To: Illinois Power Agency
Date: November 6, 2025
Re: Response to IPA's Illinois Storage for All RFI

Contact:
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Comments submitted by The Illinois Solar for All Working Group members:

Central Road Energy
Citizens Utility Board (Illinois)
Climate & Equity Justice
Faith in Place
Illinois Environmental Council
Seven Generations Ahead
Sierra Club Illinois
Vote Solar

Please accept the following feedback to your request for information regarding the nascent Illinois Storage for All Program. We recognize and appreciate the effort you are putting into gathering the necessary data and feedback to ultimately make this a program that effectively serves Illinois Solar for All customers. We look forward to ongoing engagement with you as this program is explored and tested over time.

Program Funding

1. *CRGA provides that the Agency may utilize up to 25% of the funds currently allocated to the low-income single-family and multifamily subprograms, and the subprogram for nonprofit and public facilities of the ILSFA program for the Storage for All program. As a frame of reference, in Program Year 27, the ILSFA program budget is approximately $50 million meaning a 25% utilization would result in not more than about $7.6 million being pulled from the ILSFA program to support the Storage for All program. Please provide feedback on what percentage of funding would be most appropriate to start with for the Storage for All program. Include supporting insights, data or other information supporting your recommendation into how this initial funding sum may affect program outcomes in the near and long-term.*

Answer: The Illinois Solar for All Working Group appreciates the effort the Agency has put into carefully considering this program and the many complexities it entails. Despite being proponents of the policy that created the Storage for All Program, and as discussed below, we do not believe this is the time to launch the program, or even a pilot. However, we believe in the

potential of the program and believe that setting funding triggers, as detailed in the answer to Question 2, would be a way to ensure storage is in the future of the program while considering funding constraints.

Should the Agency decide to move ahead despite the concerns discussed herein, we believe that a small pilot utilizing no more than 5% of the budget could be appropriate at the right time. Without clear data from a well-designed pilot, it is difficult, if not impossible to accurately answer many of the below questions or other equally important ones.

Here we address the purposes of a pilot and then discuss how we chose the 5% figure.

In our view, the purpose of a limited first-year pilot would be to produce Illinois-specific data on cost, performance, and program mechanics before determining if the Agency should commit any additional ILSFA funds. We recommend that the pilot be designed to answer five essential questions:

1. Procurement and installation costs. What do residential and NP/PF storage systems cost in Illinois, including electrical upgrades, backup equipment, and fire code compliance?
2. Incentive structure and sizing. What structure should the incentive take (e.g., rebate, REC adder), and what incentive level would deliver little or no upfront cost and provide significant value to the resident and Critical Service Provider (CSP)? In addition, what incentive level could deliver a “no-cost” battery?
3. Customer & community benefit. What benefits are provided by the storage and how are those benefits monetized/tracked to fit within ILSFA’s concept of savings to the client? For example, how many outage hours and what critical loads are served? What are the impacts of storage on the residents/CSPs' electrical bill?
4. Program mechanics. The pilot should explore the many complications that can arise from the interaction of the existing REC program requirements with the battery operations and its potential incentive structures. For example:
    a) If storage projects will require an agreement that is separate from the ILSFA REC contract, the pilot should test contract conditions that address issues such as default and cure, customer opt-out mid-project, and ownership transfers.
    b) If storage is proposed as an adder to the REC contract (which we currently do not prefer), what would be an appropriate level of collateral, what conditions would constitute the need for a clawback, and how might the savings/benefits of the storage be evaluated when determining the project’s savings?
    c) If retrofits are allowed under this program,

        i) How will any interconnection changes be addressed? Interconnection changes may impact export limits and/or the existing interconnection agreement.

        ii) Some battery systems (e.g., Powerwall 3) include their own solar inverter. How will the program address a retrofit that replaces or rewires

the PV inverter, resulting in a change to the production meter or REC tracking setup?

iii) How will as-built changes to the solar system be recorded without reopening the original Part II approval?

iv) Should the lease or PPA require an amendment for storage, how will the 50% savings calculation be confirmed against the new terms?

d) Payee designation: If the program allows the Approved Vendor (AV) to direct payment to the system owner or another designated party, such as a lender, the Agency will need to confirm that:

i) the administrator pays the right entity in each ownership structure, including those where the owner, the Approved Vendor, and the financier are three different parties.

ii) a lender can take an assignment of the incentive at installation. That is what makes the zero-upfront-cost requirement financeable; and

iii) any information return (Form 1099) goes to the party that actually keeps the money. This keeps an aggregator that only passes funds through from being reported as receiving income it never retains.

e) Tax treatment of the payment. While the IPA cannot give tax advice, it can define what the payment is in the agreement. The pilot should check whether that definition produces the expected return.

