spend	Estimated REC Spend Initial Forward Procurement	Available RPS Budget (est.)
2017-2018	21,152,970	1.8054	$38,189,571	$9,412,155		$28,777,416
2018-2019	29,995,820	1.8054	$54,154,453	$8,000,000		$46,154,453
2019-2020	37,993,441	1.8054	$68,593,358	$7,999,000	$3,000,000	$57,594,358
2020-2021	38,017,110	1.8054	$68,636,091	$7,753,000	$3,000,000	$57,883,091

Table 3-13. ComEd RPS Budget[172]

Delivery Year	Prior Year Delivered Electricity (MWh)	Cost Cap Rate ($/MWh)	RPS Budget	Contracted REC Spend	Estimated REC Spend Initial Forward Procurement	Available RPS Budget (est.)
2017-2018	54,420,529	1.8917	$102,947,315	$23,718,264		$79,229,051
2018-2019	71,460,380	1.8917	$135,181,601	$23,357,415		$111,824,186
2019-2020	87,121,731	1.8917	$164,808,179	$23,484,084	$8,000,000	$133,324,095
2020-2021	87,012,436	1.8917	$164,601,426	$23,095,360	$8,000,000	$133,506,066

[170] See 220 ILCS 5/16-108(k).

[171] Does not include allocations to Illinois Solar for All, or uncommitted Hourly ACP funds.

[172] Does not include allocations to Illinois Solar for All, or uncommitted Hourly ACP funds.

Table 3-14. MidAmerican RPS Budget[173]

Delivery Year	Prior Year Delivered Electricity (MWh)	Cost Cap Rate ($/MWh)	RPS Budget	Contracted REC Spend	Estimated REC Spend Initial Forward Procurement	Available RPS Budget (est.)
2017-2018	539,165	1.2415	$669,373	$111,829		$557,544
2018-2019	503,181	1.2415	$624,699	$111,829		$512,870
2019-2020	704,364	1.2415	$874,468	$111,829	$36,000	$726,639
2020-2021	616,844	1.2415	$765,812	$111,829	$36,000	$617,983

Table 3-15. Statewide RPS Budget[174]

Delivery Year	RPS Budget	Contracted REC Spend	Estimated REC Spend Initial Forward Procurement REC Spend	Available RPS Budget (est.)
2017-2018	$141,806,259	$33,242,248		$108,564,011
2018-2019	$189,960,753	$31,469,244		$158,491,509
2019-2020	$234,276,005	$31,594,913	$11,036,000	$191,645,092
2020-2021	$234,003,329	$30,960,189	$11,036,000	$192,007,140

The Available RPS Budgets shown in the previous tables are gross amounts. For the purpose of establishing funds available for REC purchases, these amounts will be adjusted prior to any procurements to account for the allocation of funds to the Illinois Solar for All Program and administrative costs.

3.18. Summary of REC Procurement Targets and RPS Budgets

The aggregation of REC Targets and RPS Budgets at a statewide level provides an important tool for planning and implementing the various procurements and programs under this Plan. The table below presents a snapshot summary of the REC Gap to be procured and Available RPS Budget, which together are essential factors to achieve the RPS Goals set forth by the Act.

[173] Does not include allocations to Illinois Solar for All, or uncommitted Hourly ACP funds.

[174] Does not include allocations to Illinois Solar for All, or uncommitted Hourly ACP funds.

Table 3-16. Statewide REC Gap and Available RPS Budget[175]

Delivery Year	Overall REC Procurement Target (REC Gap)	Available RPS Budget (est.)
2017-2018	7,483,004	$108,564,011
2018-2019	12,898,337	$158,491,509
2019-2020	16,280,353	$191,645,092
2020-2021	18,140,235	$192,007,140

3.19. Hourly Alternative Compliance Payment Funds Held by Ameren Illinois and ComEd

As of June 1, 2017, Ameren Illinois had $16.2 million and ComEd $32.8 million of alternative compliance payments collected from retail customers that take service under electric utilities' hourly pricing tariff or tariffs. These funds are being used to fund the REC purchases from the 2015 through 2017 distributed generation procurements the Agency conducted for the utilities.[176] The final distributed generation procurement is scheduled for October 13, 2017, and after the results of that procurement are approved, the Agency can finalize the amount of these funds committed to those procurements. The IPA proposes to set aside the uncommitted balance of these funds for use at a later date in the event that unforeseen circumstances cause a shortfall in the Available RPS Budget of either Ameren Illinois or ComEd; the uncommitted funds could also be a source of the available funds used to help support the Illinois Solar for All Program.

3.20. Impact of RPS Budget on Procurement Volumes

As explained in prior sections of this Chapter, the available RPS Budgets may limit the quantity of RECs that can be procured to meet the RPS goals. For example, as presented in the tables above, for the 2020-2021 delivery year, an estimate of the available RPS Budget statewide is $192 million; for a delivery year featuring a gap of approximately 18 million RECs; this indicates that a budget of roughly $11 per REC is available to meet the RPS Goal for that delivery year. However, the REC Gap is expected to be filled with RECs from a variety of sources: spot procurements, forward procurements, and the Adjustable Block Program. The REC prices for these will likely vary greatly, and the Adjustable Block Program features payment for RECs that is heavily front-loaded.

While the Agency in Chapter 6 has proposed REC prices for the Adjustable Block Program, the timing between when a project reserves its REC price from an applicable Block and when it is energized and thus begins receiving payments (which are front-loaded to varying degrees) is not yet known because that program is designed to allocate RECs to projects before they are built, and the lag could be as much as two years.[177] Likewise, the Agency has a long-standing policy not to publicly speculate on, or suggest, future REC prices related to competitive procurements. This creates a slight challenge in

[175] Does not include allocations to Illinois Solar for All, or uncommitted Hourly ACP funds.

[176] 2016 and 2017 Distributed Generation procurements for MidAmerican were funded out of MidAmerican's Renewable Energy Resources budget, as MidAmerican does not have any Hourly Alternative Compliance Payments.

[177] See Sections 6.15.1 and 6.15.2.

terms of discussing when the RPS Budgets will become limited. One mitigating factor is that through the 2020-2021 delivery year, unspent funds can be rolled over from one year to the next. Given that the proposals contained in this Plan will not launch until the 2018-2019 delivery year, and only limited funds would be spent for a spot procurement to attempt to meet the 2017-2018 delivery year goals, the Agency expects that the amount of accumulated roll-over in the initial years could be substantial.

In light of those observations, the Agency does not expect that the procurements and programs proposed in this Plan will be limited by available RPS budget funds through at least the 2020-2021 delivery year. The Agency will refine and update this estimate when it updates this Plan in 2019 for implementation in calendar year 2020, and if it appears there will be limitations created in the available RPS Budget, the Agency will propose procurement and program approaches to proactively address those limitations including potentially setting specific budgets for individual programs and procurements.[178] Nonetheless, through 2019, the Agency will carefully monitor the results of its procurements and programs and will adjust procurement and program volumes accordingly if it finds it necessary to do so.

[178] Any such allocations would be made consistent with the priorities outlined in Section 1-75(c)(1)(F) of the Act and consistent with any other immutable obligations in the governing law.

4. Renewable Energy Credit Eligibility

To be eligible for use in compliance with the Illinois RPS, RECs are required to meet a variety of eligibility requirements. First, the RECs are to be sourced from generating technologies permitted in the definition of "renewable energy resources" contained in Section 1-10 of the Act. The revised definition contained in the Act removes the category "other alternative sources of environmentally preferable energy" from the definition.[179] Second, Public Act 99-0906 added two new eligibility requirements in Subsections (I) and (J) of Section 1-75(c)(1). Subsection (I) creates locational eligibility criteria, while subsection (J) creates criteria related to how a facility that generates RECs recovers its costs. This Chapter discusses how the Agency proposes to interpret and implement these two new requirements.

4.1. Adjacent State Requirement

Section 1-75(c)(1)(I) of the IPA Act, a new provision contained in Public Act 99-0906, created a new locational eligibility requirement for the Illinois RPS. This requirement replaces the prior standard, which was that renewable energy resources could come from Illinois and adjoining states, and if not available, then they could come from elsewhere.[180] The new locational requirement specifies that qualifying renewable energy credits can be generated by facilities located in Illinois, and may be sourced from facilities in adjacent[181] states—but only if these facilities can meet a set of public interest criteria. While not explicitly stated in the statute, the Agency understands that the consideration of the public interest criteria for adjacent states means that renewable energy credits from states that are not adjacent to Illinois (or for that matter, from other countries) would not be eligible for the Illinois RPS.

The public interest criteria that the Agency is instructed to consider include:

1. Minimizing sulfur dioxide, nitrogen oxide, particulate matter and other pollution that adversely affects public health in this State
2. Increasing fuel and resource diversity in this State
3. Enhancing the reliability and resiliency of the electricity distribution system in this State
4. Meeting goals to limit carbon dioxide emissions under federal or state law
5. Contributing to a cleaner and healthier environment for the citizens of this State

The Act specifies that the Agency "may qualify renewable energy credits from facilities located in states adjacent to Illinois if the generator demonstrates and the Agency determines that the

[179] This leaves the definition as, "'[r]enewable energy resources' includes energy and its associated renewable energy credit or renewable energy credits from wind, solar thermal energy, photovoltaic cells and panels, biodiesel, anaerobic digestion, crops and untreated and unadulterated organic waste biomass, tree waste, and hydropower that does not involve new construction or significant expansion of hydropower dams. For purposes of this Act, landfill gas produced in the State is considered a renewable energy resource. `Renewable energy resources' does not include the incineration or burning of tires, garbage, general household, institutional, and commercial waste, industrial lunchroom or office waste, landscape waste other than tree waste, railroad crossties, utility poles, or construction or demolition debris, other than untreated and unadulterated waste wood."

[180] Former 20 ILCS 3855/1-75(c)(3), repealed June 1, 2017.

[181] For the purpose of assessing eligibility for compliance with the Illinois RPS, the Agency defines only states that have a common border as states adjacent to Illinois: Wisconsin, Iowa, Missouri, Kentucky, Indiana, and Michigan. Michigan is considered adjacent due to the border between Illinois and Michigan that exists in Lake Michigan. This is consistent with how other State Agencies interpret the federal Coastal Zone Management Act. See for example, https://www.dnr.illinois.gov/cmp/documents/3_boundary.pdf.

operation of such facility or facilities will help promote the State's interest in the health, safety, and welfare of its residents based on the public interest criteria described above."[182]

To do so, and to "ensure that the public interest criteria are applied to the procurement and given full effect", the Plan "shall describe in detail how each public interest factor shall be considered and weighted for facilities located in states adjacent to Illinois." This Chapter provides that description.

Developing a methodology for considering and weighting these public interest criteria creates certain challenges. The complex nature of an interconnected electric power grid and associated system operations (i.e., generation dispatch for economics and reliability), and how pollution flows across states, all prevent the Agency from simply quantifying and scoring facility eligibility requests using easily obtainable data. While predictions can be simulated, there is not one clear, unassailable way to determine how a renewable energy facility in an adjacent state will meet the public interest criteria.

Instead, the Agency has developed what it believes are reasonable proxies for each criterion. The Agency notes that it developed a similar set of criteria for use in its Zero Emission Standard Procurement Plan ("ZES Plan") developed pursuant to Section 1-75(d-5) of the Act, which was approved by the Commission on September 11, 2017 in Docket No. 17-0333. That ZES Plan includes consideration of how to minimize sulfur dioxide, nitrogen oxide, and particulate matter emissions that would result from the potential closure of zero emission facilities (i.e., nuclear plants located in PJM or MISO).

The circumstances under consideration in that plan were different; for the ZES Plan, the challenge was in determining what generation would replace a zero emission (nuclear) facility should it close (and its associated environmental effects), rather than assessing the value that a renewable generating facility would add to the grid and the environment. For example, while based conceptually on the same approach used for the ZES Plan, the basis for determining compliance with one of the public interest criteria in this Plan is focused on the displacement of potential new non-renewable gas-fired generation by renewable generation that could be eligible to supply RECs to meet the Illinois RPS requirements. Among the differences from the ZES Plan scoring approach are that renewable generating facilities are likely to be intermittent rather than baseload (a defining characteristic of zero emission facilities), typically impact generation on the margin of the dispatch order, and are generally smaller in size relative to the ZES replacement generation.

To assess whether a renewable generating facility located in an adjacent state is eligible to participate in the IPA's REC procurements to meet the Illinois RPS, the Agency proposes to assign a maximum of 20 points to each of the five public interest criteria, as described below, for a total of 100 possible points. A facility in an adjacent state that requests to have its RECs considered eligible for the Illinois RPS would need to demonstrate that it can achieve a total score of at least 60 points for the Agency to approve that request.

The Agency also notes that there are two wind facilities in adjacent states that were the recipients of contracts from the 2010 Long-Term Renewable Resources Procurement. One in Iowa has a contract with Ameren, while one in Indiana has a contract with ComEd. As these facilities were granted contracts at a time that Illinois law viewed them as providing sufficient benefits to Illinois residents

[182] 20 ILCS 3855/1-75(c)(1)(I).

for their renewable energy resources to be used to meet the Illinois RPS, the Agency proposes that these two facilities be grandfathered into this requirement.

4.1.1. Public Interest Criteria

1. Minimizing sulfur dioxide, nitrogen oxide, particulate matter and other pollution that adversely affects public health in this State

In the Zero Emission Standard Procurement Plan, the Agency developed a scoring methodology for sulfur dioxide, nitrogen oxide, and particulate matter that considered the likely location of replacement generation compared to a bidding zero emission facility that could be at risk of ceasing operation. That methodology calculated, for any given zero emission facility, the percentage of the replacement generation that would occur in various states, an emissions factor related to each of those states based on its existing coal and gas generation, and an adjustment factor that recognized the frequency of prevailing winds and the distance from Illinois that could predict the amount of pollution that would impact the residents (and thus public health) of Illinois.

For the purposes of this Plan and the consideration of this criterion, the Agency proposes to refine and simplify the methodological approach utilized in the ZES Plan. Under the ZES Plan, emissions are associated with replacement of generation located anywhere in PJM or MISO; for the purposes of this Plan, the Agency will consider that a renewable energy facility would displace the emissions of new natural gas-fired generation in the state where the renewable energy facility is located.

In the ZES Plan, the Agency weighted replacement generation across multiple states, in recognition that replacement generation for a large Zero Emission Facility would likely come from multiple sources (replacement generation would be a combination of changed dispatch of existing generation units as well as the potential development of new generating units).[183] Given the smaller size of renewable energy facilities, and thus likely smaller impact on regional electricity dispatch, the Agency proposes simplifying that weighting to focus on comparing emissions from renewable generation to the emissions from a new natural gas-fired generating facility. This assumption reflects the fact that recent and anticipated additions to the resource mix in PJM and MISO will be predominantly natural gas, wind or solar[184] and natural gas is increasingly the fuel on the margin for both PJM and MISO.[185]

To simplify the calculation, the emissions comparison will include SO_2 and NO_x as proxies for all emissions because higher emissions of SO_2 and NO_x are generally correlated with higher emissions of PM, especially with regard to facilities that involve the combustion of solid fuels. The SO_2 and NO_x are primary sources of $PM_{2.5}$ in ambient air away from the immediate emissions source, as coarse PM (PM_{10}) is deposited nearer the source, while secondary $PM_{2.5}$ increases based on the formation of

[183] Specifically, 33% of the replacement generation was assumed to be in the bidding zero emission facility's own state, and the remaining 67% of replacement generation was assumed to occur across the relevant RTO, allocated by states based on each state's share of RTO-wide generation. ZES Plan, July 31, 2017, https://www.icc.illinois.gov/downloads/public/edocket/451223.pdf, at 37.

[184] The North American Electric Reliability Corporation 2016 Long-Term Reliability Assessment (December 2016) notes that capacity additions in the Eastern Interconnection (which includes PJM and MISO) for the period 2015 through 2016 are forecasted to be more than 95 percent natural gas , wind, or solar. In the March 2017 report, "PJM's Evolving Resource Mix and System Reliability," PJM states that from 2010 to 2016, natural gas and renewable made up 87 percent of new megawatts placed in service.

[185] See: Potomac Economics, "2016 State of the Market Report for the MISO Electricity Markets," June 2017, https://www.potomaceconomics.com/wp-content/uploads/2017/06/2016-SOM_Report_Final_Rev.pdf; Monitoring Analytics, LLC, "Q2 2017 State of the Market Report for PJM January through June," August 10, 2017, http://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2017.shtml.

sulfates and nitrates from the SO_2 and NO_x in the atmosphere as the pollutants move away from the primary source.[186] The following table shows SO_2, NO_x, and CO_2 emissions rates of new natural gas-fired generation based upon 2016 data from the U.S. Energy Information Agency ("EIA"). [187]

Table 4-1: Natural Gas-Fired Generation Emissions Rates

Pollutant	Pounds/MWh
SO_2	0.007
NO_X	0.05
CO_2	772

The calculation of the score will multiply an emissions factor for the renewable resource facility (scaled from 0 to 1) by a wind duration/direction factor (scaled from 0 to 1) and then by 20 points to determine the number of points awarded for this criterion.

The emissions factor is calculated by taking one minus: the sum of the eligible renewable resource's SO_2 and NO_x emissions in pounds/MWh divided by the sum of the SO_2 and NO_x emissions from a new natural gas-fired generation facility in pounds/MWh.

The emissions factor for renewable energy generating facilities such as wind, solar or hydro, which do not emit SO_2, NO_x, or Particulate Matter, would be 1.0 because those facilities would have zero in the numerator of the part of the equation that is subtracted from one.

For other renewable generating technologies, the Agency notes that those technologies eligible for the Illinois RPS include a combination of technologies that rely on combustion of a fuel source including biodiesel, anaerobic digestion (which presumably would create a biogas that is then burned), biomass, and tree waste; and other technologies that do not involve combustion (e.g., wind, solar thermal, photovoltaic, and hydro power).[188] Renewable generation technologies that involve combustion to generate electricity generate sulfur dioxide, nitrogen oxide, particulate matter, and CO_2, among other things. In order to assess the emissions impact of renewable resource technologies that involve combustion, the emissions from these facilities are compared to the emissions from a new natural gas-fired facility. To the extent that the technologies that involve combustion generate SO_2 and NO_x emissions, and the emissions in pounds/MWh are lower than the emissions from a new gas-fired facility, then the calculation for the renewable energy facility would result in the facility receiving points for this criterion. On the other hand, if the emissions are equal to or greater on a pounds/MWh basis than from a new natural gas-fired facility, then the calculation would result in the facility receiving zero points for this criterion. This reflects that an emissions rate that is greater than that for a natural gas-fired facility does not have a positive impact on the environment and public health.

[186] U.S. EPA, "Particulate Matter Emissions," Report on the Environment, http://www.epa.gov/roe/

[187] Emissions rates for a natural gas turbine operating in combined cycle with a heat rate of 6,600 Btu/kWh are shown in Table 2-5 of the November 2016 U.S. EIA Report "Capital Cost Estimates for Utility Scale Electricity Generating Plants." The CO_2 emissions in pounds per MMBtu are 117 for CO2, 0.001 for SO_2, and for NOx 0.0075; which at the heat rate of 6,600 Btu/kWh, are 772 pounds per MWh of CO_2, 0.007 pounds per MWh of SO_2, and 0.05 pounds per MWh of NOx. See: https://www.eia.gov/analysis/studies/powerplants/capitalcost/pdf/capcost_assumption.pdf.

[188] While landfill gas produced in Illinois is eligible, it is not relevant to this discussion of facilities located in adjacent states.

The Zero Emission Standard Plan included consideration of wind direction and duration as well as the distance from Illinois to modify the emissions criteria scoring. In scoring the emissions related public interest criterion for this Plan, the Agency proposes to simplify the wind duration/direction approach. Since the renewable generating facilities supplying RECs from outside of Illinois must be located in the states adjacent to Illinois (as opposed to anywhere within PJM and MISO under the Zero Emission Standard), the consideration of distance is less important and will not be considered in the approach adopted for this Plan.

The following table provides the wind duration/direction factors for each adjacent state.

Table 4-2: Wind Duration/Direction Factors

Adjacent State	Wind Direction Sectors	Wind Direction and Duration Factor
Indiana	SSE, SE, ESE, E, NNE, NE, ENE	0.256
Kentucky	S, SSE, SE	0.201
Missouri	W, WSW, SW, SSW, S	0.439
Iowa	W, WNW, NW, NNW	0.269
Wisconsin	N, NNW	0.096
Michigan	NE, NNE	0.088

The wind duration factor is based on the percentage of the time the wind blows into Illinois from 16 directional sectors that form all of the directions in 360 degrees around Illinois. For example, the wind blowing from Indiana would encompass seven directional sectors from which the wind blows on average 25.6 percent of the time. Thus, for example, a solar facility located in Indiana would receive 1 x 0.256 x 20 or 5.1 points. The following equation shows how this score is obtained:

Figure 4-1: Pollution Score Calculation

$$Score = \left(1 - \frac{\sum_{renewable\ \ resource} SO_2\ and\ NO_x \left(\frac{lbs}{MWh} \right)}{\sum_{gas\ resource} SO_2\ and\ NO_x \left(\frac{lbs}{MWh} \right)} \right) \times Wind\ \ Duration\ /Direction\ \ Factor \times 20$$

2. Increasing fuel and resource diversity in this State

Fuel and resource diversity generally refers to the use of a balanced group of generating facilities and technologies which results in reducing the risk that a specific technology could adversely impact overall system reliability. For example, PJM defines fuel diversity as: utilizing multiple resource types to meet demand such that a sufficiently diversified system is expected to provide the flexibility and adaptability to: "1) mitigate risk associated with equipment design issues or common modes of failure in similar resource types, 2) address fuel price volatility and fuel supply disruptions, and 3)

reliably mitigate instabilities caused by weather and other unforeseen system shocks."[189] In effect, fuel and resource diversity can act as a hedge to help ensure a stable and reliable supply of electricity.

Any generation source that promotes more reliance on generation sources other than coal and nuclear, which presently have generation shares of 38% and 50.2% of Illinois' total generation respectively, would contribute to increasing fuel and resource diversity in Illinois. By this measure, any of the eligible renewable energy resource generating technologies would contribute to diversity in Illinois. However, since these facilities would be located outside of Illinois, in the adjacent states, the full impact on the State's fuel and resource diversity depends on whether the electricity generated by these facilities could actually be available to Illinois end-users.

Given that renewable generation is currently only a small fraction of the resource mix for Illinois, the increase of renewable generation in the region could increase the fuel and resource diversity of Illinois. However, the Agency notes that Illinois is a net exporter of electricity, so the impact on fuel and resource diversity in Illinois may be limited for facilities located in adjacent states. But while Illinois is a net exporter of electricity, that does not mean that there is no impact on Illinois from electricity generated in adjacent states, because on an hour-to-hour basis electricity may flow into, or out of, Illinois. In order to address this issue for facilities located in the adjacent states, the Agency will use the location of the renewable resource facility relative to Illinois as the basis for modifying the fuel and resource diversity score. A distance factor will be calculated for each facility. The distance factor will be based on the distance from the facility to Morris, Illinois (which is the town closest to the population weighted geographic center of Illinois,[190] and thus can serve as a reasonable proxy for the load-weighted center of the state). The factor will be calculated as 1 minus the ratio of (i) the distance from the facility to Morris and (ii) 470 miles, which is roughly the furthest point in an adjacent state from Morris. That factor will be multiplied by the maximum possible 20 points.

Figure 4-2: Fuel and Resource Diversity Score

$$Score = \left(1 - \frac{Distance\ \ from\ facility\ \ to\ \ Morris\ ,\ \ IL\ (miles)}{470\ \ miles}\right) \times\ \ 20$$

3. Enhancing the reliability and resiliency of the electricity distribution system in this State.

While this criterion references the "electricity distribution system" and that term is generally understood to mean the local distribution system that serves homes and businesses and not the transmission grid that transports power over longer distances (and across state lines), the Agency is concerned that read literally, there would be no direct way for a facility in an adjacent state to meet this criterion because a facility in an adjacent state would have (at best) only an incidental impact on the distribution system (or more accurately systems, each operated by a different utility) within Illinois. With that in mind, the Agency proposes to interpret this criterion more liberally and consider the impact on the grid more generally, as distribution service is ultimately supported by the reliability of transmission service. The scoring for this public interest criterion involves a threshold

[189] PJM, "PJM's Evolving Resource Mix and System Reliability," March 2017, available at: http://www.pjm.com/~/media/library/reports-notices/special-reports/20170330-pjms-evolving-resource-mix-and-system-reliability.ashx.

[190] Based on the 2010 Census. See: https://www2.census.gov/geo/docs/reference/cenpop2010/CenPop2010_Mean_ST.txt.

and, based on the assumption that generating facilities located closer to Illinois would have a more beneficial impact on the State's distribution system reliability and resiliency, a distance factor. The criterion can be understood to refer to the transmission systems operated by PJM and MISO. To the extent that a facility in an adjacent state is not interconnected to the PJM or MISO grid (for example, in the portions of Iowa and Missouri that are part of the Southwest Power Pool("SPP")), those facilities would not score any points for this criterion. Otherwise, a facility in an adjacent state that is in either of the PJM or MISO control areas would be eligible to receive points. To obtain the distance factor, the Agency will use an approach that considers proximity to Illinois and thus an increased likelihood that electricity produced will provide increased system reliability and resilience.

The scoring for this public interest criterion will utilize the same distance factor as is applied to the fuel and resource diversity scoring.

Figure 4-3: Reliability and Resiliency Score

$$Score = (1 \text{ if in PJM/MISO; else } 0) \times \left(\frac{\text{Distance from facility to Morris, IL (miles)}}{470 \text{ miles}} \right) \times 20$$

4. Meeting goals to limit carbon dioxide emissions under federal or State law

Due to the stay of the Clean Power Plan imposed by the U.S. Supreme Court in February 2016, there are not currently any enforceable federal laws or regulations that limit carbon dioxide emissions from existing power generation facilities.[191] Illinois does not have any specific law that limits carbon dioxide; however, there are multiple provisions of Illinois law, such as the Zero Emission Standard and the Renewable Energy Portfolio Standard, that recognize the value of minimizing carbon dioxide emissions even if those provisions do not create explicit limits. To recognize the value in reducing carbon dioxide emissions, the Agency will determine the score for each renewable resource facility by adjusting the 20 points available for this criterion by a factor which reflects the ratio of the CO_2 emissions from the renewable resource to the CO_2 emissions from a new natural gas fired generating facility, 772 pounds of CO_2 per MWh, as shown in Table 4-1 above. This will be done by using the formula applied to the first emissions criterion except that the inputs will be pounds of CO_2 emitted per MWh. The factor applied to the 20 points available for this public interest criterion will be calculated as follows:

Figure 4-4: CO_2 Score Calculation

$$Score = \left(1 - \frac{CO_{2\ \text{renewable resource}} \left(\frac{\text{lbs}}{\text{MWh}} \right)}{CO_{2\ \text{gas resource}} \left(\frac{\text{lbs}}{\text{MWh}} \right)} \right) \times 20$$

Renewable generating facilities that do not emit any CO_2 will receive the full 20 points, while renewable generating facilities that emit CO_2 will receive points based on the factor multiplied by the

[191] See, e.g., http://www.nytimes.com/2016/02/10/us/politics/supreme-court-blocks-obama-epa-coal-emissions-regulations.html; http://www.scotusblog.com/wp-content/uploads/2016/02/15A773-Clean-Power-Plan-stay-order.pdf.

20 points. Since CO_2 emissions are generally considered to be a global problem, in that CO_2 emissions anywhere on the planet contribute to global warming, which affects the health and welfare of the citizens of Illinois, wind direction, duration, and distance from Illinois's load-weighted center are not relevant for the scoring of this criterion and are not included in the calculation.[192]

5. Contributing to a cleaner and healthier environment for the citizens of this State

This criterion is arguably the most subjective in nature, and presents unique challenges given that the Agency strives to use objective approaches to the greatest extent possible when considering the public interest criteria. Generally speaking, the Agency believes that renewable resources inherently contribute to a cleaner and healthier environment generally (with the caveat related to emissions from renewable resources that involve combustion, discussed above) because they reduce the reliance on fossil fuels and have no safety issues generally associated with the containment and disposal of radioactive materials of nuclear generation. At this time the Agency suggests the points awarded for this public interest criterion be the average of the points awarded under the first and fourth public interest criteria described above This approach will take into account the emissions from renewable resource facilities that involve combustion and, subsequently, emissions, which would not contribute to a cleaner and healthier environment for the citizens of Illinois. The Agency invites interested parties to provide comments on this draft Plan regarding ways in which this criterion could be considered differently, and on ways that would allow the Agency to objectively consider the contribution to a cleaner and healthier environment for the citizens of Illinois from various types (and locations) of renewable energy facilities while not duplicating other metrics in this overall analysis.

4.1.2. Application Process

The eligibility of renewable energy credits from renewable energy generating facilities located in states adjacent to Illinois is not automatically granted, because the Act requires that approval comes only after "the generator demonstrates and the Agency determines" that the facility's operation meets the public interest criteria discussed above.[193] That determination requires an active request (demonstration) by an interested generator. Therefore, once this Plan is approved, the Agency will remove all out-of-state resources from eligibility for the Utility RPS in GATS and M-RETS (this removal will not impact eligibility for the ARES RPS under Section 16-115D of the PUA), and renewable generating facilities in adjacent states may apply to the Agency for consideration for eligibility.

The Agency will develop an application form (i.e., a spreadsheet) for use by owners of adjacent-state facilities that wish to have renewable energy credits considered to be eligible for the Illinois RPS. The information to be entered into the application form will at minimum include the generating technology (including information on emissions rates if the technology involves combustion), state where the generator is located, distance from Morris, IL, the Regional Transmission Organization ("RTO") where the facility is or planned to be interconnected (e.g., PJM, MISO, SPP), and the tracking system ID (for existing facilities). The application form will automatically calculate the score for the

[192] The Agency notes that the Zero Emission Standard Plan contains a different scoring methodology for CO_2 emissions, but that methodology is based upon the impacts of replacement generation and the consideration related to "minimizing carbon dioxide emissions that result from electricity consumed in Illinois" (20 ILCS 3855/1-75(d-5)(1)(C)), which is not the same standard as under consideration in qualifying adjacent-state facilities for the RPS.

[193] 20 ILCS 3855/1-75(c)(1)(I).

facility. In addition, the generator will also have to include information related to the provision limiting the recovery of costs in rates described in the next Section. The Agency will update the data used in the eligibility calculations on an annual basis to use the most recent available inputs, but a facility's determination of eligibility will be based on the data available at the time of the request for determination (in other words, a facility would not risk having its eligibility revoked at a later date if the inputs changed after the initial eligibility determination is made by the Agency).

The Agency will review applications to verify the information submitted (e.g., confirming the distance inputs), and if the facility has a score equal to or greater than 60 points (and meets the cost recovery requirement), the Agency will approve the facility as eligible to produce renewable energy credits for compliance with the Illinois RPS. The Agency will inform the applicable tracking system (GATS or M-RETS) that the facility (and any RECs it generates after the determination is made) should be coded as Illinois RPS eligible.

In the case of a new adjacent-state facility that is not yet operational (and thus also not registered in GATS or M-RETS), an owner may submit a request for determination of eligibility based upon the planned design of the facility. Such a submittal must also include a copy of the interconnection agreement with the applicable utility or RTO. If the Agency determines that the planned facility does meet the public interest criteria, then it will grant a pre-approval of the eligibility. It will be the responsibility of the facility owner to notify the IPA and the tracking system once the facility is operational to request being coded as eligible for the Illinois RPS in the applicable tracking system. The Agency will review final system information to verify consistency with the information submitted for the pre-approval.

4.2. Cost Recovery Requirement

Section 1-75(c)(1)(J) of the Act contains the provision that,

> *In order to promote the competitive development of renewable energy resources in furtherance of the State's interest in the health, safety, and welfare of its residents, renewable energy credits shall not be eligible to be counted toward the renewable energy requirements of this subsection (c) if they are sourced from a generating unit whose costs were being recovered through rates regulated by this State or any other state or states on or after January 1, 2017.*

Similar language also applies to RECs procured by ARES for their RPS obligations ("…shall not include any resources from a facility whose costs were being recovered through rates regulated by any state or states on or after January 1, 2017"[194]). The ICC adopted emergency rules[195] for ARES RPS compliance with this new statutory provision (among others), and is in the process of adopting permanent rules through a rulemaking conducted in Docket No. 17-0267.[196] As part of that process, the Agency will work with ICC staff to review facility eligibility in GATS and M-RETS to make

[194] 220 ILCS 5/16-115D(a)(3.5)

[195] 83 Ill. Adm. Code Part 455.

[196] The Commission's Second Notice Order was issued August 25, 2017, and approval by JCAR is expected during October of 2017. See 5 ILCS 100/5-40(c).

reasonable determinations of what existing facilities would meet these criteria and would have RECs eligible for use by ARES for their RPS compliance.

Generally speaking, the Agency understands that facilities owned by a rural electric cooperative or a municipal utility would not be impacted by this criterion (as in Illinois, those entities' rates are not regulated by this state or any other), although the Agency notes that there are certain adjacent states which regulate some rural electric cooperative and municipal utility rates. Therefore, there will not be a blanket approval of facilities owned by rural electric cooperatives or municipal utilities service territories in adjacent states; rather, as those facilities request eligibility, their rate recovery status will be reviewed.

The Agency also understands that this provision was generally intended to ensure that facilities owned by a vertically integrated utility, for which REC revenues may be incidental to building and financing the facility (as that facility's costs could be recovered from ratepayers in that other state, potentially resulting in a credit or discount to those ratepayers for any REC revenues—effectively causing Illinois ratepayers to cross-subsidize those in vertically integrated states) would not be eligible. On the other hand, the mere presence of a Power Purchase Agreement between a facility and a separate utility whose costs are recovered in regulated rates would not trigger these criteria (nor would participation in the IPA's energy procurement events, for which regulated utilities serve as contractual counterparties, or participation in a net metering or similar energy crediting program, which would serve to disqualify the very facilities that other portions of the Illinois RPS work to support). Likewise, the Agency believes that being a Qualifying Facility under the Public Utility Regulatory Policies Act ("PURPA") (and also meeting the other aspects of the requirements of the Illinois RPS), would not be disqualifying because the Qualifying Facility does not directly recover its costs through rates; rather, it is compensated for its energy at the purchasing utility's avoided cost rate.

To the extent parties require clarification on specific facility arrangements and how those may be viewed by the Agency under this criteria, the IPA invites parties to propose such scenarios in comments on the Plan in hopes that the Agency may further refine its approach, Additionally, the Agency endeavors to provide consistent application of this rate regulated language in making facility determinations for both the RPS under Section 1-75(c) and also ARES RPS eligibility under Section 16-115D of the PUA, and proposes to work with Illinois Commerce Commission Staff (with whom the Agency has traditionally made and is likely to be making joint determinations on ARES RPS facility eligibility) to this end.

