RESPONSE TO ILLINOIS POWER AGENCY REQUEST FOR COMMENTS ON BEHALF OF THE SOLAR ENERGY INDUSTRIES ASSOCIATION, THE COALITION OF COMMUNITY SOLAR ACCESS, AND THE ILLINOIS SOLAR ENERGY ASSOCIATION

November 4, 2021

The Solar Energy Industries Association, the Coalition of Community Solar Access, and the Illinois Solar Energy Association (collectively the "Joint Solar Parties" or "JSP") appreciate the opportunity to respond to the Illinois Power Agency's most recent solicitation for comments for the Proposed REC Prices for Large DG Non-Waitlisted Projects.

As an initial matter, the Joint Solar Parties appreciate that the IPA is soliciting comments by necessity following the passage of the omnibus energy legislation. The significant changes to the Illinois Power Agency Act includes an overhaul of certain elements of the Adjustable Block Program and requires opening of new blocks very soon after the effective date of the legislation. The Joint Solar Parties are thus providing feedback with the understanding that some of the issues in this Request for Stakeholder Feedback will be addressed in the next LTRRPP and potentially litigated before the Commission during the approval process—specifically, how the CREST model will address prevailing wage going forward.

JOINT SOLAR PARTIES REQUESTED RELIEF: While the Joint Solar Parties respond in turn to all of the IPA's questions, the ultimate relief requested is that the Joint Solar Parties recommend that the IPA, in addition to the increase of 32% to labor costs, forego the planned 4% reduction between Block 4 and this (non-waitlist) newly opened Block 5. The reason for foregoing the 4% reduction is that ignoring the reduction does rough justice to the ways in which costs have increased since the CREST model was last run.[1]

Over the longer term—such as for the next LTRRPP, the Joint Solar Parties invite the IPA to take a renewed look at cost inputs to the CREST model. Under current conditions, the Joint Solar Parties believe that some estimates that may have been appropriate in 2017/2018—or before the Joint Solar Parties had experience under the Adjustable Block Program—but are too low now. The Joint Solar Parties are confident the IPA would conduct such a review with an open mind, which means inputs to the CREST model would rise or fall as appropriate. Of course, the IPA may still decide to propose modifications from the result of the CREST model, but the Joint Solar Parties strongly believe that a good factual baseline is necessary to have an informed conversation of *how* (if at all) to modify the built-up cost basis to come up with a REC price.

1. Are the Agency's proposed installation costs estimates appropriate? If not, what adjustments should be made?

   JSP RESPONSE: The Joint Solar Parties appreciate the IPA's estimates of increased installation labor costs. In the experience of the member companies of the Joint Solar

[1] For context, Wood Mackenzie estimated that commercial rooftop systems (nationwide) would increase in price by 3%. (https://www.woodmac.com/news/opinion/us-solar-pv-system-costs-increase-in-2021/ (accessed 11/3/21))

Parties, as reported informally,[2] a 32% increase in labor costs from the CREST model baseline due to prevailing wage is substantially too low. The Joint Solar Parties understand that in some cases moving toward prevailing wage doubles the cost of labor.

While the Joint Solar Parties do not have access to member company labor costs (nor do the Joint Solar Parties have the legal right to that information), some information provided in the Request for Stakeholder Feedback is consistent with the anecdotal information provided to the Joint Solar Parties. For instance, the original NREL estimates used in the CREST model are far below those used in the Inclusive Economics study. According to the Inclusive Economics study, the NREL modeling for commercial systems used a "burdened" wage value of approximately $44.71/hr. However, current prevailing wages in Illinois (inclusive of benefits) are almost $90/hr for Electricians and Carpenters in Cook County (exact numbers and a citation are provided in the following paragraph). It appears that the Inclusive Economics study arrives at lower percentage increase by assuming—in the Joint Solar Parties' view quite high—apprentice to journeyman ratios.

One of the reasons and an illustration of why the Inclusive Economics report may not capture all costs is that one of several classifications of worker may install racking. An electrician, a carpenter, or a laborer, among other trades, may rack panels. According to the Joint Solar Parties' review of current prevailing wage rates in Cook County,[3] an Electrician's all-in wage plus benefits is $89.93/hr and a carpenter is $88.22/hr while a laborer is $78.06—an approximately 13% difference between laborers and electricians or carpenters. As the Joint Solar Parties noted above, these prevailing wage levels were not reflected in the original CREST modeling done by the IPA.

The Joint Solar Parties wish to make a few additional observations.