5. Funding impact. Can storage incentives be funded primarily from de-obligated and rolled-over dollars rather than ILSFA project budgets? Is there another source of funding for this program that does not come from the ILSFA budget?

We recommend that the pilot run for one to two program years and conclude with a public report whose findings inform the next Energy Storage Resources Procurement Plan (2029). A defined end point and reporting requirement give the Agency a clear, evidence-based foundation for deciding whether, and how much, to fund and scale the program.

Regarding a pilot budget, we recommend no more than 5% of the PY 2026-27 budgets for the residential and nonprofit/public facility subprograms ($30.46 million), which appears to be the smallest amount capable of yielding useful data. Five percent of that budget is about $1.52 million. Based on members' cost estimates, that would fund roughly 68 projects across residential retrofit, residential new-build, and NP/PF resilience tracks; using the Agency's Appendix A figure of $10,000 per project, it would fund about 152.

By contrast, at 2.5%, and assuming NP/PF storage costs of $80,000 to $100,000 per site, the pilot would include only two or three NP/PF sites, too few to draw conclusions. Using the Appendix A average incentive of $53,585 per project, a 5% draw would displace approximately 28 waitlisted ILSFA solar projects (~0.5 MW), compared with about 142 projects (~2.6 MW) per year at 25%.

It is also important to keep in mind that solar costs are rising and that solar placed in service after 2027 will lose the federal credit, resulting in some ILSFA projects likely requiring a larger incentive to “pencil out,’ putting more strain on the subprogram budgets. A large storage draw from the budgets would compound these project losses.

Running a small pilot should allow the Agency to avoid overpaying for storage if the data shows the costs come in below the IPA’s estimates, and concomitantly prevent the problems associated with underestimating costs. Our suggested pilot approach appears to hold little risk, as any unused Storage for All funds can be returned to waitlisted ILSFA projects. In addition, if de-obligated (or other) funds are used to cover part of the pilot, the net draw on ILSFA may be less than 5%.

1.1. *Please find data and assumptions to support your response to Question 1 above in Appendix A to this document.*

1.2. *Additionally, if you find the assumptions the IPA made in Appendix A to be inconsistent with current market conditions, please provide feedback as to the correct assumptions the Agency can review and the sources for those assumptions.*

Working Group members' field experience indicates a total installed cost of approximately $20,000 to $25,000 for a Tesla Powerwall 3, or about $1,481 to $1,852 per kWh, compared with the Agency's assumption of $950 to $1,300 per kWh. Higher costs commonly reflect panel and service upgrades, backup gateway equipment, permitting, and labor. Appendix A also omits two factors that significantly affect incentive sizing: the federal storage credit available to third party-owned systems, and any cost data for NP/PF storage, which is often commercial-scale and requires switchgear, NFPA 855 fire code compliance, and critical-load panels. We recommend the Agency add an NP/PF cost category in the second request for information. Members will provide project-level cost data under separate confidential cover.

2. *If applicable, please expand on any answer provided to Question 1 above.*
For example, should the IPA start by utilizing a smaller amount of the permissible budget in the first iteration of this program (<25%)?

Alternatively, should the Agency utilize the full budget allowance under the law (25%), or somewhere in between? Please provide any supporting reasoning for the specified preferred budget percentage in your response.

Answer:
The Agency would be remiss in utilizing any more than 5% of the permissible budget, and we question whether any amount of the budget should be used for Storage for All at this time.

In PY 2026-2027, the small residential budget of $8.89M (assuming the large residential is fully utilized for large resi projects) can only fund approximately 185 projects down from 837

completed in PY2025/2026[1] a decrease of approximately 78%. This leads us to presume a significant impact on the Approved Vendors and designees that have been working in this subprogram; in particular, the small and emerging businesses which the state has made a commitment to support. In addition, we estimate than 600+ fewer income eligible households will receive bill relief in an increasingly unaffordable economy. Similarly, the NP/PF budget is down more than $8 million in PY 2026-27, funding that would have supported approximately 111 NP/PF projects.[2]