The Agency notes that all facilities in adjacent states will initially have their REC eligibility removed for Illinois RPS purposes in order to have those facilities request a determination of eligibility, as discussed in the previous Section on the public interest criteria. (This change will not impact ARES RPS eligibility designations.) The Agency expects that any request to meet the public interest criteria would include a notarized certification, and documentation that the facility does not have its costs recovered through regulated rates. For a distributed generation facility, simple documentation of ownership could suffice. For larger facilities, the Agency is not proposing a firm standard of documentation but suggests that there are multiple approaches that could be used by a requesting facility. These include, but are not limited to:

- For facilities tracked in M-RETS, documentation to support the status listed in the "Facility Ownership Type" field

- A Market Based Rate authorization letter from FERC that demonstrates that the facility owner is not a utility with costs recovered through regulated rates
- Certification as a Qualifying Facility
- Use of information from other sources such as the S&P Global Intelligence Briefing Book, or the Platts UDI Directory of Electric Power Producers and Distributors

The Agency will review (in consultation with the ICC) information provided for a facility, and may, as needed, request additional information in order to verify a facility's status.

The Agency is not aware of any facilities in Illinois that have their costs recovered through regulated rates, although the Agency invites interested parties to comment on if this is an accurate assessment of facilities located in Illinois.

In addition to the screening process described above, all contracts from future IPA-administered procurements or programs will contain provisions to reflect this additional requirement of Section 1-75(c)(1)(J),

> *Each contract executed to purchase renewable energy credits under this subsection (c) shall provide for the contract's termination if the costs of the generating unit supplying the renewable energy credits subsequently begin to be recovered through rates regulated by this State or any other state or states; and each contract shall further provide that, in that event, the supplier of the credits must return 110% of all payments received under the contract. Amounts returned under the requirements of this subparagraph (J) shall be retained by the utility and all of these amounts shall be used for the procurement of additional renewable energy credits from new wind or new photovoltaic resources as defined in this subsection (c). The long-term plan shall provide that these renewable energy credits shall be procured in the next procurement event.*

The Agency notes that Section 1-75(c)(1)(J) also provides a limited exception to this provision for facilities that participate in the Illinois Solar for All Program outlined in Section 1-56 of the Act,

> *Notwithstanding the limitations of this subparagraph (J), renewable energy credits sourced from generating units that are constructed, purchased, owned, or leased by an electric utility as part of an approved project, program, or pilot under Section 1-56 of this Act shall be eligible to be counted toward the renewable energy requirements of this subsection (c), regardless of how the costs of these units are recovered.*

5. Competitive Procurement Schedule

As described throughout this Chapter, to help meet RPS goals outlined in Section 1-75(c) of the IPA Act, the IPA proposes to conduct a variety of competitive procurements for RECs in calendar years 2018 and 2019. In combination with the programs described in Chapters 6, 7, and 8, subject to any limitations created by the RPS budget caps, these competitive procurements are intended to fully meet the RPS REC goals outlined in Sections 1-75(c)(1)(B) and (C), and identified in Chapter 3, through the 2019-2020 delivery years, and also procure additional RECs under long-term contracts to prepare for meeting the goals for future delivery years.

This Chapter contains proposals using two types of competitive procurements: Forward Procurements, and Spot Procurements. For purposes of this Chapter, the Agency proposes the following definitions to these procurements:

- A **Forward Procurement** is a competitive procurement for RECs where the beginning delivery date is in a future delivery year and the delivery term is multiple years. Further, a Forward Procurement is for unit-specific RECs. Forward Procurements include those specifically outlined in the Act (e.g., a Subsequent Forward Procurement) and additional Forward Procurements proposed by the IPA as part of this Plan. Unless specified otherwise in this Chapter (i.e., Community Generation Program Forward Procurement in Section 5.8.4), Forward Procurements will, to the extent practicable, follow the model used for the Initial Forward Procurement including:

    - 15-year REC-only contracts
    - Price per REC fixed over the term of the contract, no price escalation
    - Ability to bank RECs
    - Credit requirements and instruments

- A **Spot Procurement** is a competitive procurement for RECs to be delivered in either the prior, current, or the prompt delivery year. The delivery term of a Spot Procurement is one delivery year. While the IPA does not believe the PUA or IPA Act requires that spot procurement proposals track exactly on the requirements of Section 16-111.5, the Agency proposes that its spot procurements will, to the extent practicable, follow the model the IPA has used for past similar REC procurements including:

    - Fixed price per REC
    - RECs must be from applicable delivery year
    - Credit requirements and instruments

As discussed in Chapter 2, the Agency will review and update this Plan in 2019 in conjunction with the development of the Agency's 2020 Annual Procurement Plan, with those updates and revisions to take effect in calendar year 2020. The schedule of competitive procurements occurring after 2019 will be addressed in that Plan update. A discussion of the general principles for future competitive procurements is discussed in Section 5.10.

5.1. Statutory Requirements

Section 16-111.5(b)(5)(ii)(B)(aa) of the PUA requires that this Plan:

> *"Identify the procurement programs and competitive procurement events consistent with the applicable requirements of the Illinois Power Agency Act and shall be designed to achieve the goals set forth in subsection (c) of Section 1-75 of that Act."*

The "competitive procurement events" contemplated by the IPA are discussed in this Chapter, while the "procurement programs" are discussed in Chapters 6, 7 and 8. Also specifically addressed in this chapter is the following additional provision (bb) of that subsection of the Act regarding REC procurements subsequent to the Initial Forward Procurement:[197]

> *"Include a schedule for procurements for renewable energy credits from utility-scale wind projects, utility-scale solar projects, and brownfield site photovoltaic projects consistent with subparagraph (G) of paragraph (1) of subsection (c) of Section 1-75 of the Illinois Power Agency Act."*

Section 16-111.5(b)(5)(iii) further states that,

> *"For those renewable energy credits subject to procurement through a competitive bid process under the plan or under the initial forward procurements for wind and solar resources described in subparagraph (G) of paragraph (1) of subsection (c) of Section 1-75 of the Illinois Power Agency Act, the Agency shall follow the procurement process specified in the provisions relating to electricity procurement in subsections (e) through (i) of this Section."*

While it is unclear whether procurements such as those proposed in this Chapter are *required* to be conducted as "a competitive bid process," the Agency has achieved positive results in past experience with its competitive bid process and, outside of the programs it proposes in later Chapters, sees no need to deviate from this approach. Section 5.3 discusses in more detail the procurement process specified in Section 16-111.5(e) through (i) conducted by the Agency for prior electricity procurements, as well as prior renewable energy procurements, and how this process will be applied to the competitive procurements proposed in this Plan.[198]

[197] The Agency notes that subparagraph (G) also includes the Initial Forward Procurements that were mandated to be developed and implemented prior to the release of this draft Plan. The Agency therefore understands this provision to apply only to subparagraph (iii) regarding the "Subsequent Forward Procurements."

[198] The provisions related to this Plan contained in Section 16-111.5 of the PUA and Section 1-75(c)(1) of the Act generally refer to "competitive procurement processes" or "competitive procurement events" while in this one instance there is reference to "a competitive bid process" that shall follow the procurement process contained in Section 16-111.5. However, that provision only applies to the Initial Forward Procurement. Nonetheless, while the Agency may have the discretion to conduct other competitive procurement processes through procedures other than those envisioned by Section 16-111.5 (e.g., rather than a sealed bidding with pay-as-bid settlement, offering a standard offer price, or perhaps a single clearing price), at this time the Agency believes that all the competitive procurements it administers should follow the framework set up by Section 16-111.5.

5.2. Background on past REC Procurements conducted by the IPA

In the years 2009 through 2016, with the exceptions of 2013 and 2014,[199] the IPA held procurements for renewable energy resources to meet the RPS requirements of the utilities' eligible retail customers. These procurements were conducted through a competitive procurement process.

While changes to Section 1-75(c) of the IPA Act significantly increase the volume of RECs to be procured by the Agency, the Agency has a long track record of procuring renewable energy resources, predominantly RECs.[200] The Agency's past competitive procurements for renewable energy resources, resulted in the procurement of the following quantities of RECs:[201]

- Spot Procurements for one-year delivery of RECs
    - 2009 REC procurements for Ameren Illinois and ComEd (720,000 RECs for Ameren Illinois, 1,564,360 RECs for ComEd)
    - 2010 REC procurements for Ameren Illinois and ComEd (860,860 RECs and 1,887,014 RECs for Ameren Illinois and ComEd, respectively)
    - 2011 REC procurements for Ameren Illinois and ComEd (952,145 and 2,117,054 RECs)
    - 2012 REC procurements for Ameren Illinois and ComEd (523,376 RECs and 1,335,673 RECs)
    - 2015 SREC procurements for Ameren Illinois and ComEd (30,212 SRECs and 49,770 SRECs)
    - 2016 SREC procurements for Ameren Illinois and ComEd (33,271 SRECs and 67,952 SRECs)
    - 2016 REC procurement for MidAmerican

- Procurements for multiple delivery years of RECs
    - 2010 Long-term procurements for Ameren Illinois and ComEd (20 year contracts, bundled RECs and energy, 600,000 RECs per year and 1,261,725 RECs per year, respectively)
    - 2012 "Rate Stability" procurement for Ameren Illinois and ComEd (contracts for six delivery years) (429,425 RECs per year and 299,672 RECs per year)
    - 2015 Supplemental Photovoltaic procurements using the RERF (5 year contracts, with provision to allow time for identification of under 25 kW systems) (187,160 SRECs per year)
    - 2015 Distributed Generation procurement for Ameren Illinois and ComEd (5 year contracts)
    - 2016 Supplemental Photovoltaic procurement using the RERF (5 year contracts, with provision to allow time for identification of under 25 kW systems) (91,770 SRECs per year)

[199] In the Agency's 2013 Procurement Plan, due to a decline of eligible retail customers' load served by the utilities, mainly attributable to municipal aggregation, the Agency determined, and the Commission agreed, that no new procurements of renewable energy resources (or for that matter energy) were required. See Order, Docket No. 12-0544, December 19, 2012, at 109-110.

[200] Section 1-75(c) of the Act prior to the changes enacted through Public Act 99-0906 focused on the procurement of "renewable energy resources." The revisions to the Section contained in Public Act 99-0906 focus the Long-Term Renewable Resources Procurement Plan on specifically acquiring "renewable energy credits" from programs and competitive procurements.

[201] Announcements of these procurements that contain additional information can be found at: https://www.illinois.gov/sites/ipa/Pages/Prior_Approved_Plans.aspx. Certain REC volume information have been redacted to maintain required confidentiality in accordance with 220 ILCS 5/16-111.5(h).

- 2016 Distributed Generation procurement for Ameren Illinois and ComEd and MidAmerican (5 year contracts)
- 2017 Distributed Generation procurements (5 year contracts, also include provision to allow time for identification of under 25 kW systems)(19,549 SRECs per year in Spring, 8,153 SRECs per year to be procured in October, 2017)
- 2017 Initial Forward Procurement (15 year contracts, 1.165 million RECs per year procured to date, additional 800,000 SRECs per year to be procured by May 31, 2018)

5.3. Updates to the Agency's Competitive Procurement Approach

Based on this previous REC procurement experience, the Agency has a solid foundation to build upon for conducting the competitive procurements proposed in this Plan. While the specific products and delivery terms may vary from past procurements, the Agency believes that no significant modifications to the procurement approach itself are needed. Nonetheless, there are some specific items that can be updated as discussed below.

The procurement approach the Agency has used for prior REC procurements stems from the approach laid out in Section 16-111.5 of the Public Utilities Act for standard wholesale product (block energy, capacity, etc.) procurements. It includes the following key provisions:

- Standard contracts and credit provisions
- Sealed bids with pay-as-bid settlement
- Use of confidential benchmarks to eliminate bids not consistent with the market
- Bid selection based on price
- No post-bid negotiations
- Procurement Administrator evaluates bids and provides confidential recommendation to the Commission for approval
- Procurement Administrator provide bidder interface including training
- Uniform/standardized bid forms
- Uniform/standardized/harmonized credit requirements
- Procurement Monitor involvement

These provisions define a procurement process that has multiple stages.

- The Procurement Administrator develops draft contracts in consultation with the utilities, the Agency, the Procurement Monitor,[202] and ICC Staff.[203]
- Draft contracts are released for public comment.
- The Procurement Administrator, the Agency, the utilities, ICC Staff and the Procurement Monitor review comments received on the draft contract and revise the contract as needed.[204]
- Typically, the Procurement Administrator holds an informational webcast upon release of the final contracts and RFP rules.
- Submission of Proposals is in two parts:
  - Part 1 for pre-qualification – allows bidders to provide basic information, and agree to the terms of the contract and the RFP rules.

[202] The Procurement Monitor is an independent consultant who works on behalf of the Commission to oversee all aspects of the procurement process. 220 ILCS 5/16-111.5(c)(2).

[203] The Agency expects that the contract will be based on a modified ABA-EMA-ACORE REC Purchase & Sale Agreement.

[204] If consensus is not reached on the contracts, any disputes are resolved by the Commission.

    - Part 2 for registration of bidders – allows bidders to update information, make additional certifications including regarding confidentiality of bidding information, and post bid assurance collateral.
- Bids – on the bid date, bidders submit bids using a standardized bid form.
- Evaluation of Bids – the Procurement Administrator evaluates bids based on price, procurement objectives and priorities; identifies the winning bids; prepares a recommendation for the Commission. The Procurement Monitor observes the bidding and evaluation process and makes its own recommendation.
- Commission decision – After review of the Procurement Administrator's and Procurement Monitor's reports and recommendations, the Commission renders a decision on the results of the procurement event.
- Release of procurement results – The Procurement Administrator releases the results of the procurement event; confidential information is protected.

Unless specifically noted in the following sections, the IPA proposes that the competitive procurements for RECs proposed in this Plan follow these past practices that have been refined over the past eight years.

5.4. Revised REC Eligibility

Changes in the RPS will require several changes to the IPA's approach to conducting competitive procurements. The most significant change is that the universe of eligible facilities, and thus eligible RECs, has changed significantly. Prior to 2011, the standard was:

> *"Resources procured pursuant to this Section shall be procured from facilities located in Illinois, provided the resources are available from those facilities. If resources are not available in Illinois, then they shall be procured in states that adjoin Illinois. If resources are not available in Illinois or in states that adjoin Illinois, then they may be purchased elsewhere."*

After 2011, the standard changed to:

> *"Resources procured pursuant to this Section shall be procured from facilities located in Illinois or states that adjoin Illinois. If resources are not available in Illinois or in states that adjoin Illinois, then they may be procured elsewhere."*[205]

This allowed the IPA to run procurements that featured a bid selection process where bids were selected on the basis of price in a series of preferential categories that reflected locational priorities. As can be seen in the public notices of winning bidders from past procurement results,[206] RECs were procured in the categories, "Illinois and adjoining states" and "other states."

Starting June 1, 2017, under the revised RPS enacted through Public Act 99-0906, this paradigm changed again and the pool of potentially eligible RECs has shrunk significantly. As discussed in Chapter 4, two new conditions have been placed on RECs that are eligible to be used for RPS compliance. First is a locational standard that allows RECs from facilities located in Illinois, and from facilities located in adjacent states only if they meet the public interest criteria set out in Section 1-

[205] Both provisions were contained in the prior provisions of 20 ILCS 3855/1-75(c)(3) repealed and replaced effective June 1, 2017 through Public Act 99-0906.

[206] See: https://www.illinois.gov/sites/ipa/Pages/Prior_Approved_Plans.aspx for past IPA procurement results.

75(c)(1)(I). By implication, RECs from states further afield than the states adjacent to Illinois would not be allowed. Second, a standard related to how generating units recover their costs not only limits RECs to those from generating units that do not recover their costs through regulated rates, but also assesses penalties for RECs from systems later found to be non-compliant. (See Section 1-75(c)(1)(J) of the IPA Act).[207]

These new eligibility requirements will require competitive procurements conducted by the IPA to feature additional steps to verify that RECs being procured are eligible for the Illinois RPS. How this manifests itself will depend on the type of procurement being conducted. For Forward Procurements, additional review may be required during the bidder registration process to allow the Procurement Administrator and the Agency to verify information about proposed facilities and if facilities located in the states adjacent to Illinois meet the public interest criteria (for example, see Chapter 4 for more information on how facilities would request this determination). For Spot Procurements, such as those proposed in Section 5.9 below, there will not be the same level of initial screening of eligibility because the Spot Procurements are not unit-specific, but the procurement rules and contracts will clearly state that the obligation and responsibility (and potentially penalties) of delivering eligible RECs (as coded eligible in GATS or M-RETS) will reside with the winning suppliers.

5.5. Credit Requirements

To ensure that RECs under contract to serve a compliance requirement are indeed delivered, the Agency proposes to continue requiring collateral with contracts, with the collateral amount established as a function of contract value. While specific collateral levels are not proposed as part of this Plan (and are generally determined through the contract development process), the Agency believes that the level of collateral must be low enough to encourage participation and high enough to discourage suppliers to voluntarily default on contracts for economic reasons. Further, the IPA proposes a strict requirement that suppliers and associated facilities who voluntarily default on contracts for economic reasons or misrepresent their eligibility to participate in a procurement event will be barred from participation in future IPA procurements.

5.6. Benchmarks

Prior to the revisions to the RPS contained in Public Act 99-0906, benchmarks used for renewable energy resources procurements (i.e., confidential price levels above which no bids would be accepted) were developed pursuant to a statutory provision requiring that the price paid for renewable energy resources being procured "not exceed benchmarks based on market prices for renewable energy resources in the region," and required that such benchmarks "be developed by the procurement administrator, in consultation with the Commission staff, Agency staff, and the procurement monitor" and "subject to Commission review and approval."[208]

For the procurements to be conducted under the revised Section 1-75(c) as described in this Plan, the concept of being cost effective for the competitive procurement of RECs has been revised. Specifically, through changes by P.A. 99-0906, "cost-effective" now means that the prices for RECs

[207] Note Section 1-75(c)(1)(I) references "facility" and "facilities" for the geographic standard, while Section 1-75(c)(1)(J) references "generating unit" for the cost recovery standard. Section 1-10 of the IPA Act does not specifically define "generating unit" but does define a facility as, "an electric generating unit or a co-generating unit that produces electricity along with related equipment necessary to connect the facility to an electric transmission or distribution system." The Agency understands these terms to be roughly interchangeable.

[208] 20 ILCS 3855/1-75(c)(1) repealed effective June 1, 2017.

> *do not exceed benchmarks based on market prices for like products in the region. For purposes of this subsection (c), "like products" means contracts for renewable energy credits from the same or substantially similar technology, same or substantially similar vintage (new or existing), the same or substantially similar quantity, and the same or substantially similar contract length and structure. Benchmarks shall be developed by the procurement administrator, in consultation with the Commission staff, Agency staff, and the procurement monitor and shall be subject to Commission review and approval. If price benchmarks for like products in the region are not available, the procurement administrator shall establish price benchmarks based on publicly available data on regional technology costs and expected current and future regional energy prices.*[209]

Due to the sensitive nature of the benchmarking process and how the release of information related to the level of the benchmark could impact bidder behavior in competitive procurements, this Plan will not provide additional information on the process for developing the benchmark or any range of potential benchmark prices.

5.7. Procurements for RECs from New Projects vs. RECs to Meet Annual Goals

Section 1-75(c)(1)(F) creates a prioritization order for REC procurements, to the extent that the "budget" of utility-collected funds, pursuant to Sections 1-75(c)(1)(E) and 1-75(c)(6) of the Act and Section 16-108(k) of the Public Utilities Act, becomes a binding constraint:

1. RECs under existing contractual obligations;
2. RECs procured through funding for the Illinois Solar for All Program;
3. RECs necessary to comply with the new wind and new photovoltaic procurement requirements described in items (i) through (iii) of subparagraph (C) of this paragraph (1) [of Section 1-75 of the IPA Act];[210]
4. RECs necessary to meet the remaining requirements of this subsection (c).

Chapter 3 describes a substantial gap between the quantity of RECs needed to meet annual percentage RPS goals and the RECs from prior procurements that are already under contract or will be brought under contract through the Initial Forward Procurement. Taking into consideration the REC procurement priorities discussed above, to meet the annual RPS percentage goals, the Agency proposes to first satisfy the new wind and photovoltaic requirements. Then the Agency will seek to meet the remaining requirements of Section 1-75(c) (which the IPA understands to refer primarily, if not exclusively, to the percentage-based goals found in Section 1-75(c)(1)(B)).

Within the proposals to meet the remaining requirements of Section 1-75(c) (after the procurement of RECs from new wind and photovoltaic projects), the Agency will prioritize Forward Procurements for RECs from new projects over Spot Procurements. While at least 75% of RECs come must from wind and solar projects,[211] such procurements would solicit RECs from other renewable generating technologies as well.

[209] 20 ILCS 3855/1-75(c)(1)(D)

[210] The provisions are for 2,000,000 RECs by the end of the 2020-2021 delivery year, 3,000,000 RECs by the end of the 2025-2026 delivery year, and 4,000,000 RECs by the end of the 2030-2031 delivery year.

[211] 20 ILCS 3855/1-75(c)(1)(C).

The IPA proposes to implement the competitive procurements summarized in Table 5-1 and Table 5-2 below. A description of each of these procurements follows in Sections 5.7.1 through 5.9.

Table 5-1: 2018 and 2019 Forward Procurements Summary

Section	Procurement	Technology	Type [212]	Procurement Date	Term	Delivery Start	Annual REC Target[213]
5.7.1	First Subsequent Forward	Wind (utility-scale)	New	Summer 2018	15 Years	2020-2021	1.035 million
5.7.2	Brownfield Site Forward	Photovoltaic (brownfield site)	Any	Summer 2018	15 Years	2020-2021	0.04 million[214]
5.8.1	Photovoltaic Forward	Photovoltaic (utility-scale)	New	Spring 2019	15 Years	2020-2021	1 million minimum[215]
5.8.2	Second Subsequent Forward[216]	Wind (utility-scale)	New	Fall 2019	15 Years	2021-2022	1 million minimum[217]
5.8.3	Other Renewables Forward[218]	Any other than wind/ photovoltaic	New	Fall 2019	15 Years	2020-2021 or later	1 million (est.)[219]
5.8.4	Community Renewable Generation Program Forward	Any non-photovoltaic (with subscribers)	New	Fall 2019	15 Years	2020-2021 or later	0.1 million (est.)[220]
8.6.4	Low-Income Community Solar Pilot Project	Photovoltaic (with community participation/ subscribers)	New	To be determined (tentatively late 2018 or early 2019)	15 Years	To be determined	Based on available budget

[212] Type refers to whether the generating facility that produces the RECs is new or existing. "Any" means that either type is acceptable.

[213] All REC Targets are subject to available RPS budget limitations.

[214] To be confirmed based on the results of the Initial Forward Procurement, up to 0.04 million RECs to meet the 2% requirement.

[215] The final target REC volume for this procurement will be set in early 2019.

[216] Contingent upon whether sufficient photovoltaics are projected to be procured.

[217] The final target REC volume for this procurement will be set in early 2019.

[218] To be held based on Request for Information responses.

[219] The final target REC volume for this procurement will be set in early 2019 based on the performance of other procurements and programs, market feedback, and analysis of expected available budget.

[220] The final target REC volume for this procurement will be set in early 2019 based on the performance of other procurements and programs and analysis of expected available budget.

Table 5-2: 2018 and 2019 Spot Procurements Summary

Section	Procurement	Technology	Type [221]	Procurement Date	Term	Delivery Start	Annual REC Target[222]
5.9	2018 Spring Spot	Any[223]	Any	Spring 2018	One Year	2017-2018	7.5 million[224]
5.9	2018 Summer Spot	Any[225]	Any	Summer 2018	One Year	2018-2019	12.9 million (est.)[226]
5.9	2019 Summer Spot	Any[227]	Any	Summer 2019	One Year	2019-2020	18.1 million (est.)[228]

5.7.1. First Subsequent Forward Procurement

Procurement	Technology	Type [229]	Procurement Date	Term	Delivery Start	Annual REC Target[230]
First Subsequent Forward	Wind (utility-scale)	New	Summer 2018	15 Years	2020-2021	1.035 million

The first round of the Initial Forward Procurement, conducted by the Agency in August 2017, selected (but did not precisely procure) 1,000,000 annual RECs from new wind projects ("annual RECs" meaning the quantity of RECs to be delivered annually under the resulting REC delivery contracts).[231] It also procured 200,000 annual RECs from a new photovoltaic project. These projects must start delivery of RECs by June 1, 2021. (The Agency is planning additional rounds of the Initial Forward

[221] Type refers to whether the generating facility that produces the RECs is new or existing. "Any" means that either type is acceptable

[222] All REC Targets are subject to available RPS budget limitations.

[223] Subject to the requirement that 75% of overall RECs for the delivery year are from wind or photovoltaic.

[224] Quantity needed to meet the delivery year RPS Goal.

[225] Subject to the requirement that 75% of overall RECs for the delivery year are from wind or photovoltaic.

[226] Estimated quantity needed to meet the delivery year RPS Goal. Final quantity will be based on 2017-2018 actual delivered energy, and contracted volumes expected for delivery in this delivery year.

[227] Subject to the requirement that 75% of overall RECs for the delivery year are from wind or photovoltaic.

[228] Estimated quantity needed to meet the Delivery Year RPS Goal. Final quantity will be based on 2018-2019 actual delivered energy, contracted volumes for delivery in this delivery year, and expected REC deliveries associated with the Adjustable Block Program.

[229] Type refers to whether the generating facility is new or existing.

[230] REC Target is subject to available RPS budget limitations.

[231] 965,000 RECs were ultimately procured due to one bidder's rejection of a partial award after approval by the Commission.

Procurement to procure the remaining 800,000 RECs from utility-scale and brownfield site photovoltaic projects. These procurements will be concluded by May 31, 2018.)

Section 1-75(c)(1)(C)(ii) specifies that by the end of the 2020-2021 delivery year (May 31, 2021), at least 2,000,000 RECs used to meet the requirements of the Illinois RPS are to be delivered annually from new wind projects, and likewise that at least 2,000,000 RECs are to be delivered annually from new photovoltaic projects.[232] It further specifies that at least 50% of those photovoltaic RECs (i.e., at least 1,000,000 RECs) are to come from projects developed through the Adjustable Block Program described in Chapter 6, that 40% of the photovoltaic RECs (at least 800,000 RECs) are to come from utility-scale projects, and that the Agency determine through this Plan how the remainder (200,000 RECs) are to be procured. Section 1-75(c)(1)(C)(ii) also specifies that 2% of the photovoltaic RECs (at least 40,000 RECs) be procured from brownfield site photovoltaic projects that are not community solar.

The Agency will assume that the additional rounds of the photovoltaic Initial Forward Procurement meet their targets, and that the projects from the Initial Forward Procurement are successfully developed, energized, and begin delivering their annual quantities of RECs by their statutory deadline. Under this approach, the initial forward procurements will meet 965,000 out of the 2,000,000 REC goal for new wind projects. For new photovoltaic projects, the 1,000,000 RECs from utility-scale solar projects through the Initial Forward Procurement will exceed the 40% of RECs from new utility-scale solar projects requirement (800,000 RECs), and the Agency views the additional 200,000 RECs from utility-scale solar projects as contributing to the 8% portion of the 2,000,000 new photovoltaic RECs by the 2020-2021 delivery year for which the Agency has discretion on how to procure.

Therefore, the Agency will need to conduct an additional procurement of RECs from new wind projects to meet the 2,000,000 REC goal. To do so, the Agency proposes to conduct its First Subsequent Forward Procurement for RECs from new utility-scale wind projects to be held pursuant to Section 1-75(c)(1)(G)(iii). That section outlines several requirements for a Subsequent Forward Procurement:

- The procurement must be for "at least 1,000,000 renewable energy credits delivered annually per procurement event"
- The procurement "shall be planned, scheduled, and designed such that the cumulative amount of renewable energy credits delivered from all new wind projects in each delivery year shall not exceed the Agency's projection of the cumulative amount of renewable energy credits that will be delivered from all new photovoltaic projects, including utility-scale and distributed photovoltaic devices, in the same delivery year at the time scheduled for wind contract delivery."

At the time of the development of this Plan, the Agency's projection is that a procurement of at least 1,035,000 additional RECs from new wind projects through the First Subsequent Forward Procurement can proceed because the resulting cumulative amount of RECs from new wind projects procured in any given future delivery year would not exceed the Agency's projection of the

[232] For the purposes of this Chapter, references to REC quantities should be understood to mean an annual delivery quantity separate from the length of the contract that procures the RECs.

cumulative amount of RECs that will be delivered from all new photovoltaic projects in the same delivery year.

The First Subsequent Forward Procurement for RECs from new utility-scale wind projects will, to the extent practicable, follow the approaches used by the IPA in previous procurements including the Initial Forward Procurement. The Agency understands that to be considered a "new wind project," a facility must be energized within three years of the Commission's approval of the procurement results. See Section 2.4.2 for additional discussion of this issue.

In order to maximize federal tax incentives (reducing potential REC prices) and to maximize the likelihood that projects will be completed by the end of the 2020-2021 delivery year, the Subsequent Forward Procurement will be held in the summer of 2018.

5.7.2. Brownfield Site Forward Procurement

Procurement	Technology	Type [233]	Procurement Date	Term	Delivery Start	Annual REC Target[234]
Brownfield Site Forward	Photovoltaic (brownfield site)	Any	Summer 2018	15 Years	2020-2021	0.04 million[235]

The first round of the Initial Forward Procurement conducted in August 2017 did not procure any RECs from new brownfield site photovoltaic projects, and the Agency has not otherwise procured any RECs that would satisfy the brownfield site photovoltaic project requirement. While the brownfield site photovoltaic target could be met through the Initial Forward Procurement, it is unclear whether the future rounds of the Initial Forward Procurement will procure sufficient (or any) RECs to meet the brownfield site photovoltaic goal. Therefore, an absolute determination of the need for a brownfield site-specific photovoltaic procurement cannot be made at this time. If the 40,000 REC brownfield site photovoltaic goal is met through the Initial Forward Procurement, the Agency proposes that no additional procurement specifically designed to procure RECs from brownfield site photovoltaic projects be conducted during the calendar years 2018 or 2019.

However, if after the conclusion of the Initial Forward Procurement, the 40,000 REC target for new brownfield site photovoltaic projects has not been met, then the Agency proposes to conduct a Forward Procurement in calendar year 2018 for RECs from new brownfield site photovoltaic projects to meet the 2% goal.

5.8. Other Procurements to Meet RPS Targets

Assuming that the Initial Forward Procurement, as well as the First Subsequent Forward Procurement for new wind RECs, meet their target procurement quantities, and further that the Adjustable Block Program also meets its projected procurement target of 1 million RECs per year, 4 million RECs per year will have been procured by the end of the Summer of 2020 through contracts

[233] Type refers to whether the generating facility is new or existing.

[234] REC Target is subject to available RPS budget limitations.

[235] To be confirmed based on the results of the Initial Forward Procurement, up to 0.04 million RECs to meet the 2% requirement.

with multi-year delivery obligations.[236] In addition, about 1.9 million RECs per year are already scheduled to be delivered under existing contracts[237] for the 2019-2020 delivery year. This 5.9 million RECs per year from procurements and programs specifically mandated in the IPA Act falls well short of the annual percentage-based RPS goals. The IPA estimates that unless additional procurements are conducted in calendar years 2018 and 2019, for the delivery period of 2019-2020 and beyond, the annual REC shortage would be in excess of 16 million. (Forward Procurements would not to be able to meet REC Goals for the 2017-2018 or the 2018-2019 delivery years; Spot Procurements as discussed below will instead be used for RPS goals for those years.)

To help close this gap and meet the percentage-based goals of the RPS found in Section 1-75(c)(1)(B) of the IPA Act, the Agency must also offer proposals to procure additional RECs. The following sections outline additional proposed procurements.

5.8.1. Photovoltaic Forward Procurement

Procurement	Technology	Type [238]	Procurement Date	Term	Delivery Start	Annual REC Target[239]
Photovoltaic Forward	Photovoltaic (utility-scale)	New	Spring 2019	15 Years	2020-2021	1 million minimum

Following the First Subsequent Forward Procurement discussed in Section 5.7.1 and the Brownfield Forward Procurement discussed in Section 5.7.2, the next consideration for the Agency is how to expand the number of RECs procured from new photovoltaics projects. A procurement for photovoltaic RECs may be necessary to conduct prior to considering additional procurements for new wind RECs after the First Subsequent Forward Procurement because of the statutory requirement for the Agency to balance RECs from new wind projects with those from new photovoltaic projects. Section 1-75(c)(1)(G)(iv) states in part that,

> *If […] the cumulative amount of renewable energy credits projected to be delivered from all new wind projects in a given delivery year exceeds the cumulative amount of renewable energy credits projected to be delivered from all new photovoltaic projects in that delivery year by 200,000 or more renewable energy credits, then the Agency shall within 60 days adjust the procurement programs in the long-term renewable resources procurement plan to ensure that the projected cumulative amount of renewable energy credits to be delivered from all new wind projects does not exceed the projected cumulative amount of renewable energy credits to be delivered from all new photovoltaic projects by 200,000 or more renewable energy credits, provided that nothing in this Section shall preclude the projected cumulative amount of renewable energy credits to be delivered from all new photovoltaic projects from exceeding the*

[236] 1,000,000 new wind RECs from the Initial Forward Procurement, 1,000,000 new wind RECs from the Subsequent Forward Procurement, 1,000,000 new photovoltaic RECs from the Initial Forward Procurement (of which some may be from brownfield site photovoltaic projects), and 1,000,0000 RECs from the Adjustable Block Program.

[237] The Long-Term Power Purchase Agreements dating from 2010.

[238] Type refers to whether the generating facility is new or existing.

[239] REC Target is subject to available RPS budget limitations. The final target REC volume for this procurement will be set in early 2019.

projected cumulative amount of renewable energy credits to be delivered from all new wind projects in each delivery year and provided further that nothing in this item (iv) shall require the curtailment of an executed contract.

The Initial Forward Procurement is expected to procure 1,000,000 RECs annually from new utility scale and brownfield site photovoltaic projects. Assuming the Adjustable Block Program reaches its target of 1,000,000 RECs, then 2,000,000 RECs annually from new photovoltaic projects will have been procured. Unlike for RECs from new wind projects, where Section 1-75(c)(1)(G)(iii) describes the utilization of a "Subsequent Forward Procurement" to meet future years' targets, the law is silent as to the approach taken to procure additional RECs from new utility-scale photovoltaic projects after the Initial Forward Procurement.

