SB3959/HB5856 ANALYSIS

These bills establish an 8,500 MW Energy Storage Standard and deliver the following:

Increase Reliability: Strengthens grid reliability by building more large-scale energy storage and creating a Virtual Power Plant Program, both of which are critical for a smooth transition to a renewable energy future.

Reduce Costs: **Saves Illinois families and businesses $3 billion** through the energy storage program over the next 20 years. This program would also **reduce power outages, saving up to $7.3 billion** by 2050.

Boost Illinois' Economy & Creates Jobs: The renewable energy future is projected to **generate up to $16.3 billion in economic activity** in the Illinois, create thousands of union jobs under project labor agreements (PLAs) and include the same equity requirements as CEJA.

Help Meet Climate Goals: These bills **reduce emissions in the power sector by 50 million tons** by 2045 and deliver an immediate solution to help Illinois stay on track to meet its climate goals without sacrificing grid reliability or raising costs to consumers. Without this important step, these emission reductions and other CEJA goals won't be realized.

Voters Support Clean Energy

APPROXIMATELY **75%** **OF VOTERS SUPPORT** incentives to build a more reliable grid through storage.

ALMOST **60%** **OF VOTERS SUPPORT** creating *more* clean energy jobs

Energy cost savings are **a priority** for nearly **75%** **OF ILLINOIS VOTERS**

Source: Illinois Voters Support for Energy Storage System Incentives, Impact Research, conducted January 17-21, 2024.

KEY QUESTIONS

Is the proposed energy storage program needed now?

Yes, because deploying large scale energy storage resources requires considerable time. Commencing an energy storage program in the near term would be an appropriate hedge against the elevated reliability risks presented by accelerating power station retirements and delayed deployment of renewable energy resources in the region.

What are the consumer cost impacts of the proposed energy storage program?

Illinois consumers would realize between a net reduction of $3 billion in utility bill savings through the energy storage program. Based on current estimates, the average single-family utility account served by Ameren Illinois would realize an average cost savings of $7/month over 20 years and the average ComEd single family residential account would realize an average cost savings of $4/month.

How will 8,500 MW of energy storage help Illinois meets its capacity needs?

Under CEJA's timeline, 8.4 GW of coal capacity will be retired by 2030. For comparison, in the next five years, new solar capacity is only expected to grow by less than 6.6 GW. In order to fill this gap and the growing demand for electricity with clean resources, Illinois needs to dramatically accelerate the build out of energy storage to both optimize existing wind and solar generation assets and support new renewable projects coming online in the future.

Scan the QR code to learn more!

Why Illinois Needs Clean Energy Storage

Key findings from "Cost and Benefit Analysis of Energy Storage Resource Deployment in Illinois"

A new study by Mark Pruitt, former Director of the Illinois Power Agency, Associate Professor at Northwestern University, and Principal of the Power Bureau, examined Illinois' energy capacity outlook.

The study found immediate legislative action is needed to build at least 8.5 MW of clean energy storage. Doing so would reduce consumer costs, future-proof the state's economy, and improve power grid stability.

Illinois Must Act Now

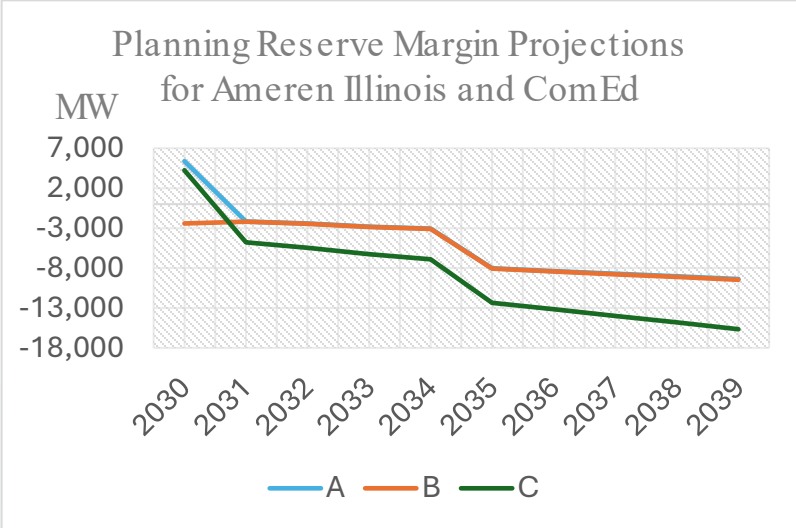
- Federal, regional, and state regulators agree that Illinois is at risk of an energy deficit.
- Illinois could experience delays in the retirement of fossil fuel plants if that would threaten power grid reliability.
- Illinois' poor energy capacity outlook is already causing cost increases, affecting consumers and deterring business investments. Energy wholesaler PJM Interconnection, which serves millions of Illinoisans, recently saw a more than 800% price spike – and these price hikes will continue if we do not create more in-state energy capacity.

