

May 17, 2017

Anthony Star
Director
Michael A. Bilandic Building, Suite C-504
160 North LaSalle Street
Chicago, Illinois 60601

RE: Request for Comments for Initial Forward Procurements

First Solar, Inc., Borrego Solar Systems, Cypress Creek Renewables, Invenergy, LLC, juwi, Inc. and SoCore Energy, collectively the “Joint Utility-Scale Solar Parties”, appreciate the opportunity to provide input and responses to Director Star’s questions dated May 11th discussing annual REC procurement from new utility-scale solar pursuant to Public Act 99-0906. The Joint Utility-Scale Solar Parties have a long track record of successful development, financing, construction and operation of utility-scale solar assets across North America. The workshop provided stakeholders an overview of the proposed structure and terms of the procurements, select contract provisions. As such, the Joint Utility-Scale Solar Parties would like to offer the following response related to site control and REC flexibility that, if adopted, would encourage utility-scale solar investment in Illinois by reducing barriers to financing while driving down REC procurement costs for utility ratepayers.

Topic 1: Site Control

We appreciate the IPA’s focus on site control and project maturity in general and wish to emphasize the importance of getting these issues right to avoid both speculative bidding and prevent significant project attrition over time. Although we applaud the IPA for including meaningful bid security and performance guarantee provisions (as discussed below), we wish to reiterate the comments that many of our companies made at the May 10th workshop regarding the need for additional project maturity provisions—including site control and interconnection—in addition to such financial guarantees.

Question 1: what would be an appropriate site control standard?

Requiring site control is the most essential “project viability metric” when conducting an RFP for utility-scale solar. It is the first step in the project development process and is a threshold metric for distinguishing “real” versus “speculative” projects.

For this reason, the Joint Utility-Scale Solar Parties **recommend that the IPA require full site control, i.e. the established legal right to construct a utility-scale solar project on a specific site if awarded, as a condition of the project pre-qualification process.** Site control can be established by requiring bidders to submit a copy of an executed lease covering the entire term of the REC supply contract, a valid, unexpired purchase or lease option covering the entire term of the REC supply contract, or purchase agreement or proof of title to the property. We recommend that the IPA offer some flexibility for auction winners to adjust up to 15% of the final site footprint onto contiguous property that is leased or purchased subsequent to the bid date. This provision will ensure that projects that are bid into the auction have passed the critical project viability milestone of securing site control, while allowing developers to adjust the project layout to accommodate the presence of environmental, geotechnical, or other unforeseen site limitations that may present themselves after full site discovery, design, and permitting have commenced.

We also recommend that bidders be required to have submitted an application for an Interconnection Agreement (IA) with the relevant local utility or regional transmission organization (RTO). If a bidder has not submitted an IA application, it must commit to submit an application within 90 days of a bid award, or in the utility or RTO’s next opportunity to submit an IA request. The IPA may wish to create some limited flexibility around the requirement, particularly in the case of MISO IA applications which, as we understand, can only be submitted during two specific periods each year. Failure to submit an interconnection request within the allotted time would result in contract termination and forfeiture of all security deposits or letters of credit. This additional project viability metric is common in utility-scale solar RFPs, and creates a reasonable expectation that an awarded project can move forward with the interconnection process within the time needed.

Both site control and submission of interconnection agreement application are standard project viability metrics in utility-scale solar RFPs. These requirements present reasonable thresholds in establishing some minimal level of project viability without unduly deterring market participants, including new market entrants. Requiring site control and submittal of an application for interconnection is industry standard practice as demonstrated by recent solicitations from Austin Energy¹, Georgia Power², Appalachian Power Company³, the Northeast Clean Energy RFP States (Massachusetts, Connecticut, and Rhode Island),⁴ the New York State Energy Research and Development Authority (NYSERDA),⁵ and AEP Ohio⁶ among others.

Weak site control and a lack of other project maturity requirements have been key contributors to the high (30-40%) attrition rates⁷ and speculative bidding in the early LREC/ZREC auctions run by the state of Connecticut.