The matching requirements for RECs from new wind and new photovoltaic projects also references both utility-scale and distributed generation/community renewable generation photovoltaics. If the Adjustable Block Program only procures 1,000,000 RECs by the end of the 2020-2021 delivery year, more RECs from new photovoltaic projects will be needed to match the quantity of RECs from new wind projects that go beyond the initial 2,000,000 new wind REC goal from the Initial Forward Procurement and the First Subsequent Forward Procurement. Those additional RECs from new wind projects would be procured through the Second Subsequent Forward Procurement of at least 1,000,000 new wind RECs as described in Section 5.8.2 below. The purpose of going beyond the initial targets of 2,000,000 RECs each for new wind and new photovoltaics is to help ensure a long-term supply of RECs to meet the increasing annual RPS percentage goals that rise to 25% in 2025 (as well as to anticipate the next target of 3,000,000 RECs from each category by 2025). While the Adjustable Block Program may well exceed expectations, it is likely that an additional utility-scale photovoltaic REC procurement will be required to help meet this target.

The Photovoltaic Forward Procurement proposed herein for a minimum of 1 million RECs from new utility-scale photovoltaic projects would be conducted in early 2019. The final target REC volume for this procurement will be set in early 2019 based upon a review of the results of the Adjustable Block Program and a determination of the REC quantity that would be needed to allow for the Second Subsequent Forward Procurement (described in the next section) for new wind RECs to proceed. At minimum, the target procurement volume should be 1 million annual RECs, but the Agency reserves the right to adjust that amount. Unless the Adjustable Block Program is on track to produce substantially more than 1 million RECs by the 2020-2021 delivery year, procuring fewer than 1 million annual RECs through the Photovoltaic Forward Procurement could entail insufficient RECs to allow the Second Subsequent Forward Procurement for new wind RECs to proceed.

5.8.2. Second Subsequent Forward Procurement

Procurement	Technology	Type [240]	Procurement Date	Term	Delivery Start	Annual REC Target[241]
Second Subsequent Forward	Wind (utility-scale)	New	Fall 2019	15 Years	2021-2022	1 million minimum

[240] Type refers to whether the generating facility is new or existing.

[241] REC Target is subject to available RPS budget limitations. The final target REC volume for this procurement will be set in early 2019.

If the combination of the RECs procured through the various procurements and programs, and the available budgets, are sufficient to allow for an additional Subsequent Forward Procurement, the Agency proposes to conduct a Second Subsequent Forward Procurement. This procurement would be conducted in the fall of 2019 and will seek to procure RECs from new wind projects. It would also follow the model described in Section 5.7.1. The final target for this Second Subsequent Forward Procurement could be adjusted up from 1 million RECs if the projected quantity of RECs from new photovoltaic projects is sufficient to maintain the new wind target within 200,000 RECs per year of the new photovoltaic targets. The Agency will review the results of the Adjustable Block Program and the Photovoltaic Forward Procurement to make this determination.

This Second Subsequent Forward Procurement from new wind projects would only occur if at least 2.8 million new photovoltaic RECs are projected to be procured by the end of the 2020-2021 delivery year. This limitation exists because each of the Initial Forward Procurement, Subsequent Forward Procurement, and Second Subsequent Forward Procurement must be for at least 1 million RECs from new wind projects, under Sections 1-75(c)(1)(G)(i) and (iii) of the Act. For a further example, if the projection were 3.2 million new photovoltaic RECs (e.g., 1 million from the Adjustable Block Program, 1 million from the Initial Forward Procurement, and 1.2 million from the Photovoltaic Forward Procurement) by the end of 2020-2021, then the Second Subsequent Forward Procurement volume could be increased from 1 million RECs to 1.4 million RECs to stay at the 200,000 REC matching requirement.

5.8.3. Other Renewables 15-Year Forward Procurement

Procurement	Technology	Type [242]	Procurement Date	Term	Delivery Start	Annual REC Target
Other Renewables Forward	Any other than wind/photovoltaic	New	Fall 2019	15 Years	2020-2021 or later	1 million (est.)

The Agency will also look beyond RECs from new wind and new photovoltaic projects to meet the annual RPS goals. The Agency understands the goal and spirit of P.A. 99-0906 to be to prioritize procurements for RECs that result in the development of new renewable energy facilities over procuring RECs from existing facilities. While RECs from Forward Procurements could be more expensive than RECs from Spot Procurements, this prioritization leads the Agency to next propose procurements focused on developing new renewable energy facilities that are not wind or photovoltaic.

Section 1-10 of the IPA Act defines Renewable Energy Resources as follows:

> *"'Renewable energy resources' includes energy and its associated renewable energy credit or renewable energy credits from wind, solar thermal energy, photovoltaic cells and panels, biodiesel, anaerobic digestion, crops and untreated and unadulterated organic waste biomass, tree waste, and hydropower that does not involve new construction or significant expansion of hydropower dams. For purposes of this Act,*

[242] Type refers to whether the generating facility is new or existing.

> *landfill gas produced in the State is considered a renewable energy resource. `Renewable energy resources' does not include the incineration or burning of tires, garbage, general household, institutional, and commercial waste, industrial lunchroom or office waste, landscape waste other than tree waste, railroad crossties, utility poles, or construction or demolition debris, other than untreated and unadulterated waste wood."*

Section 1-75(c)(1)(C) of the Act states that "at least 75% [of the RECs satisfying the Section 1-75(c)(1)(B) percentage goals] shall come from wind and photovoltaic projects," which opens the door for consideration by the Agency of procurements for RECs from other generating technologies. The Agency believes that there is value in increasing the diversity of sources of RECs for its procurements, up to that 25% limit.[243] The procurement of RECs from non-intermittent sources also provides the potential to increase system reliability and resiliency as well as to put some restraint on REC prices by creating an expanded and more liquid supply of RECs.

To that end, the Agency proposes to conduct an Other Renewables Forward Procurement of RECs from new renewable energy generating facilities that are not wind or photovoltaic. This Forward Procurement will take priority over the 2019 Spot Procurement discussed in Section 5.9[244] because, as stated above, the Agency believes that the legislative intent of P.A. 99-0906 was to prioritize the development of new renewable generation. Furthermore, by conducting a Forward Procurement for these resources, the Agency will help ensure the long-term supply of RECs to meet RPS goals after the 2020-2021 delivery year.

Prior to proceeding with this procurement, the Agency will conduct a Request for Information to gauge developer interest in the procurement. If the Agency, in consultation with ICC Staff, determines that there is sufficient interest to make a procurement viable, it will conduct this procurement in the fall of 2019 for RECs to begin delivery in the 2020-2021 delivery year or later. The initial annually-delivered REC target for this procurement is estimated at 1 million. The final target REC volume for this procurement will be set in early 2019 based on the performance of other procurements and programs, market feedback (including through the Request for Information process), and analysis of expected available budget.

[243] The Agency also notes that in revising this definition in P.A. 99-0906, the General Assembly removed a clause allowing for "other alternative sources of environmentally preferable energy" to qualify as renewable energy resources, but did not make other changes to the definition. In light of this, one could argue that the General Assembly intended for the RPS to support generating technologies beyond wind and solar. If the IPA were only to propose procurements in which wind and photovoltaics projects could win all REC contracts, then there would be multiple eligible generating technologies with no participation in the RPS once Alternative Retail Electric Supplier RPS requirements end at the conclusion of the 2018-2019 delivery year.

[244] The Spot Procurement proposed for 2018 would be for RECs for the delivery years 2017-2018 and 2018-2019, and therefore it is unlikely that any procurement of RECs from new resources would create an overlap in RECs procured to meet the REC targets for those years.

5.8.4. Community Renewable Generation Program Forward Procurement

Procurement	Technology	Type [245]	Procurement Date	Term	Delivery Start	Annual REC Target
Community Renewable Generation Program Forward	Any non-photovoltaic (with subscribers)	New	Fall 2019	15 Years	2020-2021 or later	0.1 million (est.)

Section 1-75(c)(1)(N) of the IPA Act contains specific provisions requiring the creation of a Community Renewable Generation Program:

> *The long-term renewable resources procurement plan required by this subsection (c) shall include a community renewable generation program. The Agency shall establish the terms, conditions, and program requirements for community renewable generation projects with a goal to expand renewable energy generating facility access to a broader group of energy consumers, to ensure robust participation opportunities for residential and small commercial customers and those who cannot install renewable energy on their own properties.*

In turn, "community renewable generation projects" are defined in Section 1-10 of the Act as including wind, solar thermal, photovoltaic, biodiesel, crops and untreated and unadulterated organic waste biomass, tree waste, and non-new hydropower. While the Agency expects that the most likely type of project to participate in a program to support community renewable generation projects would be photovoltaic projects, any such projects must participate in the Adjustable Block Program.[246] However, there may be potential community renewable generation projects that use other sources of renewable energy such as wind, solar thermal, or biomass. This Section describes the competitive procurement process that would be used to procure RECs from community renewable generation projects that are not photovoltaic (photovoltaic community renewable generation projects will participate in the Adjustable Block Program described in Chapter 6).

Details related to terms, conditions, and program requirements and other aspects (e.g., portability and transferability of subscriptions, and monetary bill credits) of community renewable generation programs are described in detail in Chapter 7.

The creation of the Community Renewable Generation Program does not provide any specific quantitative targets for the program or explicitly state that the program would procure RECs from the community renewable generation projects, other than to specify the mechanisms for procuring RECs from photovoltaic community renewable generation projects:

> *The Agency shall purchase renewable energy credits from subscribed shares of photovoltaic community renewable generation projects through the Adjustable Block*

[245] Type refers to whether the generating facility is new or existing.

[246] Specifically, Section 1-75(c)(1)(N) provides that "[t]he Agency shall purchase renewable energy credits from subscribed shares of photovoltaic community renewable generation projects through the Adjustable Block program described in subparagraph (K) of this paragraph (1) or through the Illinois Solar for All Program described in Section 1-56 of this Act."

> *program described in subparagraph (K) of this paragraph (1) or through the Illinois Solar for All Program described in Section 1-56 of this Act.*

The Agency notes that, outside of its use of the Renewable Energy Resources Fund as described in Section 1-56 of the IPA Act, it does not directly "purchase" RECs from systems (and has no funding source from which to do so); it facilitates the purchase of RECs by the utilities. Other provisions of Section 1-75(c) of the Act, as well as Section 16-108(k) of the Public Utilities Act, contemplate that utilities would directly "purchase" RECs through the Adjustable Block Program; thus, the IPA will interpret this provision to mean facilitation by the Agency of purchase by utilities. RECs from photovoltaic community renewable generation projects are considered part of the Adjustable Block Program REC targets. RECs from other types of community renewable generation projects could be applied to other portions of the RPS targets.

For community renewable generation projects that are not photovoltaic, the Agency proposes to conduct a Community Renewable Generation Program Forward Procurement for RECs from non-photovoltaic projects. This REC procurement will occur in 2019. RECs from winning projects will begin delivery in the 2020-2021 delivery year or later and will have a delivery term of 15 years. The requirements to participate in this procurement will mirror the requirements for a photovoltaic community renewable generation project to apply to the Adjustable Block Program. The key difference will be that, rather than applying for a set price for RECs, the application will be the initial submittal for a competitive procurement that has bids selected based primarily on price, as is done for the other competitive procurements conducted by the IPA. The initial annual REC target for this procurement is estimated at 100,000. The final target REC volume for this procurement will be set in early 2019 based on the performance of other procurements and programs and analysis of expected available budget.

The Community Renewable Generation Program Forward Procurement for will also include these features:

- REC price will be based on bid price. There will not be additional adders beyond that price.
- RECs will be paid for on delivery (as opposed to the front-loaded payment structure of the Adjustable Block Program community solar projects).
- Projects must maintain subscriber participation levels, and the quantity of REC that will be paid for each year will be tied to the subscription level maintained (measured in capacity, not number of subscribers). Winning bidders will be required to report annually to the Agency and to the utility purchasing the RECs on subscription levels.

As competitively procured community renewable generation projects do not feature the same front-loaded payments as the photovoltaic community renewable generation projects that participate in the Adjustable Block Program, the Agency is interested in feedback from interested parties on what, if any, additional provisions should apply to ensure that these projects maintain their subscription levels.

5.9. 2018 and 2019 Spot Procurements

Procurement	Technology[247]	Type[248]	Procurement Date	Term	Delivery	Annual RECs[249]
2018 Spring Spot	Any	Any	Spring 2018	One Year	2017-2018	7.5 million[250]
2018 Summer Spot	Any	Any	Summer 2018	One Year	2018-2019	12.9 million (est.)[251]
2019 Summer Spot	Any	Any	Summer 2019	One Year	2019-2020	18.1 million (est.)[252]

The RPS goals identified in Chapter 3 for the initial years of this Plan are not likely to be met by all the procurements proposed in the previous sections of this Chapter plus the programs described in Chapters 6, 7, and 8. This is especially true for the initial years covered by this Plan during which new projects are under development and construction and not yet delivering RECs. The procurements described in the previous sections are intended to maximize the opportunities to procure RECs from new projects, resulting in the development of new renewable energy generation that will provide RECs. This section describes the Spot Procurements that are intended to meet the RPS goals for the initial years of the Plan as well as to fill in any remaining gaps after the various Forward Procurements are conducted.

This Plan will not be approved by the Commission until well into the 2017-2018 delivery year, yet the Act requires that,

> *For the delivery year beginning June 1, 2017, the procurement plan shall include cost-effective renewable energy resources equal to at least 13% of each utility's load for eligible retail customers and 13% of the applicable portion of each utility's load for retail customers who are not eligible retail customers, which applicable portion shall equal 50% of the utility's load for retail customers who are not eligible retail customers on February 28, 2017.*[253]

The Agency believes that it is obligated to seek to procure RECs from new or existing generating facilities to meet the 13% goal for the 2017-2018 delivery year. Furthermore, a similar provision (14.5%) exists for the 2018-2019 delivery year (with the portion of load to which RPS requirements apply for non-eligible retail customers increasing to 75%), and then increasing by 1.5 percentage points each year thereafter for all retail load (other than the ARES carve-out discussed in Section 3.3.)

[247] Subject to the requirement that 75% of overall RECs for the delivery year are from wind or photovoltaic.

[248] Type refers to whether the generating facility is new or existing.

[249] All quantities are subject to available RPS budget limitations, and are expected to close the gap and meet the RPS delivery year RPS Goal.

[250] Final quantity based on 2016-2017 actual delivered energy, and contracted volumes expected for delivery in this delivery year.

[251] Final quantity to be based on 2017-2018 actual delivered energy, and contracted volumes expected for delivery in this delivery year.

[252] Estimated quantity needed to meet the Delivery Year RPS Goal. Final quantity will be based on 2018-2019 actual delivered energy, contracted volumes for delivery in this delivery year, and expected REC deliveries associated with the Adjustable Block Program.

[253] 20 ILCS 3855/1-75(c)(1)

A key consideration for Spot Procurements is that the pool of eligible RECs will be smaller than for many of the previous REC procurements conducted by the IPA. This is due to the narrowing of geographic eligibility of facilities producing RECs to only Illinois and select facilities in adjacent states (those that can meet the public interest criteria provisions of Section 1-75(c)(1)(I)), as well as the prohibition of RECs from generating units with costs recovered through regulated rates found in Section 1-75(c)(1)(J).[254]

A review of the public reports in GATS and M-RETS suggest that there may be significant quantities of RECs in Illinois and adjacent states that could be eligible for the Spot Procurements. While the ways in which RECs from previous years were used does not necessarily indicate future REC availability, 5 million Illinois wind RECs from the 2016-2017 delivery year were not retired, and 5 million wind RECs from Iowa and Wisconsin were not retired, while another 1 million hydroelectric RECs from Wisconsin were likewise not retired.[255] A REC not being retired may be because the owner was unable to sell it, but may also be because the owner chose not to sell it because it wished to retain the rights to the environmental attributes associated with the REC. The IPA has not been able to ascertain why these large quantities of RECs remain unretired, but they do indicate that there may be opportunities for the IPA to procure such RECs for the 2017-2018 and subsequent delivery years.

As a result, the Agency proposes the following Spot Procurements:

- Spring 2018 Spot Procurement for RECs generated in the 2017-2018 delivery year
- Summer 2018 Spot Procurement for RECs generated in the 2018-2019 delivery year
- Summer 2019 Spot Procurement for RECs generated in the 2019-2020 delivery year

Each procurement will be designed to procure the remaining RECs required to meet that delivery year's REC goals, and will only be for RECs from the applicable delivery year (in other words, the vintage[256] of the RECs must match the delivery year for which the Spot Procurement is meant to meet the RPS goals). These procurements will contain the following provisions, but otherwise will be conducted in a manner similar to the previous IPA REC procurements and will be conducted consistent with the requirements of Section 16-111.5 of the PUA, to the extent practicable.

For each procurement, there will be two groups of RECs to be procured, with targets adjusted to ensure that the result of each of these procurements would be that at least 75% of RECs used to meet the Illinois RPS targets come from wind and photovoltaics. The groups are:

1. Wind/photovoltaic RECs
2. Non-wind and non-photovoltaics RECs

For Spot Procurements, RECs would not need to be from a specific generating facility; thus, the obligation to deliver RECs cannot be excused by a unit-related issue (although the unit must be eligible to deliver RECs for compliance with the Illinois RPS). RECs that are otherwise contractually committed through any other procurement or program administered by the IPA will not be

[254] These new restrictions are discussed in Chapter 4 of this Plan.

[255] These illustrative examples do not factor in the public interest criteria that may limit availability of RECs from adjacent states or the requirement that RECs come from generating units that do not have their costs recovered through regulated rates.

[256] Vintage refers to the month and year of the generation used to create a REC.

acceptable. In other words, eligible facilities that have surplus RECs (not otherwise contractually committed RECs) may bid surplus RECs in Spot Procurements.

The Procurement Administrator will allocate bids to each utility, including splitting bids where necessary with the goal of matching, to the extent possible, each utility's average REC price and each utility's REC Cost Allocation discussed in Section 3.1.

5.10. Consideration of Potential Procurements after 2019

This Chapter has focused on competitive procurements to be conducted in 2018 and 2019 designed to meet annual RPS percentage goals through the end of the 2019-2020 delivery year as well as meeting the specific technology-based RPS targets through the end of the 2020-2021 delivery year, including the 2 million RECs each from new wind and photovoltaic projects and the 2% requirement from brownfield site photovoltaics. At this time, the IPA is proposing to review updated load forecasts, budgets, and actual program and procurement results as part of its review and revision of the Plan to be conducted in 2019 for implementation in 2020, and will propose specific procurements to meet future years' targets as part of that Plan revision.

Nonetheless, in considering the procurements that might be proposed in the 2019 Plan update, due to the limitations on new wind being procured which would cause RECs from new wind projects to exceed RECs from new photovoltaic projects by more than 200,000, the first priority will be to ensure that there are enough RECs from new photovoltaic projects procured to allow for the next forward procurement of RECs from new wind projects. This will likely require both ensuring the ongoing success of the Adjustable Block Program as well as additional competitive procurements for RECs from new utility-scale and brownfield site photovoltaic projects.

6. Adjustable Block Program

6.1. Background

Sections 1-75(c)(1)(K) and (L) of the IPA Act, as amended by Public Act 99-0906, require the Agency to establish an Adjustable Block Program for the procurement of RECs from new photovoltaic distributed generation systems and from new photovoltaic community renewable generation projects (colloquially known as "community solar"). The Adjustable Block Program stands in contrast to the competitive procurements described in Chapter 5 in that it features administratively determined prices for RECs and is open on an ongoing basis, rather than having discrete procurement events.

Prior to the adoption of the Adjustable Block Program model, the development of new photovoltaic distributed generation in Illinois had been supported in other ways. From 1999 to 2015, the Department of Commerce and Economic Opportunity ("DCEO") offered rebates for photovoltaic projects; these rebates covered up to 25%-30% of the project cost and supported over 1,100 solar PV projects with a total capacity of 13 MW.[257] The DCEO rebates were available once per year and the available budget was quickly allocated, leading to uncertainty for installers about whether their projects would or would not receive a rebate in any given year. No funds have been appropriated for the rebate program for the past two years, and it is not known whether funds will be appropriated again before the enacting legislation expires in 2020.

Additionally, the IPA conducted Supplemental Photovoltaic Procurements in 2015 and 2016 under authority granted by Section 1-56(i) of the IPA Act, and the Agency proposed and conducted Distributed Generation procurements for the utilities from 2015 through 2017 (although these procurements for the utilities were not limited to photovoltaic systems or to new systems) to meet a statutory DG procurement target in the pre-P.A. 99-0906 RPS. The previous procurements administered by the IPA featured competitive bidding for projects, and each winning bidder received a contract through which RECs actually delivered were paid for at the bidder's bid price. While this approach created the market efficiency that is inherent in competitive bidding processes, installers of projects found it difficult to sell projects when the potential REC revenue would not be known until a bid was accepted (or alternatively there would be no REC revenue if a bid was not accepted). To mitigate that challenge, the Agency allowed bidders to bid on forecasted blocks of RECs for systems below 25 kW and give developers time to identify projects using a known REC price.

The Adjustable Block Program is intended to address these issues by featuring an approach that is continuously open, rather than relying on specific procurement events (or rebate application windows), features a clear set of prices, and can tap into a much larger budget. The program also expands the model to accommodate community solar so that homes and businesses that cannot place solar on their property can nonetheless participate in, and benefit from, direct access to renewable energy.

The Adjustable Block Program approach has been previously implemented in similar manners in other states and countries. The Adjustable Block Program will offer a set price for RECs from qualifying projects, and the price will be adjusted in volumetric blocks (hence the "adjustable block"

[257] See Renewable Energy, Energy Efficiency, and Coal Resources Development Law of 1997, 20 ILCS 687/6-1 *et seq.*; also see https://www.illinois.gov/dceo/AboutDCEO/ReportsRequiredByStatute/2013%20RERP%20Annual%20Report.pdf, https://energy.gov/savings/renewable-energy-resources-trust-fund.

name) based on market response. The Agency's goal is to design a system of adjustable blocks with prices that will elicit the maximum amount of deployment at the least possible cost, with a high level of certainty and transparency for consumers and market participants.

6.2. Lessons From Other Jurisdictions

Illinois is far from being the first to adopt an approach of administratively-determined incentives or a block program to manage growth of the photovoltaic industry. Experience from other markets can inform best practices for setting prices and program design. Solar photovoltaic power has been a rapidly developing technology in recent years, with rapid price declines and industry growth. This dynamic environment has made it challenging for policymakers to design incentives that ensure healthy growth, without costing taxpayers and ratepayers too much or causing unsustainable "boom and bust" cycles that harm the industry and consumers.

To inform the program design of the Adjustable Block Program, the Agency's review and analysis of other programs included relevant experiences from Germany, Spain, California, and particularly Massachusetts and New York. Appendix C provides a summary of those experiences.

While the New York and Massachusetts programs are both based on a declining block structure, and pay incentives on a first-come, first-served basis, key design aspects vary. The NY SUN program has 3 regions (Long Island, Con Edison, and Upstate) each with a distinct number of blocks, block sizes and block prices. Incentives are paid in dollars per Watt (capacity), declining differently for each region and sector, except for the residential sector where prices decrease by $0.10/W across all regions. Like the proposed Illinois Adjustable Block Program, NY SUN pays small systems at the time of energization, whereas commercial projects receive a partial payment upfront with the remainder paid in installments over subsequent years.

The proposed Massachusetts SMART program (which builds upon the past success of earlier programs in that state) will have the same block sizes for all the distribution companies, with the same compensation rate across the state. The incentive will be expressed in $/kWh (energy) and will decrease by a uniform 4% as it moves from one block to the next.

In the Massachusetts program for projects with capacities of 25 kW or less, the executed contract shall include a budget that identifies key project components and a timeline and corresponding payment schedule for installation of the project.

6.2.1. Managing Initial Demand

Some incentive programs have encountered problems dealing with a large quantity of applications coming in very quickly upon the application window opening. California's Self Generation Incentive Program ("SGIP") is a prime example. In 2016, $40 million of SGIP funding was made available. Applicants filed 658 reservation requests totaling $181 million in requested incentives in the first 10 minutes following program opening.[258] Some applicants were found to be deploying questionable strategies to get their application earlier in line, including filing applications from within the same server network as the application recipient. One vendor volunteered to give up half of its rewarded

[258] Eric Wesoff, Greentech Media, "Update: Stem's Response to the California SGIP Subsidy Award Process Imbroglio," May 16, 2016. https://www.greentechmedia.com/articles/read/Update-Stems-Response-to-the-California-SGIP-Subsidy-Award-Process-Imbrog.

incentives to avoid litigation. As a result, the California PUC reformed the program to add a number of protections against awards being monopolized by early applicants:[259]

- Replacing the first-come, first-served system with a lottery in which projects having additional greenhouse gas/grid benefits are assigned priority;
- Making all of the incentive money available on a continuous basis in a declining incentive "step" structure, akin to the California Solar Initiative; and
- Restricting each project developer to a cap of 20 percent of the incentive budget, rather than the previous 40 percent cap that applied to equipment manufacturers

In the development of the structure of the Adjustable Block Program, the Agency has taken into account its review of the experiences of other jurisdictions, what it has learned from previous procurements it has administered, and the feedback it has received from stakeholders. For issues that are not expressly addressed in the Act, the Agency has made policy decisions to implement the program that it believes will result in a cost effective and successful program.

6.3. Block Structure

The core of the Adjustable Block Program is the concept of a "block." The program delineates incentives for various categories of eligible projects using blocks of generation capacity at certain prices per REC levels. The blocks are intended to create a progression from one price level to another based on the response of the market. A strong response from the market will result in a rapid progression to a lower price level, for example, while a weak response could elicit an increase in incentives if it is determined to be necessary. Figures 6-1 and 6-2 in Section 6.4 provide an illustration of how the blocks adjust by price.

Progression from one level to another is triggered by a certain volume of deployment, not by a time-based deadline. This deployment-based design is intended to act as a safety valve in case incentives are set at too high a level, which has been a problem in previous attempts at administratively-determined prices. It can also provide long term certainty by giving an indication of future prices and quantities to all potential market participants.

The initial goal for the Adjustable Block program is to have 1,000,000 RECs delivered annually by the end of the 2020-2021 delivery year (i.e., May 31, 2021). See Chapter 3 for more discussion of goals. Using a capacity factor of 17% (see Section 6.14.5), this would be about 666 MW of new photovoltaic generation. This goal is not a cap; if demand for new projects is strong enough, and funding available, there is no barrier (other than the monetary RPS budget discussed in Section 3.17) for going beyond that level.

In order to achieve that goal, the Agency has developed a block structure that it expects will allocate three blocks per category to meet the expected demand for this program (e.g., 1 million RECs per year by the end of the 2020-2021 delivery year), which would roughly be one block per category per year through 2020. However, the block structure is open ended, so while the initial blocks are designed to roughly match the goals through the 2020-2021 delivery year, if demand in any given category is stronger than anticipated (and funding available), additional blocks will open to accommodate that demand. (Likewise, if demand is lower in a category, a block may remain open

[259] Eric Wesoff, Greentech Media, "California PUC Proposes Long-Overdue Reform on SGIP Subsidy," May 23, 2016. https://www.greentechmedia.com/articles/read/california-puc-proposes-long-overdue-reform-on-sgip-subsidy.

longer.) In addition, the block size, structure, and prices will be reviewed and updated as needed as part of the Plan update in 2019 (to take effect in calendar year 2020).

To encourage simplicity, the Agency proposes to allocate incentives into two groups by service territory/geographic category, based upon load forecasts contained in Chapter 3.[260]

- **Group A:** for projects located in the service territories of Ameren Illinois, Mt. Carmel Public Utility, and rural electric cooperatives.
- **Group B:** for projects located in the service territories of ComEd, MidAmerican, and municipal utilities.

Incentive levels will vary by group. While the program administrator will strive to allocate REC delivery contracts with the electric utility in whose service territory the project is located (where applicable, as the IPA lacks authority to procure REC contracts on behalf of municipal utilities or rural electric cooperatives), in order to allocate RECs proportionately among Ameren Illinois, ComEd, and MidAmerican to meet their RPS obligations, that will not always be possible.

The Agency also considered creating an additional group or groups for MidAmerican, Mt. Carmel Public Utility, rural electric cooperatives, and municipal utilities. However, given their small share of the load in Illinois, the resulting group or groups would be quite small. By consolidating them into the larger groups, block sizes are more administratively manageable, and prices are more transparent and easily understood. The assignment of projects in the service territories of Mt. Carmel Public Utility and the rural electric cooperatives to Group A, and MidAmerican and municipal utilities to Group B, is intended to approximately match those smaller entities to a larger utility with comparable electric rates.

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

The allocations will be:

- 33.3% for DG PV systems up to 10 kW (Small systems)
- 33.3% for DG PV systems greater than 10 kW and up to 2,000 kW (Large systems)
- 33.3% for photovoltaic community renewable generation projects (Community Solar)

For systems in the Large DG PV and Community Solar categories, the use of adders (as discussed below in Section 6.5) will be used to differentiate the price for RECs from different sized systems. In the alternative, the Agency considered subdividing those categories into smaller blocks, but the Agency is not convinced that such an approach would be more efficient or a better way to match

[260] The combined allocation for ComEd and MidAmerican would be 70.67% and for Ameren Illinois 29.33%. For simplicity, these have been rounded to 70% and 30% for determining the size of blocks for Group A and Group B.

prices to demand from the market. The Agency invites interested parties to comment on which approach would be more likely to produce positive outcomes.

Projects that participate in the Illinois Solar for All Program (as described in Chapter 8) will generally follow the program terms and conditions of the Adjustable Block Program, but will apply separately, and will not be considered part of these Groups and categories for the purpose of filling the capacity of each Block. Those projects will also be subject to additional terms and conditions, as well as a different contractual process.

6.3.1. Transition between Blocks

When a block's capacity is filled, the next block for that category (with a different price) will open at a price expected to be 4% lower than the previous block. In order to smooth the transition between blocks, and to avoid unnecessary rushes in the application process, the closing of each block will be a soft closing, as explained below. The Agency anticipates that there will be strong pent-up demand for participation in the Adjustable Block Program. Therefore, the treatment of block closing will be different for each Block 1 than for subsequent blocks.

- For each Block 1, all projects submitted within 60 days of the program opening will be included in that Block 1 regardless of if the block volume is used up.
- For subsequent blocks (and for each Block 1 if it is not filled in the first 60 days), the block will be held open for 14 days after the block volume is used up. The Agency will announce when a block has been filled and when the closing date will be.

Table 6-1 shows the amount of nameplate capacity that will be initially allocated to each block for each group and category.[261] The final amount for each block may change to accommodate the soft closing described above. In other words, if the initial demand for the Group A, Small category in the first 60 days is 30 MW, the final amount of capacity in that block would be 30 MW, and the next block would open with 22 MW of expected capacity available. Meanwhile if Group A, Large category only had 10 MW of demand in the first 60 days, it would remain open until its 22 MW of capacity were filled (subject to any adjustments in the final 14 days), and then the next 22 MW block for the Group A, large category would open.

Table 6-1: Illustrative Block Opening Volumes (MW)

Block Group	Block Category	Block 1	Block 2	Block 3
Group A (Ameren Illinois, Mt. Carmel, Rural Electric Cooperatives)	Small	22	22	22
	Large	22	22	22
	Community Solar	22	22	22
Group B (ComEd, Mid-American, Municipal Utilities)	Small	52	52	52
	Large	52	52	52
	Community Solar	52	52	52
Total		222	222	222

[261] Each MW of nameplate capacity represents approximately 1,490 RECs for the first year of production.

A project will receive the price of the block that is open at the time the project application is submitted. If a block closes while a project application is being reviewed and the project is not accepted, the capacity associated with that rejected project will be assigned to the next block.

As discussed further in Section 6.15.3 below, should a system in a given block fail to be developed and subsequently interconnected and energized, that system's portion of the block will be forfeited. The volume associated with the forfeited system will be added to the block that is currently open at the price for that block.

The public will be notified of the availability of capacity in each Block via an online dashboard, as discussed in more detail in Section 6.10.

6.4. REC Pricing Model

Historically the IPA has procured standard wholesale products (e.g., energy and capacity) as well as renewable energy resources (e.g., RECs) through a competitive procurement process that featured pay-as-bid Requests for Proposals. Under that model, the price paid for a product is the price that the successful bidder bids. Bids for a specific product or category of products are ranked on price and then selected until the target volume for the procurement is met. The competitive nature of this process creates market efficiencies as bidders are forced to sharpen their bids to succeed. For this process to be successful, it is critical that information about prices and bids is kept confidential; bidders should bid based upon their own information and not information about other bidders' bids. In contrast, the Adjustable Block Program model is based upon the principle of having a "transparent schedule of prices."[262] Each block as described above in Section 6.3 will have an administratively determined, pre-announced price, and adders will be used (where specified) to further adjust the price for the RECs from each system.

Given this change in approach for the pricing of RECs to be used for the Adjustable Block Program, the IPA has developed a REC Pricing Model which has a methodology for pricing RECs that emphasizes transparency. The methodology uses publicly available data, and the model used is based upon an industry standard photovoltaic pricing approach. The intent of the REC Pricing Model is to model a REC price for typical systems in order to create a set of standard REC prices for use in this program.

The REC Pricing Model is based on the CREST model developed by the National Renewable Energy Laboratory ("NREL").[263] The REC Pricing Model determines REC prices by balancing the calculated Cost of Energy from the CREST model with the revenue that a system would be expected to receive through net metering. In developing the REC Pricing Model, the default inputs in the CREST model were updated to use publicly available data from the most recent NREL solar photovoltaic system cost study[264] and certain information received by the Agency in the responses to the Request for Comments the Agency issued in June 2017. Several different system sizes were modeled, and community solar was modeled by adjusting for the difference in net metering between community solar and distributed generation (e.g., energy-only net metering for community solar). A more

[262] 20 ILCS 3855/1-75(c)(1)(K).

[263] See: https://financere.nrel.gov/finance/content/crest-cost-energy-models.

[264] Ran Fu, Donald Chung, Travis Lowder, David Feldman, Kristen Ardani, and Robert Margolis. "U.S. Solar Photovoltaic System Cost Benchmark: Q1 2016." https://www.nrel.gov/docs/fy16osti/66532.pdf.

detailed explanation of the model and input assumptions is contained in Appendix D. In addition, the model itself (in Excel format) is available as Appendix E.[265]

The IPA adapted and modified the CREST model for the purposes of calculating REC prices for this Plan. CREST is an economic cash flow model that estimates the cost of energy in terms of cents per kilowatt-hour associated with specific input assumptions regarding technology type, location, system capital and operating costs, expected production, project useful life, and various project financing variables. Modifications were not made to the modeling tool itself, but rather to the input assumptions and post processing of the results. For this draft Plan, the Agency wants to emphasize that **these prices should be viewed as preliminary in nature and not necessarily the prices that will be offered once programs launch, and parties should not take actions in reliance on the availability of these preliminary proposed incentive levels**. This Plan is merely a draft for public comment, and will be further refined for its December filing for approval with the Illinois Commerce Commission (at which point it may be even further revised during that proceeding). The Agency also notes that these prices are not comparable to the REC prices from previous IPA procurements because these are based on assumptions around a 15-year delivery of RECs, rather than bids received for a 5-year delivery or 1-year delivery of RECs. Furthermore, the prices presented in this draft Plan do not reflect any potential tariffs that may be imposed on the importation of photovoltaic modules and cells (as discussed below in Section 6.8.4).