Future-Proof Illinois' Economy

- Without at least 8.5 MW of clean energy storage, by 2040, Illinois faces an energy shortfall of at least 9.4 MW — the capacity needed to power approximately 7 million homes.
- Illinois needs increased power capacity to support new residential and economic growth through high-energy businesses such as data centers, artificial intelligence, and manufacturing.
- Building 8.5 MW of clean energy storage could generate up to $16.2 billion in economic activity and provide macro-economic benefits up to $28.4 billion.
- Up to 115,000 full-time jobs would be created by constructing and operating 8.5 MW of clean energy storage.

Improve Grid Stability

- If Illinois does not increase its energy capacity to meet future needs, the entire grid will be more susceptible to blackouts.
- Without enough in-state capacity to meet demand, Illinois must import more out-of-state energy or keep fossil fuel plants online longer. These costs will be passed on to consumers.
- High-energy businesses will choose other states if they cannot be guaranteed reliable and affordable power.



Scenario A (Business As Usual)
Scenario B (Decreased Renewable Deployments)
Scenario C (Increased Demand for Electricity)

Reduce Consumer Costs

8.5 MW of clean energy storage would:

- ***Save Illinois consumers $3 billion***
- Prevent consumer electricity bill hikes of $30 per month
- Avert $7.3 billion in blackout-related expenses
- Avoid up to $4.9 billion worth of carbon emissions

SB3959 & HB5856 will Modernize Illinois' Electric Grid and Lower Consumer Costs

The 2021 Climate and Equitable Jobs Act (CEJA) created a clear roadmap to achieve a 100% clean energy future for Illinois by investing in clean energy and retiring coal plants. SB3959 & HB5856 make necessary investments to meet those standards while creating a cleaner and more reliable and affordable power grid that benefits all of Illinois for decades to come.

These bills establish a clean energy storage procurement mandate, break down barriers that slow down clean energy development, and streamline clean energy procurement to help Illinois meet CEJA's mandates.

Consumer Savings

SB3959 & HB5856 save consumers $3 billion on energy bills through 2049 by eliminating the need to import energy from outside Illinois and prevent $7.3 billion in blackout-related expenses through 2049.

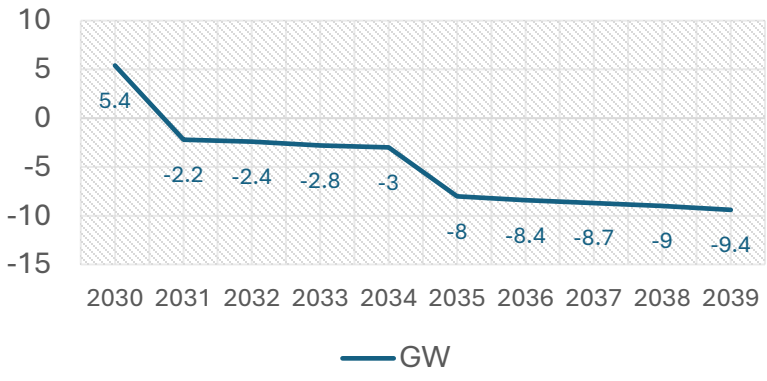
These bills build upon CEJA's momentum to construct more clean energy capacity. This is critical to preventing shortfalls, which raise prices for Illinois residents, as exemplified by the 2024 PJM Interconnection Auction that is expected to increase monthly rates for millions of Illinois residents served by PJM by $30 per month.

Create $3 billion consumer savings and prevent $7.3 billion in blackout-related expenses

Bridging the Gap

8.4 GW of coal plants will retire by 2030 under CEJA, but we are not currently on pace to replace these retirements. Illinois is projected to have a shortfall of at least 9.4 GW by 2039. SB3959 & HB5856 create incentives to spur further clean energy development to avoid these projected shortfall.

Illinois Energy Production Deficit 2030-2039



Source: *Cost and Benefit Analysis of Energy Storage Resource Deployment in Illinois*

Creating Jobs & Economic Growth

These bills generate up to 115,000 full-time employment years and $16.3 billion in economic activity that in turn prepares Illinois for continued investment by strengthening economic growth from energy investments. More data centers and manufacturing investments will need a reliable, affordable, and clean energy grid.

Create $16.3 billion in economic activity

Scan the QR code to learn more!

SB3959/HB5856 Analysis Executive Summary

SB3959 & HB5856 establish an 8,500 MW Energy Storage Standard and deliver the following:

- Increase Reliability
- Reduce Costs
- Boost Illinois' Economy & Creates Jobs
- Help Meet Climate Goals

These bills do the following:

(a) Address challenges that renewable energy providers are experiencing in state procurement programs to better meet Illinois' clean energy goals.

