ILLINOIS POWER AGENCY

Illinois Power Agency
105 W Madison Street, Suite 1401
Chicago, IL 60602

2021 Long-Term Renewable Resources Procurement Plan Update

REQUEST FOR COMMENTS #3: COMMUNITY SOLAR AND REC PRICING

July 16, 2021

The Illinois Power Agency ("IPA" or "Agency") is issuing this Request for Comments #3 to solicit stakeholder feedback as the Agency prepares to release the draft of the second Revised Long-Term Renewable Resources Procurement Plan ("Long-Term Plan").[1] This Request for Comments covers topics discussed at the **IPA's July 13, 2021** virtual stakeholder workshop, addressing Community Solar and REC Pricing.

The recording of the workshop and the presentation slides can be accessed at: https://www2.illinois.gov/sites/ipa/Pages/RenewableResourcesWorkshops.aspx.

Workshops 1 and 2 were held on June 25 and July 7, 2021, respectively. Workshop 1 provided an overview of pending legislation, the Long-Term Plan update process, updates on the RPS budget, utility-scale and brownfield site procurements, and discussions related to strengthening equity, diversity, and labor standards in the renewable energy industry. Workshop 2 discussed the Adjustable Block Program and the Illinois Solar for All Program. The presentations from those workshops, along with recordings and Requests for Comments, can also be found at the link above.

Based on the discussions in Workshop 3 and initial feedback received, the Agency is specifically interested in gathering information on the questions listed below, but stakeholders are welcome to provide comments on any topic discussed at or relevant to the workshop. Stakeholders should feel free to provide answers on only those questions specifically of interest to them. Stakeholders are encouraged to review the workshop presentation slides and recordings to gain context for the questions asked below.

After the Agency has released a draft Revised Long-Term Plan, stakeholders will have an opportunity to provide comments on that draft during a 45-day comment period. The Agency will then revise the draft Plan to account for those comments and file it with the Illinois Commerce Commission to initiate a docketed Plan approval proceeding. Stakeholder input can be provided during that proceeding through formal intervention and filings.

[1] The Agency is scheduled to release its next draft Revised Long-Term Plan on August 16, 2021. It is anticipated that this deadline will be adjusted if omnibus energy legislation is enacted.

How to Respond

Please submit responses to this Request for Comments #3 by **July 30, 2021** by e-mail to IPA.contactus@illinois.gov with the subject line "Request for Comments #3 – [Respondent Name]". Responses will be posted on the Illinois Power Agency website, with respondent names included.

The IPA understands that parties may be reluctant to disclose commercially sensitive information, particularly financial information about projects or business models, as part of a public comment process. To accommodate those disclosures, parties may designate portions of their responses as confidential; if doing so, please provide both a public and redacted version, along with a request for confidential treatment. You may only designate portions of your comments as confidential, not the entire document.

Questions for Stakeholder Feedback

Community Solar

Slide 10: Selection of Projects to Increase Project Variety

1. Absent legislative changes that create a new community-driven community solar category and specify selection criteria, what additional refinements or considerations should the Agency include in the next Revised Long-Term Plan for the selection of projects in future blocks that are "intended to increase the variety of community solar locations, models, and options in Illinois"? Why are those refinements appropriate?
2. Besides defining a selection process, are there other considerations related to project applications, or subscriber requirements that the Agency should consider for these types of projects? If so, what considerations and why?

Slide 11: Waitlist Management

3. Are land use permits and site control the correct items for verification to maintain community solar waitlist position, or should the process used in 2020 be modified? If so, what modifications should be offered?
4. What allowances, if any, should be considered for restoring lapsed verification items?

Slide 12: Small Subscriber Requirements

5. Should the small subscriber approach for projects in future blocks be updated? For example:
    a. Should the IPA decrease the size cut-off from 25 kW? If so, what is an appropriate alternative, and why?
    b. Should the IPA create different small subscriber requirements or thresholds for residential and small commercial subscribers? If so, what modifications and why?

c. Should the IPA consider limitations on multiple subscriptions from one business entity (e.g., multiple branches of a bank or retail chain)?

Slide 13: Coordination with Utility Subscription Management

6. What adjustments could allow for better coordination between subscription management process for utility net metering enrollment (and bill crediting) and the ABP program requirements to verify subscription levels for REC payments?

REC Pricing

Slide 19: Comparison to REC Prices (& Other Incentives) in Other States

1. How do ABP REC prices compare to incentives offered in other states, and how do those differences impact market activity and consumer interest in solar? Are there states which Illinois should look to as a model? Are there states whose examples Illinois should avoid?

Slides 22-24: Model Inputs

2. Should REC prices continue to be set using a REC Pricing model based on the CREST model which is a cost-based approach, or should a different approach to REC pricing be considered? If a different approach is recommended, please explain how the approach in detail, and if available provide examples of its use from other jurisdictions. Note that the Agency does not believe that it has the statutory authority to conduct competitive procurements as part of the Adjustable Block Program.
3. If the CREST tool continues to be used as the basis for the REC Pricing model updated, what assumptions and inputs should be updated? How can market-based signals be better incorporated into these assumptions? Please see Tables on pages 4 to 7 for a list of the inputs and Appendix D to the Long-Term Plan for a detailed description of the REC Pricing model.