The Agency invites interested parties to explore the data used, the assumptions made, and the model itself, and to provide feedback on them and how they can be improved and/or refined. The Agency will update this approach to pricing for the Plan that will be filed for Commission approval in December 2017. **Those updates are likely to change the prices listed.** Furthermore, the Agency recommends that after the Commission approves this Plan in 2018, the Agency shall update specific inputs where the data may have changed and publish final prices within 60 days after the approval of the Plan.

Table 6-2 contains the prelimary calculation of REC prices, factoring in the size category adjustment adders described in Section 6.5.1.

[265] Note, the REC Pricing Model was developed prior to the Commission's September 27, 2017 approval of ComEd and MidAmerican's new tariffs for the net metering of community renewable generation projects, and Ameren Illinois' revision to its net metering tariff to accommodate community renewable generation projects. Prior to filing this Plan for Commission approval, the REC Pricing Model will be updated to reflect those tariffs as well as other input from interested parties on this draft Plan.

Table 6-2: Block Group REC Prices ($/REC)[266]

Block Group	Block Category		Block 1	Block 2	Block 3
Group A (Ameren Illinois, Mt. Carmel, Rural Electric Cooperatives)	Small	<=10 kW	$82.35	$79.06	$75.89
	Large	>10 - 100 kW	$61.85	$59.38	$57.00
		>100 - 200 kW	$41.35	$39.70	$38.11
		>200 - 500 kW	$35.85	$34.42	$33.04
		>500 - 2,000 kW	$33.35	$32.02	$30.74
	Community Solar	<=10 kW	$102.56	$98.46	$94.52
		>10 - 100 kW	$82.06	$78.78	$75.63
		>100 - 200 kW	$61.56	$59.10	$56.73
		>200 - 500 kW	$56.06	$53.82	$51.66
		>500 - 2,000 kW	$53.56	$51.42	$49.36
Group B (ComEd, Mid-American, Municipal Utilities)	Small	<=10 kW	$68.11	$65.39	$62.77
	Large	>10 - 100 kW	$47.61	$45.71	$43.88
		>100 - 200 kW	$27.11	$26.03	$24.99
		>200 - 500 kW	$21.61	$20.75	$19.92
		>500 - 2,000 kW	$19.11	$18.35	$17.62
	Community Solar	<=10 kW	$91.23	$87.58	$84.07
		>10 - 100 kW	$70.73	$67.90	$65.18
		>100 - 200 kW	$50.23	$48.22	$46.29
		>200 - 500 kW	$44.73	$42.94	$41.22
		>500 - 2,000 kW	$42.23	$40.54	$38.92

In the Large Distributed and Community Solar Categories, a base price was set for systems between 500 kW and 2,000 kW, with Size Category Adjustment Adders added for smaller sized systems, as discussed in the next Section.

After Block 1, prices are expected to decline by 4% with each transition between Blocks. The Agency will monitor performance during the initial Blocks and may elect to modify the price change between blocks based upon the speed that each Block is filled. The process for making changes is described in Section 6.8.

Figure 6-1 and 6-2 illustrate block prices for Group A and Group B, incorporating the various adders.

[266] In the "Large" and "Community Solar" categories the prices listed include the Size Category Adjustment Adders described in Section 6.5.1.

Figure 6-1: Group A Blocks

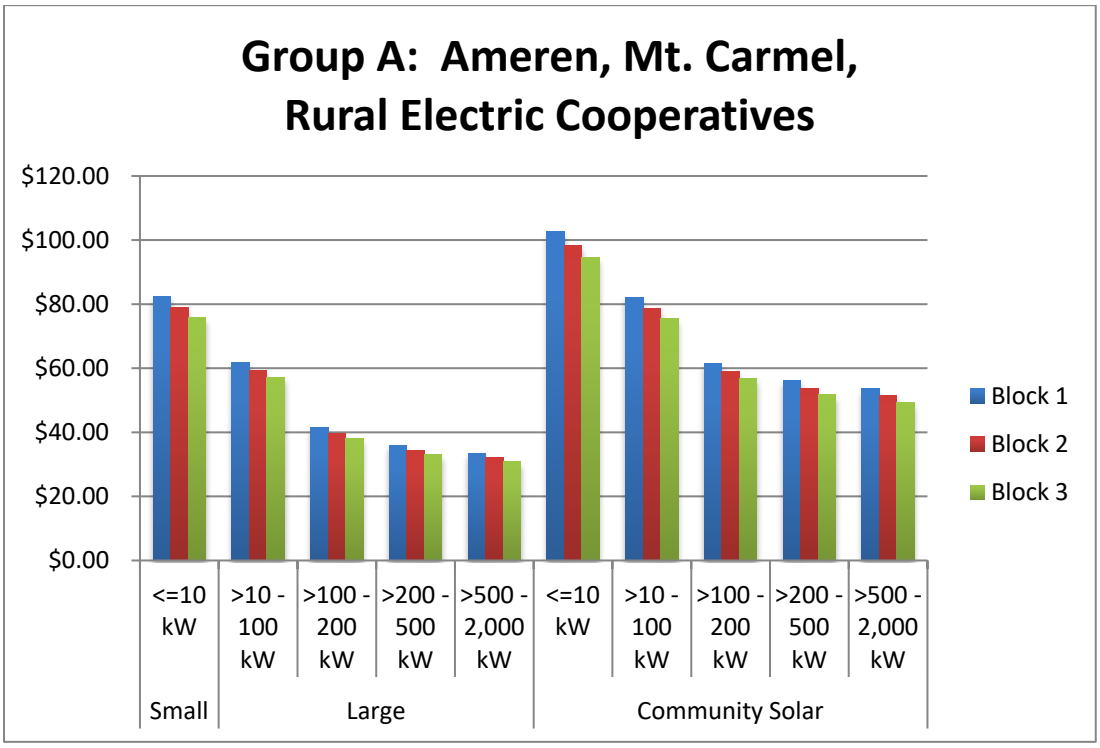
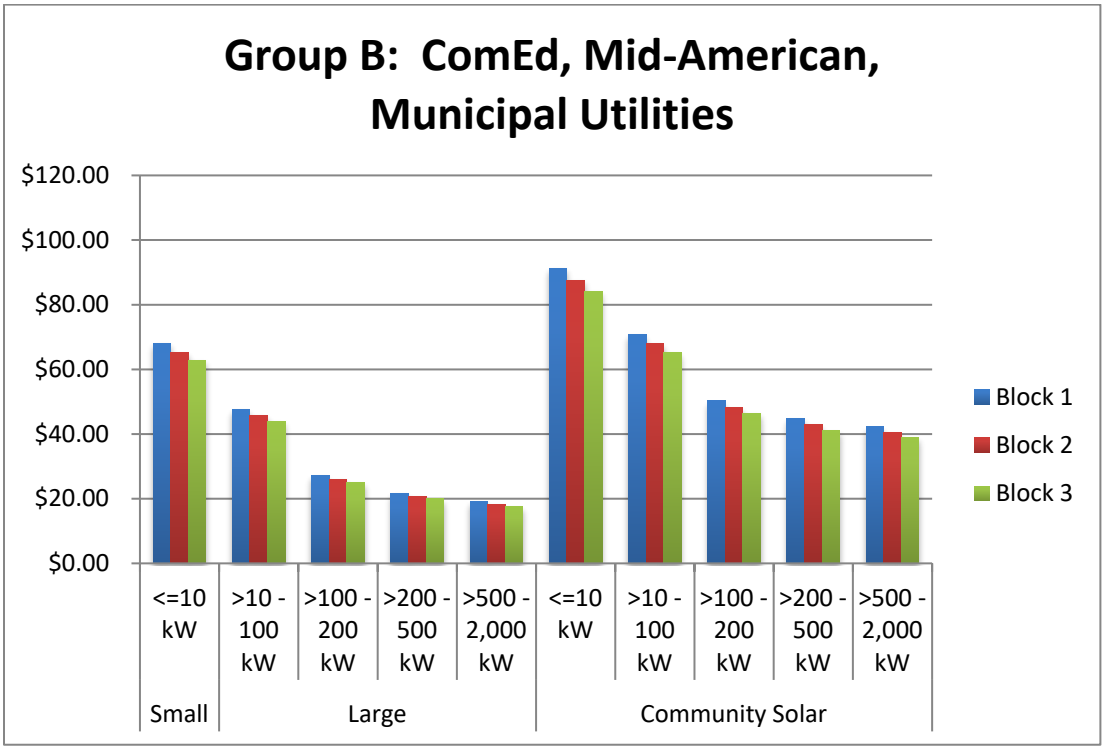


Figure 6-2: Group B Blocks



6.5. Adders

The following set of Adders are intended to adjust the base REC price to meet specific additional purposes. These include adjusting for system size, adjusting for the additional costs of community solar, and potentially accounting for the changes to net metering, smart inverter rebates and federal tax credits.

While the Act seeks to encourage projects "in diverse locations…not concentrated in a few geographic areas,"[267] at this time the Agency is not proposing any specific geographic adders. The split of the blocks between utility service territories should help address geographic diversity, and the Agency notes that for the Supplemental Photovoltaic Procurements (which featured no geographic preferences), resulting new photovoltaic systems have been well distributed across the state.

Nevertheless, the Agency will review this determination as part of the Plan update, and if geographic diversity is not being sufficiently achieved, the Agency may propose a geographic adder in the future to encourage projects in underrepresented areas.

6.5.1. Size Category Adjustments

While "no more than 10 kW" exists as a separate procurement category in the law, the Agency also proposes a set of adders based on project size for projects greater than 10 kW and up to 2,000 kW. As there are significant economies of scale for larger systems compared to smaller systems, the Agency believes that setting a single REC price for all projects in this range will either over-incentivize large projects or under-incentivize small projects. Having a diversity of project sizes is important for creating a healthy and diverse distributed solar market, with robust opportunities for participation by all customers.

Adders will only be available for systems over 10 kW in size in both the Large and Community Solar categories. The Agency does not believe there will be significant cost differences for systems in the up to 10 kW category that would require Adders within that category; therefore, the up to 10 kW category is a single calculated price. The Agency recommends setting a base price for systems larger than 500 kW, with the following schedule of adders for smaller systems.

Table 6-3: Size Category Adjustment Adders

Size	$/REC
Over 10 kW to 100 kW	$28.50
Over 100 kW to 200 kW	$8.00
Over 200 kW to 500 kW	$2.50
Over 500 kW to 2000 kW	No adder

These adders were calculated using the REC pricing model described in Section 6.4 with the system costs based on a typical sized system for each size category. While the adders were calculated using the REC Pricing Model as described above, the Agency notes that the resulting higher REC prices for

[267] 20 ILCS 3855/1-75(c)(1)(K).

smaller systems could lead to more systems being developed, which may help encourage the geographic diversity of the system locations.

The total capacity of a system at a customer's location will be considered a single system. (For example, three 100 kW systems at a single location will be considered a 300 kW system.) If a system at a single location is subsequently expanded, the Agency reserves the right to revise the incentive amounts paid for the original system, and to set new incentives based on the total expanded system size rather than just the treat the expansion as a separate system. For the purpose of establishing an incentive level, a system's location would be a single building (regardless of the number of utility accounts at the location) for rooftop installations, and a single property parcel for ground-mounted systems (if a property had both rooftop and ground-mounted systems, it will be considered a single system).[268] Exceptions will be made if it can be demonstrated that two projects on one roof serve to offset the load of separate occupants (residential or commercial) of a building. Additional discussion of co-location of community solar projects is included in Section 7.3.

6.5.2. Community Solar

Community solar projects may face additional costs and feature reduced eligibility for direct energy-related revenues than distributed generation systems. On the revenue side, subscribers to such projects are eligible only for energy-only net metering,[269] while on the cost side, there is the cost of acquiring, maintaining, and managing subscribers. The initial block price for community solar reflects a baseline for those additional costs and potentially lower revenues. The REC prices for these projects also includes the Size Category Adjustment Adders discussed above.

To ensure that the benefits of solar energy are widely shared by Illinois residents, the Adjustable Block Program will offer an additional incentive for community solar projects with a higher level of residential subscribers. To account for additional costs related to residential subscribers, the following schedule of adders will be available to community solar projects that have minimum levels of residential subscribers. For more discussion of issues related to residential subscribers, see Section 7.6.2.

Table 6-4: Community Solar Adders

Adder	$/REC
Less than 50% residential energy demand	No adder
50% or greater residential energy demand	$7.89
75% or greater residential energy demand	$11.83

[268] Please note that this is a different standard than the IPA used for determining the size of co-located systems participating in its Supplemental Photovoltaic Procurement process, for which the separate measurement of a system's output could be used to establish that system's size (thus allowing co-location more liberally while still retaining eligibility for a smaller system size).

[269] 220 ILCS 5/16-107.5(*l*)(2). The IPA also notes that in ICC Docket No. 17-0350, the proceeding to approve ComEd's proposed community solar net metering tariff pursuant to Section 16-107.5(*l*-5) of the PUA, several parties argued that volumetric transmission charges should be part of the net metering supply credit granted to community solar projects, while ComEd argued that transmission charges should be excluded. The Commission's September 27, 2017 Order in this matter determined (page 15) that the transmission services charge should be excluded from the community solar net metering credit.

The residential adders will be determined on the percentage of the energy output of the project subscribed to by residential subscribers, and not the number of subscribers. As described in more detail in Sections 6.15.3 and 6.17, a community solar project will have to demonstrate a level of subscribers at the time of energization to initially receive an adder, and will have to maintain the residential subscription levels or face having to pay penalties to remove the added value of the adders if the level is not maintained.

At this time, the Agency is not proposing an Adder that would distinguish between "developer-driven" projects and "community-led" projects. Such a distinction may be difficult to make in practice, may invite opportunities for abuse, and may create additional complexities to program administration. The Agency believes the combination of the Size Category Adjustment Adder, which would provide benefits to smaller projects, plus the option of participating in the Illinois Solar for All community solar program, adequately addresses the needs of those types of projects. For more details on this determination, see Section 7.5.

6.5.3. Adders to Adjust for Changing System Revenue

As discussed in Section 6.8.1 below, the Agency anticipates that as net metering caps are met, smart inverter rebates are adjusted or created, and Federal tax incentives decrease, the revenue a system would receive from other sources will decline. Not accounting for that in REC prices could make a system that would have been economically viable no longer viable after those decreases.

At this time, the Agency is not proposing specific adders to address these challenges, but notes that Section 1-75(c)(1)(M) of the Act provides that "[p]rogram modifications to any price, capacity block, or other program element that do not deviate from the Commission's approved value by more than 25% shall take effect immediately and are not subject to Commission review and approval," allowing the Agency to make small adjustments to REC prices to account for certain challenges. If necessary, the Agency will use this authority to propose adders to account for these changes following the process described in Section 6.8, or utilize the Commission approval process for revising its Plan for any larger changes.

6.6. Payment Terms

The Act sets up a clear schedule of payments for RECs for projects. Section 1-75(c)(1)(L) specifies the following schedule.

- For systems up to 10 kW, "the renewable energy credit purchase price shall be paid in full by the contracting utilities at the time that the facility producing the renewable energy credits is interconnected at the distribution system level of the utility and energized."
- For distributed generation systems greater than 10 kW and up to 2,000 kW and community renewable solar projects, "20 percent of the renewable energy credit purchase price shall be paid by the contracting utilities at the time that the facility producing the renewable energy credits is interconnected at the distribution system level of the utility and energized. The remaining portion shall be paid ratably over the subsequent 4-year period."

The Agency proposes that the standard for being "energized" as used above must include the completion of the interconnection approval by the local utility and the registration of the system in

GATS or M-RETS so that generation data can be tracked and RECs created.[270] In addition, as discussed in Section 6.15.4, to avoid a system being completed but RECs not created and delivered, before a system can be considered "energized" so as to initiate REC delivery contract payments, automatic assignment of RECs to the applicable utility will need to be established The Agency believes that by ensuring proper registration in the tracking system up front, future administrative challenges can be minimized.

For systems over 10 kW and community solar projects, it is not clear from the law how exactly the "subsequent 4-year period" would be calculated, and whether the frequency of payments should be annually, quarterly, or monthly. The Agency recommends payments in equal 20% amounts on an annual basis. For example, if the first payment is made on September 1, 2018 (upon interconnection and energization), assuming continued compliance with contractual requirements, the next payments would occur on September 1, 2019, September 1 2020, September 1, 2021, and September 1, 2022 respectively. This would be five payments that bookend a four-year period of time.

Section 1-75(c)(1)(L) also requires that for both categories:

- *"The electric utility shall receive and retire all renewable energy credits generated by the project for the first 15 years of operation."*
- *"Each contract shall include provisions to ensure the delivery of the renewable energy credits for the full term of the contract."*

These provisions are discussed further in Section 6.16.

6.7. Contracts

The Agency notes that while payments will be made according to these terms, the Adjustable Block Program and its REC delivery contracts will feature ongoing performance requirements to ensure that RECs are delivered across the 15-year term of the contracts, especially after payments have been made. Section 6.16 describes in more detail how those performance requirements will be implemented.

The Agency will develop standard contracts for RECs much as its Procurement Administrator has done for the competitive procurement processes. This will include the opportunity for interested parties to comment on the contracts. Ultimately the contracts will reflect the consensus of the Agency, the utilities, Commission Staff, and the Procurement Monitor. Contracts, once finalized, will not be subject to negotiation.

The initial contracts—those first developed under this process—will be used through the end of the 2018-2019 delivery year. On an annual basis, the Agency will review and update the contracts through a process that includes input from interested parties.

The Agency notes that the Act provides that "[n]o contract shall be executed for an amount that is less than one renewable energy credit per year."[271] Given that each contract will be for a batch of

[270] This proposed standard is only intended to relate to the contractual payment terms for the Program. Section 1-75(c)(1)(K) specifies that, "[o]nly projects energized on or after June 1, 2017 shall be eligible for the Adjustable Block program." The Agency views this to mean that a project must be interconnected to the applicable utility after June 1, 2017 and that the registration date of the system in GATS or M-RETS does not impact that determination. The added contractual standard is meant to ensure that energized systems will produce the RECs that they are receiving upfront payments for.

[271] 20 ILCS 3855/1-75(c)(1)(L)(v).

projects that, to be approved, must be for at least 75 kW,[272] this minimum requirement will be easily met. (See Section 6.14 for more information on batches.)

6.8. Adjustments to Blocks and Prices

The Act contains two provisions that allow the Agency to review and adjust block quantities, sizes and prices. The provisions are contained in Section 1-75(c)(1)(K):

> *"The Agency may periodically review its prior decisions establishing the number of blocks, the amount of generation capacity in each block, and the purchase price for each block, and may propose, on an expedited basis, changes to these previously set values, including but not limited to redistributing these amounts and the available funds as necessary and appropriate, subject to Commission approval as part of the periodic plan revision process described in Section 16-111.5 of the Public Utilities Act."*

And in Section 1-75(c)(1)(M):

> *"If necessary, the Agency may make prospective administrative adjustments to the Adjustable Block program design, such as redistributing available funds or making adjustments to purchase prices as necessary to achieve the goals of this subsection (c). Program modifications to any price, capacity block, or other program element that do not deviate from the Commission's approved value by more than 25% shall take effect immediately and are not subject to Commission review and approval. Program modifications to any price, capacity block, or other program element that deviate more than 25% from the Commission's approved value must be approved by the Commission as a long-term plan amendment under Section 16-111.5 of the Public Utilities Act. The Agency shall consider stakeholder feedback when making adjustments to the Adjustable Block design and shall notify stakeholders in advance of any planned changes."*

In essence, changes of less than 25% can be made by the Agency without seeking review and approval from the Commission, while larger changes will require that review and approval as part of the Agency's regular annual procurement planning process.

The Agency is aware of four key events that could significantly impact REC pricing. The first is that when a utility reaches its net metering cap (see Section 6.8.1 for more discussion), net metering for new enrollments by distributed generation systems will change from full retail net metering to energy-only net metering. The second is that, upon the net metering cap being met, the distributed generation rebate for smart inverters will change from $250/kW (for non-residential customers and community renewable participants) to a rebate based upon the locational value of the system to the grid, while a new distributed generation rebate will be created for residential customers. The third is that the Federal Solar Investment Tax Credit will step down from 30% to 26% for projects that start construction in 2020, and then to 22% in 2021; it will be eliminated for residential projects after that time and be reduced to 10% for other projects. And fourth, two U.S. solar panel manufacturers filed a complaint with the United States International Trade Commission ("ITC") alleging unfair trade practices.[273] On September 22, 2017, the ITC voted in agreement with that claim and it is now moving

[272] While the minimum batch size is 100 kW, 75% of the capacity of the systems in a batch must be approved for the contract to be executed.

[273] United States International Trade Commission, Investigation No. TA-201-75, Crystalline Silicon Photovoltaic Cells, https://www.usitc.gov/investigations/title_7/2017/crystalline_silicon_photovoltaic_cells_whether_or/safeguard.htm.

towards a relief phase that could result in tariffs or other trade restrictions being imposed on photovoltaic modules and cells from certain foreign countries.

Each of these changes would impact the value proposition for developing a project and could require an adjustment in REC prices to keep project development viable. The Agency will notify stakeholders and provide opportunities for feedback for changes to reflect these circumstances, or others that may arise that would also require changes to be made.

In addition to these factors, and in keeping with the adjustable nature of the Adjustable Block Program, the Agency recognizes that despite its best efforts to set REC (and Adder) prices at "just right" levels, it is possible that factors that impact prices may need to be updated to reflect changing market dynamics. In response to very low or very high demand for the program, the Agency may adjust REC and Adder prices, block sizes, and other variables as needed to maintain a vigorous and healthy market for distributed solar and to reach programmatic goals. The Agency will monitor program activity and consider such change if it determines they are warranted.

The Agency intends to wait at least six months after program launch before considering making significant changes to help encourage program stability. However, if program participation is extremely low, the Agency may elect to act sooner than that.

When the Agency becomes aware of a situation that would require a change to block quantities, size, price, or other factors, including, but not limited to, the situations described herein, the Agency will post an announcement to its website regarding the proposed changes and will hold either a stakeholder meeting, or an online webinar to provide an opportunity for stakeholder input. Stakeholders will also be invited to submit written comments on the proposed material changes which will be posted to the Agency's website. The Agency will consider feedback it receives prior to finalizing changes it makes that are less than 25% and do not require Commission review and approval, and will likewise consider that feedback in filings made before the Commission to update the Adjustable Block Program.

6.8.1. Net Metering Cap Adjustment

Under Section 16-107.5(j) of the PUA, net energy metering is generally credited at a value that accounts for the value of energy and delivery until net metering accounts for 5% of the total peak demand of each electricity provider's eligible customers. At that time, net metering for any new installations will be for energy only.[274]

The Agency will work with the utilities to keep informed on when the net metering caps may be met. At that time, the Agency will review the performance of the program and make price and policy adjustments needed to achieve compliance with RPS goals. As noted above, the Agency will be able to make adjustments to offset the impact of the change in net metering revenue if they are less than a 25% change in the price of RECs. If the change in price is greater than 25%, then the Agency will be able to cap the adder and block price adjustment at 25% and will seek Commission review and approval of a revised schedule of REC prices as outlined in Sections 1-75(c)(1)(K) and (M) of the Act. At this time, the Agency does not expect the net metering cap to be met prior to its next Plan revision cycle (i.e., not before the Fall of 2019).

[274] 220 ILCS 5/16-107.5(j), (n).

6.8.2. Smart Inverter Rebate

Under Section 16-107.6(e) of the PUA, when a utility reaches net metering load equaling 3% of its total peak demand, the Commission will initiate an investigation to adjust the smart inverter rebate from $250/kW (for non-residential customers and community renewable participants) to a new value, and to establish an initial smart inverter rebate value for residential customers. Once the resulting rebate value is approved by the Commission, it will take effect when the load of net metering enrollment for that utility reaches 5% of the utility's total peak demand. It is currently not clear if the 5% level will be reached before the end of the 2020 delivery year, and even if it is, if any of the plans for changing the inverter rebate will have been approved by the Commission. Therefore, at this time the Agency is not proposing a specific adder to adjust for the change to the inverter rebate (which could also be an increase in the rebate level for some projects thus not requiring any new Adders). The Agency will take part in each utility's investigation proceeding and will consider proposing new Adders, if needed, as those investigations proceed. The adoption of any new Adder will either follow the process outlined in Section 6.8 or as part of the Plan update.

6.8.3. Federal Solar Investment Tax Credit Adjustment

The U.S. Congress has set a schedule for a decline and partial phase out of federal tax credits for solar photovoltaics.[275] Projects that start construction in 2017, 2018, and 2019 will receive a 30% Investment Tax Credit; projects that start construction in 2020 and 2021 will receive 26% and 22%, respectively; after that, the credit will drop permanently to 10% for commercial projects and 0% for solar projects. After 2015 legislation, project owners may claim the credit once construction begins, as long as the project is operational by the end of 2023. This will affect project economics for distributed solar in Illinois. Like other anticipated changes, the Agency will review the performance of the program and make price and policy adjustments needed to achieve compliance with RPS goals. For example, the Agency could offer an adder to reflect the change in the federal Investment Tax Credit from 30% to 26%. This adjustment will probably not be larger than 25%, so would not require Commission review and approval. The Plan Update scheduled to be conducted in 2019 for implementation in 2020 will address any future adjustments for projects that start construction in 2021 or later.

6.8.4. Tariffs on Foreign Photovoltaic Modules and Cells

On May 17, 2017, Suniva, Inc., a Georgia (U.S.)-based maker of crystalline silicon photovoltaic cell modules, filed an amended petition for import relief at the United States International Trade Commission under Sections 201 and 202(a) of the federal Trade Act of 1974, 19 U.S.C. §§ 2251, 2252(a), alleging that imports of the same product are being imported into the United States in such increased quantities as to be a substantial cause of serious injury, or the threat thereof, to the domestic industry.[276] SolarWorld Americas, Inc., another U.S. manufacturer of the same type of solar modules, joined the petition on May 25, 2017. The joint petitioners proposed a tariff of $0.40/watt on imported solar cells and a floor price of $0.78/watt on imported modules. A hearing on this harm issue was held at the ITC on August 15, 2017.

[275] Consolidated Appropriations Act of 2016, Public Law 114-113, December 18, 2015, at § 303 (modifying 26 U.S.C. § 48(a)); see also https://energy.gov/savings/business-energy-investment-tax-credit-itc, https://www.seia.org/research-resources/impacts-solar-investment-tax-credit-extension.

[276] See 82 Fed. Reg. 25331-25333, June 1, 2017 (https://www.usitc.gov/trade_remedy/731_ad_701_cvd/investigations/2017/Solar%20Panels/Safeguard/cspv_-_institution.pdf).

On September 22, 2017, the ITC, exercising its authority under Section 202(b) of the Trade Act, voted 4-0 to find that there was a serious injury caused by the importation of photovoltaic cells and modules. The ITC ruled to exclude Singapore. Australia, Canada, and other free trade partner countries from the finding—although it found serious injury caused by imports from free trade partners Mexico and South Korea.[277] The case now goes to a remedy phase with a hearing regarding remedies on October 3, 2017 and then a recommendation due to the U.S. President on November 13, 2017 under Sections 202(e) and (f) of the Trade Act.

This creates a bit of a dilemma for the Agency regarding the calculation of REC prices. The prices contained in this draft Plan do not reflect any impact from potential tariffs. While the Agency could simply update the inputs into the REC pricing model to reflect tariffs once they are imposed, the Agency is concerned that this may be overly simplistic because it does not account for the fact that domestic production of photovoltaic cells and modules, or production in countries not affected by the tariffs, could subsequently increase. Furthermore, it is unknown at this time how tariffs will actually impact market prices. The Agency welcomes recommendations on how to plan to adjust final REC prices to reflect the impact on the market by the ultimate outcome of this trade case.

6.9. Approved Vendors

Participation in the Adjustable Block Program will take place through, and conditional upon, an Approved Vendor process proposed by the Agency. The Approved Vendor model is based upon the experiences the Agency gained through the development and implementation of the Supplemental Photovoltaic Procurement as well as observations of programs in other states. While arguably there could be more flexibility available to consumers through a program under which any entity may receive a contract, by having Approved Vendors—i.e., ensuring that any entity receiving a REC delivery contract is registered with and vetted by the Agency and has met conditions predicate—the Agency will be better able to monitor compliance with program terms and conditions, ensure the accuracy and quality of information submitted, and reduce the administrative burden on the contractual counterparties. The model will benefit consumers because they will be able to verify that an entity that proposes to develop a photovoltaic system for them (or sell them a subscription to a community solar project) is a legitimate entity participating in the program. An Approved Vendor that fails to live up to the requirements of the Adjustable Block Program and is a "bad actor" could have a significant negative impact on the entire renewable energy market in Illinois that would extend beyond just its own actions. It is important for the Agency to have the ability to monitor the program and ensure high quality performance by the Approved Vendors.

The Agency does not anticipate restricting Approved Vendors by the entity type; as such, the types of Approved Vendors could include a company that specializes in the aggregation and management of RECs; a for-profit developer or installer of photovoltaic systems; or a municipality or non-profit serving a specific sector of the community, among others.

Approved Vendors will have to agree to the following terms:

- Participate in registration and complete any training developed by the Agency
- Abide by these ongoing program terms and conditions

[277] See, e.g., "Solar Tariff Case Advances as ITC Finds 'Injury'," Greentech Media, September 22, 2017, https://www.greentechmedia.com/articles/read/solar-trade-case-advances-as-itc-finds-injury; see also U.S. ITC News Release 17-133, September 22, 2017, https://www.usitc.gov/press_room/news_release/2017/er0922ll832.htm.

- Provide information to the Agency on the Approved Vendor's organizational history, capacity, financial information, regulatory status in Illinois and other states (including any prior or current complaints or other actions against the Vendor), etc.
- Be registered to do business in Illinois
- Disclose to the Agency names and other information on installers and projects, while otherwise maintaining confidentiality of information
- Document that all installers and other subcontractors comply with applicable local, state, and federal laws and regulations, including for example, maintaining Distributed Generation Installer Certification
- Provide samples of any marketing materials or content used by the Approved Vendor, and/or their subcontractors/installers and affiliates, to the Agency for review, as requested.[278]
- Agree to make changes to marketing materials as instructed by the Agency.[279]
- Register in GATS or M-RETS and demonstrate the ability to manage project application and REC management functions in the applicable tracking system
- Pay applicable application fees
- Provide and maintain credit and collateral requirements
- Submit Annual Reports on a timely basis

The Agency intends to open the registration and training process for Approved Vendors approximately two months prior to the opening of programs.

Approved Vendors will have to renew their approval once a year. Failure by an Approved Vendor to follow the requirements of the Adjustable Block Program could result in the entity losing its status as an Approved Vendor and thus the ability to bring new projects in to the Programs. Losing that status would not relieve an Approved Vendor of its obligations to ensure that RECs from its projects that have been energized continue to get delivered to the applicable utility; failure to do so could result in having the vendor's credit collateral drawn upon. (See Section 6.16 for more discussion of contractual obligations.)

6.10. Program Administrator

After releasing this draft Plan, the Agency will issue a Request for Qualifications to start the process of selecting a Program Administrator[280] for the Adjustable Block Program.[281] The Request for Qualifications will be a means to select qualified bidders who will then be invited to respond to a Request for Proposals.[282] The Agency will evaluate the bids received and will select an entity (or entities) to serve as the Program Administrator.[283] The contract for the Program Administrator will be submitted to the Commission for approval after this Plan has been approved.

[278] This requirement applies to at minimum, printed materials, advertising through television and radio, websites (including affiliate websites), web ads, marketing via email or social media, and telemarketing scripts.

[279] This requirement is not meant to impede the ability to market to customers, but rather to ensure that any types of marketing are not deceptive, confusing, or misleading. Likewise, the Agency is concerned about misrepresentations that could be made about the relationship between an Approved Vendor (or the subcontractors/installers) and the Agency or program.

[280] Section 1-75(c)(1)(M) of the Act authorizes the Agency to "retain one or more experts or expert consulting firms to develop, administer, implement, operate, and evaluate the Adjustable Block program."

[281] The Request for Qualifications will be posted to the Agency's website, www.illinois.gov/IPA.

[282] This process generally follows the process contained in Section 1-75(a)(1) to (5) that the Agency has used to select its Procurement Administrator and Procurement Planning Consultant.

[283] The Agency also expects to issue a separate Request for Qualifications/Request for Proposals for a dedicated Program Administrator or Administrators for the Illinois Solar for All Program.

The Program Administrator will run the day to day operations of the Adjustable Block Program. This includes, but is not limited to:

- Assisting the Agency with Approved Vendor registration and training
- Developing a Program Manual
- Establishing an online portal for Approved Vendors to submit projects (and providing technical support to Approved Vendors) and collecting application fees
- Maintaining an online dashboard to show block status
- Reviewing and approving submitted batches of projects
- Preparing contracts for Commission review and utility execution
- Ongoing monitoring of project development status
- Verifying completion of projects and the processing of approvals for payments, as well as conducting on-site inspections for quality assurance purposes.
- Reviewing Annual Reports submitted by Approved Vendors
- Providing information for the public including maintaining an online list of Approved Vendors and educational materials related to distributed generation and community solar

The Program Administrator will be authorized to charge fees to Approved Vendors as described in Section 6.14.4 for processing applications, subject to review by the Agency. The Program Administrator will operate under a contract with the Agency and may also be reimbursed by the utilities for a portion of the cost of the services provided to them including, but not limited to, the preparation of contracts and review of Annual Reports.

6.11. Program Launch

This Plan is expected to be approved by the Commission by early April 2018. At that time, assuming the Agency's program administrator RFP process proceeds on its expected timeline, the Agency will also seek approval from the Commission for the selection of the Program Administrator. With these two elements in place, implementation of this Plan will then commence. Due to the scope and complexity of the Adjustable Block Program, and the need to develop standard contracts, a Program Manual, an online portal, and other tasks, it is reasonable to assume that it will take several months for the Program to launch. The Agency will work with the Program Administrator to find ways to expedite program opening. Until the Agency has received bids from potential Program Administrators, it is premature for the Agency to commit to a set schedule for Program Launch.

To the extent possible, the Agency will prepare the application process for potential vendors to be Approved Vendors on an expedited schedule so that Approved Vendors will be in place prior to program launch. In theory, it may be possible to phase in certain aspects more quickly, like the community solar portion of the Adjustable Block program, because it is expected to have fewer, larger projects proposed than would distributed generation. Another option could be for the Adjustable Block to launch prior to all predicate elements being ready: for instance, without having the online portal for project submittals fully in place, instead relying on manual submittal of documents by Approved Vendors. For this draft Plan, the Agency seeks comments from interested parties on if the various program categories should launch concurrently, or start at different times.