Regarding a pilot budget, as mentioned, we recommend no more than 5% of the PY2026/2027 residential and nonprofit/public facility budgets, which appears to be the smallest amount capable of yielding useful data. Five percent (5%) of those budgets ($30.48 M x .05) totals $1.52 M, which, using workgroup members assumptions of $15,000 per resi projects and $100,000 for NP/PF, using the information in Appendix A, would fund roughly 68 56 projects across the residential retrofit, residential new-build, and NP/PF resilience tracks. Using just 2.5% of the budget would yield only two or three NP/PF sites in the pilot, too few to draw conclusions. The ILSFA residential small solar project loss using 5% would result in approximately all 28 waitlisted ILSFA solar projects (~0.5 MW), compared with a loss of about 142 projects (~2.6 MW) per year IF 25% of the relevant budgets were utilized.

Solar costs are also rising, and solar placed in service after 2027 will lose the federal credit, meaning some ILSFA projects will likely require a larger incentive to “pencil out,” putting more strain on subprogram budgets. A large storage draw would compound that loss. In addition, while the federal storage credit may still apply, that credit is also scheduled to sunset, meaning any state incentive relying on it will likely need to be redetermined in future years.

Running a small pilot should allow the Agency to avoid overpaying for storage if the data shows the costs come in below the IPA’s estimates, and concomitantly prevent the problems associated with underestimating costs. Our suggested pilot approach appears to hold little risk, as any unused Storage for All funds can be returned to waitlisted ILSFA projects. In addition, if de-obligated (or other) funds are used to cover part of the pilot, net draw on ILSFA may be less than 5%.

Given these funding constraints, the Agency should tie the launch of a Storage for All pilot to the availability of funding. A pilot could begin when either (1) the annual Solar for All budget equals or exceeds 10% of the RPS budget or (2) funds sufficient to cover a 5% pilot are available from uncommitted or de-obligated rollover funds. The Agency should ensure that a storage pilot does not divert funding from already constrained solar offerings and limit access to bill savings for more income-eligible households.

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[1] [1] Using data from the 2025/2026 ILSFA dashboard yields a per small residential project REC cost of $48,167. $8.89M/ $48,167= 185 projects.

[2] Using data from the 2025/2026 ILSFA dashboard yields a per PF/NP project REC cost of $72,351. $8,000,000/$72,351 = 111 fewer projects.

Integration with the Illinois Solar for All Program.

3. *When in the application process should the storage portion of a solar + storage project be selected for incentivization? Said another way, how should the Storage for All program best intertwine itself with the already established processes of the ILSFA program?*

Answer:
With regard to new solar + storage projects, we believe the current Home Repair & Electrical Upgrade Pilot offers a useful model. The Approved Vendor would prepare or obtain a quote regarding the cost of the battery plus installation and any necessary upgrades and submit that quote with its ILSFA Part I application for the Program Administrator to review.

3.1. *Should the Agency consider different approaches, depending on whether it is a current or future ILSFA participant? Meaning, should there be an application process for already approved ILSFA solar projects to add a storage component to the system through the Storage for All program and then a separate, distinct application process for projects that are wanting to install solar and storage together at once and looking to apply to both the ILSFA and Storage for All programs?*

Answer:
Retrofit storage projects will present a challenge if the Agency allows a company other than the solar project AV or its designee to submit a storage application for an existing solar project. We have concerns with this approach, namely, no Approved Vendor is going to want to accept the risk of another company working on its project and potentially interfering with its REC contract obligations, including REC delivery, O & M, and system warranties. In addition, many projects will have Third Party Ownership and the TPO can prevent others from installing batteries as part of the system.

Eligibility to apply for and complete a storage retrofit should be limited to the Approved Vendor (and its designees) that maintains the REC contract obligations. A retrofit will necessarily require an application process that is different from a new solar + storage project and should include a 10+-year third party parts and labor warranty for all batteries.

3.2. *Please consider any existing processes, such as the ILSFA application submission process, project selection process, as well as contracting processes that are inflexible, such as REC payment timing, etc.*

Answer:
It is too soon in this process to contemplate integrating storage into a project selection process. We should examine the results of the pilot before taking this on. Should IPA proceed with launching this program we recommend requiring the inclusion of a storage quote with the Part I application and the use of a storage rebate.