Should the IPA desire more stringent requirements, additional options such as requiring a signed interconnection agreement and final local and environmental permits for a site provide further security that projects being bid into the auction are feasible and executable. These metrics have been required in some other solicitations and may be deemed appropriate in subsequent procurements in Illinois. At this time we do not propose such additional permitting and interconnection requirements because we recognize they may reduce the ability of some competitors to bid into the initial forward procurement. However, the IPA may wish to revisit project maturity requirements for future procurements conducted under the Agency's Long-Term Plan.

¹ Austin Energy 2017 RFP for 150 MW of solar: <https://austinenergy.com/wps/wcm/connect/bf0e94ed-d92d-40ff-b609-2d877813487d/Solar-RFP.pdf?MOD=AJPERES>

² Georgia Power Renewable Energy Development Initiative, 2017 RFP for 550 MW of utility-scale solar, Required Site Control Affidavit (attached)

³ Appalachian Power Company 2017 RFP for 25 MW of solar:

<https://appalachianpower.com/global/utilities/lib/docs/b2b/rfp/APCO/2017SolarEnergy/APCo2017SolarRFPFinalv2.pdf>

⁴ Notice Of Request For Proposals From Private Developers For Clean Energy And Transmission, <https://cleanenergyrfpdotcom.files.wordpress.com/2015/11/clean-energy-rfp-final-111215.pdf>.

⁵ NYSERDA and NY Department of Public Service, Case 15-E-0302 - Clean Energy Standard Phase I Implementation Plan Proposal (Oct. 31, 2016), <http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={CD1F257F-98DD-487C-BB5D-321D9CF6E9D4}> (approved by the NY Public Service Commission on Feb. 22, 2017).

⁶ AEP Ohio 2016 RFP for 400 MW of utility-scale solar:

<https://www.aepohio.com/global/utilities/lib/docs/b2b/rfp/AEPOhio/2016WindSolar/AEPOhioSolarRFP02052017.pdf>

⁷ See <http://www.mass.gov/eea/docs/doer/renewables/final-net-metering-and-solar-task-force-report.pdf> at 88-91 for a discussion of attrition and other problems with the ZREC/LREC program structure.

Question 2: Would having the option of providing an additional performance guarantee in lieu of providing evidence of site control mitigate the risk of failure to develop the project in time to start REC deliveries?

Project maturity requirements and performance guarantees play complementary but independent roles in ensuring a successful procurement. As the New York Public Service Commission recently observed with regard to that state’s renewable energy procurements: “[w]hile bid deposits and contract security were required in the [State’s previous renewable energy solicitations] to minimize speculative bids, these requirements were not effective proxies for project viability, resulting in considerable attrition after contracts were signed (often with a loss of deposits and security payments).”⁸ The Joint Utility-Scale Solar Parties believe it is important to maintain meaningful bid and performance security provisions while at the same time implementing reasonable site control and interconnection requirements. An upfront development security requirement should be high enough to limit speculative bidding but not so high as to discourage market participation. The level proposed by NERA is both appropriate and within the realm of what has been seen in recent solicitations.

Performance Security requirements are also standard for utility-scale solar RFPs. In general these requirements are put in place at COD (commercial operation date) or gradually phased in from bid selection to COD. As a result, performance security requirements do not impact bidder decisions as directly as development security requirements. Projects that are selected through the RFP have time to secure project financing, including financing for performance security. **The amounts proposed by the IPA and NERA for the bid and performance security requirements are well within the industry standard for performance security for a utility scale solar project, and we recommend no change to these values.**

⁸ NY Public Service Commission, CASE 15-E-0302 - Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard, Order Approving Phase 1 Implementation Plan at 23 (Feb. 22, 2017).