6.12. Project Requirements

Projects that are eligible for the Adjustable Block Program will have to meet two sets of requirements. The first relates to the technical aspects of the system itself, and the second to the customer (and

additionally subscribers, in the case of community solar). The purpose of the first set of requirements is to ensure that high-quality systems are installed that will be capable of generating the expected quantity of RECs over the 15-year duration of the contracts. The purpose of the second set of requirements is to ensure consumer protections.

6.12.1. Technical System Requirements

The application process is described in more detail in Section 6.14. In this Section the Agency outlines what technical information will have to be submitted for each project. These standards apply for both distributed generation and community solar projects.

The technical system requirements are

- Information about the system location, and size, including but not limited to
  - Single-line or three-line diagrams
  - A description of the technical specifications of the main system components including the make and model of panels and inverters.[284]
  - Site map or other project details
- Proof of site control and/or host acknowledgement
- Estimate of annual production using PV Watts or a similar tool[285]
- For systems over 25 kW, a signed Interconnection Agreement
- For systems over 25 kW, evidence of having obtained all non-ministerial permits[286]
- Shading study

For systems that have been energized prior to application the following information will also be required:

- GATS or M-RETS approval including unit ID
- Certificate of Completion of Interconnection or comparable document
- Net metering application approval letter (if applicable)
- Photographic documentation of the installation

The Agency recognizes that there may be special situations where some portion of these documents may not be available (for example, some rural electric cooperatives may not have standardized interconnection documents). The Agency will be willing to consider alternative documentation that substantially achieves the same purpose as the documents outlined above.

[284] Eligible equipment will include any equipment listed on the Go Solar California equipment list (see: http://www.gosolarcalifornia.ca.gov/equipment/index.php); other equipment will be reviewed and considered on a case by case basis and may require additional documentation.

[285] Actual REC volumes for a system will be based off a standard capacity factor as described in Section 6.14.5.

[286] While the Adjustable Block Program provides for separate categories for systems up to 10 kW, and greater than 10 kW and up to 2,000 kW, for the purposes of the requirements related to each project, the Agency has determined that 25 kW is an appropriate breakpoint between different levels for certain requirements. While most residential systems are below 10 kW, the Agency observed from its Supplemental Photovoltaic Procurements that there can be larger residential systems, particularly in rural areas. 25 kW is a common breakpoint used in programs in other states and is thus adopted by the Agency for these requirements.

6.12.2. Metering Requirements

In developing metering standards for the Supplemental Photovoltaic Procurements that took place in 2015 and 2016, the Agency developed a metering standard[287] that included:

- Systems registered in M-RETS must utilize an ANSI C.12 certified revenue quality meter.
- Systems over 25 kW registered in GATS must utilize a new meter that meets ANSI C.12 standards.
- Systems over 10 kW and less than 25 kW in size registered with GATS must utilize a meter that meets ANSI C.12 standards. Meters that are refurbished (and certified by the meter supplier) are allowed.
- Systems of 10 kW in size and below registered with GATS must utilize either a meter that is accurate to +/- 5% (including refurbished and certified meters), or an inverter that is specified by the manufacturer to be accurate to +/-5%. The inverter must be UL-certified and must include either a digital or web-based output display.

The Agency did not allow production estimates. A production estimate is where GATS automatically generates RECs for a system based on the system size and engineering modeling of expected kilowatt hour generation. Production estimates do not require the system owner (or aggregator) to provide ongoing data to GATS. Several states do allow production estimates for smaller systems.

In responses to the Agency's Request for Comments, several commenters suggested allowing production estimates for smaller systems. However, because production estimates do not require any actual data being transmitted to the tracking system to verify production, this appears to the Agency to be problematic because there would be no way to verify the system's ongoing operation. In contrast a meter read (from either a meter, or an inverter output) only needs to be submitted once per year to GATS.

Given the upfront payments for RECs paired with the 15-year requirement for RECs to be delivered, the Agency believes that getting actual data on system performance is essential to ensuring the integrity of the RPS, and having meter reads as infrequent as annually (although they could be as frequently as monthly) appropriately balances the need for accurate data and the compliance burdens on the system operators. Therefore, the Agency proposes to continue to require metered output for the generation of RECs. The use of inverter readings for systems up to 10 kW will continue to be allowed.[288] In other words, the metering standard developed for the Supplemental Photovoltaic Procurement is proposed to be the metering standard for the Adjustable Block Program, with the caveat that meter reads will only be required on an annual basis.

6.13. Customer Information Requirements/Consumer Protections

In addition to the information about the technical system information described in Section 6.12.1, Approved Vendors will be required to submit information to the Agency regarding the customer hosting the system, or the host of the community solar project, and the information that was provided to that customer. The purpose of requiring this information is to ensure consumer protections. Installing a photovoltaic system is a significant financial commitment on behalf of that system's host

[287] See: https://www.illinois.gov/sites/ipa/Documents/IPA-metering-accuracy-standard-5-14-15.pdf.

[288] The Agency notes that while using an inverter rather than a meter may save on installation costs, if the inverter were to suffer a system failure and lose data, no RECs could be created. A meter may be a more reliable way to ensure REC creation.

(and potential owner) and a system that has been sold (or leased) to a customer using incorrect, inaccurate, or deceptive information could put the financial security of Illinois residents or businesses at risk and poison the ongoing viability of the solar market in Illinois. In addition, a project that successfully applies to this program stands to receive a financial benefit from the program in the form of a REC delivery contract and by extension from the ratepayers who fund it. Requiring clear and consistent information on the relationship between the end customer, the installer/developer, and the Approved Vendor is critical to ensuring that the fiscal risks and controls of this program are properly and prudently managed.

The information that must be provided to all customers (and such provision documented to the Agency) includes:

- **Contracts:** A copy of the contract for the power purchase agreement, lease, or sale. Vendors may use model leases and model power purchase agreements ("PPAs") provided by the Solar Energy Industries Association ("SEIA")[289], or other standard contracts that have been approved by the Agency.
- **Disclosure Form:** The Agency will develop and provide to Approved Vendors standard Disclosure Forms to be completed and provided to each program participant prior to contract execution. For distributed generation projects the form will at minimum, include standard information on the system equipment and components, warranty, installer, and lease or financing structure. The form will also include an estimate of the price and performance of the system as installed, including first year production, annual system production decreases, overall percentage degradation over the life of the system, a standard forecast for retail electricity prices, a net cash flow analysis, and a target rate of return of each project. The form will also include a disclosure that cash flows may change if the utility's net metering tariffs or distributed generation rebates change prior to the completion of the system (e.g., the changes that occur when net metering enrollment reaches 5%). The Agency will provide standard electricity prices (and other inputs) to be used for these estimates as to allow equivalent comparisons between different offers. For community solar subscribers, the form will include similar applicable provisions as well as conform to the provisions listed in Section 7.6.2.[290]
- **Brochure:** The Agency will require Approved Vendors to distribute to program participants prior to the execution of the contract with the program participant, a consumer protection brochure in both print and electronic form prepared by the Program Administrator and approved by the Agency. That brochure will inform consumers of their rights, procedures for filing complaints, and point to more information on the program website.

Full details will be provided to Vendors who apply for participation in the Adjustable Block Program or the Illinois Solar For All program.

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[289] Solar Energy Industries Association, "Model Leases and PPAs," https://www.seia.org/research-resources/model-leases-and-ppas.

[290] In the responses to the Request for Comments that the Agency issued in June, 2017, several commenters suggested that the Agency consider adopting the standard disclosure forms developed by the SEIA earlier in 2017 (see: https://www.seia.org/research-resources/solar-transaction-disclosures). While there may be aspects of those forms that are worth considering, the Agency is concerned that they do not fully capture the information the Agency believes that potential program participants need to have, in particular, standardized comparisons of energy costs. Therefore, the Agency will instead develop its own disclosure forms that will capture aspects of the SEIA disclosure forms, best practices from other states, as well as addressing the need to standardize energy cost comparisons.

For a general discussion of challenges related to the marketing of solar and consumer protection policies, see Barbara R. Alexander and Janee Briesemeister, "Solar Power on the Roof and in the Neighborhood: Recommendations for Consumer Protection Policies," March 2016 (http://utilityproject.org/wp-content/uploads/2016/03/Solar-Power-Consumer-Protection-Report-March-2016.pdf), in particular, Appendix B.

Vendors must also agree to provide sales and marketing information, included contract prices and sales volumes, to the Agency on a confidential basis. The Agency will use this information for internal purposes to track market progress.

Lastly, as a condition of ongoing approval, Approved Vendors will be expected to comply, at a minimum, with marketing standards equivalent to the Commission-approved rules for marketing practices by alternative retail electric suppliers where applicable. (83 Ill. Admin. Code Part 412, Subpart B).

In this draft Plan the Agency proposes the same requirements related to information disclosure (listed above) for all project sizes. The Agency invites interested parties to comment on if these requirements should vary by project size/customer segment, and if so in what ways.

6.13.1. Community Solar

The requirements outlined in this Section describe the customer information required for a project. To the extent applicable, and to help ensure the quality of project development and customer experience with vendors, these requirements will also apply to community solar projects. In addition to these requirements, there are additional program terms and conditions related to subscribers of community renewable generation projects (both community solar and those that use other technologies) that are discussed in Section 7.6.2.

Community solar projects will not be required to demonstrate that they have acquired subscribers as part of their initial application. However, as described in Section 6.15.4, by the time that such systems are energized, minimum subscriber requirements must be met in order to be eligible to be paid for RECs.

The application for a REC delivery contract for a community solar project will require the applicant to describe the proposed subscription model (e.g., typical length and structure of contract, economic terms, marketing channels, etc.) and expected mix of residential and non-residential subscribers. The Agency will assess whether the subscription model will reasonably meet program terms and conditions described in Section 7.6 and will use the subscriber mix to determine what Adder, if any, will be given to the system, but the final Adder (if any) used will depend on the subscription level demonstrated once the system is energized.

6.13.2. Monitoring of Consumer Complaints

The Program Administrator will provide consumer protection materials on a program website and through printed materials. The Program Administrator will also provide a toll-free consumer protection hotline and email address, and they will receive, respond to, and document complaints about marketing practices, sales practices, installations, and other aspects of solar marketing.

If warranted, the Program Administrator will refer complaints to the Agency and to appropriate state and federal agencies, including the Consumer Protection Division of the Illinois Attorney General's Office, or the Illinois Commerce Commission (e.g., for failure of installers to maintain their status as Certified Distributed Generation Installers). Approved Vendors found to have violated consumer protection standards may be subject, at minimum, to revocation of their Approved Vendor status by the Agency, and also potential civil or criminal penalties from other relevant authorities.

The Agency will provide an annual written report to the Commission documenting the frequency and nature of complaints, and any enforcement actions taken.

6.14. Application Process

The following section outlines the process and procedure that Approved Vendors will use to submit projects to the Program Administrator for review and approval, as well as how projects, once approved, will be placed into contracts with the utilities.

6.14.1. Batches

Approved Vendors will submit projects that are bundled into batches. Once approved, or modified, each batch will result in one contract with one utility. The systems within the batch will be listed on a schedule attached to the contract and may not be substituted once approved. While projects may be submitted to the Agency on an ongoing basis, and given preliminary approval on the project level, final approval and resulting prices will be based upon the time when the batch of projects is submitted.

A batch may contain projects in different groups/blocks (and thus with different prices) and with different adders. The price for the RECs for each system will be based on the price available within the applicable block on the date of the submittal. The failure of one system to be developed will not impact the other systems on the same schedule, although the Agency will monitor system failure rates. Approved Vendors with high failure rates may be required to provide additional information to the Agency for subsequent applications.

The Program Administrator will determine which utility each contract will be with. While a batch may contain projects in multiple utility service territories, the Program Administrator will strive to assign contracts to the utility where the bulk of the projects are located, but may not always be able to do so because the Program Administrator will also consider how assigning contracts to each utility will allow each utility to meet its pro-rata share of the RPS REC targets.

6.14.2. Systems below 25 kW

In responses to the Request for Comments that the Agency issued in June 2017, several commenters recommended that systems under 25 kW only be submitted once they are completed and energized, to minimize administrative burdens and avoid project attrition. While the Agency is sympathetic to those ideas, this draft Plan does not adopt that recommendation for several reasons. First, it may be difficult, or impossible, to have appropriate consumer protections if the Agency sees information about a system only after it is completed. Preventing problematic behavior (such as deceptive information about system costs and payback times) should be done prior to the homeowner or business paying for the system; that would not be the case if systems apply after being energized. Second, because the Agency is requiring projects to be submitted in batches, there could be a lag between when a system is completed and when the Approved Vendor has enough systems to submit the batch, which could lead to a delay in payment for the RECs. The system requirements described in Section 6.11 adequately recognize the differences in the project development cycle between smaller and larger systems.

To be clear, there is nothing that would prevent an Approved Vendor from submitting a new system that has already been energized (for example, systems energized after June 1, 2017 but prior to the launch of the program), but the Approved Vendor will have to assume the risk that the system may not meet the required terms and conditions and could be rejected and thus not be included in a contract for the purchase of the system's RECs. A system that is rejected could be resubmitted at a later date if the deficiencies are cured, but the Agency cautions that some deficiencies may be difficult

or impossible to cure (particularly when related to ensuring consumer protections from the beginning of the project's life).

6.14.3. Batch Size

Each batch must contain at least 100 kW of proposed projects, and may be as large as 2 MW. A batch could contain a single 100 kW or larger project. In order to minimize contractual volume as the program expands, once an Approved Vendor has successfully submitted five batches, the minimum size of a batch for that Approved Vendor will increase to 250 kW. To provide employment opportunities for minority-owned and female-owned business enterprises as specified in Section 1-75(c)(7) of the Act, a minority-owned or female-owned business may request to submit an initial batch of only 50 kW, with any subsequent batches subject to the standard 100 kW (or more) requirement.

For each project, there will be a non-refundable application fee of $10 per kW, not to exceed $5,000.

6.14.4. Batch Review

The Program Administrator will review the projects contained in a batch and, as needed, request additional information from the Approved Vendor in order to verify the submitted information and approve the project. An Approved Vendor will be given up to two weeks to cure deficiencies in an application. If, after any attempts to cure deficiencies has been made, 75% or more of the kW volume in a batch is reviewed and approved by the Program Administrator, the Program Administrator will assign the batch (less any projects not approved) to a utility,[291] prepare the contract, and submit it to the Commission for approval. If less than 75% of the kW volume of a batch is approved, the batch will be rejected in its entirety. Batches will be reviewed in the order that they are received.

Systems that are reviewed and approved but are in a batch that is rejected may be submitted in a future batch and will be subject to an expedited review process. The application fee for a batch that contains systems that were previously reviewed and approved only needs to be for the newly submitted systems in that batch.

An Approved Vendor that repeatedly submits batches that are rejected may be subject to having its Approved Vendor status reviewed, and possibly terminated.

6.14.5. Converting System Size into REC Quantities

For each system that is approved, a 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 following average capacity factors which, as discussed below, are based upon the capacity factor used in the Fall 2017 Utility DG procurement and adjusted for an expected degradation rate over 15 years.

- Fixed-mount system 16.4177%
- Tracking system 19.3149%

These numbers vary from the capacity factor used by the Agency for the Supplemental Photovoltaic Procurements and the Utility Distributed Generation Procurements for the following reasons.

[291] It is unlikely that a batch would need to be split between utilities because of RPS budget constraints, but should that occur, the splitting of the batch would not split individual systems.

First, prior to the Fall 2017 Utility Distributed Generation Procurement, the Agency used a capacity factor of 14.38%. This capacity factor was calculated using a DC rating. Public Act 99-0906 included the following new definition, "`Nameplate capacity' means the aggregate inverter nameplate capacity in kilowatts AC."[292] With this change for the Fall 2017 Utility Distributed Generation Procurement, the Agency updated the capacity factors to reflect an AC rating and established them as 17% for a fixed mount system and 20% for a tracking system.

Second, the Supplemental Photovoltaic Procurement and the Distributed Generation Procurement were for five-year REC contracts. While photovoltaic panels experience annual degradation in their output, it was not factored into the capacity factors for those procurements. Given the 15-year REC delivery obligation for the Adjustable Block Program, degradation is a more significant concern, and thus a 0.5%/year average output degradation factor was used to calculate the capacity factors listed above.

Using these capacity factors which have been adjusted by the degradation rate, for every 1 kW of capacity, approximately 21 RECs would be expected to be generated over 15 years for a fixed-mount photovoltaic system. For a tracking system, for every 1 kW of capacity, approximately 25 RECs would be expected to be generated over 15 years.[293]

6.14.6. Batch Contract Approval

The Commission meets approximately every two weeks. The Program Administrator will strive to efficiently process approved batches for submittal to the Commission. The Agency understands that Commission practice is that items for consideration by the Commission must be submitted to be placed on its open meeting agenda at least one week prior to each meeting.

Once a batch is approved by the Commission, the Program Administrator will forward the contract to the applicable utility for execution. The Approved Vendor will be required to also sign the contract within seven business days of receiving it from the utility. A collateral requirement equal to 10% of the total contract value will be required in the form of either cash or a letter of credit with the utility within 14 business days of Commission approval of the contract.

6.15. Project Development Timeline and Extensions

6.15.1. Development Time Allowed

Once a contract for a batch has been executed by the Approved Vendor and the utility, the next step is for projects not yet developed to be developed and energized. These times are based upon the contract execution date so that any delays in processing and approving an application will not reduce the time available for development.

- Distributed generation projects will be given one year to be developed and energized.
- Community solar projects will be given 18 months to be developed, energized, and demonstrate that they have sufficient subscribers.

[292] 20 ILCS 3855/1-10.

[293] kW size is translated to RECs by the following formula: 1 kW * capacity factor /1000 [kw/MW] * 8760 [hours/year] * 15 [years].

A project that is not completed in the time allowed (plus any extensions granted) will be canceled and removed from the schedule on its contract, and the REC volume associated with the project will be eliminated. The Approved Vendor will also forfeit the posted collateral associated with the project.

A project that is not completed in time and is canceled may be subsequently included in a future batch submitted by an Approved Vendor, but will be treated like any other system being submitted in that new batch.

6.15.2. Extensions

Extensions will be granted for the following circumstances.

- An indefinite extension will be granted if a system is electrically complete (ready to start generation) but the utility has not approved the interconnection. The Approved Vendor must document that the interconnection approval request was made to the utility within 30 days of the system being electrically complete.
- A 6-month extension will be granted for documented legal delays, including permitting delays.
- A 6-month extension will be granted upon payment of a refundable $25/kW extension fee, for distributed generation systems, and up to two 6 month extensions for community solar projects (the second extension is only for achieving the required subscriber rate, not for project completion and energization, and will require an additional refundable $25/kW fee).
- The Agency may also, but is not required to, approve additional extensions for demonstration of good cause.

6.15.3. Project Completion and Energization

The Approved Vendor will provide the Agency an update on each project that is under development but not yet energized at least every six months and will inform the Agency of any significant changes to the system. For community solar projects, the update will include an update on the status of acquiring subscribers.

Once a project is energized, the following information will be required to approve the final project and authorize the start of payment for RECs.

- Final system size
- GATS or M-RETS approval including unit ID
- Certificate of Completion of Interconnection or comparable document
- Net metering application approval letter (if applicable)
- Photographic documentation of the installation
- Disclosure of any changes related to the contract for installation that occurred between the initial application and the completion of the project

If the final system size is larger than the proposed system size such that it would cause the system to change from the up to -10 kW to the over-10 kW category, the payment terms will be adjusted from the full payment on energization to 20% on energization and the balance over the next four years. The price per REC will also be changed to the applicable REC price for the over 10 kW category in effect at the time when the system is energized.

For systems over 10 kW, any adders received will be based on the final system size if that final system size would cause the adders to decrease. A system that is developed at a size smaller than the original application will not be eligible for additional adders.

The quantity of RECs used for the calculation of the payment for RECs will be based on the lesser of the proposed system size and the final system size. In this way, a system that is built smaller than planned will not benefit from excess REC payments that could result from purposefully submitting the project at a larger size than really intended. On the opposite side, if a project's final system size is significantly larger than the planned system size, an increase in the payment due could present unexpected budget management challenges. An Approved Vendor would have the option of canceling and resubmitting a system if the final size is larger than the proposed system in order to align the REC quantities. However, the resubmittal will be at the price of the Block open at the time, not the original submittal. A new application fee will be required because the Agency will need to review the system design which would be different from what was originally submitted (e.g., because of the change in system size).

The Agency will reserve the right to request more information on an installation, and/or conduct on-site inspections/audits of projects to verify the quality of the installation and conformance with the project information submitted to the Agency. Projects found not to conform with applicable installation standards and requirements, or projects found not to be consistent with information provided to the Agency will be subject to removal from the program if the deficiencies cannot be remedied. Likewise, Approved Vendors who repeatedly submit projects that have these problems may be subject to losing their Approved Vendor status.

6.15.4. Additional Requirements for Community Solar Projects

A community solar project will have to demonstrate that it has met a minimum subscription level to be considered energized and eligible to commence receipt of payment for RECs. The Agency proposes that at least 50% of the capacity of the project must be subscribed at the time of energization in order to receive payment for RECs, and that payment will be based upon calculating the number of RECs that correspond with the amount of the project's capacity that has been initially subscribed. 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. A community solar project may request one additional extension (with a non-refundable extension payment as provided for in Section 6.15.2) to its energized date if it needs additional time to acquire subscribers.

The adders for residential participation (i.e., for a minimum of 50% or 75% of energy sales) will only be added (on a prorated basis) to the REC price if the project demonstrates that level of participation for the subscribed amount at the time of energization. If the subscription level has not been met by the time of energization, the adder will be held back from the initial payment and the system will have to wait until it has been in operation for one year to demonstrate that it has met the residential participation level to receive this adder. If the residential subscription rate is met, then the full value of the adder will be added pro-rata to the remaining payments.

If a community solar project fails to attract sufficient subscribers by the time of energization, but also meets the definition of a distributed generation project (i.e., is located on-site, behind a customer's meter, and used primarily to offset a single customer's load), it may request to be recategorized as a distributed generation project and receive a REC payment at the lesser of the original price and the price of the distributed generation block open at the time this determination is made. A community

solar project that does not meet the definition of a distributed generation project that fails to attract subscribers will not be eligible for this option and would not be eligible for REC payments.

Ongoing requirements for overall subscription levels and residential participation are discussed further in Section 6.16.

6.15.5. REC Delivery

Once a system is energized, it will be required to begin REC delivery. For systems larger than 5 kW, the first REC must be delivered within 90 days of when the system is energized and registered in GATS or M-RETS. For systems smaller than 5 kW, 180 days will be allowed. The 15-year delivery term will begin in the month following the first REC delivery and will last 180 months.

Approved Vendors will be required to set up an irrevocable 15 year Standing Order for the transfer of RECs from the system to the utility.[294] As the Agency understands that automatic transfers can only be terminated with the assent of both parties, this will reduce the risk to the utility that the RECs could be sold to another party after the utility has paid for them.

As part of the Annual Report discussed in Section 6.17, the Approved Vendor will report on any systems that have not delivered a first REC, and report on any systems that have not delivered RECs for more than a year from their previous delivery. The report will also detail what corrective actions will be taken. In the event of failure to remedy the RECs not being delivered, the utility may, at its discretion, call on the ongoing performance collateral it holds from the Approved Vendor.

6.16. Ongoing Performance Requirements

A significant challenge for the Adjustable Block Program is that the payment for RECs is front loaded; all RECs are paid for on energization for systems up to 10 kW, and all payments for systems over 10 kW will be made within the first four years of energization for the larger systems. Yet the contracts for REC delivery have a 15-year obligation for the RECs to be delivered. This creates a situation in which, absent any additional measures, the buyer (the utility) will be unable to use the typical tool in a contract, payment for the good or service received, to ensure REC delivery. Fortunately, the Act anticipated this issue and requires that "[e]ach contract shall include provisions to ensure the delivery of the renewable energy credits for the full term of the contract."[295]

The Agency proposes the following approach to ensure REC delivery over the full term of the contracts. This approach will also ensure proper matching of adders for photovoltaic community renewable generation projects at different levels of residential subscription levels.

REC delivery obligations will be managed at a portfolio level. As projects get completed and energized, each Approved Vendor will therefore have a portfolio of systems with REC delivery obligations from the various contracts that it has with each utility. The obligation to ensure REC delivery will be at the contract level rather than the individual project level. In this way, the natural variation that some systems will produce more RECs than forecast and others fewer RECs will reduce the risk of contract default, compared to project-level contracts, and allow for some ease in contract administration.

[294] See Section 10.2 of the GATS Operating Rules available at https://www.pjm-eis.com/~/media/pjm-eis/documents/gats-operating-rules.ashx.

[295] 20 ILCS 3855/1-75(c)(1)(L)(iv).

6.16.1. Credit Requirements

An Approved Vendor is required to post collateral equivalent to 10% of the total contract value when each Batch's contract is approved. As systems are energized, this collateral amount will be maintained through the life of the contract, and can be reduced in the later years of the contract when the collateral requirement exceeds the remaining value of the contract. This requirement will be maintained at the portfolio level, not the individual system level.

By maintaining collateral requirements at the portfolio level, the Agency is allowing Approved Vendors to manage the risk that some systems may underperform (or have other problems), and others will not, or even overperform. This allows the collateral level to be lower than it would be if maintained at the system level.

Nonetheless, an Approved Vendor will be responsible for delivering the RECs under its contracts (subject to the reduction options described in the following Section). Failure to deliver RECs will result in the utility drawing on the collateral to be compensated for undelivered RECs that were paid for. After any such drawing the Approved Vendor will need to increase its collateral to bring it back up to the 10% of remaining value within 90 days. If the amount of collateral is insufficient to compensate the utility, the Approved Vendor will be required to make an additional payment to the utility for the remaining balance. Failure to make payment and/or maintain the collateral requirement will result in the Approved Vendor's suspension from participating in the Program.

Reconciliation of REC deliveries and collateral requirements will be conducted on an annual basis based on the Annual Reports filed by the Approved Vendors as described in Section 6.17.

6.16.2. Options to Reduce REC Delivery Obligations

The Agency expects each Approved Vendor to take the steps necessary to ensure that projects contained within its portfolio meet all expected REC deliveries. This may include working with system owners to ensure that ongoing maintenance and repairs of systems occurs as well as to ensure that meter/inverter data is properly transferred to GATS or M-RETS for the creation of RECs. Furthermore, the Approved Vendors will be responsible for ensuring the ongoing transfer of RECs to the applicable utility.

There are circumstances where a system may not be able to deliver the RECs it was expected to produce; the Agency believes that reasonable accommodations should be made for these situations that appropriately balance the requirements for the utilities to comply with annual REC targets under the RPS and their expectation to receive RECs that they have paid for, versus the realities of real-world situations where what is planned is not always what happens.

In force majeure type circumstances (including, but not limited to, physical damage to the system from fires, tornados, etc.) the Approved Vendor may request to have a delivery obligation suspended, reduced, or eliminated without penalty. Approval of the request will require consensus between the Agency and the applicable utility. For this draft Plan, the Agency is interested in comments from interested parties on what type events should, or should not, constitute a force majeure circumstance.

In the case of reductions or eliminations of delivery obligations, the Approved Vendor will need to demonstrate what measures have been taken that do not adequately cure the situation (such as filing and receiving an insurance claim that is inadequate to restore the system to operation). For the

suspension of delivery obligations, the Approved Vendor will need to demonstrate that reasonable measures are being taken to have a timely restoration of production. Approved suspension of delivery obligations will not change the end date for the 15-year REC delivery timeline.

An Approved Vendor may also determine that a system is not performing at the level expected. In this circumstance, the Approved Vendor may request to have the delivery obligation related to that system within its portfolio reduced in exchange for the return to the utility of a payment adjustment to account for all undelivered RECs at the original delivery level as of the time of the request.

6.17. Annual Report

On an annual basis, each Approved Vendor will submit an Annual Report of the contracts and systems in its portfolio. The Annual Report will serve as the basis for verifying that RECs from projects are being delivered to the applicable utility, and, absent corrective actions taken by the Approved Vendor, will be used to determine what actions should be taken by the utilities to enforce the contractual requirements that RECs are delivered, including, but not limited to, drawing on collateral. Additionally, the Annual Report will be used by the Agency to consider the ongoing eligibility of an Approved Vendor to continue participation in the program.

For distributed generation systems, the report will include information on:

- RECs delivered by each of the systems in the portfolio
- Status of all systems that have been approved, but not yet energized, including any extensions requested and granted
- Energized systems that have not delivered RECs in the year
- Balance of collateral held by each utility
- A summary of requests for REC obligations reductions due to force majeure events
- A summary of requests for REC obligations, suspensions, reductions, or eliminations due to force majeure events
- Information on consumer complaints received
- Other information related to ongoing program participation

For community solar projects the report will also include:

- Percentage of each system subscribed on a capacity basis
- The number and type of subscribers (e.g., residential, non-residential), including capacity allocated to each type
- Subscriber turn-over rates

The Agency will review the annual reports to assess compliance with the requirements of the Adjustable Block Program and, if there are shortfalls of REC deliveries or subscription levels for photovoltaic community renewable generation projects, will coordinate with the applicable utility on what remedies should be taken, including drawing on collateral.

For community solar projects, subscription levels must be maintained to remain eligible for REC payments. If the annual report shows that subscriber levels have fallen below 50% of the systems' capacity on a rolling average basis, then if REC payments are still due, those payments will be reduced as described earlier in this chapter; if all payments have been made, then the Agency will work with the applicable utility on what remedies should be taken including drawing on collateral. A similar

review will be conducted for projects that have received a residential participation adder but have not maintained sufficient levels of residential participation.

Approved Vendors will be given 90 days to cure any deficiencies found by the Agency and/or utilities.

7. Community Renewable Generation Projects

Community Renewable Generation is a relatively new concept in Illinois. It is intended to allow consumers to participate in renewable energy generation even if they are unable to have an on-site system at their home or business, and to offer a more direct connection to the benefits of renewable energy than signing up for a renewable energy offer from an Alternative Retail Electric Supplier (where information about the specific sources, costs and benefits of the renewable energy and the underlying generating system(s) may not be readily available).

Community, or "shared," renewable energy is growing nationally, most often in conjunction with solar power. Community Solar Hub counts over 100 projects in 26 states, many led by rural electric cooperatives.[296] Illinois has at least two community solar projects already, built for rural electric cooperatives.

Many policy issues that have been debated in other states are resolved through the Act itself, including elements of project size, ownership structures, and the number and type of subscribers. In this Chapter, the Agency outlines the terms and conditions for the Community Renewable Generation Program that are not prescribed by the Act.

7.1. Statutory Overview

The Act contains several key provisions designed to make community renewable generation economically viable and practical in Illinois. These provisions create a program, give it some key structure, and increase the benefits to participants through changes to net metering and bill crediting, and the ability to monetize the value of RECs from the systems.

Section 1-10 contains several key definitions:

> *"Community renewable generation project" means an electric generating facility that:*
>
> *(1) is powered by wind, solar thermal energy, photovoltaic cells or panels, biodiesel, crops and untreated and unadulterated organic waste biomass, tree waste, and hydropower that does not involve new construction or significant expansion of hydropower dams;*
>
> *(2) is interconnected at the distribution system level of an electric utility as defined in this Section, a municipal utility as defined in this Section that owns or operates electric distribution facilities, a public utility as defined in Section 3-105 of the Public Utilities Act, or an electric cooperative, as defined in Section 3-119 of the Public Utilities Act;*
>
> *(3) credits the value of electricity generated by the facility to the subscribers of the facility; and*
>
> *(4) is limited in nameplate capacity to less than or equal to 2,000 kilowatts.*
>
> *"Subscriber" means a person who (i) takes delivery service from an electric utility, and (ii) has a subscription of no less than 200 watts to a community renewable generation project that is located in the electric utility's service area. No subscriber's subscriptions may total more than 40% of the nameplate capacity of an individual community*

[296] Community Solar Hub, https://www.communitysolarhub.com. Accessed September 1, 2017.

renewable generation project. Entities that are affiliated by virtue of a common parent shall not represent multiple subscriptions that total more than 40% of the nameplate capacity of an individual community renewable generation project.

"Subscription" means an interest in a community renewable generation project expressed in kilowatts, which is sized primarily to offset part or all of the subscriber's electricity usage.

These three definitions create the core of the idea of community renewable generation, where subscribers pay for shares or some other "interest" in a centralized (but small) renewable power project, receiving bill credits in exchange. It can be seen as a way of giving customers choices about their electricity generation in a manner that can serve as an alternative to the options created by the establishment of retail choice through the Electric Service Customer Choice and Rate Relief Law of 1997.

Section 1-75(c)(1)(N) creates the community renewable generation program,

(N) The long-term renewable resources procurement plan required by this subsection (c) shall include a community renewable generation program. The Agency shall establish the terms, conditions, and program requirements for community renewable generation projects with a goal to expand renewable energy generating facility access to a broader group of energy consumers, to ensure robust participation opportunities for residential and small commercial customers and those who cannot install renewable energy on their own properties. Any plan approved by the Commission shall allow subscriptions to community renewable generation projects to be portable and transferable. For purposes of this subparagraph (N), "portable" means that subscriptions may be retained by the subscriber even if the subscriber relocates or changes its address within the same utility service territory; and "transferable" means that a subscriber may assign or sell subscriptions to another person within the same utility service territory.

Electric utilities shall provide a monetary credit to a subscriber's subsequent bill for service for the proportional output of a community renewable generation project attributable to that subscriber as specified in Section 16-107.5 of the Public Utilities Act.

The Agency shall purchase renewable energy credits from subscribed shares of photovoltaic community renewable generation projects through the Adjustable Block program described in subparagraph (K) of this paragraph (1) or through the Illinois Solar for All Program described in Section 1-56 of this Act. The electric utility shall purchase any unsubscribed energy from community renewable generation projects that are Qualifying Facilities ("QF") under the electric utility's tariff for purchasing the output from QFs under Public Utilities Regulatory Policies Act of 1978. The owners of and any subscribers to a community renewable generation project shall not be considered public utilities or alternative retail electricity suppliers under the Public Utilities Act solely as a result of their interest in or subscription to a community renewable generation project and shall not be required to become an alternative retail electric supplier by participating in a community renewable generation project with a public utility.

This Chapter describes the "terms, conditions, and program requirements" and how RECs are purchased. Certain other aspects of the program requirements are requirements that are administered by the applicable utility, and the Agency will coordinate with them to ensure compliance with the Act.

While the Act defines community renewable energy as including solar, wind, biomass, and other renewable sources, it creates an Adjustable Block Program only for photovoltaic generation, directing the Agency to "purchase renewable energy credits from subscribed shares" of community solar projects.[297] By procuring their RECs, the Agency is able to offer an additional financial incentive for customers choosing community solar.

Subscribers capture the value of their community energy subscription in the form of a "monetary credit" applied to the subscriber's subsequent utility bill for service, in proportion to the net output of their subscription to the project. The determination of that credit is not the subject of this Plan, and is established through tariffs filed by the utilities with the Illinois Commerce Commission as discussed further below. Instead, the Agency's role is simply in the procurement of RECs. While subscribers may not (if their subscription does not take the form of equity in the project) necessarily directly receive revenue for the RECs procured for the utilities by the Agency, that revenue should factor into the economics faced by the project developer and impact the subscription offer made to subscribers.