Slide 25: Small Subscriber Adder

4. How have subscriber acquisition models evolved over the past five years and how do those changes impact small subscriber acquisition and management costs? What modifications to small subscriber adders should be considered in light of these changes?

Slides 26-29: Solar for All REC Pricing

5. Should Illinois Solar for All REC prices continue to be set based on ABP REC prices with adjustments to assumptions, or set using a different approach? If a different approach, what would you propose, and why?
6. If Illinois Solar for All REC Prices continue to be based on ABP REC Prices what changes, if any, to the assumptions used for the adjustments between ABP and Illinois Solar for All should be made for each ILSFA sub-program? Please see page 9 for a list of these assumptions.

7. ABP REC Prices change as blocks of capacity are filled. Should Illinois Solar REC Prices change in step with changes to ABP REC Prices, or should scheduled changes only be through the biennial Long-Term Plan revision process? (Note, that the Agency has the discretion to modify prices up to 25% between Plan revisions).

Slide 30: Making REC Prices More Dynamic

8. For the Adjustable Block Program and/or the Illinois Solar for All Program, should the Agency consider specific mechanisms or triggers for REC Price changes, in particular, if there are market indicators that REC prices are higher than needed to encourage consumer uptake of solar? Or lower than needed? How should the Agency determine whether those triggers have been hit, and how should the Agency balance the need for transparency and stability with efforts at reflecting a more precise REC price?

Distributed Generation Model Inputs

See: Appendix E-1: Adjustable Block Program Distributed Generation Pricing Model

REC Pricing Model Inputs	Units	10 kW	25 kW	100 kW	200 kW	500 kW	2,000 kW
Capacity Factor	%dc	14%	14%	14%	14%	14%	14%
AC to DC Conversion Factor	%	75%	75%	75%	75%	75%	75%
Annual Project Degradation	%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Project Useful Life	years	25	25	25	25	25	25
Capital Costs							
Generation Equipment	$	$11,424	$29,449	$121,351	$230,207	$562,464	$2,228,656
Balance of Plant	$	$13,251	$25,266	$69,617	$114,934	$262,452	$1,008,911
Interconnection	$	$1,275	$4,161	$20,534	$33,756	$73,418	$279,045
Development Costs & Fee	$	$9,539	$18,007	$48,666	$97,332	$243,331	$973,325
Operations & Maintenance							
Fixed O&M Expense	$/kW-yr dc	$10	$10	$10	$10	$10	$10
Variable O&M Expense	¢/kWh	0	0	0	0	0	0
O&M Inflation	%	2%	2%	2%	2%	2%	2%
Insurance, Yr 1 (% of Total Cost)	%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Project Management	$/kW dc	$5	$5	$5	$5	$5	$5
Property Tax or PILOT, Yr 1	$/yr	$0	$0	$0	$0	$0	$0
Annual Property Tax Adjustment Factor	%	$0	$0	$0	$0	$0	$0
Land Lease	$/yr	$0	$0	$0	$0	$0	$0
Royalties (% of revenue)	%	$0%	0%	0%	0%	0%	0%
Construction Period (months)	months	6	6	6	6	6	6
Interest Rate (Annual)	Annual	5%	5%	5%	5%	5%	5%
% Debt (% of hard costs) (mortgage-style amort.)	%	45%	45%	45%	45%	45%	45%
Debt Term	years	15	15	15	15	15	15
Interest Rate on Term Debt	%	6%	6%	6%	6%	6%	6%
Lender's Fee (% of total borrowing)	%	3%	3%	3%	3%	3%	3%
Required Minimum Annual DSCR		1.2	1.2	1.2	1.2	1.2	1.2
Target After-Tax Equity IRR	%	12%	12%	12%	12%	12%	12%
Federal Income Tax Rate	%	21%	21%	21%	21%	21%	21%
State Income Tax Rate	%	4.95%	9.50%	9.50%	9.50%	9.50%	9.50%
Market value energy, capacity, RECs after incentive expires	¢/kWh	3.7	3.7	3.7	3.7	3.7	3.7
Market value escalation rate	%	2%	2%	2%	2%	2%	2%
ITC	%	30%	30%	30%	30%	30%	30%

Additional State Rebates/Grants (smart inverter rebate)	$/ Watt-dc	$0.00	$0.25	$0.25	$0.25	$0.25	$0.25
1st Inverter Replacement (year)	year	10	10	10	10	10	10
1st Replacement Cost ($ in year replaced)	($/W dc)	$0.21	$0.13	$0.13	$0.13	$0.13	$0.13
Months of Debt Service	months	6	6	6	6	6	6
Months of O&M Expense	months	6	6	6	6	6	6
Bonus Depreciation		Yes	Yes	Yes	Yes	Yes	Yes
% of Bonus Depreciation in Year 1	%	100%	100%	100%	100%	100%	100%
Participant Savings (%)	%	20%	20%	20%	20%	20%	20%