Topic 2: REC Delivery Flexibility

As the IPA has recognized, one key concern—which many of us voiced during the IPA’s May 10th workshop—involves the **IPA’s proposal to use fixed-quantity bids** that would not allow for inter-annual variability or the inevitable degradation in system performance that solar projects experience. The requirement to provide a fixed quantity over a 15-year contract term will complicate financing and increase ratepayer costs because the requirement to bid a single fixed quantity for all 15 years of the contract term will mean that bidders will need to bid in only the quantity of RECs they can be sure the system will provide at year 15 of operation. For a 100 MW system, this requirement would mean that nearly 60,000 MWh produced during the first 14 years of the contract could not be bid because the entire bid quantity would be limited by the output at year-15.⁹ Because, as of the bid date of the initial procurement, developers and financiers will have no line of site to ascribing a value for these 60,000 MWh of uncontracted RECs, bidders will compensate by increasing bid prices for contracted RECs to meet minimum financial thresholds. In other words, as it now stands, this provision ensures that the utilities will contract for fewer RECs at higher prices than necessary.

Secondly, the IPA’s proposal to deem a project in default after 3 years of underperformance will result in bidders building in an additional cushion between projected performance and their actual bids, in order to avoid the unusually harsh penalty of contract cancellation with no ability to cure. This provision will further reduce the number of RECs through which a project can be financed and demand additional risk premiums from investors and financiers, again resulting in higher REC prices.

Luckily, there are some simple remedies to these issues that are within the IPA’s authority to implement. These flexibility mechanisms are common to the industry and have been utilized with success in many other procurements. To address these issues and reduce the costs of the program for ratepayers, we recommend the IPA consider the following changes:

⁹ We assume a standard 0.5% annual degradation in solar panel production and 13.4% capacity factor.

1. **Explicitly provide that annual REC delivery quantities are excused for unforeseen circumstances out of a seller's control, such as force majeure events and reliability curtailments.**
2. **Allow bidders to bid different quantities of RECs for different contract years.**
Allowing bidders to propose a 15-year schedule for REC deliveries that accommodates standard system output changes over time would enable bidders to optimize bid quantities against actual system production throughout the full 15-year term. Bidders should be allowed to bid quantities that decline on a linear or non-linear basis. We recognize that the statute requires that the initial forward procurements for utility scale solar result in 1,000,000 RECs delivered annually, and that is more difficult to accomplish if bid quantities decline year over year. We believe that "true ups" could be addressed through future procurements authorized through the long-term plan without contradicting the intent of the initial forward procurements.
3. **Include contract terms that allow bidders to average production across several years.** For example, it is very common for contracts to require specific REC quantities to be delivered over a rolling 3-year period, rather than a single-year period. ; or in the alternative
4. **Allow bidders to bank RECs.** Unlimited banking should be allowed if the IPA chooses to stick with the original proposal to have bidders supply fixed quantity bids for all 15-years. However, if IPA chooses to implement recommendation #2 above, banked RECs could be subject to **an annual percentage cap of 15%. Banked RECs would have to be** produced by a single project to make up for potential shortfalls by the same project in other years. Because banked RECs would not be "delivered" until the year in which a project experiences a shortfall, we believe such banking would clearly fit within the IPA's authority under the statute.

Alternative recommendations #2, #3 and #4, above, acknowledge natural variation in the productivity of solar resources, and allow for flexibility without compromising the overall legislative procurement target.

While the flexibility mechanisms outlined above will help sellers avoid annual REC shortfalls resulting from predictable changes to project output over time, the IPA must also allow sellers to opportunity to cure unforeseeable shortfalls, should they occur. The lack of an appropriate "cure provision" is essentially a fatal-flaw for financing entities. Investors will not take the risk that the REC contract could be cancelled with no ability to cure. Though no project anticipates having delivery shortfalls, they do occasionally occur for a variety of reasons: mechanical or power electronic failures, issues with transmission and distribution equipment, or other unforeseeable problems. To address the risk of unforeseeable production shortfalls, we recommend offering sellers the discretion to choose between two alternative cure options, both of which are subject to certain limits:

- 1. Provide that sellers may cure unforeseeable shortfalls by providing replacement RECs.** Suppliers should be allowed to provide replacement RECs for no more than 25% of a single year's annual REC quantity, as discussed above. Replacement RECs should have the same general characteristics as those they are replacing (i.e. they are produced by new – as defined by FEJA - Illinois-based projects, and are of the same resource type); **OR**
- 2. Provide that sellers may cure unforeseeable shortfalls by paying penalties (liquidated damages) in the amount of 2x the price of the un-delivered RECs.** Again, the ability to cure a shortfall through liquidated damages should be capped at 25% of a single year's annual REC quantity.