The monetary credits for net energy production flow from newly available provisions of the Public Utilities Act that expand the concept of net metering, which had previously been available for distributed generation, to become available for community renewable generation subscribers. The previous version of Section 16-107.5(*l*) of the Public Utilities Act before the enactment of Public Act 99-0906 provided that electric utilities merely "shall consider" whether to allow community-owned facilities or meter aggregation projects in a single building. The revised version of that Section adds the requirement to Section 16-107.5 that utilities *shall allow*[298] net metering for subscribers to "community renewable generation projects," as well as the other two types of community renewable projects.

The new law requires an "electricity provider" (meaning an electric utility or alternative retail electric supplier) to provide net metering credits for a community solar subscriber's share of a project's net electricity production at the subscriber's energy supply rate.[299]

Public Act 99-0906 also required that each electric utility file a community solar net metering tariff by 90 days after the new law's effective date of June 1, 2017. Each of ComEd, Ameren Illinois, and MidAmerican filed a proposed tariff during August of 2017, and the Commission approved all three tariffs on September 27, 2017.[300] These tariffs are discussed further in Section 7.7 of this Plan.

[297] As discussed elsewhere, the Agency understands "purchase" to effectively mean "procure" as used in this provision, as the Agency would not directly enter into contracts with renewable providers.

[298] 220 ILCS 5/16-107.5(l)(1).

[299] Community solar projects are to receive energy-only net metering credits starting from the enactment of Public Act 99-0906 on June 1, 2017 (or whenever each electricity provider implements the tariff or terms to do so following June 1, 2017), in contrast to other types of distributed generation, which will continue to receive full retail rate net metering from June 1, 2017 until total net metering for that electricity provider reaches 5% of the electricity provider's peak demand, as discussed in Chapter 6.

[300] See ICC Docket No. 17-0350 (ComEd), ICC Docket No. 17-0368 (MidAmerican), and ICC tariff no. ERM 17-144 (Ameren Illinois).

ComEd's new tariff consisted of modifications to its Rider POGCS (Parallel Operation of Retail Customer Generating Facilities Community Supply), Rider POG (Parallel Operation of Retail Customer Generating Facilities), Rider PORCB (Purchase of Receivables with Consolidated Billing), and Rate RESS (Retail Electric Supply Service). Ameren's new tariff consisted of a complete revision to its Rider NM (Net Metering) to now incorporate provisions governing community renewable net metering. MidAmerican's new tariff created a new Rate NMS to embody its new community renewable net metering program.

7.2. Eligible Generating Technologies and Procurement/Program Eligibility

Community renewable generation projects that are photovoltaic will be eligible to participate in the Adjustable Block Program outlined in Chapter 6. Other types of community renewable generation projects (the listing for which can be found in the definition of "renewable energy resources" found in Section 1-10 of the IPA Act) will be eligible to participate in the competitive procurement outlined in Chapter 5. These options define the process by which a system would come under contract with a utility to sell its RECs, and each option features different payment terms. The Adjustable Block Program has front-loaded REC payments, while competitive procurements will pay for RECs as they are delivered. Other than these contractual differences, the Agency believes all community renewable generation projects (including those participating in the Adjustable Block Program) should be treated the same as to other terms and conditions that follow in this Chapter, unless specifically noted.

For non-photovoltaic community renewable generation projects, the price per REC they will be paid will be based upon the price of their bid in the competitive procurement (if selected) and is not tied to any adders or requirements for residential subscription rates.

7.3. Co-location of Projects

Co-location is when multiple projects are located adjacent to each other, perhaps using the same grid interconnection. Co-located projects can be structured to maximize income from incentives, such as by dividing up a larger project into smaller pieces that qualify for higher incentives. Community Renewable Generation Projects are defined in the Act as being smaller than or equal to 2,000 kW, and for photovoltaic projects the Adjustable Block Program includes adders for smaller projects. Co-location strategies could therefore result in the gaming of prices.

Minnesota offers two points of experience with the issue of co-location, for both community wind and community solar. Under both policies, larger projects were structured as a series of smaller projects to qualify for higher incentives, undermining the legislative intent of promoting distributed, community-owned projects. A 30 MW wind project, owned by 15 corporate entities with the same owners, was developed under the Minnesota Community-Based Energy Development (C-BED) tariff program, which was intended to encourage community-owned wind projects of 2 MW or less. That program was reformed in 2003 to be more prescriptive, limiting ownership to Minnesota residents, with a single owner limited to a 15% share of a project.[301]

The more recent Minnesota Community Solar Gardens policy led to a similar problem. While the legislature capped project size at 1 MW, it did not address co-location issues. As a result, 15 co-

[301] Jessica A. Shoemaker and Christy Anderson Brekken, Farmers' Legal Action Group, *Community Wind: A Review of Select State and Federal Policy Incentives,* August 2006, http://www.flaginc.org/wp-content/uploads/2013/03/CommWindAug061.pdf.

located, aggregated projects were proposed between 10 and 20 MW, three between 20 and 30 MW, and two in the 30 to 50 MW range. One developer, Sunrise Energy Ventures, filed applications for 100 projects within the first hour of the program. When the state Public Utilities Commission ("PUC") imposed co-location caps of 5 MW for projects with filed applications and 1 MW for newly proposed projects, Sunrise appealed to the Minnesota Court of Appeals. The Court, however, affirmed the PUC's decision to implement caps.[302]

While co-location can undermine the concept of distributed small projects, it can also capture economies of scale from larger projects: large, available parcels with good interconnection points can be low-cost and efficient ways to develop large amounts of renewables quickly. Low development costs could help compensate for the higher marketing and customer acquisition costs of community renewable generation, and provide greater benefits to low-income customers. Also, different owners might apply to develop completely distinct projects at different times, that just happen to be on adjacent parcels; restrictive rules would limit the development of especially attractive parcels of land.

7.3.1. Co-location Standard

In enacting Public Act 99-0906, the General Assembly expressly included a size limit for community renewable generation projects of 2,000 kW, and the Agency does not believe it should ignore the intent of that size limit being included in the definition of community renewable generation projects. On the other hand, as discussed in Section 6.5.1, the Agency seeks to avoid the situation in which multiple smaller projects are co-located in order to obtain the higher REC prices available to smaller systems.

To appropriately balance these competing issues, and with a slight preference for a stricter co-location standard to avoid problems of the type discussed above, the Agency proposes the following co-location policy. For the purposes of this policy, being a "separate entity" means that the entities do not share a common ownership structure, shared sales or revenue-sharing arrangements, or common debt and equity financing arrangements.[303]

- 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.
    - 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 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.

[302] Mitchell Williams, Selig Gates & Woodyard PLLC, "Community Solar Gardens: Minnesota Appellate Court Allows Public Utility Commission to Implement Caps on Usage," Lexology, August 23, 2016. http://www.lexology.com/library/detail.aspx?g=c4690835-61c4-40cf-8105-0cc8d3229c77.

[303] These principles are derived from the definition adopted in Minnesota regarding co-location. See, Minnesota PUC, In the Matter of the Petition of Northern States Power Company, dba Xcel Energy, for Approval of Its Proposed Community Solar Garden Program. Order Adopting Partial Settlement As Modified. August 6, 2015. Docket No. E-002/M-13-867. https://www.edockets.state.mn.us/EFiling/edockets/searchDocuments.do?method=showPoup&documentId={43AC9E59-AD57-44FE-A57A-5F8A572D3C74}&documentTitle=20158-113077-01.

- 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.

Co-location of community solar projects is an unresolved issue at a national level, and is one that many states are grappling with (statutory authority and other defining guidelines vary greatly between states). The Agency welcomes comments on this proposed co-location standard.

7.4. Eligibility of Projects Located in Rural Electric Cooperatives and Municipal Utilities

The definition of community renewable generation projects specifically mentions rural electric cooperatives and municipal utilities, but does not explicitly include or exclude them from any program or procurement to be run by the Agency. Moreover, the definition includes the concept of that project having "subscribers," a term which in turn has a definition that defines such "subscribers" as "tak[ing] delivery service from an *electric utility*," which as defined in the IPA Act does not include cooperative and municipal utilities. This results in ambiguity around whether a community renewable generation project can be located within the service territory of a rural electric cooperative or a municipal utility. While one simple solution may be to exclude projects located in the service territories of municipal utilities and rural electric cooperatives from participation in the community renewable generation program, the Agency is also cognizant of the General Assembly's choice to include those entities in defining community renewable generation projects.

As mentioned above, there are already at least two community solar offerings from rural electric cooperatives. Illinois' first community solar project was a 126 kW installation in Elizabeth, built by Jo Carroll Energy in December 2014.[304] That project allows Jo Carroll customers to buy individual panels in the 460-panel ground-mounted system, with the energy produced credited against their bills. Prairie Power sells kWh blocks of solar power to customers of its 10 distribution cooperatives through the Bright Options Solar program. The program is supplied by two 500 kW solar installations near Shelbyville and Astoria, both built in 2015.[305] Neither of these projects would be eligible to participate in the Adjustable Block Program because they were energized prior to June 1, 2017, but they indicate that rural electric cooperatives have thus far been the leaders in community solar in Illinois.

The Agency proposes the following standard for allowing community renewable generation projects in the service territories of rural electric cooperatives and municipal utilities to participate in the Agency's programs or procurements. These standards may require actions be taken by the rural electric cooperative or municipal utility. As entities not regulated by the state, they are free to choose to take these actions or decline to take these actions, but should they choose not to, then the residents and businesses within their service territories would not benefit from receiving revenue through these programs for its RECs, and thus the economics of such projects may not be as attractive to developers or subscribers.

[304] Jo Carroll Energy, https://jocarroll.com/content/south-view-solar-farm.

[305] Prairie Power, https://www.ppi.coop/brightoptions.

The requirements for participation that the Agency recommends for a rural electric cooperative or municipal utility follow from those required in the Act for electric utilities:

- Be capable of "credit[ing] the value of electricity generated by the facility to the subscribers of the facility."[306] This can be accomplished though offering "virtual net metering" substantially similar to the provisions contained in Section 16-107.5(l) of the Public Utilities Act.[307]"
- Provide a monetary credit to a subscriber's subsequent bill for service for the proportional output of a community renewable generation project attributable to that subscriber."[308]
- "Purchase any unsubscribed energy from community renewable generation projects that are Qualifying Facilities ("QF") under the electric utility's tariff for purchasing the output from QFs under Public Utilities Regulatory Policies Act of 1978."[309]

Prior to a photovoltaic community renewable generation project applying for the Adjustable Block Program, or a community renewable generation project powered by other renewable technologies participating in the competitive procurement, the Approved Vendor will have to obtain from the rural electric cooperative or municipal utility a certification to the Agency that they have met these conditions. Absent this information, a project of that rural electric cooperative or municipal utility will not be allowed to participate.

7.5. Types of Community Renewable Generation Projects

Community Renewable Generation remains a new concept for Illinois, and is still developing nationally. Practitioners are still developing the most viable business models, and new models are likely to emerge, both for-profit and non-profit. In some models, customers take ownership of a share of a community project, identifying specific solar panels. In others, the developer owns the project and sells subscriptions for a contractually obligated term, or an indefinite term that can be ended at will. The value of the generation can be conveyed to the customer by virtual net metering (as an energy credit), by a value-of-solar tariff, or as a premium purchase.

One issue that the Agency has considered is the extent to which projects will be proposed by commercial developers who then seek to identify subscribers, and by community-led projects where interested parties in a community come together to seek to develop a project. A church parish, for example, could put photovoltaic panels on the roof of the church, with subscriptions sold to parishioners. Developer-led projects are likely to be larger and located where interconnection costs are minimized, while community-led projects like the church parish could be smaller and face the possibility of higher interconnection costs because the location is determined by community-focused interests rather than pure engineering considerations.

While such community-led projects seem consistent with the intent of the Act, the Agency is not proposing a specific adder for community-led projects at this time. There are several reasons for this. First, the Agency has proposed Adders that should encourage community-led projects like the church parish example, such as for smaller sized systems and for a larger portion of residential subscribers.

[306] See definition of "Community Renewable Generation Facility" in 20 ILCS 3855/1-10.

[307] See 220 ILCS 5/16-107.5(*l*).

[308] See 20 ILCS 3855/1-75(c)(1)(N).

[309] See id.

Second, properly defining what is truly a community-led project could be problematic and subject to gaming. It is possible, for example, that community groups will team with professional solar developers to realize their projects, with varying ownership structures.

In addition to the adders available through the Adjustable Block Program, certain community-led projects may instead participate in, and be eligible for a higher level of incentives through, the Illinois Solar for All Program as described in Chapter 8. Developers of Community Solar projects that participate in that program are required to "identify its partnership with community stakeholders regarding the location, development, and participation in the project, provided that nothing shall preclude a project from including an anchor tenant that does not qualify as low-income. Incentives should also be offered to community solar projects that are 100% low-income subscriber owned, which includes low-income households, not-for-profit organizations, and affordable housing owners."[310] Because a project does not have to rely exclusively on low-income subscribers (although additional incentives are available for projects that do so) this option may bring an additional value option to community-led projects.

It could also be hard to ascertain if a project was really proposed by a community, or if a developer proposed the project and found community organizations to represent the project, which would clearly not be the intended outcome of a "community" adder. While a similar challenge exists for the community solar projects that participate in the Illinois Solar for All Program in that they require community participation, that program also features the requirement that economic benefits flow to the (low-income) participants, which can help mitigate this concern.

7.6. Subscriber Requirements

With community renewable generation still an emerging concept, the level of consumer interest and the most viable business models remain to be determined. The Agency seeks to allow creativity and flexibility in developing projects while at the same time ensuring basic consumer protections.

7.6.1. Residential Participation

The Act requires that the Agency propose terms and conditions that "ensure robust participation opportunities for residential and small commercial customers and those who cannot install renewable energy on their own properties."[311] In the responses to the Request for Comments issued by the Agency after its May workshops, there were strong disagreements expressed about how this provision should be interpreted. Some parties argued that it meant that all projects must include some level of residential participation, while others argued that the appropriate adders or other incentives would lead to robust residential participation and that there should be no requirement.

While the Agency appreciates the arguments made by those who would wish to require residential participation in all projects, the Agency declines to adopt that proposal. First, the above-quoted language of the Act refers to "robust participation **opportunities**"[312] for small customers, and does not mandate robust participation. Second, the same passage of the Act also refers to "small commercial customers." While small commercial customers were little discussed in comments or at

[310] 20 ILCS 3855/1-56(b)(2)(B).

[311] 20 ILCS 3855/1-75(c)(1)(N).

[312] Emphasis added.

the workshop, the Agency considers that it would be infeasible to mandate minimum levels of residential customers only without also considering small commercial subscribers.

Instead, as described in Section 6.5, the use of Adders in the Adjustable Block Program recognizes the value of residential subscriptions, and the Agency expects that this will be a sufficient mechanism to ensure robust participation opportunities for the residential sector. The Agency will review this determination as part of the Plan Update conducted in 2019 and may revise this determination if needed.

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 (although state-specific program design parameters may also be a driver of the residential versus commercial interest). Nationally, corporate customers have emerged as major buyers of renewable energy in order to meet sustainability and financial goals. Illinois is home to many corporations that have made sustainability commitments, which may constitute a significant market for community renewable generation.

If it turns out that the residential interest in community renewable generation is limited, requiring residential participation could impede the successful development of the commercial community renewable generation market.

7.6.2. Residential Subscribers

Subscribing to a community renewable generation project is not the same as choosing to purchase or lease a system to be located on your own property. It does, however, bear similarities to signing up to take supply service from an Alternative Retail Electric Supplier. The Agency observes that the history of questionable marketing practices of some Alternative Retail Electric Suppliers gives reason to be concerned about the marketing of community renewable generation subscriptions.[313]

While competition in the natural gas and electricity markets has created many benefits for the residents and businesses of Illinois, those benefits have not been uniform, and in many instances, particularly in residential markets, the benefits have been non-existent; in fact at times supply offers have been harmful to consumers. This Plan is not the place to have a full debate on acceptable marketing practices, but the Agency would like to highlight past practices that some alternative gas and electric suppliers have engaged in that cause concern for the Agency. These include improperly associating the supplier with the local utility or a government agency or program; implying that a customer must choose to enroll; inflating the price of green energy offers far beyond the actual

[313] See, e.g., ICC Docket No. 14-0512, Consumer Services Division and Office of Retail Market Development Staff Report to the Commission dated August 20, 2014, https://www.icc.illinois.gov/downloads/public/edocket/384622.pdf (detailing misleading and noncompliant marketing tactics employed by one ARES); ICC Docket No. 15-0438, Consumer Services Division and Office of Retail Market Development Staff Report to the Commission dated July 20, 2015, https://www.icc.illinois.gov/docket/files.aspx?no=15-0438&docId=232481 (detailing several misleading telephone marketing tactics employed by a different ARES); ICC Docket No. 15-0512, First Notice Order, September 22, 2016, at 55 (expressly relying on information submitted with the ICC Staff Initial Comments dated November 5, 2015 (https://www.icc.illinois.gov/downloads/public/edocket/417068.pdf), which detailed trends in allegations of ARES wrongdoing including unauthorized switching, misrepresentation of the nature of the transaction, misrepresentation of identity of the ARES, misrepresentation of price or savings, failure to disclose cancellation fees or right to cancel, and more); ICC Docket No. 17-0273, Order, August 15, 2017, at 4-5 (denying a certificate of service authority to an ARES that, previously operating in Illinois under a prior corporate structure, had amassed numerous complaints related to sales and marketing).

incremental cost of procuring renewable resources; and targeting elderly, non-English speaking, and low income customers who may have less access to quality information about energy prices.

The Agency recognizes that it may not be able to prohibit door to door or telemarketing sales of community renewable generation subscriptions, but notes those marketing channels as ones of particular concern because of the information asymmetry between the salesperson and the consumer. The Agency believes an informed consumer is a wise consumer and strongly encourages marketing channels that respect the opportunity for consumers to have complete and accurate information about the decisions they may make regarding subscriptions, particularly those related to upfront payments, the net price of energy, and termination fees and conditions. The Agency may conduct additional monitoring of Approved Vendors (and/or their partners/affiliates) that utilize door to door or telemarketing sales, and reserves the right to request the Approved Vendor provide additional documentation of those marketing channels including, but not limited to, access to call center recordings for either sales or third-party verifications.

That being said, there are a number of state and federal consumer protection laws, regulations, and enforcement agencies that apply to all forms of marketing, including marketing of Community Renewable Energy.[314]

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

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

Source: CESA, *Consumer Protection for Community Solar: A Guide for States*, 2017.

[314] Diana Chace and Nate Hausman, Clean Energy States Alliance, *Consumer Protection for Community Solar: A Guide for States*, June 8, 2017. http://cesa.org/resource-library/resource/consumer-protection-for-community-solar-a-guide-for-states.

Table 7-2: Illinois Statutes that Apply to Community Solar

Statute	Topic
Consumer Fraud and Deceptive Business Practices Act (815 ILCS 505)	Enrollment, marketing, billing, and collection by electric service providers
Electronic Mail Act (EMA) (815 ILCS 511)	Regulates e-mail solicitations
Telephone Solicitations Act (815 ILCS 413) and the Restricted Call Registry Act (815 ILCS 402)	Regulates telemarketing practices
Personal Information Protection Act (815 ILCS 530)	Requires companies that collect personal information to take reasonable measures to protect it and report unauthorized access to consumer's personal information.

These laws and regulations provide a starting point for protecting consumers, but their enforcement agencies typically only track and enforce good marketing practices if triggered by consumer complaints. In order to ensure that subscribers are well-informed and thus afforded adequate consumer protections, the Agency will require that all projects adhere to the following terms and conditions for subscriptions.

Drawing from the consumer protection guidelines for community solar adopted by the Maryland Public Service Commission, the Agency proposes to require that Community Renewable Generation marketers provide consumers with the following disclosures:

(a) A plain language disclosure of the subscription, including:
  (i) The terms under which the pricing will be calculated over the life of the contract and a good faith estimate of the subscription price expressed as a monthly rate or on a per kilowatt-hour basis;
  (ii) The terms by which any net metering credits will be calculated and applied to the subscriber's account; and
  (iii) Whether any charges may increase during the course of service, and, if so, how much advance notice is provided to the subscriber.

(b) Contract provisions regulating the disposition or transfer of a subscription, as well as the costs or potential costs associated with such a disposition or transfer;

(c) All nonrecurring (one-time) charges;

(d) All recurring (monthly, yearly) charges;

(e) A statement of contract duration, including the initial time period and any rollover provision;

(f) Terms and conditions for early termination, including:
  (i) Any penalties that the Project Developer may charge to the subscriber; and
  (ii) The process for unsubscribing and any associated costs.

(g) If a security deposit is required:
  (i) The amount of the security deposit;
  (ii) A description of when and under what circumstances the security deposit will be returned;

(iii) A description of how the security deposit may be used; and
(iv) A description of how the security deposit will be protected.

(h) A description of any fee or charge and the circumstances under which a customer may incur a fee or charge;

(i) A statement that the Project Developer may terminate the contract early, including:
(i) Circumstances under which early cancellation by the Project Developer may occur;
(ii) Manner in which the Project Developer shall notify the customer of the early cancellation of the contract;
(iii) Duration of the notice period before early cancellation; and
(iv) Remedies available to the customer if early cancellation occurs;

(j) A statement that the customer may terminate the contract early, including:
(i) Amount of any early cancellation fee;

(k) A statement describing contract renewal procedures, if any;

(l) A dispute procedure;

(m) The Agency's and Commission's phone number and Internet address;

(n) A notice that the contract does not include utility charges;

(o) A billing procedure description;

(p) The data privacy policies of the Project Developer;

(q) A description of any compensation to be paid for underperformance;

(r) Evidence of insurance;

(s) A long-term maintenance plan;

(t) Current production projections and a description of the methodology used to develop production projections;

(u) Contact information for the Project Developer for questions and complaints;

(v) A statement that the Project Developer and utility do not make representations or warranties concerning the tax implications of any bill credits provided to the subscriber;

(w) The method of providing notice to the subscribers when the project is out of service for more than three business days, including notice of:
(i) The estimated duration of the outage; and
(ii) The estimated production that will be lost due to the outage.

(x) An explanation of how unsubscribed production of the project will be allocated; and

(y) Any other terms and conditions of service.

In addition, to ensure portability and transferability of subscription contracts, as required by Section 1-75(c)(1)(N) of the Act, any such contract should provide that the subscriber (i) may retain the subscription as long as the subscriber changes addresses for utility service within the same utility service territory, and (ii) may assign or sell the subscription to another person within the same utility service territory, without any fee owed to the subscription counterparty. The Agency understands that the community renewable net metering tariffs for Ameren Illinois, ComEd, and MidAmerican approved by the Commission on September 27, 2017 are consistent with these principles.

7.6.3. Marketing Claims Related to the Ownership of RECs and Community Renewable Generation Subscriptions

The Agency's Adjustable Block Program for community solar, and the competitive procurement for other forms of community renewable generation, are both based on the core requirement that the value to the project developer (and in turn the ability to make a financially attractive offer to

subscribers) is based upon the sale of the project's environmental attributes (in the form of RECs) from the project to a utility. Those RECs are then retired by the utility to meet the annual RPS goals of that utility, and the original REC holder's claims to those environmental attributes are effectively extinguished through that sale.

This raises the issue of what marketing claims may be made related to a subscription in a community renewable generation project receiving a REC contract (including community solar projects participating in the Adjustable Block Program), as such projects will have already contractually committed the sale of their environmental attributes to a third party. With the underlying "renewable" or "solar" element of that generation having been decoupled and sold to the utility, can it still be marketed as a "community solar" project? Moreover, can the subscriber make any claims for any commercial purpose about any "green" (or similar) aspect of his or her energy sourcing? Guidance from the Federal Trade Commission would appear to limit what claims can be made about energy sourced from projects whose RECs are transferred to another entity.[315] The guidance suggests that appropriate disclaimers about the fate of the RECs may satisfy rules against deceptive marketing. Yet, at some point, the issue begins to border on the absurd: a lengthy factual explanation of a community solar subscription and this Agency's various RPS programs would be permissible, but a shorthand description used to market that subscription may be legally problematic.

At this time, the Agency has no firm proposal on how best to resolve this concern—and recognizes its limitations in tackling this issue, as it (i) is not a regulatory body; (ii) cannot speak for federal (or any other) authorities; and (iii) cannot preempt Federal Trade Commission guidelines with its own requirements. The Agency is still researching best practices from other states in addressing this quandary. For now, the Agency simply notes that this challenge is more acutely felt in Illinois than in other states given the central role of REC delivery contracts (and consequent transfer of environmental attributes) in supporting the successful development of community renewable generation. For this draft Plan, the Agency appreciates any comments and analysis that interested stakeholders can offer on this issue, and the Agency hopes to have a more refined marketing proposal as part of its filed Plan.

7.7. Utility Responsibilities

While the Agency, through the Adjustable Block Program and competitive procurements, will be responsible for the procurement of RECs from community renewable generation projects, it is not responsible for all aspects of a successful program. There are several additional key aspects of making community renewable generation projects successful that fall outside of the control of the Agency.

- The crediting of the value of energy through net metering
- Ensuring the portability and transferability of subscriptions within a utility service territory.

The Agency will work with the utilities (and with rural electric cooperatives and municipal utilities should they choose to participate) in coordinating these requirements with the terms, conditions, and operational aspects of the programs and procurements conducted by the Agency.

[315] See 16 C.F.R. § 260.15(d), Example 5; see also U.S. EPA, "Making Environmental Claims," https://www.epa.gov/greenpower/making-environmental-claims.

Public Act 99-0906 required each electric utility to file a tariff within 90 days after the Act's effective date, June 1, 2017, to implement net metering for community renewable projects.[316] All three utilities did so.

ComEd's community renewable generation net metering tariff was approved by the Commission in Docket No. 17-0350 on September 27, 2017. The Commission resolved a dispute among the Company and intervenors around indemnification by approving ComEd's proposal that both subscribers and the project itself will indemnify the Company against any liabilities relating to the reporting of a subscriber's share or a subscriber's interval usage data – and that ComEd will not have any reciprocal indemnification obligations. The Commission rejected the proposal of certain intervenors that the net metering credit paid to community renewable generation projects include the volumetric transmission services charge, in addition to the supply charge (which includes an adjustment factor).

MidAmerican's community renewable generation net metering tariff was approved by the Commission in Docket No. 17-0368 on September 27, 2017. The tariff stipulates that both subscribers and the project itself will indemnify the Company against any liabilities relating to the reporting of a subscriber's share or a subscriber's interval usage data. MidAmerican's tariff would provide community renewable net metering credits at the "supply charge," plus certain adjustment factors.

Ameren Illinois proposed revisions to its existing net metering tariff to include provisions for community renewable generation project net metering. The revisions were approved by the Commission on September 27, 2017. Ameren Illinois' revised tariff credits a community renewable generation project not at the "energy supply rate,"[317] but rather, at the "Avoided Cost," which is defined as "the incremental costs to the Electricity Provider of electric energy or capacity or both which, but for the purchase from an Eligible Customer, the Electricity Provider would generate itself or purchase from another source."

As discussed in Section 7.6.2, the Agency believes that the three approved tariffs will allow portability and transferability of subscriptions, as required by Section 1-75(c)(1)(N) of the Act.

[316] 220 ILCS 5/16-107.5(*l*), (*l*-5).

[317] See 220 ILCS 5/16-107.5(*l*)(2).

8. Illinois Solar for All Program

8.1. Overview

The Illinois Solar for All Program was created through revisions to Section 1-56(b) of the IPA Act contained in Public Act 99-0906 to "include incentives for low-income distributed generation and community solar projects" with the objective to:

> *"bring photovoltaics to low-income communities in this State in a manner that maximizes the development of new photovoltaic generating facilities, to create a long-term, low-income solar marketplace throughout this State, to integrate, through interaction with stakeholders, with existing energy efficiency initiatives, and to minimize administrative costs."*[318]

The Act creates four sub-programs within Illinois Solar for All, with incentives for each type of development:

(A) Low-income distributed generation, for on-site solar projects
(B) Low-Income Community Solar, for off-site solar projects
(C) Incentives for non-profits and public facilities to do on-site projects
(D) Low-Income Community Solar Pilot Projects, with distinct rules and incentives

The Agency is instructed to "include a description of its proposed approach to the design, administration, implementation and evaluation of the Illinois Solar for All Program" in this Plan. This Chapter fulfills that provision of the Act.

While the price of photovoltaics has declined dramatically over recent years, there can be significant upfront costs for the development of projects. The financial incentives offered through the Adjustable Block Program may not be sufficient for low-income households and communities to overcome the substantial barriers to participating in the growing solar energy market. The Illinois Solar for All Program is an alternative approach and program to help address this challenge.

8.2. Design Considerations

The Agency has identified two key elements in implementing the Illinois Solar for All Program: the relationship to the Adjustable Block Program, and the creation of economic benefits for participants.

8.2.1. Relationship with the Adjustable Block Program

The goals of the Illinois Solar for All Program overlap with the goals of the Adjustable Block Program in that both promote distributed photovoltaic generation and community solar. The difference involves the sectors that the programs serve and the structure of the incentives and program design.

As described in this Chapter, the Agency will administer the Illinois Solar for All Program separate from the Adjustable Block Program, but building on the program design of the Adjustable Block Program, with additional considerations specific to Illinois Solar for All. These include a different set of incentives, Illinois Solar for All specific contracts, and additional considerations to ensure community involvement, consumer protections, and eligibility. To the extent not specifically

[318] 20 ILCS 3855/1-56(b)(2).

mentioned in this Chapter, the program design, terms, and conditions of the Adjustable Block Program would also apply to the administration of, and contracts entered into, for the Illinois Solar for All Program.

The exception to this principle is the Low-Income Community Solar Pilot Projects, which do not participate in the Adjustable Block Program, and which the Agency proposes to fund solely through the Renewable Energy Resources Fund and administer through a competitive procurement process.

8.2.2. Economic Benefits

The second consideration is the concept of "economic benefits" and how low income participants can capture them. The Act stipulates that for the Illinois Solar for All Program, "[e]ach contract that provides for the installation of solar facilities shall provide that the solar facilities will produce energy and economic benefits, at a level determined by the Agency to be reasonable, for the participating low income customers."[319] In addition, contracts should "ensure [that] the wholesale market value of the energy is credited to participating low-income customers or organizations and to ensure tangible economic benefits flow directly to program participants, except in the case of low-income multi-family housing where the low-income customer does not directly pay for energy."[320]

A key barrier to low-income participation in renewable energy programs is lack of access to funds and financing to pay for the up-front costs of photovoltaic systems.

To create "tangible economic benefits" at a "reasonable" level, the Agency has determined that eligible low-income residential participants in the Illinois Solar for All Program should not have to pay up-front costs for on-site distributed generation, or pay an up-front fee to subscribe to a community solar project. Further, participation in the program should result in immediate, reliable reductions in energy costs for those residents or subscribers. This means that any ongoing payments would be smaller than the expected energy savings.

The Agency will require that developers, installers, landlords, and other intermediaries ensure that the resulting value of the incentives offered by the program flow through to the people the program is meant to serve. However, the Agency notes that in order to avoid an overly complex administrative system for this program, incentive levels will not be customized to each participant's specific economic circumstances.

For public and non-profit facilities that participate in the Illinois Solar for All Program, the Agency proposes an approach in which the incentive level is based on the concept that the pay-back time for the project is reduced from that for a comparable sized project that participates instead in the Adjustable Block Program. This incentive level can help overcome the financing barriers that non-profits and public facilities may face compared to private entities (including, but not limited to, access to capital and tax benefits).

Ensuring that "the wholesale market value of energy is credited to participating low-income customers" can be achieved through existing net metering provisions. Therefore, projects will be required to participate in the applicable utility's or ARES's net metering program. This may prevent projects in the service territory of a municipal utility or rural electric cooperative that does not offer net metering from participating in the Illinois Solar for All Program. The Agency hopes that such

[319] 20 ILCS 3855/1-56(b)(2).

[320] Id.

municipal utilities and rural electric cooperatives strongly consider adopting net metering policies to bring the full value of solar to their residents and members.

Ensuring that tangible economic benefits flow directly to program participants can also be accomplished by providing documentation to the Agency that the project has no upfront cost to the participant, that the value of incentives are used by the project developer/installer to offset costs to the participant, and that there will not be ongoing costs or fees to the participant that exceed the value of energy produced. The resulting economic benefits to program participants will be accrued through the value they receive through net metering for the energy the system produces. As described in Section 8.11, Approved Vendors participating in the Illinois Solar for All Program will be required to document how they ensure that this goal is met. The case of low-income multi-family housing can be more complex and is discussed in more detail in Section 8.6.1.

It should be noted that these incentives are tied directly to creating economic benefits through lowered net energy costs and are calculated in that manner. As a result, there may be additional costs required to make a specific project viable (e.g., costs associated with roof repairs or wiring upgrades) that these incentives may not be able to address. Additional incentives to pay for those types of separate costs will not be available through the Illinois Solar for All Program, and the Agency encourages participants to explore alternative sources of funding as needed. The Agency and the Illinois Solar for All Program Administrator will work with Approved Vendors to facilitate informing and educating program participants about opportunities that may be available to them through utility-administered energy efficiency programs, weatherization assistance programs, lead abatement programs, and other forms of support.

8.3. Program Launch

In implementing the various new programs and procurements mandated by Public Act 99-0906, the Agency has a large and varied set of new tasks to undertake. The Agency appreciates the strong interest in the Illinois Solar for All Program and desire to make the benefits of the Program available to low-income households and communities so that they can benefit from lower energy costs. The Illinois Solar for All Program as proposed mostly builds on the Adjustable Block Program described in Chapter 6; therefore, it will be necessary to first have the Adjustable Block Program's design finalized and put into operation before the Illinois Solar for All Program will be ready to launch. This may create some delay in the start of the Illinois Solar for All Program, but the Agency will endeavor to make the Illinois Solar for All Program available as soon as practical.

8.4. Funding and Budget

The Illinois Solar for All Program is funded through three sources. First, the Renewable Energy Resources Fund pursuant to Section 1-56(b)(2) of the IPA Act; second, funds from the renewable energy resources budgets of the utilities pursuant to Section 1-75(c)(1)(O) of the IPA Act; and third, potential additional funds from the utilities pursuant to Section 16-108(k) of the Public Utilities Act.