Community Solar Model Inputs

See:

Appendix E-2-a: Adjustable Block Program Community Solar Pricing Model

Appendix E-2-b: Adjustable Block Program Community Solar Pricing Model (Co-located)

	Units	10 kW	25 kW	100 kW	200 kW	500 kW	2,000 kW
Capacity Factor	%dc	15.5%	15.5%	15.5%	15.5%	15.5%	15.5%
AC to DC Conversion Factor	%	75%	75%	75%	75%	75%	75%
Annual Project Degradation	%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Project Useful Life	years	25	25	25	25	25	25
Capital Costs							
Generation Equipment	$	$11,424	$29,449	$121,351	$230,207	$562,464	$2,228,656
Balance of Plant	$	$13,251	$25,266	$69,617	$114,934	$262,452	$1,008,911
Interconnection	$	$1,275	$4,161	$20,534	$33,756	$73,418	$279,045
Development Costs & Fee	$	$9,539	$18,007	$48,666	$97,332	$243,331	$973,325
Operations & Maintenance							
Fixed O&M Expense	$/kW-yr dc	$10	$10	$10	$10	$10	$10
Variable O&M Expense	¢/kWh	0	0	0	0	0	0
O&M Inflation	%	2%	2%	2%	2%	2%	2%
Insurance, Yr 1 (% of Total Cost)	%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Project Management	$/kW dc	$5	$5	$5	$5	$5	$5
Property Tax or PILOT, Yr 1	$/yr	$60	$150	$600	$1,200	$3,000	$12,000
Annual Property Tax Adjustment Factor	%	-3.5%	-3.5%	-3.5%	-3.5%	-3.5%	-3.5%
Land Lease	$/yr	$67	$167	$667	$1,333	$3,333	$13,333
Royalties (% of revenue)	%	0%	0%	0%	0%	0%	0%
Construction Period (months)	months	6	6	6	6	6	6
Interest Rate (Annual)	Annual	5%	5%	5%	5%	5%	5%
% Debt (% of hard costs) (mortgage-style amort.)	%	45%	45%	45%	45%	45%	45%
Debt Term	years	15	15	15	15	15	15
Interest Rate on Term Debt	%	6%	6%	6%	6%	6%	6%
Lender's Fee (% of total borrowing)	%	3%	3%	3%	3%	3%	3%
Required Minimum Annual DSCR		1.2	1.2	1.2	1.2	1.2	1.2
Target After-Tax Equity IRR	%	14%	14%	14%	14%	14%	14%
Federal Income Tax Rate	%	21%	21%	21%	21%	21%	21%
State Income Tax Rate	%	4.95%	9.50%	9.50%	9.50%	9.50%	9.50%

Market value energy, capacity, RECs after incentive expires	¢/kWh	3.7	3.7	3.7	3.7	3.7	3.7
Market value escalation rate	%	2%	2%	2%	2%	2%	2%
ITC	%	30%	30%	30%	30%	30%	30%
Additional State Rebates/Grants (smart inverter rebate)	$/ Watt-dc	$0.00	$0.25	$0.25	$0.25	$0.25	$0.25
1st Inverter Replacement (year)	year	10	10	10	10	10	10
1st Replacement Cost ($ in year replaced)	($/W dc)	0.21	0.13	0.13	0.13	0.13	0.13
Months of Debt Service	months	6	6	6	6	6	6
Months of O&M Expense	months	6	6	6	6	6	6
Bonus Depreciation		Yes	Yes	Yes	Yes	Yes	Yes
% of Bonus Depreciation in Year 1	%	100%	100%	100%	100%	100%	100%
Subscriber Savings (%)	%	20%	20%	20%	20%	20%	20%

Illinois Solar for All
REC Pricing Model Adjustments

See:

Appendix E-3-a: Illinois Solar for All Distributed Generation Incentive Pricing Model (5 or more units)

Appendix E-3-b: Illinois Solar for All Distributed Generation Incentive Pricing Model (1-4 units)

Appendix E-4-a: Illinois Solar for All Community Solar Pricing Model

Appendix E-4-b: Illinois Solar for All Community Solar Pricing Model (Co-located)

Appendix E-5: Illinois Solar for All Non-profit and Public Facility Pricing Model

Distributed Generation Sub-Program (Residential)
100% of value of net metering retained by customer for 1-4 unit buildings, 50% for larger residential buildings, and debt financing level set at 0% (compared to 20% net metering value retained and 45% debt financing for Adjustable Block Program).

Low-Income Community Solar Sub-Program
50% of value of net metering retained by customer, 5-year payback, and 35% debt financing (compared to 20% of net metering value retained, 15-year payback, and 45% debt financing for Adjustable Block Program).

Non-Profit/Public Facilities Sub-Program
50% of value of net metering retained by customer, owner of project assumed to not be a taxable entity, and projects below 10 kW eligible for smart inverter rebate (compared to 20% net metering value retained, eligible for Investment Tax Credit and Bonus Depreciation, and under 10 kW projects receiving retail rate net metering for Adjustable Block Program).