Program Focus

4. *Should the Storage for All program be developed in such a way as to specifically focus on one or more "focus" areas, or alternatively, should the Agency seek to incentivize as many storage projects as possible? Potential areas of program focus could be supporting community energy resilience, disaster preparedness, or energy bill reductions (particularly for residents of low-income and environmental justice communities).*

Answer:
We don't know enough about how this program should be designed to fully answer this question. A well-designed and implemented pilot should provide valuable information that we can then use to make these types of decisions. Again, we recommend not launching this program (or a pilot) until the above financial targets have been met. Should the program be launched, we do think it is important that participants have the flexibility to pursue storage projects that meet their needs, whether through bill reductions, backup power, or community resilience if the pilot does in fact demonstrate that these benefits are possible/available.

5. *Should the program focus - if one is selected - be a criterion that is evaluated during project review and selection? If yes, please provide details on how focus areas can be translated to evaluation criteria and applied in a fair and equitable manner necessary for project selection.*

Answer:
Not at this stage. The Agency should use the pilot to gather data on project costs, performance and participant benefits before making a particular program focus a criterion for project selection. We do, however, recommend considering a prioritization of pilot projects in environmental justice communities, particularly areas with high household and Critical Service Provider energy burdens or a history of frequent or prolonged outages. These indicators can help direct limited pilot funding toward communities and organizations with the greatest need while allowing the Agency to evaluate which approaches deliver the strongest benefits.

Rebate, Grant, or Other Incentive Mechanisms

6. *CRGA allows for flexibility in the way the incentive for this program is paid out to participants, noting that the Agency can utilize grants, rebates, or other incentives to encourage storage development. With this in mind, what incentive approach works best for this program – an ongoing REC adder to the already established ILSFA REC price for a project or is a one-time payment such as a rebate or a grant a better option?*

Answer:
Given the nuances of ongoing measurements of performance with batteries, we believe an upfront rebate to be the easiest and most appropriate incentive. At the same time, however, consumer protection demands that the program also require accountability for parts, labor and performance.

To protect participants, Storage for All should establish minimum equipment and warranty standards. At minimum, systems should be certified to UL 9540, with UL 1973 battery modules, UL 1741 inverters, and available UL 9540A fire test data, and should be installed in accordance with NFPA 855. Systems should carry a manufacturer warranty of at least 10 years with a minimum capacity retention threshold, disclosed to the customer in ILSFA program materials, and the Agency should require evidence that the warranty is financially backed. Usable capacity should be verified at commissioning, and systems should provide ongoing performance data. Because battery warranties are typically shorter than ILSFA REC contract terms, the Agency should define the Approved Vendor's obligations for the remaining term. Equipment standards should align with the eligibility requirements of utility storage rebates and VPP programs so that qualifying systems can access the incentives assumed in sizing the Storage for All incentive.

Though not included in the question above, we recommend the program aim for a no cost battery given the likely resistance to and complexity of the need for participating AVs to adopt a billing system and deal with collections. We also recommend a maximum size (e.g. 30 kwh). This approach would allow the program to provide no cost batteries and a base level of backup power to participants while helping stretch the funds. It is also important to note that while the federal storage credit may still be claimed that credit is scheduled to sunset, meaning any state incentive relying on it may need to be redetermined in future years.

7. *Is there a situation where a solar + storage project in development would be reduced to just the solar installation? For example, if a customer originally intends to have a solar + storage project installed, then after application to ILSFA and Storage for All determine that they no longer want to install the storage portion of the project.*

Answer:
The need for electrical upgrades is much more common with storage than with solar alone making it quite likely that a project would be reduced to a solar-only install if the costs of the required electrical upgrades exceeded the program funds available. If a project approved for solar plus storage is completed with solar only, the storage incentive should be forfeited and returned to the program. The solar REC contract, its collateral, and the customer's ILSFA eligibility should not be affected.

7.1. *Considering situations like this are likely to arise - how linked should the storage and solar incentives be? If the storage portion of a project is not completed, should the solar incentive also be considered at risk? If a project approved for solar + storage incentives is built with just a solar installation, what consequences are appropriate at the contract and program levels?*

Answer
In these situations, the rebate should be denied, and the solar project allowed to proceed like any other eligible project.

8. *What opportunities or challenges should the Agency consider with one approach or another? Please explain in detail the impacts of the preferred approach.*

Ensuring No Upfront Costs and Understanding Customer Benefits

9. *Is there anything specific the Agency should keep in mind while working to ensure that no upfront costs are paid by participants in the Storage for All program?*

Answer
The Agency can apply the approach used in the Home Repair and Electrical Upgrade Pilot: The Approved Vendor submits a battery and installation quote with its Part I application, and the incentive is sized to cover the remaining cost after other incentives. Under that structure, storage need not create any upfront cost for the participant.