(b) Create a regulatory framework to spur development of energy storage and improve grid reliability while reducing consumer costs.

KEY QUESTIONS

Is the proposed energy storage program needed now?

Yes, because deploying large scale energy storage resources requires considerable time. Commencing an energy storage program in the near term would be an appropriate hedge against the elevated reliability risks presented by accelerating power station retirements and delayed deployment of renewable energy resources in the region.

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How will 8,500 MW of energy storage help Illinois meet its capacity needs?

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isea Illinois Solar Energy & Storage Association

SEIA Solar Energy Industries Association®

Incentives and Regulatory Framework

These bills take aim at creating incentives and a robust statutory framework for energy storage where none exist today. To do so, SB3959 and HB5856 balance industry growth and needs with customer benefits.

New Utility-Scale Storage Procurement

These bills establish new goals for deploying reliability-enhancing and customer-beneficial utility-scale storage with the IPA conducting a competitive procurement process. Utility-scale storage will be built under project labor agreements.

Long-Term Energy Procurement Plan

While the IPA already procures energy for immediate use, these bills build on already-existing frameworks by offering incentives that will support a long-term energy procurement plan. Specifically, this effort aims to incentivize smaller systems to operate (via going out to the market and buying storage) in ways that benefit all customers in the form of tariffs.

Distributed Generation Rebate

As proposed in these bills, the existing distributed generation rebate for solar and storage systems is modernized to recognize new programs, would lower costs for customers with distributed generation systems, and provide greater flexibility and options for residential and small business customers.

Tariffs

These bills establish a regulated and well-balanced tariff framework for smaller (distributed) stand-alone systems, combined storage and solar distributed systems, and demand reduction programs. Currently, existing tariffs and utility programs only offer partial compensation or none at all, but the new framework governs and compensates use of energy storage and demand reduction in a way that benefits all ratepayers.

Community Solar

These bills provide crucial clarity around the practice of net crediting. The current law is confusing and has been interpreted as utilities providing “will pay when paid” billing services for community solar. These bills also refine the practice to define net crediting in a way that allows money-saving community solar subscriptions to be deployed to low-income customers or other customers with low credit scores without risk to the community solar system and without ratepayers taking on new risk.

Virtual Power Plants

Virtual Power Plants are created through these bills. Individually, these devices generate and store power, have backup power, and provide savings on energy bills. Together, they can inject vast amounts of power into the grid to reduce peak energy supply constraints and add reliability to the grid, which can result in consumer savings.

SB3959 & HB5856 do the following:

A. Address challenges that renewable energy providers are experiencing in state procurement programs to better meet Illinois' clean energy goals

Current IPA practices create confidential contract term benchmarks (maximum bid prices). This practice keeps renewable energy-centric companies from clearly understanding current practices needed to build clean and renewable energy infrastructure and meet Illinois' clean energy goals. Recent under-procurement for large wind and solar (utility-scale) generation has been caused in part by this benchmarks issue, particularly for wind. These bills seek to improve benchmarks through further transparency and informed stakeholder comments without sacrificing existing statutory protections against excessive costs.

In addition, these bills clarify terms and conditions of project selection under the Adjustable Block Program to reduce unused capacity or failed projects because the program is too narrow or rigid as implemented. Furthermore, the proposed language addressing equity eligible contractor protected opportunities creates a balance between building up new businesses and incentivizing partnerships between new and existing businesses without overly subsidizing well-established businesses.

These bills additionally build out the already-existing Interconnection Working Group from its current status quo, as well as imposes more transparency and predictability on the utility interconnection process. In particular, the revisions are aimed at reducing surprise changes, fostering dialogue, and maintaining the integrity and safety of the electric distribution system.

B. Create a regulatory framework to spur development of energy storage and improve grid reliability while reducing consumer costs.

These bills also take aim at creating a robust statutory framework for energy storage where none exists today. To do so, the bills establish incentives and additional regulations around the framework to best balance industry growth and needs with customer benefits. See page 2 for more details on incentives and regulatory framework.

With your help, Illinois will be the national leader in renewable energy.

Scan the QR code to learn more!

SB3959/HB5856 STORAGE FAQs

Planning Reserve Margin level, which can lead to an unreliable energy grid and increased ratepayer costs.

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What is the general reason for all these storage provisions?