Cure provisions should also be equally available to projects for which energization has been delayed beyond June 1, 2021. Project delays happen for a variety of reasons (most commonly interconnection-related) that may be completely out of a developer's control. Instituting a limited ability to cure through the payment of LD's OR through the purchase of eligible replacement RECs ("new" Illinois-based solar RECs) eases this threat. So that this does not become an open-ended extension provision, we recommend capping the allowable delay cure amount to 25% of the annual REC quantity.

At the May 10th workshop, the IPA raised the concern that allowing for replacement RECs may open the process up to gaming. We are in full agreement that such gaming should not be allowed and we encourage the Agency to impose appropriate safeguards (e.g. require signed affidavits stating that RECs are not being intentionally withheld for financial gain, under penalty of the law) to prevent it from happening.

We believe these modest changes to the IPA's initial proposal are both within the IPA's discretion under the Future Energy Jobs Act and are critical to ensuring a robust, cost-effective procurement for solar energy in Illinois.

In addition to these high-level comments, we provide the following specific answers to the IPA's follow-up questions regarding REC delivery flexibility:

Question 1. What circumstances (e.g., operational or performance risks) could lead to a project failing to deliver its annual delivery quantity and could be mitigated through allowing banking and/or replacement RECs?

Answer: Circumstances could include any of the following:

- As noted above, delays in interconnection are the most common reason for project COD delays.
- Unexpected weather patterns (e.g., higher-than-usual expected cloud cover; high temperatures; etc.);
- Widespread equipment malfunctions that cannot be quickly remedied due to supply constraints or tariffs (e.g., a defective transformer could take 6-18 months to remedy);
- Curtailment by the RTO or utility to address reliability events;

Question 2. Should the ability to bank RECs be unlimited or should there be parameters (e.g., quantity, vintage)?

Answer: If the IPA chooses to require a fixed yearly REC quantity for 15 years from bidders, banking should be unlimited within individual projects to reduce the risk of default.

Alternatively, if the IPA allows bidders to propose different REC quantities for each year, banking within the same project should be limited to 15% of the annual quantity and RECs should only be bankable for 5 years. Banking will help to reduce overall project risk (and, therefore, cost) while helping to ensure that projects deliver the quantity of RECs projected and reducing the need for additional procurements in the future.

Question 3. Should banking of RECs be allowed between multiple projects owned by an entity/affiliate with contracts under the Initial Forward Procurements?

Answer: The mechanisms proposed in these comments should provide sufficient flexibility for projects to render this unnecessary. As a result we do not support banking of RECs between multiple projects owned by an entity/affiliate with contracts under the Initial Forward Procurements.

Question 4. Taking into account statutory project qualification requirements, should the ability to provide eligible replacement RECs be otherwise unlimited or should there be additional parameters (e.g., quantity, vintage, narrower eligibility of RECs)?

Answer: Suppliers should be allowed to provide eligible replacement RECs for no more than 25% of a single year's annual REC quantity, as discussed above. Replacement RECs should have the same general characteristics as those they are replacing (i.e. they are produced by new, Illinois-based projects of the same resource type).

Question 5. Under what circumstances should underperformance that cannot be remedied through banking and/or replacement lead to the termination of a contract? What alternative penalty provisions should be considered to address underperformance?

If the IPA adopts our recommendations to allow 3-year averaging and/or banking and replacement RECs, the failure to meet contractual quantity obligations for more than 3 years should result in contract termination. The options to address underperformance that we have proposed herein should offer developers sufficient flexibility to avoid defaults. However, if these recommendations are not adopted, the IPA should not immediately terminate contracts for three years of underperformance; rather, the IPA should institute an escalating schedule of penalties or liquidated damages that would encourage project sponsors to take all available actions to remedy the shortfall.