10. *How should Storage for All identify, quantify, and prioritize the various benefits of storage to the customer, including household energy burden reduction, household and local reliability improvements, and disaster preparedness?*

Answer
It is premature to establish how these benefits should be quantified or prioritized; answering these questions should be a central purpose of the pilot. The Agency should collect data on bill savings, changes in household energy burden, backup power performance, and participant experiences to understand which benefits materialize and under what conditions. Those findings, together with participant feedback, should inform how benefits are evaluated and prioritized in future program iterations. This information should also help determine an appropriate incentive level.

11. *How can the Agency ensure that the ILSFA program's 50% savings requirement remains unimpacted or is augmented by the addition of an energy storage component to a solar project participating in the ILSFA program? 11.1. Please consider that the ILSFA program prioritizes no-cost offers for Residential Solar (Small) customers and the vast majority of existing ILSFA Residential Solar (Small) projects utilize no-cost leases.*

Answer
Although we strongly advocate for no cost solar (up to a maximum size), any customer charges associated with storage should be included in the savings calculation to ensure that the combined solar plus storage offering continues to meet or exceed ILSFA's minimum 50% savings requirement. For residential solar (small) customers, the Agency should continue to prioritize no-cost offerings so that adding storage does not introduce charges that erode the savings from their solar installation.

12. *The Agency is requesting that project developers provide data related to costs for developing and installing solar + storage projects in Illinois, especially as it relates to the storage*

portion of the project. Please mark any cost data shared with the Agency as confidential per the Feedback Submission Process outlined above.

13. *The Agency is also requesting that project developers provide data related to the ongoing benefits seen by customers with storage as a part of their solar installation. The Agency anticipates that in addition to quantifiable bill analysis, other benefits may be quantifiable as avoided outages in minutes or hours, and community benefit of reduced local grid burden associated with service disruptions.*

Answer
We note that storage will present a particular challenge in this regard due to the fact that every customer has a different load and energy use profile, and that difference, along with their specific utility rate structure, participation in any demand-response programs, battery reserve settings, and specific battery software, management rules and modes create different outcomes for energy savings and backup hours available per home. In addition, the number of backup hours varies due to energy usage during outages and the battery's state of charge at the time the power goes out. Assuming full battery charge at the time of the outage, the average ILSFA residential customer will see whole-home resilience for somewhere between 2-5 hours, depending on the specific customer situation. All of this can be presented clearly and reasonably to a customer from a trained sales/energy professional, but it would be difficult to set these numbers for the ILSFA population across the state.

13.1. *Does the reduction of energy burden by a customer's LIDR impact the benefits seen from the addition of storage to a customer's solar installation?*

Answer
A customer's LIDR may reduce the dollar value of additional bill savings from storage, but storage can still provide savings beyond those delivered by solar alone. Should there be any customer charges for storage, those charges should ensure that the combined offering continues to meet or exceed ILSFA's minimum 50% savings requirement.

Avoiding Double Counting of Incentives

14. *What should the Agency consider to ensure incentives aren't double counted, especially keeping in mind that Storage for All projects are required to be colocated with Illinois Solar for All projects?*

Answer
The Agency should evaluate all incentives available to a co-located solar plus storage project together, identify the remaining funding gap, and size the Storage for All rebate accordingly. This approach should prevent multiple incentives from covering the same costs while allowing

complementary incentives to be combined to make projects viable and meet customer savings requirements.

15. *What assumptions should be made about other sources of funding for solar + storage projects that would participate in this program? (CRGA's VPP program, existing solar + storage rebate, etc.)*

Answer

- Federal storage credit eligibility depends on compliance with the foreign entity of concern material-assistance rules, which tighten each year. Projects that fail the test lose the credit entirely.
- Approved Vendors and third-party owners typically sell their credits rather than use them, at a discount. Incentives should be sized on the credit's realized value, not its full-face value.
- The storage credit begins phasing down for projects starting construction after 2033, so any state incentive sized around it will need to be recalculated in later years.

A well-designed and executed pilot should provide the Agency with a good handle on the real costs involved to prevent over and under paying. As we understand it, at this time VPP revenue is minimal, but may increase as that program expands. As mentioned in the bullets above, while the federal storage rebate is still available, that rebate will sunset as well. Both of these upcoming changes will likely require a reexamination of the storage incentives over time. Finally, solar rebates apply to the solar project and should not be considered in setting the storage incentive.