- The Climate and Equitable Jobs Act (CEJA) supercharged Illinois' solar industry; however, energy storage, a necessary tool for both the clean energy transition and for ensuring grid reliability, was not included in CEJA. To capitalize on CEJA's incredible momentum and ensure Illinois stays on track to meet its urgent climate goals, SB 1587 provides bulk storage targets and the ability to pair battery storage with both residential solar and community solar.
- An energy storage standard, also known as an energy storage target, is essential for ensuring the grid remains reliable, keeps costs to ratepayers as low as possible while simultaneously growing jobs in the state. These bills includes core energy storage programs that will ensure the state of Illinois transitions to clean energy and that good paying jobs in the energy sector grow throughout this transition. One way these bills achieve this is through the creation of the Virtual Power Plant (VPP) Program. VPPs are created by aggregating resources, such as home rooftop solar paired with battery storage. Individually, these devices generate and store power, have backup power, and provide savings on energy bills. Together, these devices can inject vast amounts of power into the grid to reduce peak energy supply constraints and add reliability to the grid, which can result in consumer savings.
- Data shows that Illinois MW of energy storage capacity by 2035 as the RPS deploys more renewable energy on the grid, fossil fuel plants come offline, and electrification data centers place upward pressure on electricity needs. These bills ensure that the state will have sufficient storage resources connected to the grid under the right timeline to keep the grid reliable during the energy transition.
- Energy storage technologies provide unique and essential benefits to the grid and to taxpayers across all settings – at the utility-scale, community-scale, and in commercial and residential settings. These bills holistically address all of those unique settings and ensures ratepayers can capture each of those unique benefits.

SB3959/HB5856 STORAGE FAQs

What are some key provisions updates in these bills?

- *Increase in Long-Duration Demonstration Projects*: These bills increase the number of long-duration and multi-day duration energy storage demonstration projects that the IPA would be tasked with carrying out. This was done to ensure that an adequate number of demonstration projects existed to evaluate the values and benefits of a variety of different technologies and variety of different use cases.
- *Added Flexibility in the Bulk Storage Procurement Program*: Instead of relying on index storage credits for all bulk storage procurements, these bills allow both the use of index credits and tolling agreements. Additionally, they give the IPA the authority and flexibility to allocate procurement amounts between these mechanisms in a way that best suits the state and ratepayers. This change was also made with lessons already learned from New York's procurement processes, which are years ahead of Illinois.

What is an index credit mechanism and a tolling agreement – what is the difference?

- *Tolling Agreements / Utility Dispatch Rights*: Under these agreements, utilities are granted the authority to dispatch and control the operation of energy storage systems to maximize grid reliability, optimize energy supply, and respond to dynamic grid conditions. This contractual arrangement empowers utilities to utilize energy storage resources as needed, whether for peak demand management, integration of renewable energy, or ancillary grid services. In return, energy storage asset owners receive compensation for their resources' flexibility and reliability contributions.
- *Index Storage Credits*: In this approach, storage project developers bid a "strike price" in a competitive solicitation, and payments are made over time, linked to project lifetimes or contract durations. Payments are determined by comparing the strike price to a "reference price" derived from market price indices. If the strike price exceeds the reference price, the program facilitator provides a support payment to the project. Projects are selected based on predetermined criteria, including price and non-price factors like project viability and societal benefits. Other index credit proposals have suggested funding these payments through collections from Load-Serving Entities (LSEs).

Will costs of demonstration projects dilute savings for ratepayers?

- No. While the one material increase in these bills is the demonstration projects, those will not present substantial costs to ratepayers, and in fact, the value gained through learning by doing will result in increased efficiency and effective utilization of technologies in the long-term.
- The adjustment for the bulk storage procurement program, by adding a second procurement mechanism and offering discretion to the IPA, ensures that the most efficient and cost-effective procurement programs are used for the vast majority of procurements. This will drive any estimates related to cost down, because the diversification and flexibility allow for real-time programmatic adjustments.

Scan the QR code to learn more!

SB3959/HB5856 STORAGE FAQs

What would the current 7,500 MW procurement schedule look like?

At least **1,000 megawatts** of cumulative energy storage capacity by the end of delivery year **2024**. This entails:	• 200 MW for Tolling Agreements • 200 MW for Index Credits • 600 MW IPA regulatory determination
At least **3,000 megawatts** of cumulative energy storage capacity by delivery year **2026**. *This includes the storage capacity of delivery year 2024 and adds the following capacity:*	• 400 MW for Tolling Agreements • 400 MW for Index Credits • 1,200 MW IPA regulatory determination
At **5,000 megawatts** of cumulative energy storage capacity by delivery year **2028**. *This includes the storage capacity of delivery year 2026 and adds the following capacity:*	• 400 MW for Tolling Agreements • 400 MW for Index Credits • 1,200 MW IPA regulatory determination
At least **7,500** megawatts of cumulative energy storage capacity by delivery year **2030**. *This includes the storage capacity of delivery year 2028 and adds the following capacity:*	• 500 MW for Tolling Agreements • 500 MW for Index Credits • 1,500 MW IPA regulatory determination

Procurement schedule for additional 1,000 MW of behind the meter energy storage to be determined.