This concludes the comments of the Joint Utility-Scale Solar Parties in response to the Agency's May 11, 2017 "Initial Forward Procurement Request for Comments." We appreciate your consideration of these comments and look forward to working with the Agency to help successfully grow the utility-scale solar industry in Illinois.

Sincerely,

The Joint Utility-Scale Solar Parties

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ATTACHMENT I

Form Site Control Affidavit

[Insert Bidder's Letterhead]

[Insert Date]

Georgia Power Company
241 Ralph McGill Blvd NE
Bin No. 20023
Atlanta, Georgia 30308

Subject: Georgia Power Company's REDI RFP – Site Control

Ladies and Gentlemen:

On or before *[date]*, and in accordance with the provisions of Georgia Power's Renewable Energy Development Initiative (“**REDI**”) Program, *[Insert Bidder's full legal name]*, a *[Insert Bidder's form of entity and state of organization]* (“**Bidder**”), is submitting, on behalf of the party to execute the REDI power purchase agreement (“**PPA**”) with Georgia Power and selling Renewable Energy through the REDI Program (“**Seller**”), one or more proposals for consideration to fulfill a portion of Georgia Power's REDI solicitation. In order for such Bidder to be eligible for participation, Bidder or Seller, as applicable, must, among other things, possess Site Control, as such term is defined below. Capitalized words used without definition here have the meaning shown in the RFP.

Bidder hereby represents, warrants and covenants that:

1. Bidder has Site Control of the Site, located at *[Insert parcel number and GPS coordinates of the Site]*, which is the Site where the Facility is, or will be, located if Seller and Georgia Power execute a REDI **PPA**;
2. The Site is adequate for the Facility and lawfully zoned for the Facility, or if not already appropriately zoned, Bidder agrees to obtain appropriate zoning prior to PPA execution;
3. Seller is the authorized or legal entity that will execute the PPA with Georgia Power if Bidder's proposal is selected for the Short List;
4. Seller will retain Site Control of the Site for the duration of the PPA term, subject to the Assignment provisions of the PPA;
5. Bidder or Seller, as the case may be, will promptly notify Georgia Power in writing of any change in the status of Bidder or Seller's Site Control; and

6. Upon request, Bidder or Seller, as the case may be, will provide to Georgia Power a copy of the lease, deed, or other satisfactory legal evidence of Site Control.

For purposes of this Affidavit:

“Site Control” means that, with respect to the Site, as further described above, and for the duration of the PPA Term, Seller (i) owns or will own the Site pursuant to (A) a current binding written agreement between Seller and the landowner, or (B) its exercise of an option to purchase the Site pursuant to a current binding written option agreement with the landowner; or (ii) is the lessee of the Site under a binding written lease agreement with the landowner, or will lease the Site by exercise of an option pursuant to a current binding written option agreement with the landowner; and (iii) is or will be the holder of each and every right-of-way grant, easement or similar instrument(s) necessary for Seller’s intended use of the Site. The undersigned is the managing partner or other person or entity authorized to act for Seller in all matters relating to the control and operation of the Site. With respect to items (i) through (iii) immediately above, Seller’s rights to, and control of, the Site referenced therein are and will be free and clear of any lien, right, contract, or other encumbrance that could adversely affect Seller’s performance of its obligations under any PPA that Seller may enter into with Georgia Power.

Bidder does solemnly swear or affirm under penalty of perjury, that the information Bidder has provided in this Affidavit is based on Bidder’s own personal knowledge and is true, complete and correct.

[Insert Bidder’s full legal name]

By: _____
Name: _____
Title (if applicable): _____
Date: _____

On this _____ day of _____, 2017, before me appeared *[Insert Bidder’s full legal name]*, the person who signed the Site Control Affidavit in my presence and who swore or affirmed that he/she understood the document and freely declared it to be truthful.

Official Signature of the Notary
State of _____ County of _____
Official Seal of the Notary