- **Labor Costs Have Not Stagnated:** The original REC Price model uses 2017 labor values. Average labor prices have not stagnated since 2017, especially since Spring 2021. The Joint Solar Parties do not have a precise estimate but note that anecdotal information suggests the trend has been upward across the board
- **Journeymen Urban Areas Are At A Disadvantage:** The study linked by the IPA demonstrates what the Joint Solar Parties understand to be the rather uncontroversial point that labor costs in certain areas—urban areas—are generally higher than rural areas. According to current prevailing wage values, prevailing wage for an Electrician in Cook County (with benefits) is $89.93/hr while prevailing wage for an Electrician in Adams County (with benefits) is $52.41/hr.[4] As a result, there is a disincentive to deploying capital to urban areas (where costs to build an identical system for an identical REC Contract are higher than in more rural areas) and an incentive to work

[2] At least one trade association that takes part in the Joint Solar Parties confidentially polled members. While the results were too few to describe broader trends, the responses received were far higher than the estimates in the CREST model or the analysis that the IPA relied on for 32%.

[3] https://www2.illinois.gov/idol/Laws-Rules/CONMED/Documents/2021__Rates/October_4/Cook.pdf (accessed 11/3/21) For the purposes of these responses, the Joint Solar Parties added the base hourly rate (non-foreman) to the columns labeled "H/W," "Pension," "Vac," "Trng," and "Other Ins." The definitions of these abbreviations are found in the prevailing wage document.

[4] https://www2.illinois.gov/idol/Laws-Rules/CONMED/Documents/2021%20Rates/October_4/Adams.pdf (accessed 11/3/21)

with apprentices over journeymen. While the Joint Solar Parties encourage training and development of the workforce, developers should not have to rely on increasing the ratio of apprentices to journeymen in order to make projects pencil.

- **Other Costs Have Increased:** While the focus of the IPA's Request for Comments is prevailing wage, due to factors including COVID-19-related production/delivery issues the price of components from PV modules to inverters to balance of system (particularly steel) have increased as well. According to research from Wood Mackenzie (accessed by a Joint Solar Parties trade association), from the first quarter to the second quarter of 2021 alone PV modules for a typical 250 kW system have increased by 13%, while the price of steel balance-of-system components have increased by 6% (the Joint Solar Parties understand separately from the Wood Mackenzie report that hot rolled steel, a component of racking, has increased 200% in the last year). Overall, components and materials are estimated to increase roughly 6% (taking a simple average of increases to four component prices estimated by Wood Mackenzie) during that time period.
- **The Net Present Value of New REC Contracts Is Lower:** Previously and for waitlisted projects, the REC Contract pays out over approximately 4.25-4.5 years with 20% coming at Energization and between 40-50% of revenue occurring in the first 18 months after Energization (depending on the date of Energization). For non-waitlisted projects, the REC Contract pays out over approximately 6.25-6.5 years and between 29.2-36.25% of revenue is paid out in the first 18 months after Energization. This leads to a reduced time value of money, which is particularly important to not only owner/operators' financial models but also financing value. For example, taking hypothetical REC Contracts paid out over 15 years but with payments accelerated over 16 quarters after Energization vs. 24 quarters after Energization and using a hypothetical discount rate of 5% both with a total contract value of $1,000,000:

Net Present Value	Energization	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
$ 909,190.10	$200,000	$190,476.2	$181,405.9	$172,767.5	$164,540.5	$0	$0
$ 869,056.38	$150,000	$134,920.6	$128,495.8	$122,377	$116,549.5	$110,999.5	$105,713.8

Using the values above as directionally indicative (with highly simplifying assumptions such as assuming an annual discount rate taken at the end of the applicable year), the net present value of the old REC Contract is over 4.5% higher than the new REC Contract. The Joint Solar Parties do not raise this to debate the statutorily-required terms of the new REC Contract but instead to illustrate the impact

2. Should the adjustment in price vary by system?

JSP RESPONSE: If the adjustment in price varies by system, it should vary by system *location* to take into account the higher labor costs (including both wages and benefits) in certain areas of the state. As the Inclusive Economics study demonstrated, there is a significant range of prevailing wage levels between counties. This could be expressed as an adder in counties where (as a proxy for all prevailing wage rates) the prevailing wage rate for an electrician is a fixed amount (say $25/hr) higher than the lowest prevailing wage

rate for an electrician. That allows different counties to at least compete on a more level playing field with peers in terms of cost structure.

3. Should different adjustments be considered for Group A and Group B rather than a single statewide adjustment?

   JSP RESPONSE: Please see the Joint Solar Parties' response to questions 1 and 2 above.