8.4.1. Renewable Energy Resources Fund Funding Available

While Section 1-56(b)(2) envisions the Illinois Solar for All Program being funded primarily by the Renewable Energy Resources Fund, as of September 29, 2017, the balance of the Renewable Energy

Resources Fund is $23,601,311, while existing commitments from the Fund for contracts from the Supplemental Photovoltaic Procurements total $25,903,103.[321]

Prior to the enactment of Public Act 99-0906, the Renewable Energy Resources Fund received Alternative Compliance Payments each fall from Alternative Retail Electric Suppliers as part of their RPS compliance obligations. Under the revisions to Section 16-115D of the PUA contained in Public Act 99-0906, those payments are no longer made to the Fund as of June 1, 2017; rather, they are now made to the utilities through May 2019.[322] With the end of those payments, there is no new revenue that will be deposited into the Fund.

The current balance of the RERF is due to the fact that on August 10, 2017, $150 million was transferred from the Renewable Energy Resources Fund to the General Revenue Fund pursuant to the recently enacted borrowing provisions contained in Section 5h.5 of the State Finance Act.[323] Those funds are required by law to be paid back to the Renewable Energy Resources Fund within two years (i.e., by August 10, 2019).

Section 5h.5(b) contains a provision that when the RERF (or for that matter other state funds that had similar transfers),

> *ha[s] insufficient cash from which the State Comptroller may make expenditures properly supported by appropriations from the fund, then the State Treasurer and State Comptroller shall transfer from general funds to the fund only such amount as is immediately necessary to satisfy outstanding expenditure obligations on a timely basis.*

Likewise, that Section also provides for,

> *continuing authority for and direction to the State Treasurer and State Comptroller to reimburse the funds of origin from general funds by transferring to the funds of origin, at such times and in such amounts as directed by the Comptroller when necessary to support appropriated expenditures from the funds, an amount equal to that transferred from them plus any interest that would have accrued thereon had the transfer not occurred…*

These provisions allow the Agency to make expenditures from the RERF prior to the repayment of the transferred amount—i.e., to operate as though the RERF's balance were at its original amount, even if transferred funds have not yet been moved back into the RERF. In addition, the Agency understands that the State Comptroller will coordinate with the Agency to make sure that any appropriated expenditures that the Agency makes through new contractual commitments are honored by ensuring that the balance of the RERF is at all times sufficient to make timely payments on contracts. While the Agency understands that recent transfers from the RERF have caused consternation, based on the assurances contained in the law, it does not believe that these transfers necessitate any adjustments to its proposed Solar for All program design, structure, and budget.

Consistent with this approach, the Agency plans to allocate up to $20 million per year from the RERF for use for the Illinois Solar for All Program. This would ensure that RERF funding for the Low-Income

[321] The commitments are being paid, or will be paid, over a five-year REC delivery schedule depending on when individual systems under contract are completed and begin REC deliveries.

[322] After May 31, 2019, the Alternative Compliance Payments by ARES will cease altogether.

[323] 30 ILCS 105/5h.5(b); see Public Act 100-0023.

Distributed Generation Incentive, the Low-Income Community Solar Project Initiative, and the Incentives for non-profits and public facilities is available for seven to eight years if fully spent each year, while as discussed in Section 8.6.4, funding for the Low-Income Community Solar Pilot Projects would be distributed over a ten-year period. RERF funds not spent in a year would be rolled over to the following year. The funds allocated from the RERF would be allocated according to the percentages specified in Section 1-56(b)(2) of the Act, namely 22.5% for the Low-Income Distributed Generation Incentive, 37.5% to the Low-Income Community Solar Project Initiative, 15% for Incentives for non-profits and public facilities, and 25% for Low-Income Community Solar Pilot Projects (with an all-time cap of $50 million).[324]

8.4.2. Utilities Annual Funding Available

Section 1-75(c)(1)(O) contains a provision that

> *The long-term renewable resources procurement plan shall allocate 5% of the funds available under the plan for the applicable delivery year, or $10,000,000 per delivery year, whichever is greater, to fund the programs, and the plan shall determine the amount of funding to be apportioned to the programs identified in subsection (b) of Section 1-56 of this Act; provided that for the delivery years beginning June 1, 2017, June 1, 2021, and June 1, 2025, the long-term renewable resources procurement plan shall allocate 10% of the funds available under the plan for the applicable delivery year, or $20,000,000 per delivery year, whichever is greater, and $10,000,000 of such funds in such year shall be used by an electric utility that serves more than 3,000,000 retail customers in the State to implement a Commission-approved plan under Section 16-108.12 of the Public Utilities Act.*

The Agency expects the Illinois Solar for All Program to begin during the 2018-2019 delivery year. As discussed in Section 2.2.5.3, the Agency interprets "funds available under the plan" in the above statutory provision to mean funds collected by utilities through RPS riders under Section 1-75(c)(6) of the Act and Section 16-108(k) of the PUA. The following table lists for the first three years the projected amounts of utility funding that would be allocated to Illinois Solar for All based upon the load and budget forecasts contained in Chapter 3.

Table 8-1: Utility Funding

Delivery Year	Utility Renewable Energy Maximum Budgets	5% of Funds	Allocation to Illinois Solar for All
2018-2019	$189,960,757	$9,498,038	$10,000,000
2019-2020	$234,276,011	$11,713,801	$11,713,801
2020-2021	$234,003,334	$11,700,167	$11,700,167

These funds will be supplied by each utility based on the allocation percentages contained in Section 3.1. These funds are not subject to the percentage allocations specified for the funding from the RERF,

[324] Assuming that payments for the Low-Income Community Solar Pilot Projects are made over a ten-year period, that would be up to $5 million per year, which would be consistent with a 25% allocation of the $20 million per year from the Renewable Energy Resources Fund.

specified in Section 1-56(b)(2). The Agency will use the utility-supplied funding to supplement the programs that have used up their available funding from the RERF (with the exception of the Low-Income Community Solar Pilot Projects).

The funding for job training programs provided by ComEd (an electric utility that serves more than 3,000,000 retail customers) under Section 16-108.12 is noted in the budget discussion in Chapter 3. As those funds are not directly part of the Illinois Solar for All Program as managed by the Agency, those funds are not included in this budget discussion. (The intersection between the Illinois Solar for All Program and the job training programs is discussed in Section 8.10.)

8.4.3. Section 16-108(k) Funding

Section 16-108(k) of the Public Utilities Act provides for a situation in which the total amount of funds appropriated by the General Assembly from[325] the Renewable Energy Resources Fund during the period between June 1, 2017 and August 1, 2018 is less than $200,000,000, creating a "funding shortfall." This period encompasses part or all of three state Fiscal Years (running from July 1 of a given year to June 30 of the following year). If there is a funding shortfall, additional funding from the utilities could be available, as discussed below, to support Illinois Solar for All as part of a supplemental plan developed by the Agency.

However, as part of the time period in question includes the first month of Fiscal Year 2019, the amount of the funding shortfall, if any, will not be known until after the Fiscal Year 2019 budget is adopted, which is expected to be during the late spring or summer of 2018. If this provision is interpreted to be based on the amounts appropriated for the whole of all three Fiscal Years covered (rather than a prorated amount of the appropriations for the first and last years, Fiscal Year 2017 and Fiscal Year 2019), then for Fiscal Year 2017 (which ended June 30, 2017), the appropriation that was made for the Renewable Energy Resources Fund was $50 million, and for Fiscal Year 2018, also $50 million—totaling $100 million that has already been appropriated by the General Assembly for the relevant period.[326] The existence of a funding shortfall will depend upon the size of the appropriation the Agency receives from the RERF for Fiscal Year 2019, and will only occur if the appropriation is less than $100 million. The Agency typically submits its appropriations requests to the General Assembly in February of each year (in this case 2018) and its request is taken up along with the other components of the state budget during the Spring legislative session.[327]

The Agency notes that an appropriation is merely authority to spend funds up to the appropriated amount for the purposes contained in an applicable Fiscal Year's appropriation bill. It may, or may not, correspond to the actual Fund balance or match actual expenditures made in that fiscal year.

In addition, this funding is only available if the funds collected from ratepayers by the utilities through their RPS riders exceed their expenditure to fund their purchases of RECs under the RPS during each of the 2017-2018, 2018-2019, and 2019-2020 delivery years, and half of each year's

[325] The sixth paragraph of the newly enacted Section 16-108(k) of the Public Utilities Act defines the "funding shortfall" based on amounts appropriated by the General Assembly ***to*** the Renewable Energy Resources Fund. However, the General Assembly has, in fact, never made an appropriation ***to*** the RERF. The General Assembly does, though, regularly make appropriations ***from*** the RERF. (See, e.g., Public Act 99-0524, enacted June 30, 2016, at Art. 24, § 10; Public Act 100-0021, enacted July 6, 2017, at Art. 45, § 10.) Thus, the IPA interprets the word "to" as a scrivener's error, intended to mean "from."

[326] Id.

[327] As an independent State Agency, under the oversight of the Executive Ethics Commission, the Agency develops its appropriation requests separately from the budget developed by the Governor.

difference, if any, would be available to offset the shortfall. The amount collected and expended by the utilities will also not be known until a later date, although based upon the scope of procurements proposed for the 2017-2018 and 2018-2019 delivery years, the Agency would expect that the amount collected from customers will significantly exceed actual expenditures by the utilities on Renewable Energy Credits. The Agency will ask each utility to provide an accounting of RPS collections and expenditures following the end of each delivery year.

If there is a funding shortfall and there are utility RPS rider overcollections during the 2017-2018, 2018-2019, and/or 2019-2020 delivery years that, in aggregate, do not exceed the funding shortfall, then Section 1-56(b)(7) provides that,

> *If additional funding for the programs described in this subsection (b) is available under subsection (k) of Section 16-108 of the Public Utilities Act, then the Agency shall submit a procurement plan to the Commission no later than September 1, 2018, that proposes how the Agency will procure programs on behalf of the applicable utility. After notice and hearing, the Commission shall approve, or approve with modification, the plan no later than November 1, 2018.*

For the purposes of this Plan, it is not yet known if this funding will, or will not, be available. If these funds become available following the 2017-2018 delivery year, the Agency will develop and submit a Plan to the Commission by September 1, 2018 to reflect how those funds will be used beginning in the 2018-2019 delivery year.

8.4.4. Setting Budgets

The Agency is developing the Illinois Solar for All Program with the assumption that the funds available for the 2018-2019 delivery year will be funds from the RERF and the utility-supplied funds identified in Section 8.4.2. Table 8-2 provides a summary of the Illinois Solar for All funding.

Table 8-2: Illinois Solar for All Budgets

Program Year	Renewable Energy Resources Fund	Utility Funding	Funding Shortfall	Total Funding
2018-2019	$20,000,000	$10,000,000	To be Determined	$30,000,000
2019-2020	$20,000,000	$11,708,367	To be Determined	$31,708,367
2020-2021	$20,000,000	$11,694,637	To be Determined	$31,694,637

8.4.5. Payment Structure

The Illinois Solar for All Program is structured so that the Agency "may pay for such renewable energy credits through an upfront payment per installed kilowatt of nameplate capacity paid once the device is interconnected at the distribution system level of the utility and is energized."[328] Section 6.14.5 describes the capacity factor used in the Adjustable Block Program to convert kilowatt size of a project to the number of RECs the system would be expected to generate over 15 years. That same

[328] 20 ILCS 3855/1-56(b)(3).

capacity factor will be used for Illinois Solar for All, the price paid will be expressed on a dollar per REC basis, and payments will be based upon the 15-year expected REC production of the system. For example, as described in that section, each kW of capacity for a fixed-mount system would produce approximately 21 RECs over 15 years.

Payments for Illinois Solar for All incentives will be upfront payments on energization of systems, with the same condition as the Adjustable Block Program that a system must also be registered in GATS or M-RETS so as to be able to verify that it will produce RECs. However, as discussed in Section 8.6.4, the Agency proposes a different payment structure for Low-Income Community Solar Pilot Projects, which do not participate in the Adjustable Block Program.

Contracts will be either with the Agency or a utility, depending on the funding source,[329] and will include the assignment of RECs from each system for 15 years. RECs from these contracts will be applied to the annual RPS goals of the utility to which the project is interconnected, but will not count toward each utility's new photovoltaic targets.[330] Projects that receive a contract through Illinois Solar for All will not be eligible to also receive a contract through the Adjustable Block Program.[331]

The Act is silent on how to allocate RECs from projects located in the service territories of municipal utilities, rural electric cooperatives, or Mt. Carmel Public Utility. The Agency suggests that RECs from those projects procured through contracts with the Agency would not be applied the utility RPS goals, while any RECs procured through contracts with a utility would be applied to the RPS goals of that utility.

8.5. Programs

Section 1-56(b)(2) outlines four sub-programs of the Illinois Solar for All Program:

1. Low-Income Distributed Generation Incentive
2. Low-Income Community Solar Project Initiative
3. Incentives for Non-Profits and Public Facilities
4. Low-Income Community Solar Pilot Projects

The first three of these will provide an incentive based on the price per REC from the Adjustable Block Program with adjustments to that price as described below to account for the specific needs of the Illinois Solar for All Program. The fourth sub-program will be competitively procured based on the competitive procurement approach discussed in Chapter 5, and further below in Section 8.6.4.

In addition to those four components, a provision of the Act allows stakeholders to propose alternative programs,

> *"In the course of the Commission proceeding initiated to review and approve the plan, including the Illinois Solar for All Program proposed by the Agency, a party may propose*

[329] 20 ILCS 3855/1-56(b)(2) ("Contracts that will be paid with funds in the Illinois Power Agency Renewable Energy Resources Fund shall be executed by the Agency. Contracts that will be paid with funds collected by an electric utility shall be executed by the electric utility.")

[330] Id.

[331] Section 1-56(b)(3) requires that for Illinois Solar for All contracts, "[t]he payment shall be in exchange for an assignment of all renewable energy credits generated by the system during the first 15 years of operation." Sections 1-75(c)(1)(L)(ii) and (iii) both contain provisions related to the various components of the Adjustable Block Program that, "[t]he electric utility shall receive and retire all renewable energy credits generated by the project for the first 15 years of operation." These two provisions from Section 1-56(b)(3) and Section 1-75(c)(1)(L) are mutually exclusive as only one REC can be produced, transferred, and retired for each MWh of generation.

> *an additional low-income solar or solar incentive program, or modifications to the programs proposed by the Agency, and the Commission may approve an additional program, or modifications to the Agency's proposed program, if the additional or modified program more effectively maximizes the benefits to low-income customers after taking into account all relevant factors, including, but not limited to, the extent to which a competitive market for low-income solar has developed."*[332]

As of the publishing of this draft Plan, the Agency is not aware of any proposals for an additional program, or for a modification of a program proposed by the Agency. Therefore, this Chapter only discusses the programs defined in the Act.

Based on experience and best practices in other states and jurisdictions, the Agency is proposing program elements in Section 8.7 intended to increase the success of low-income solar deployment in Illinois. Those elements are intended to go beyond providing financial incentives to include providing guidance on project development for low-income customers, non-profits, and public sector customers. The Agency invites input from stakeholders on this topic.

As listed in Table 8-3, at least $30 million is expected to be available for the 2018-2019 delivery year. The $10 million of utility-supplied funding will not be available for the Low-Income Community Solar Pilot Projects[333], and the percentage funding allocations only apply to the funds from the Renewable Energy Resources Fund. The Agency proposes that the utility-supplied funding will be evenly allocated to the other three programs at the same relative weightings, but will monitor activity and may shift the use of the utility funding as needed.

Table 8-3: Delivery Year 2018-2019 Illinois Solar for All Funding Allocations

Funding Source	Low-Income Distributed Generation Incentive	Low-Income Community Solar Project Initiative	Incentives for Non-Profits and Public Facilities	Low-Income Community Solar Pilot Projects
	22.5%	37.5%	15%	25%
RERF	$4,500,000	$7,500,000	$3,000,000	$5,000,000
Utility	$3,000,000	$5,000,000	$2,000,000	
Total	**$7,500,000**	**$12,500,000**	**$5,000,000**	**$5,000,000**

Note that these funding allocations include program administration expenses, grassroots education funding (up to 5% of available funds), as well as payments for RECs.

8.6. Setting Incentive Levels

The incentive levels described in the following Sections were derived by taking the REC prices for the Adjustable Block Program as described in Section 6.4 and making adjustments to meet the objectives of the Illinois Solar for All Program. These incentives and will be offered through a 15-year REC

[332] 20 ILCS 3855/1-56(b)(4).

[333] See Section 8.6.4 for a discussion of funding sources for the Low-Income Community Solar Pilot Projects.

delivery contract, either with the Agency for projects funded with the Renewable Energy Resources Fund, or a utility for projects funded through utility-supplied funds.

Incentive levels are expressed as REC prices, and will be set according to the same groups and categories as the Adjustable Block Program (Group A for projects located in Ameren Illinois, Mt. Carmel, or rural electric cooperatives; Group B for projects located in ComEd, MidAmerican, or municipal utilities). Unlike the Adjustable Block Program, these incentives will initially not be changed based upon blocks of capacity filling up. Rather, the Agency proposes to review and update the incentive levels on an annual basis. That update will include an adjustment to account for how the comparable Adjustable Block Program REC price for each Group and category has changed since the previous update (or original REC prices as determined in this Plan), allowing for the prices offered through Illinois Solar for All to track overall market conditions while continuing to be offered at a higher level than for the Adjustable Block Program.

For the Low-Income Distributed Generation Incentive, the REC prices are adjusted in the model by setting the debt financing of the project to 0%. This adjusts the REC price to reflect the need for up-front access to capital. For Community Solar and the non-profit and public facilities incentives, the REC prices are adjusted by shortening the financing term from the default 15 years to 10 years. The Agency believes these two approaches represent reasonable proxies for the higher incentive level needed for Illinois Solar for All projects to overcome the financing barriers and other hurdles these project face.

Like the REC prices for the Adjustable Block Program, the Illinois Solar for All incentive levels described in this draft Plan should be considered preliminary, and parties should not take actions in reliance on these draft proposals. The Agency invites interested parties to provide feedback on the prices and the approaches for calculating them.

8.6.1. Low-income Distributed Generation Incentive

The Low-Income Distributed Generation Incentive is intended to provide funding for photovoltaic projects located on individual homes and multi-family buildings. In addition to the requirements of the Adjustable Block Program, qualifying projects will be subject to the additional low-income consumer protections outlined in Section 8.14. As described in Section 8.15.4, 25% of available funding will be targeted to environmental justice communities.

8.6.1.1. Eligibility

The Agency proposes to treat buildings with one to four units differently than buildings with five units or more. For single-family homes, participation will be limited to households that can verify that they are low-income; for two-to-four unit buildings, at least two of the households must be demonstrated to be low income. For five-unit and larger buildings, either at least 50% of the tenants must be verified as low-income, or the building must be demonstrated to meet the definition of "affordable housing" contained in the Illinois Affordable Housing Act. See Section 8.13.1 for more information on income verification and Section 8.13.2 for more information on income eligibility.

8.6.1.2. Demonstrating Tangible Economic Benefits

Section 1-56(b)(2) requires that the Illinois Solar For All incentives deliver tangible economic benefits for eligible low-income customers, including those that live in multifamily buildings.

Multifamily buildings can be either master metered or individually metered. For master-metered buildings, the economic benefits of installing a photovoltaic system will not directly impact the tenants of the building because they do not individually pay an electric bill to their electric utility; but instead the benefits accrue to the building owner/manager. Therefore, for master-metered buildings, the building owner/manager will need to commit to passing along a portion of the value of the energy savings from net metering to the tenants through reduced (or not raised) rents, or by other means. The commitment should also include a description of how this will be accomplished.

For multifamily buildings that are not master metered, one challenge is that the photovoltaic system will most likely be connected to the main building account that serves common areas and building-wide load rather than to any individual unit's account. For these buildings, the owner/manager must either provide the same demonstration of passing along benefits to tenants as for master-metered buildings, or in the alternative, must commit to offering tenants the opportunity (at no additional cost levied by the landlord) to participate in net metering pursuant to the provisions of Section 16-107.5(*l*)(1)(B) of the PUA, which allows for net metering of "individual units, apartments, or properties located in a single building that are owned or leased by multiple customers and collectively served by a common eligible renewable electrical generating facility."

8.6.1.3. Incentive Level

Table 8-4: Incentives for the Low-Income Distributed Generation Program ($/REC)

System Size	Group A (Ameren Illinois, Rural Electric Cooperatives, Mt. Carmel)	Group B (ComEd, MidAmerican, Municipal Utilities)
< =10 kW	$127.35	$113.11
>10 - 100 kW	$106.85	$92.61
>100 - 200 kW	$86.35	$72.11
>200 - 500 kW	$80.85	$66.61
>500 - 2000 kW	$78.35	$64.11

These incentive payments are intended to be sufficient to provide tangible economic benefits to participants through enabling project developers to eliminate upfront costs to the participants for the installation of photovoltaic projects. The incentive will be a standard incentive and not customized for each project.

Projects that participate in this incentive will also be subject to the provisions related to job training discussed in Section 8.9.

8.6.2. Low-Income Community Solar Project Initiative

This initiative is intended to support participation in community solar by low-income subscribers. In order to qualify for this initiative, a set of conditions for a community solar project are required that go beyond the requirements outlined in the Act for community renewable generation projects and for community solar projects that participate in the Adjustable Block Program. These include:

- *"Each project shall identify its partnership with community stakeholders regarding the location, development, and participation in the project, provided that nothing shall preclude a project from including an anchor tenant that does not qualify as low-income."*
- *"Incentives should also be offered to community solar projects that are 100% low-income subscriber owned, which includes low-income households, not-for-profit organizations, and affordable housing owners."*[334]

For the first provision, all Approved Vendors submitting a Low-Income Community Solar Project will need to include in their application a description of a partnership with community stakeholders in the community where the project will be located. While the Act does not define the term "community stakeholders," guidance could be found in the federal Elementary and Secondary Education Act, which defines a "community-based organization" as "a public or private nonprofit organization of demonstrated effectiveness that (A) is representative of a community or significant segments of a community; and (B) provides educational or related services to individuals in the community."[335]

Additionally, the National Community–Based Organization Network (NCBON) defines a community-based organization as one in which:

- The majority of the governing body and staff consists of local residents,
- The main operating offices are in the community,
- Priority issue areas are identified and defined by residents,
- Solutions to address priority issues are developed with residents, and
- Program design, implementation, and evaluation components have residents intimately involved, in leadership positions.[336]

The Agency considers entities that meet these types of definitions as being able to represent community stakeholders in a partnership. Furthermore, the Agency believes the intent of the Act was to create substantial partnerships, going beyond just holding a few community meetings. In addition to information regarding location, development and participation, these partnerships should include a description of how the partnership shows that it is responsive to the priorities and concerns of low-income members of the community.

If the proposed project has an anchor tenant that does not qualify as low-income, the application should describe that tenant in detail; the Illinois Solar for All incentive will be reduced to account for the share of the system subscribed by that tenant not receiving a low-income incentive. For the purposes of this adjustment, if the anchor tenant is a not-for-profit organization or a public sector entity, then the incentive will *not* be reduced to account for the share subscribed by the anchor tenant. This is intended to encourage projects to have not-for-profit or public sector anchor tenants rather than for-profit entities.

For the second provision, regarding projects "that are 100% low-income subscriber owned," the Agency assumes the Act intended the plain meaning of the word "ownership," and not that projects be merely 100% "subscribed" by low-income customers. For projects that can demonstrate that they

[334] 20 ILCS 3855/1-56(b)(2)(B).

[335] 20 U.S.C. § 7801(5).

[336] National Community–Based Organization Network (NCBON), "What is a Community–Based Organization (CBO)?" https://sph.umich.edu/ncbon/whatis.html. Accessed September 2017.

are 100% owned by low-income subscribers (including not-for-profit organizations, and affordable housing owners), the incentive level will be increased by $5/REC.

As described in Section 8.15.4, 25% of available funding will be targeted to environmental justice communities.

8.6.2.1. Incentive Level

Table 8-5: Incentives for Low-Income Community Solar Projects ($/REC)

System Size	Group A (Ameren Illinois, Rural Electric Cooperatives, Mt. Carmel)	Group B (ComEd, MidAmerican, Municipal Utilities)
< =10 kW	$129.56	$118.23
>10 - 100 kW	$109.06	$97.73
>100 - 200 kW	$88.56	$77.23
>200 - 500 kW	$83.06	$71.73
>500 - 2000 kW	$80.56	$69.23

These incentives for Low-Income Community Solar Projects are for the portion of the project that is subscribed by low-income subscribers. In order to receive the incentive at the time of energization, the Approved Vendor will have to verify the level of low-income subscribers to the Project as outlined in Section 8.13.1. The Agency notes that the Adjustable Block Program only requires 50% of subscribers (in kW volume) to be identified at the time of energization, and that residential adders are granted only if the project meets the residential subscriber level after one year of operation. This principle will apply to Low-Income Community Solar as well. Only 50% of the low-income subscribers will need to be identified by the time the project is energized to receive the incentive. However, the amount of incentive payment will be prorated to the low-income subscription level. After one year, the remaining incentive will be paid based upon the low-income subscription level achieved by that time.

In order to ensure ongoing subscription levels by low-income subscribers, the Approved Vendor will have to provide ongoing collateral for ten years equal to 10% of the remaining REC value and report annually on low-income subscription levels. If those levels are not maintained, then the collateral may be called upon to claw back the incentives to the level of low-income subscription.

8.6.3. Incentives for Non-Profits and Public Facilities

Section 1-56(b)(2)(C) of the Act specifies that "non-profits and public facilities" be will eligible to receive incentives for on-site photovoltaic generation. These incentives are designed to "support on-site photovoltaic distributed renewable energy generation devices to serve the load associated with not-for-profit customers and to support photovoltaic distributed renewable energy generation that uses photovoltaic technology to serve the load associated with public sector customers taking service

at public buildings."[337] The Act does not specify what non-profit organizations or public sector customers may be eligible.

Given that the objective of the Illinois Solar for All Program is in part, "to bring photovoltaics to low-income communities,"[338] it could be reasonable to infer that the non-profits and public sector customers that in some manner serve low-income communities should be given specific consideration. However, the Act could also be interpreted such that all non-profits and public facilities would be eligible to participate. This interpretation would be consistent with the General Assembly's findings that "the State should encourage the adoption and deployment of cost-effective distributed energy resource technologies and devices, such as photovoltaics, which can encourage private investment in renewable energy resources, stimulate economic growth, enhance the continued diversification of Illinois' energy resource mix, and protect the Illinois environment"[339] — which could involve a wider range of photovoltaic facilities that would be eligible for these incentives. A middle ground could be that the Agency require participating projects to meet the standards described in Section 8.11 related to projects having sufficient connection to, and input from, low-income community members. In addition, the Agency will prioritize projects located in Environmental Justice Communities if funding is limited.

The Agency invites comments from stakeholders regarding the appropriate determination of non-profit and public facilities that should be included under the eligibility qualification for these incentives.

As described in Section 8.15.4, 25% of available funding will be targeted to environmental justice communities.

8.6.3.1. Incentive Level

Table 8-6: Incentives for Non-Profits and Public Facilities ($/REC)

System Size	Group A (Ameren Illinois, Rural Electric Cooperatives, Mt. Carmel)	Group B (ComEd, MidAmerican, Municipal Utilities)
<= 10 kW	$109.35	$95.11
>10 - 100 kW	$88.85	$74.61
>100 - 200 kW	$68.35	$54.11
>200 - 500 kW	$62.85	$48.61
>500 - 2000 kW	$60.35	$46.11

[337] 20 ILCS 3855/1-56(b)(2)(C).

[338] 20 ILCS 3855/1-56(b)(2).

[339] Public Act 99-0906, Section 1(a)(1) ("Findings").

8.6.4. Low-Income Community Solar Pilot Projects

Low-Income Community Solar Pilot Projects will participate in the Illinois Solar for All Program in a manner that is different from projects that participate in the other portions of the Program.

Unlike those other programs, the Low-Income Community Solar Pilot Projects "shall be competitively bid by the Agency, subject to fair and equitable guidelines developed by the Agency."[340] This means that rather than applying to the Illinois Solar for All Program and receiving an administratively determined REC price, the incentive will be determined through a competitive bidding process as outlined in Chapter 5. The Agency has a well-established process for competitive procurements and for this process, the Agency will leverage that experience.

In addition to the general provisions that the Agency uses for competitive procurements (e.g. sealed, pay-as-bid request for proposal process), the Agency also recommends that certain provisions related to other community solar projects also apply to the pilot projects including the eighteen-month window of time for project development, and project and customer information requirements.

The procurement for Low-Income Community Solar Pilot Projects will be bid on a $/REC basis, for contracts that will be for 15 years of delivery of all RECs from the project to the Agency once the project is energized. The price paid will be based solely on the bid price and will not include any payment based on the Adjustable Block Program REC prices. Payments will be made over the first 10 years of the contract.

There are several considerations under Section 1-56(b)(2)(D) of the Act for how the competitive procurement is conducted that must be specifically considered and adapted for the Low-Income Community Solar Pilot Projects competitive procurement.

First, the Agency notes that the total funding over time for Low-Income Community Solar Pilot Projects cannot exceed $50,000,000, and that it cannot exceed $20,000,000 per project. Furthermore, projects are allowed to be larger than the 2,000 kW limit that otherwise applies for community renewable generation projects under net metering laws and tariffs. This means that as few as three projects could be selected to participate (e.g., two $20,000,000 projects and one $10,000,000 project), although depending on the winning bids, the number of projects could be greater.

Second, projects "must result in economic benefits for the members of the community in which the project will be located." The Agency believes that this provision can be partially met by requiring projects to adhere to the same provisions as the Low-Income Community Solar Projects. Projects must also provide information about how they will comply with this provision through options such as providing a commitment to local hiring, describing impact on payments to community residents or organizations as part of the project development process, and offering of subscriptions to community residents and organizations. The Agency is interested in feedback from interested parties on what standard or standards should be used to assess these commitments and what threshold should be required for a project to participate in the competitive procurement process.

Third, projects "must include a partnership with at least one community-based organization." Information on the partnership will be required to register during the initial bidder registration phase. As described in Section 8.6.2, the community-based organization(s) should be an existing non-

[340] 20 ILCS 3855/1-56(b)(2)(D).

profit organization that provides programs and services within the community where the proposed project will be located.

Fourth, funds "may not be distributed solely to a utility;" and fifth, "at least some funds under this subparagraph (D) must include a project partnership that includes community ownership by the project subscribers." These two provisions create interesting challenges in the evaluation of bids. For example, if bids are received and only the highest priced bid includes "a project partnership that includes community ownership," (a distinct requirement around ownership that goes beyond the requirement for all project having to have a partnership with a community-based organization) but constitutes the only project able to be supported under the available budget, it would have to be selected. Similarly, in order to ensure that funds are not distributed solely to utilities, bids may need to be selected out of price order, otherwise, only a utility project would win.

Because utilities are potentially bidders in this procurement, the Agency recommends that the contracts resulting from this procurement only be entered into by the Agency and only use the Renewable Energy Resources Fund. While generally the Illinois Solar for All Program allows for contracts to be entered into either with the Agency (using the RERF) or utilities, it would be inappropriate for utilities to enter into contracts with themselves, and furthermore, the procurement process could allow for them as the Buyer to receive confidential information from competing bidders (e.g., potential Sellers).

The Agency recommends that the procurement for Low-Income Community Solar Pilot Projects be conducted in late 2018 or early 2019.

8.7. Providing Guidance and Education

The Illinois Solar For All Program provides substantial financial incentives intended to enable low-income, non-profit, and public sector customers to share in the benefits of solar power. These customers are specifically identified in the legislation partly because they face additional hurdles in deploying solar, such as a lack of taxable income needed to monetize tax-based incentives, a lack of access to capital, or institutional barriers that limit deployment.

At the same time, such customers have access to a wide variety of non-energy programs and policies intended to promote economic development, provide affordable housing, and reduce the burdens of poverty. Programs from the U.S. Department of Housing and Urban Development, for example, provide financial assistance for housing and utility bills. Such programs are supporting solar deployment to reduce utility expenses for both residents and taxpayers.

Experience in other states has shown that there are many finance-related and other policies and programs at the federal, state, and local level that can be applied to low-income solar development. The Agency believes that the Illinois Solar For All Program would benefit from guidance and education provided to Approved Vendors, community groups, public-sector customers, and others, in addition to the financial incentives described in other sections of the Plan. One vehicle for providing such guidance will be the Program Administrator(s) selected to manage the Illinois Solar For All Program. Therefore, related tasks will be included in the requirements for program administration, described below.

8.8. Illinois Solar for All Program Administrator

After the release of this draft Plan, the Agency will issue a Request for Qualifications, then a Request for Proposals for one or more Illinois Solar for All Program Administrator(s). The Program Administrator(s) will be selected on the basis of evaluating their ability to implement the program described here, and specifically the selection criteria will include consideration of applicant's "experience in administering low-income energy programs and overseeing statewide clean energy or energy efficiency services."[341] The selection of one or more Program Administrators may depend on the ability of applicants to adequately serve the entire State, and/or to serve specific sub-programs. The Request for Proposals for the Illinois Solar for All Program Administrator and the Adjustable Block Program Administrator will be conducted separately; there will be no prohibition against an entity serving in both roles. The approval of the contract(s) for the Illinois Solar for All Program Administrator will be subject to approval by the Commission after this Plan is approved.

The Illinois Solar for All Program Administrator(s) will at minimum:

- Verify project eligibility in Illinois Solar for All and coordinate this information with the Adjustable Block Program Administrator (who will process the actual application materials). This will include, but is not limited to, income verification, review of community involvement in projects, review of job training coordination, and review of Illinois Solar for All consumer protections such as verification of ensuring tangible economic benefits flow to low income participants.

- Coordinate the distribution of funding for grass-roots education efforts by community-based organizations. A priority for this funding will be to promote the availability of the Illinois Solar for All Program in Environmental Justice Communities to achieve the goal of 25% of the incentives being allocated to those communities.

- Facilitate Approved Vendors meeting the additional requirements of the Illinois Solar for All Program. In particular, the Program Administrator will act as a liaison between Approved Vendors participating in the programs and organizations providing job training. The Program Administrator will also work to inform Approved Vendors of energy efficiency, weatherization, lead abatement, and other program opportunities that could provide additional benefits to participants.

- Provide guidance and education to Approved Vendors, community groups, local government agencies, and others on how to leverage other governmental policies to facilitate low-income solar projects. Other relevant policies include affordable housing, economic development, public finance, and tax policies, at the federal, state, and local level. The Administrator will act as liaison with other governmental agencies that administer such programs to facilitate their use on solar development.

- Provide reports to the Agency and the Commission on a quarterly basis on the status of the Program including, but not limited to, number of applications received, number of applications approved, number of projects completed, REC payments, payments for and

[341] 20 ILCS 3855/1-56(b)(5).

status of grassroots education efforts (if applicable), and a summary of technical assistance provided.

8.9. Quality Assurance

Due to the higher level of total incentives that Illinois Solar for All projects will receive compared to those that participate solely in the Adjustable Block Program, as well as the additional vulnerabilities that program participants may face, it is especially important for the Agency to ensure that projects are properly installed and produce their expected amounts of energy. In conjunction with the Program Evaluator (as described in Section 8.17), the Illinois Solar for All Program Administrator will develop and implement a process for quality assurance, including thorough photo documentation of all projects while under construction, and on-site inspection of a random sample of installations. If installations are found to have deficiencies, the Approved Vendor, at its own expense, will be responsible for any repairs, alterations, or additions to remedy the deficiencies. Approved Vendors who have a disproportionately high number of deficient systems may lose their eligibility to continue to participate in the Illinois Solar for All Program.

