2024 IPA Long-Term Plan Stakeholder Feedback

ForeFront Power

Background

ForeFront Power is generally in agreement and supportive of the comments submitted by the Joint Solar Parties regarding the Long-Term Plan. ForeFront Power is submitting additional comments specifically with regard to the public schools category and ideas to advance the goal of the IPA to increase uptake in this category in this program year and future ones.

ForeFront Power is an experienced community solar and behind-the-meter solar developer, with experience in Illinois dating back to the original Adjustable Block Program created by FEJA back in 2018. ForeFront Power has worked with both behind-the-meter customers, using incentives from the large DG block of the program, and developed projects for the Traditional Community Solar block over the past 5 years. We are one of the largest solar providers to school districts nationwide and in Illinois.

ForeFront Power is focusing its efforts on submitting specific comments on Section 7.4.4 of the Long-Term Plan that provides details on the Public Schools Block. To date, ForeFront Power has received REC contract awards for three projects, totaling 11.3 MWdcs, in the public schools' block. One of these projects is with a repeat customer, [redacted] that saves the district thousands of dollars annually. The other two submitted projects for [redacted] ForeFront Power is proud to be a partner to these school districts on these impressive solar portfolios, and appreciative of the efforts taken by the Illinois Power Agency to support solar development at public schools across the state.

Public Schools Subscription Minimum

ForeFront Power has already submitted comments in favor of altering the rules regarding the subscription minimum requirement to allow school districts that are either smaller (i.e., have minimal load) or have already built behind-the-meter solar to fully benefit from community solar opportunities. This would involve changing the subscription minimum to allow public schools to either provide proof they do not have enough load to subscribe to the project or indicating that they are opting out for some reason, and then the project could move forward without their subscription commitment. We believe this will benefit rural school districts in particular who may own significant land but have relatively small electrical load. ForeFront Power is still supportive of these comments that were not addressed in the first draft of the Long Term Plan and encourages the Illinois Power Agency to review those previously submitted comments and take them into consideration.

Public Schools Sub-Category

The draft Long-Term Plan explores a sub-category of the public schools block to be set aside only for DG, suggesting that 75% of the overall block be set aside for DG and only 25% for community solar projects. Given there is already significant breakdown of the Public School Block capacity into smaller subcategories by school tiers in the state funding formula and project nameplate capacity, these additional layers proposed in the draft LTRRPP make each individual sub-category very small, and can have the impact of uncertainty for solar developers looking to work on projects that fit into these categories if the capacity is taken up. However, the main issue with this additional sub-category is it could cause an already significantly underutilized category of the IL Shines Program to diminish in usage even more. ForeFront Power is working on several portfolios with school districts across the state to apply to the public schools' block; however, the sales and development cycle is long. This additional restriction and categorization will increase uncertainty and have the impact of decreasing submissions to the block further, which is counter to what the Illinois Power Agency is claiming to desire in this block. ForeFront Power recommends maintaining just one category for public schools that allows both DG and CS projects to apply.

Public Schools Rooftop Adder and Parking Canopy Adder

As ForeFront Power has been working with districts across the state, one of the key issues with developing solar at schools is rooftop constraints. For those school districts that do not have enough land to develop ground mount behind-the-meter or community solar, the next best option is rooftop solar (either behind-the-meter or community solar). However, many districts do not have new rooftops that allow for solar, or do not have strong enough structures in place already to support the additional weight of solar. This precludes us from moving forward with many projects that could otherwise be built and create savings for the districts we work with.

To help alleviate this concern, ForeFront Power recommends creating a different REC incentive for rooftop public school projects that is higher than the baseline public school block incentives. This would allow for projects to be more likely to deliver savings year one or a shorter payback period, while still accounting for the additional costs that may be necessary prior to installation, such as a roof replacement or structural reinforcements. Our conversations with customers have brought to light two issues: (1) how difficult it is to bring a project forth that would save substantial money over time but requires an upfront investment in roof replacement by the public school and (2) one that does not realize savings or pay back in less than 10 years. The reality is the competing interests of scarce budget for public schools make it hard (and sometimes politically unfeasible) to prioritize an early roof replacement, even if it makes a money-saving solar project possible. In some cases, the cost of roof replacement can quickly overwhelm the net present value of long-term savings.

As an example, our conversations with districts and their roofing partners have average prices of full roof tear offs hovering between $30-$35/ sq ft. That means schools would need to divert several million dollars from their budgets for pressing needs to bring in roof replacements that are not expected for another 5-10 years to maximize their solar potential. This type of investment favors districts with deeper pockets. In cases where districts eager to see savings from solar chose to install on a mid to late life roof they expose themselves to midway through the useful life of the solar having to pay to remove the panels and install them again once they are ready to replace their roofs.

In trying to understand what the REC values necessary to aid in higher adoption rates of rooftop solar for schools, we estimated thanks to several data points at our disposal across the state. The results of that exercise is that the high replacement costs really make it so that an adder likely only could subsidize about half of the cost of a roof replacement for the largest system size buckets. The largest roofs (larger than 2 MWs) would see an increase on the current REC values of between 115 %– 130% to account for half of the roof cost. The 500-2000 kW block would hover between a 250% and a 285% increase in current REC prices. Smaller roofs would need to be above 350% and as high as 470%.

Alternatively, a concept that has avoided roofing/land constraints in other markets and takes advantage of already developed areas at public schools is developing parking canopies, or solar that goes over parking lots at schools. Based on conversations with current and potential public school customers, we believe that parking lot canopies are a desirable alternative that would not only provide electricity for the schools with an added value of providing shelter for vehicles during the summer/winter months. Despite this desirability from a customer perspective, current steel prices, which impacts heavily the cost of the structure involved in building canopies, and insolation levels, which impacts how much production comes out of one panel built, in IL make it so that parking canopy projects may need to have an adder to allow the entire project to be price competitive for customers. ForeFront believes that to contribute to better uptake of this block, an adder for parking lot canopies be considered as an option.

This concept has been successfully implemented in downstate NY, where space constraints and high labor costs paired with rising material costs incentivized NYSERDA through the NYSun program to include an adder for parking lot canopies to be developed in the Consolidated Edison territory. In the spirit of helping the IPA inform what these adder values should look like in IL, ForeFront Power leveraged its vast experience as a successful developer of hundreds of MWs of canopy projects for the public sector. Thanks to our extensive data points, we were able to proxy system costs in IL to estimate an adder value necessary to make these projects attractive. The following table is a result of our estimate around the parking canopy adder levels compared to the current REC contract values in the Public Schools block.

ABP REC Block Size (kWac)	Estimated Canopy Adder (% to current $/MWH REC prices)
100-200	400% -500%
200-500	140%- 230%
500-2000	130% - 170%

Rooftop and Canopy Adder Assumptions:

- Saving rate year 1 between 5-10% for district facility compared to the value of solar *[(bill after solar – bill before solar) / solar production]*
- Average yield of 1,200 kWh/kWp, which is typical for these types of projects
- 100% ITC eligibility for steel canopy structures and roof tear-off budget

Conclusion

ForeFront Power is committed to the success of the Public Schools block of the IL Shines Program and intends to continue to submit projects to this program block. However, the considerations laid out above will increase the ease, speed, and likelihood of us being able to continue to submit projects and build more projects at districts across the state who are excited to take advantage of the IL Shines Program.