8.10. Coordination with Job Training Programs

The Illinois Solar for All Program's organizing statute contains two provisions that are designed to ensure that the job trainees supported by the ComEd job training programs[342] established under Section 16-108.12 of the Public Utilities Act participate in the installation of photovoltaic projects supported by the program. The first of these requirements is aspirational in nature, while the second is more specific.

The first provision is that, "[p]rojects must include job training opportunities if available, and shall endeavor to coordinate with the job training programs described in paragraph (1) of subsection (a) of Section 16-108.12 of the Public Utilities Act."[343] This program is known as the "solar training pipeline program." Under this provision, ComEd is to spend $3,000,000 in each of 2017, 2021, and 2025 to train installers for the solar projects authorized and contemplated under the Solar for All program and other RPS programs. The job training program is to be "designed to ensure that entities that offer training are located in, and trainees are recruited from, the same communities that the program aims to serve and that the program provides trainees with the opportunity to obtain real-world experience."[344]

The availability of job training opportunities for Solar for All projects depends, in part, on the availability of graduates of the solar training pipeline program. ComEd's Request for Proposals from potential training providers was issued August 1, 2017 and will remain open until September 30, 2017. The RFP emphasizes the need for training providers to include trainee recruitment, substantive solar industry training, and post-training opportunities.[345] Moreover, ComEd has committed "to coordinate with the Illinois Power Agency or its administrator of Illinois Solar for All."[346]

[342] ComEd's job training implementation plan was approved by the Commission on September 27, 2017 in Docket No. 17-0332.

[343] 20 ILCS 3855/1-56(b)(2).

[344] 220 ILCS 5/16-108.12(a)(1).

[345] ICC Docket No. 17-0332, ComEd Ex. 1.0 (http://www.icc.illinois.gov/downloads/public/edocket/451215.pdf) at 8.

[346] ICC Docket No. 17-0332, ComEd/EDF/ELPC/LVEJO Joint Initial Comments at 5.

The second relevant provision governing the Solar for All Program is that for the Low-income Distributed Generation Incentive, "[c]ompanies participating in this program that install solar panels shall commit to hiring job trainees for a portion of their low-income installations" and further that, "an administrator shall facilitate partnering the companies that install solar panels with entities that provide solar panel installation job training."[347]

The Act does not specify what is meant by "a portion" and also does not define who would qualify as a "job trainee" in contrast with the prior provision that specifically ties it to the solar training pipeline program. The Agency notes that Section 16-108.12 of the Public Utilities Act not only creates the solar training pipeline program described above but also creates a "craft apprenticeship program" and a set of six "multi-cultural jobs programs." The Agency infers that graduates of those programs could reasonably be considered "job trainees" for the purposes of the Low-income Distributed Generation Incentive within Solar for All.

ComEd has stated in the recent ICC proceeding reviewing its Section 16-108.12 jobs training program that it intends to implement the Solar Craft Apprenticeship Program in coordination with the International Brotherhood of Electrical Workers ("IBEW") Local 134, which will integrate solar training curricular into its existing electrical craft/trade/skill apprenticeship programs at 18 IBEW sites as well as certain community colleges and high schools.[348] According to the Plan submitted by ComEd in that proceeding, the Solar Craft Apprenticeship Program appears to include training locations located across the entire State, and not just in ComEd's service territory.[349] This program may be essential for ensuring the availability of job trainees across the State.

To ensure that "a portion" of projects use job trainees, the Agency proposes that Approved Vendors who participate in the Illinois Solar for All program should demonstrate that at least 33% of projects include the use of one or more job trainees from the solar training pipeline program. The Approved Vendors will be required to document the use of job trainees, and to provide a summary of their work. The Agency will consider requests for waivers of this requirement on a case by case basis if an Approved Vendor can demonstrate that job trainees are not available in the area where projects are being installed.

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

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

8.11. Additional Requirements for Approved Vendors

The Illinois Solar for All Program (other than the Low-income Community Solar Pilot Projects) works similarly to the Adjustable Block Program, and therefore participation in the Illinois Solar for All Program will be coordinated through Approved Vendors who are approved through the process

[347] 20 ILCS 3855/1-56(b)(2)(A).

[348] ICC Docket No. 17-0332, ComEd Ex. 1.0 at 12.

[349] Id. at 13.

outlined in Section 6.9. Approved Vendors who have projects that they wish to have also participate in Illinois Solar for All will have to additionally register with the Illinois Solar for All Program and agree to additional terms and conditions. An Approved Vendor that does not do so will not be eligible to have projects participate in, and receive incentives from, the Illinois Solar for All Program. The Agency will maintain on its website lists of Approved Vendors that will indicate which Approved Vendors are also registered to participate in the Illinois Solar for All Program.

The additional requirements for Illinois Solar for All include:

- Description of plans for community involvement in projects (where applicable)
- Plan for inclusion of job training opportunities
- For projects that receive the Low-income distributed generation incentive, a commitment to hire job trainees for a portion of the projects
- Coordination with the Program Administrator on income verification
- Agreement to allow the Agency to review and approve marketing materials geared towards the Illinois Solar for All Program
- Agreement to ensure additional consumer protections as described in Section 8.14
- Demonstration that for low-income distributed generation and community solar projects that participants do not have any up-front payments

The Act provides that "[p]riority shall be given to projects that demonstrate meaningful involvement of low-income community members in designing the initial proposals" and that "[a]cceptable proposals to implement projects must demonstrate the applicant's ability to conduct initial community outreach, education, and recruitment of low-income participants in the community."[350] The Agency understands how these provisions may apply to community solar projects through the requirement to identify partnerships with community stakeholders, but it is less clear how those provisions would apply directly to projects that participate in either the Low-Income Distributed Generation Incentive or the Incentives for Non-profits and Public Facilities.

To meet the intent of these provisions, the registration process for the Illinois Solar for All Program will require Approved Vendors to demonstrate their abilities in this area. An Approved Vendor will be able to do so by:

- Providing narrative summary of efforts taken prior to the application to conduct community outreach, education, and recruitment
- Listing community-based organizations the applicant has partnered with, including letters from those organizations to verify the partnerships
- Describing in detail ongoing plans for community outreach, education, and recruitment
- Describing staffing for dedicated outreach, education, and recruitment
- Describing plans for ensuring that tangible economic benefits flow to program participants

Failure to maintain a demonstrated commitment to these requirements will result in an Approved Vendor being removed from participating in the Illinois Solar for All Program.

[350] 20 ILCS 3855/1-56(b)(2).

8.12. Application Process

Except for Low-Income Community Solar Pilot Projects, the process for a project to be submitted to the Illinois Solar for All Program will mirror that for the Adjustable Block Program. Projects will be submitted by Illinois Solar for All Approved Vendors through the same batch process as the Adjustable Block Program.

The application will indicate that the batch of projects is for Illinois Solar for All and will provide the supplemental information required for those projects in addition to all the information that would be required for an Adjustable Block Program project. If the supplemental information does not demonstrate that the project qualifies for participation in the Illinois Solar for All Program, the project may still be eligible to participate in the Adjustable Block Program through a separate application.

Like for the Adjustable Block Program, Illinois Solar for All projects will be bundled into one contract for each approved batch. The Agency will request Commission approval for contracts that include additional Solar For All provisions. Those contracts will be executed first by the Agency if funds are available from the Renewable Energy Resources Fund. Should those funds not be available (either due to the annual budget being expended or the lack of an annual approved appropriation), then contracts will be allocated to one of the utilities.

For Low-Income Community Pilot Projects, the application process will take place through registering for, then bidding in, the competitive procurement for those projects. The approval of contracts by the Commission will take the form of the Commission approving the results of the competitive procurement.

8.13. Customer Eligibility

Customer eligibility for the Illinois Solar for All Program is partly defined in the Act. Further refinements are proposed in this section.

8.13.1. Income Guidelines

The Act states that for the Illinois Solar for All Program, "'low-income households' means persons and families whose income does not exceed 80% of area median income, adjusted for family size and revised every 5 years."[351]

The Agency proposes to use income eligibility guidelines from the US Department of Housing and Urban Development (HUD). HUD bases its housing assistance programs, such as the Section 8 Housing Choice Voucher program on 80% of area median income, adjusted for family size.[352]

Because the Act does not define "area," the Agency is proposing to use HUD's definition of an area as a Metropolitan Statistical Area (MSA), a Fair Market Rate (FMR) Area, or a county not in an MSA or FMR. There are 20 MSAs and FMRs, and 62 other counties in Illinois.

Eligibility levels for Illinois Solar For All, based on 2017 HUD guidelines for every area and adjusted for family size, are presented in Appendix F.

[351] 20 ILCS 3855/1-56(b).

[352] HUD, FY 2017 Income Limits Documentation System at https://www.huduser.gov/portal/datasets/il.html.

For Fiscal Year 2017, the HUD eligibility income limits for Illinois as a whole are shown in the table below. For example, a family of four would be considered "low-income" if their household income were less than $59,300. (Actual eligibility depends on income for an area, rather than for the state as a whole.) HUD has other programs that use "very low" and "extremely low" income measures, at 50% and 30% of AMI that are provided here for reference. [353]

Table 8-7: HUD Income Limits

HUD State Income Limits: Illinois FY 2017								
Median family income (MFI) = $74,100								
Persons in household	1	2	3	4	5	6	7	8
30% of median ("extremely low income")	$15,550	$17,800	$20,000	$22,250	$24,000	$25,800	$27,550	$29,350
50% of median ("very low income")	$25,950	$29,650	$33,350	$37,050	$40,000	$43,000	$45,950	$48,900
80% of median ("low income")	**$41,500**	**$47,400**	**$53,350**	**$59,300**	**$64,000**	**$68,750**	**$73,500**	**$78,250**

It should be noted that other low-income energy programs, such as the Illinois Home Weatherization Assistance Program ("IHWAP") and the Low-Income Home Energy Assistance Program ("LIHEAP") are based on the federal poverty level, not area income, with state-wide values. Eligible guidelines are set for households with income below 200% and 150% of the federal poverty level, depending on the program. Eligibility guidelines for Illinois are set by the Department of Commerce and Economic Opportunity, and are shown in Table 8-8. [354]

[353] https://www.huduser.gov/portal/datasets/il/il17/State-Incomelimits-Report-FY17.pdf. For metropolitan area and county level income limits, see: https://www.hudexchange.info/resource/reportmanagement/published/HOME_IncomeLmts_State_IL_2017.pdf.

[354] Illinois Department of Commerce and Economic Opportunity, "Community Assistance, Energy Efficiency and Infrastructure," https://www.illinois.gov/dceo/CommunityServices/Pages/default.aspx. Accessed September 2017.

Table 8-8: Eligibility Guidelines for LIHEAP and WAP in Illinois

	2017 Illinois LIHEAP eligibility			2018 IHWAP Income Eligibility Guidelines	
Household Size	30 Day Income	Annual income (150% of FPL)		State Funds (150% of FPL)	Federal Funds (200% of FPL)
1	$1,508	$18,090		$18,090	$24,120
2	$2,030	$24,360		$24,360	$32,480
3	$2,553	$30,630		$30,630	$40,840
4	$3,075	$36,900		$36,900	$49,200
5	$3,598	$43,170		$43,170	$57,560
6	$4,120	$49,440		$49,440	$65,920
7	$4,643	$55,710		$55,710	$74,280
8	$5,165	$61,980		$61,980	$82,640

In all regions of Illinois, 150% of the federal poverty level is lower than 80% of AMI for all household sizes. Thus, all households eligible for LIHEAP are also eligible for Illinois Solar For All. Households participating in IHWAP using state funds are also eligible, while those using Federally funded IHWAP (200% of FPL) may be eligible in some areas of the state and some household sizes, but not others. The tables in Appendix F compare HUD eligibility levels to LIHEAP and IHWAP income eligibility levels.

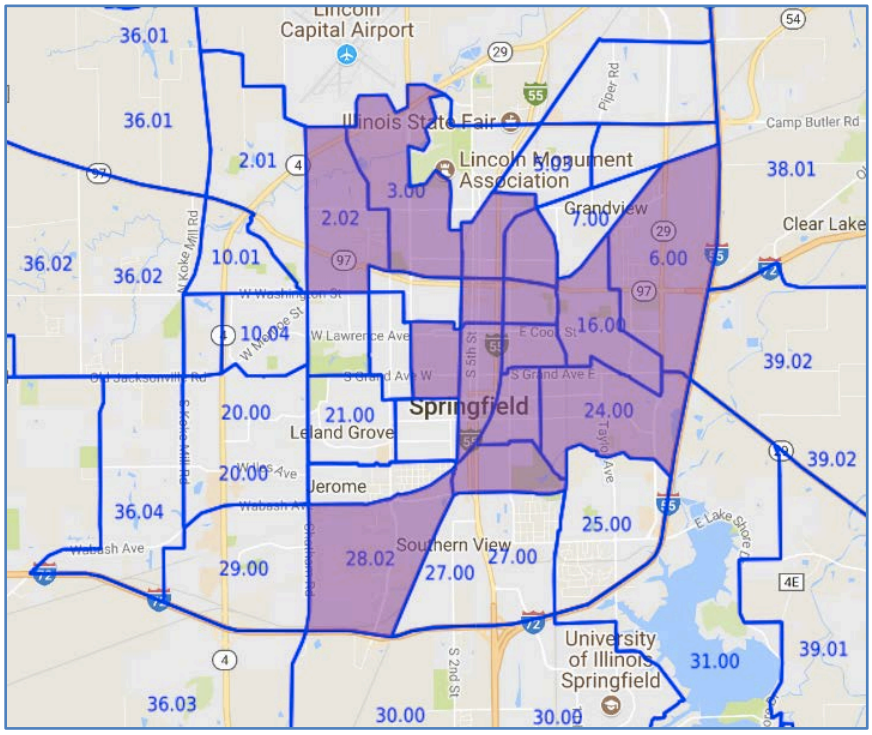
Another approach to identifying low-income customers, by geographic area rather than by individual household income, is to use HUD's "Qualified Census Tracts" which are used to define eligibility for the Low-Income Housing Tax Credit (LIHTC).[355] Qualified Census Tracts must have 50 percent of households with incomes below 60 percent of the Area Median Gross Income (AMGI) or have a poverty rate of 25 percent or more.

HUD has identified and mapped Qualified Census Tracts ("QCT") nationwide. Overall, there are 657 QCTs in metropolitan areas in Illinois and 49 in non-metropolitan areas (out of 3,123 total census tracts in Illinois). Cook County has the largest portion with 441. Springfield, which has 15 QCTs, is shown in Figure 8-1 as an example.

The Agency proposes to use QCTs as a streamlined method for determining eligibility for low-income community solar customers, as discussed in the next section.

[355] HUD, "Qualified Census Tracts and Difficult Development Areas," web site accessed July 19, 2017. https://www.huduser.gov/portal/datasets/qct.html

Figure 8-1: Springfield Qualified Census Tracts



Source: HUD, https://www.huduser.gov/portal/sadda/sadda_qct.html

8.13.2. Determining Income Eligibility

The Agency proposes several approaches to determining income eligibility for the Illinois Solar for All Program.

For projects that participate in the Low-income Distributed Generation Incentive Program, verification of income should be done at the household level. This can be done in a number of ways.

For buildings with between one and four units:

- Review of the most recent federal income tax returns
- Income verification through a third-party income verification system
- Verification of participation in another low-income energy program (such as LIHEAP or IHWAP) or in HUD's housing assistance programs where the income eligibility standard is lower than 80% of AMI for that participant.

For two to four unit buildings, at least two of the households in the building must qualify. For a multi-family building, either at least 50% of the households must qualify, or the building owner may demonstrate that the building meets the definition of "affordable housing" contained in the Illinois Affordable Housing Act, namely:

> *"Affordable housing' means residential housing that, so long as the same is occupied by low-income households or very low-income households, requires payment of monthly*

> *housing costs, including utilities other than telephone, of no more than 30% of the maximum allowable income as stated for such households as defined in this Section.*[356]

For community solar projects, the Agency recognizes that transaction costs of proving income eligibility compared to the value of the incentive may be higher than for an installation of a project on-site, and therefore proposes a streamlined income verification approach.

- A subscriber can be verified as low-income via the same provisions used for the Low Income Distributed Generation Incentive.
- A subscriber can be verified as low-income if they reside in a HUD Qualified Census Tract and provide a signed affidavit that they meet the income qualification level.

It will be the responsibility of the Approved Vendor to track subscribers and document income eligibility for community solar projects. Approved Vendors will be required to report to the Agency on subscription rates once a year.

8.14. Consumer Protections

The Agency believes that it has proposed a strong set of consumer protections as part of the Adjustable Block Program for both distributed generation and for community solar (see Sections 6.13 and 7.6.2). These protections will also apply to the Illinois Solar for All Program. But several factors lead the Agency to propose additional consumer protections for the Illinois Solar for All Program. In order to be an Approved Vendor for the Solar For All program, Vendors must agree to the following additional provisions for low-income customers.

- In order to "ensure tangible economic benefits flow directly to program participants," Approved Vendors must also verify that for residential program participants there are no up-front payments for distributed generation projects, or up-front subscription fees for community solar projects. Approved Vendors must also provide documentation to both the program participant customer and to the Program Administrator on how the projects will result in a cash-flow positive experience for the participant(s).

- For distributed generation projects, a roof inspection report is required to ensure that projects are being installed on roofs that will not need substantial repairs. If repairs are needed, the Approved Vendor must identify the plan for the repairs and how they will be paid for, ensuring that such costs do not place an unsustainable financial burden on the participant.

- Contracts between Approved Vendors/installers and program participants for Low Income Distributed Generation projects will be required to offer clear disclosure of the costs seven days before consummation of the transaction, and the right to cancel the transaction within seven business days after consummation.

[356] See 310 ILCS 65/3(e). Note that the definition of low-income household contained in that Act mirrors the definition used for Illinois-Solar for All, and that very low-income households have an income standard that is even lower.

- Financing amounts, terms, and conditions must be based on an assessment of the program participant's ability to repay the debt, as defined by Regulation Z which is a rule that implements aspects of the Truth in Lending Act and the Dodd-Frank Act.[357]

- For low-income customers, loans should not be secured by the program participant's home or home equity. While such unsecured loans may entail a higher interest rate, especially for customers with low credit scores or little credit history, they avoid the risk of liens and foreclosures for customers who default on their loans. The Agency welcomes comments on this provision especially, and is interested in discussing alternative underwriting approaches that can provide both security and low-cost financing for low-income households.[358]

- Contracts for financial products must offer terms that include forbearance. If a program participant can show good cause in a request for forbearance, financers must offer a) suspension of total payments for up to three months, b) a suspension of interest payments for up to six months, or c) a reduction in interest rates for up to twelve months. Missed revenues may be recovered later in the stage of the contract, but no interest may be applied.

- Contracts may not include prepayment penalties.

- Marketing and contractual materials must be in the language spoken by the customer.

8.15. Environmental Justice Communities

The Act directs the Agency to define and provide special consideration to Environmental Justice Communities in implementing the Illinois Solar For All program. The Act sets as a goal that at least 25% of funds for the Low-Income Distributed Generation Incentive, the incentives for non-profit and public facilities, and Low Income Community Solar projects "be allocated to projects located in environmental justice communities."[359] (The provision does not apply to the Low-Income Community Solar Pilot Projects, which are competitively bid.)

The following sections propose definitions of terms, a methodology for determining which Illinois communities should be considered Environmental Justice Communities, and how the Agency will implement the relevant provisions of the Act. When this Plan is approved by the Commission, the Agency will consult with stakeholders and relevant state agencies, including the Illinois Commission on Environmental Justice and the Illinois Environmental Protection Agency ("IEPA"), to establish specific values and designate specific communities as Environmental Justice Communities.

[357] See Consumer Financial Protection Bureau, April 10, 2013. *Ability-to-Repay and Qualified Mortgage Rule, Small Entity Compliance Guide*, http://files.consumerfinance.gov/f/201304_cfpb_compliance-guide_atr-qm-rule.pdf. Under the regulation (12 C.F.R. § 1026.43, issued under authority of 15 U.S.C. § 1639c), creditors generally must consider eight underwriting factors: (1) current or reasonably expected income or assets; (2) current employment status; (3) the monthly payment on the covered transaction; (4) the monthly payment on any simultaneous loan; (5) the monthly payment for mortgage-related obligations; (6) current debt obligations, alimony, and child support; (7) the monthly debt-to-income ratio or residual income; and (8) credit history.

[358] For example, the Illinois Energy Efficiency Loan Program offers unsecured loans at moderate interest rates through on-bill financing, but is only available for certain energy efficiency measures. See: http://programs.dsireusa.org/system/program/detail/5152.

[359] 20 ILCS 3855/1-56(b)(2)(A), (B), (C).

8.15.1. Definitions

The term "environmental justice" is not defined in the Act or in other Illinois statutes, but it is helpful to define "environmental justice" in order to define "environmental justice communities." The Act states that "the Agency shall define 'environmental justice community' as part of long-term renewable resources procurement plan development, to ensure, to the extent practicable, compatibility with other agencies' definitions and may, for guidance, look to the definitions used by federal, state, or local governments."

The Environmental Justice Act, the 1997 legislation that created the Illinois Commission on Environmental Justice (415 ILCS 155), found that:

> *(i) the principle of environmental justice requires that no segment of the population, regardless of race, national origin, age, or income, should bear disproportionately high or adverse effects of environmental pollution;*
> *(ii) certain communities in the State may suffer disproportionately from environmental hazards related to facilities with permits approved by the State; and*
> *(iii) these environmental hazards can cause long-term health effects.*[360]

The Illinois EPA defines the term "environmental justice " as follows:

> *"Environmental Justice" is based on the principle that all people should be protected from environmental pollution and have the right to a clean and healthy environment. Environmental justice is the protection of the health of the people of Illinois and its environment, equity in the administration of the State's environmental programs, and the provision of adequate opportunities for meaningful involvement of all people with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.*[361]

The Illinois EPA has also defined a "potential environmental justice community" based on demographic factors, but not environmental factors:

> *A "potential" EJ community is a community with a low-income and/or minority population greater than twice the statewide average. In addition, a community may be considered a potential EJ community if the low-income and/or minority population is less than twice the statewide average but greater than the statewide average and that has identified itself as an EJ community. If the low-income and/or minority population percentage is equal to or less than the statewide average, the community should not be considered a potential EJ community.* [362]

The United States Environmental Protection Agency ("US EPA") defines an "overburdened community" under both social and environmental terms as:

> *Minority, low-income, tribal, or indigenous populations or geographic locations in the United States that potentially experience disproportionate environmental harms and risks. This disproportionality can be as a result of greater vulnerability to environmental*

[360] 415 ILCS 155/5.

[361] Illinois EPA web site, "Environmental Justice Policy," http://www.epa.illinois.gov/topics/environmental-justice/ej-policy/index. Accessed July 19, 2017.

[362] Id.

> *hazards, lack of opportunity for public participation, or other factors. Increased vulnerability may be attributable to an accumulation of negative or lack of positive environmental, health, economic, or social conditions within these populations or places. The term describes situations where multiple factors, including both environmental and socio-economic stressors, may act cumulatively to affect health and the environment and contribute to persistent environmental health disparities.* [363]

Both the IEPA and US EPA have developed analytical tools based on their definitions of EJ communities. The IEPA's EJ START is a Geographic Information Systems demographic screening tool developed by IEPA staff that identifies regions with high minority population and/or low-income population. IEPA also adds a one-mile buffer around each regulated facility as a simplified way to identify potential local environmental impacts. It draws from the Census Bureau's American Community Survey 5-year estimates (2011-2015) and is updated annually.

The US EPA tool is called EJ SCREEN.[364] It uses standard and nationally-consistent data to identify communities with greater risk of exposure to pollution based on 11 environmental indicators that measure potential exposure, hazard/risk and proximity, including traffic proximity, particulate matter, and proximity to superfund sites. These indicators are combined with demographic data from the Census Bureau, enabling users to identify areas with minority or low- income populations who also face potential pollution issues.

While these tools are useful, they do not holistically address all aspects of environmental justice. For example, EJ Screen evaluates individual environmental indicators but does not look at cumulative impacts.

The most rigorous tool for analyzing impacted communities is the California Communities Environmental Health Screening Tool (CalEnviroScreen) from the California Office of Environmental Health Hazard Assessment (OEHHA).[365] CalEnviroScreen compiles data on 12 indicators of pollution burden and 8 population characteristics collected at the Census tract level. It then weights certain factors to develop a score for each area. High scoring areas are then considered eligible for a number of state policies, including disposition of some of the revenues from the state cap-and-trade program created under Assembly Bill 32.

[363] US EPA, "EJ 2020 Glossary," https://www.epa.gov/environmentaljustice/ej-2020-glossary. Accessed July 19, 2017.

[364] See: https://ejscreen.epa.gov/.

[365] California Office of Environmental Health Hazard Assessment ("OEHHA"), *California Communities Environmental Health Screening Tool (CalEnviroScreen)*, https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-version-20

Table 8-9: Summary of CalEnviroScreen 3.0 Identification Methodology

Pollution Burden	Population Characteristics
Exposures	***Sensitive populations***
Ozone Concentrations PM2.5 Concentrations Diesel PM Emissions Drinking Water Contaminants Pesticide Use Toxic Releases from Facilities Traffic Density	Asthma Emergency Department Visits Low Birth Weight Infants Cardiovascular disease (emergency department visits for heart attacks)
Environmental effects	***Socio-economic indicators****
Cleanup Sites Groundwater Threats Hazardous Waste Impaired Water Bodies Solid Waste Sites and Facilities	Educational Attainment Housing burdened low income households Linguistic Isolation Poverty Unemployment

Source: OEHHA. * California law prohibits the use of race as a factor in CalEnviroScreen.

The CalEnviroScreen approach is an attractive way to consider defining environmental justice communities but the Agency notes that the development of it was a multi-year, multi-million dollar undertaking. Therefore, the Agency proposes a streamlined approach that takes the concept of CalEnviroScreen and simplifies it for use in Illinois through the use of readily available data from the U.S EPA's EJ SCREEN tool. CalEnviroScreen does not account for race in its calculations, but by using data from EJ SCREEN the Agency will be able to do so.

8.15.2. Proposed Approach for Defining Environmental Justice Communities

The Agency proposes to determine Environmental Justice Communities by analyzing data from Illinois Census tracts for the following environmental and demographic indicators, as described by the EJ SCREEN Tool:[366]

- National-Scale Air Toxics Assessment (NATA) air toxics cancer risk
- NATA respiratory hazard index
- NATA diesel PM
- Particulate matter
- Ozone
- Traffic proximity and volume
- Lead paint indicator
- Proximity to Risk Management Plan sites
- Proximity to Hazardous Waste Treatment, Storage and Disposal Facilities
- Proximity to National Priorities List sites

[366] See https://www.epa.gov/ejscreen/overview-environmental-indicators-ejscreen.

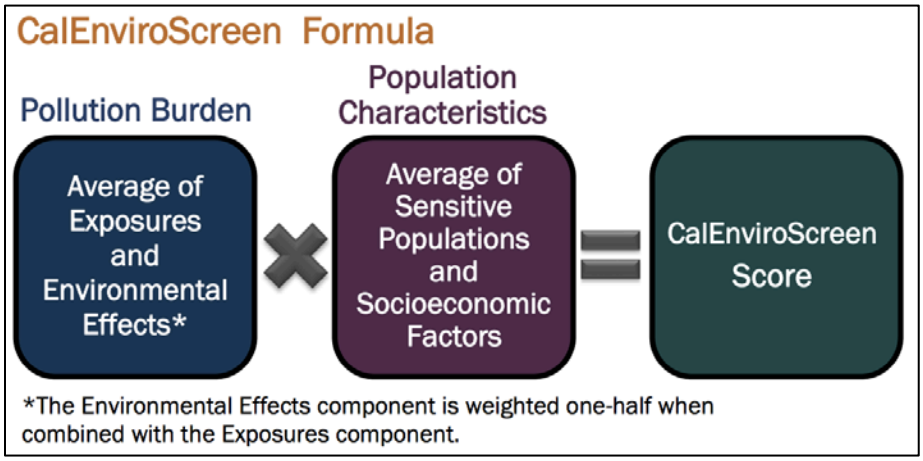
- Wastewater Dischargers Indicator

And the following demographic indicators also used by EJSCREEN:[367]

- Percent Low-Income
- Percent Minority
- Less than high school education
- Linguistic isolation
- Individuals under age 5
- Individuals over age 64

The Agency would then weight each factor using an approach adapted from CalEnviroScreen: Census tracts would be ranked for each environmental and demographic indicator, a resulting percentile score would found for each tract, and the percentile scores would be averaged, resulting in an environmental and demographic score for each tract. The two averages would by multiplied together to determine a score.

Figure 8-2: CalEnviroScreen Formula



Source: OEHHA

The Agency invites comments from interested parties on these environmental and demographic indicators, if the list should be expanded (and the source of data to do so), or if any indicators should be removed, and on the relative weights to apply to each factor.

Communities with scores in the top 25% would then be defined as Environmental Justice Communities for the purpose of the Illinois Solar for All Program. This definition will be used to target grass-roots education funding and incentives for non-profits and public facilities.

A community that is not in the top 25% of scores and thus is not initially defined as being an Environmental Justice Community may request consideration from the Agency to be included. The Agency will consider requests for self-designation as an environmental justice community based on

[367] See https://www.epa.gov/ejscreen/overview-demographic-indicators-ejscreen.

a consideration of demonstrated environmental and/or socioeconomic factors that were not adequately captured in the screening defined above.

The Agency notes that this approach focuses on analysis of Census tract-level data, and that communities are typically understood by their residents to be defined through geographic, cultural, and other factors that may, or may not, correspond to Census tract boundaries. The Agency will therefore also consider reasonable adjustments to the borders of environmental justice communities from what is calculated through the Census tract analysis, provided this does not create an unacceptable analytical burden.

8.15.3. Environmental Justice Community Designations

The Agency will undertake the analysis described in Section 8.15.2 after this Plan (and thus the inputs and methodology) is approved by the Commission. The Agency will publish on its website draft maps and data and invite stakeholders to review and comment on the results. This will also provide an initial opportunity for communities to request self-designation as an environmental justice community. The Agency will review the feedback received and then publish final maps and lists of the designated environmental justice communities. The maps will be updated on a semiannual basis to reflect any additional requests for self-designation.

8.15.4. Environmental Justice Communities 25% Goal

The Act states that "It is a goal of this program that a minimum of 25% of the incentives for this program be allocated to projects located within environmental justice communities."[368]

For the Low-income Distributed Generation Incentive, the Low-Income Community Solar Project Initiative, and the Incentives for Non-profits and Public Facilities, the Agency will reserve 25% of each category's annual budget to support projects in environmental justice communities. In each delivery year, for each category, if after nine months these reserved funds are remaining and unallocated to projects in environmental justice communities, the funds will be released for use by projects not in environmental justice communities. If the funds are fully allocated to projects in environmental justice communities, then subsequent projects in environmental justice communities would still be eligible using the general available budgets.

The Act also directs the Agency to "allocate up to 5% of the funds available under the Illinois Solar for All Program to community-based groups to assist in grassroots education." As noted in Section 8.8, that funding will be prioritized towards Environmental Justice Communities to help meet this goal.

The Agency will review progress toward meeting the 25% goal during the Plan Update to be developed in 2019, and will recommend changes to this approach, if necessary.

8.16. Program Changes

Several provisions in the Act anticipate the ability to revise and change program provisions. In addition to the provision described in Section 1-56(b)(4) of the Act that allows stakeholders to propose additional programs as part of the approval of this, an additional provision allows the Agency to reallocate funds between programs:

[368] 20 ILCS 3855/1-56(b)(2).

> *"The allocation of funds among subparagraphs (A), (B), or (C) of this paragraph (2) may be changed if the Agency or administrator, through delegated authority, determines incentives in subparagraphs (A), (B), or (C) of this paragraph (2) have not been adequately subscribed to fully utilize the Illinois Power Agency Renewable Energy Resources Fund. The determination shall include input through a stakeholder process."*[369]

At this time, the Agency does not believe this provision is applicable because this Plan is still in draft form and the program has not yet launched. As part of the Plan Update scheduled to occur in 2019, the Agency will review preliminary program results and the Evaluation report outlined in Section 8.17 before proposing any changes in allocation of funds.

Likewise, at this time the Agency is not proposing any adjustments to the programs pursuant to the provision that:

> *"Following the Commission's approval of the Illinois Solar for All Program, the Agency or a party may propose adjustments to the program terms, conditions, and requirements, including the price offered to new systems, to ensure the long-term viability and success of the program. The Commission shall review and approve any modifications to the program through the plan revision process described in Section 16-111.5 of the Public Utilities Act."*[370]

The Agency would expect that any such proposals will also be part of the Plan Update scheduled to be developed in 2019.

8.17. Evaluation

Section 1-56(b)(6) requires that this Plan include an approach for independent evaluation of the Illinois Solar for All Program. Specifically, it calls for:

> *"At least every 2 years, the Agency shall select an independent evaluator to review and report on the Illinois Solar for All Program and the performance of the third-party program administrator of the Illinois Solar for All Program. The evaluation shall be based on objective criteria developed through a public stakeholder process. The process shall include feedback and participation from Illinois Solar for All Program stakeholders, including participants and organizations in environmental justice and historically underserved communities. The report shall include a summary of the evaluation of the Illinois Solar for All Program based on the stakeholder developed objective criteria. The report shall include the number of projects installed; the total installed capacity in kilowatts; the average cost per kilowatt of installed capacity to the extent reasonably obtainable by the Agency; the number of jobs or job opportunities created; economic, social, and environmental benefits created; and the total administrative costs expended by the Agency and program administrator to implement and evaluate the program."*

[369] 20 ILCS 3855/1-56(b)(2).

[370] 20 ILCS 3855/1-56(b)(4).

The Agency will issue a Request for Qualifications/Request for Proposals to select an independent evaluator to conduct this evaluation. The Agency expects to select the evaluator prior to the launch of the Illinois Solar for All Program. Like other contracts to implement this Plan, the selection of the evaluator will be subject to Commission approval. The Agency observes that having an evaluator in place prior to program launch helps to ensure proper data collection by the evaluator.

The Act calls for an evaluation "at least every 2 years," but the Agency notes that Illinois Solar For All is expected to launch in 2018, and the Agency is planning to develop the first update to the Plan in 2019, with implementation thereof starting in 2020. Due to this timing, the first evaluation will be done on an accelerated schedule, in 2019, to inform the update process. The Agency cautions that due to potential start up complications, early results may not be indicative of ongoing impacts of the programs, and the first evaluation may have a stronger emphasis on process than on outcomes.