

STORING THE FUTURE: HOW UTILITY-SCALE STORAGE IS UNLOCKING THE CLEAN ENERGY TRANSITION

Tuesday, September 22, 2026

10:00AM–12:30PM

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AGENDA Tuesday, September 22, 2026

10:00 am	WELCOME: WHY CLEAN ENERGY STORAGE NEEDS MORE THAN DEPLOYMENT TARGETS
10:05 am	THE STORAGE IMPERATIVE: THE GAP BETWEEN PUBLIC GOALS AND MARKET SIGNALS
10:25 am	STORAGE BY THE NUMBERS: DEPLOYMENT, DEMAND, CONSTRAINTS
10:45 am	BUILDING AT SCALE: MAKING CLEAN ENERGY STORAGE BANKABLE, CLAIMABLE, AND INVESTABLE
11:15 am	FROM ACCOUNTING TO ACTION: CHALLENGES IN TRACKING AND REWARDING STORED ENERGY
11:45 am	CLOSING: THE NEXT THREE YEARS OF CLEAN ENERGY STORAGE
11:50 am	CONCLUSION AND NETWORKING

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WELCOME: WHY CLEAN ENERGY STORAGE NEEDS MORE THAN DEPLOYMENT TARGETS



Jennifer Martin
CEO
Center for Resource Solutions

Tuesday, September 22, 2026 10:00 – 10:05 am

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THE STORAGE IMPERATIVE: THE GAP BETWEEN PUBLIC GOALS AND MARKET SIGNALS



Seth Dunn
Senior Advisor
NYSERDA

Tuesday, September 22, 2026 10:05 – 10:25 am

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The Storage Imperative



Seth Dunn

Center for Resource Solutions | NERA, Climate Week NYC

September 22, 2026

NEW YORK STATE | NYSERDA
New York State Energy Research and Development Authority

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The New York State Energy Research and Development Authority is a public benefit corporation made up of energy experts.

Together, along with other entities across the State, we are helping to pave the way for New York's clean energy transition.

NYSERDA provides objective information and financial support so that residents and businesses in New York can choose a clean energy future.

Our impact can be felt in the work we do across New York in the areas of:





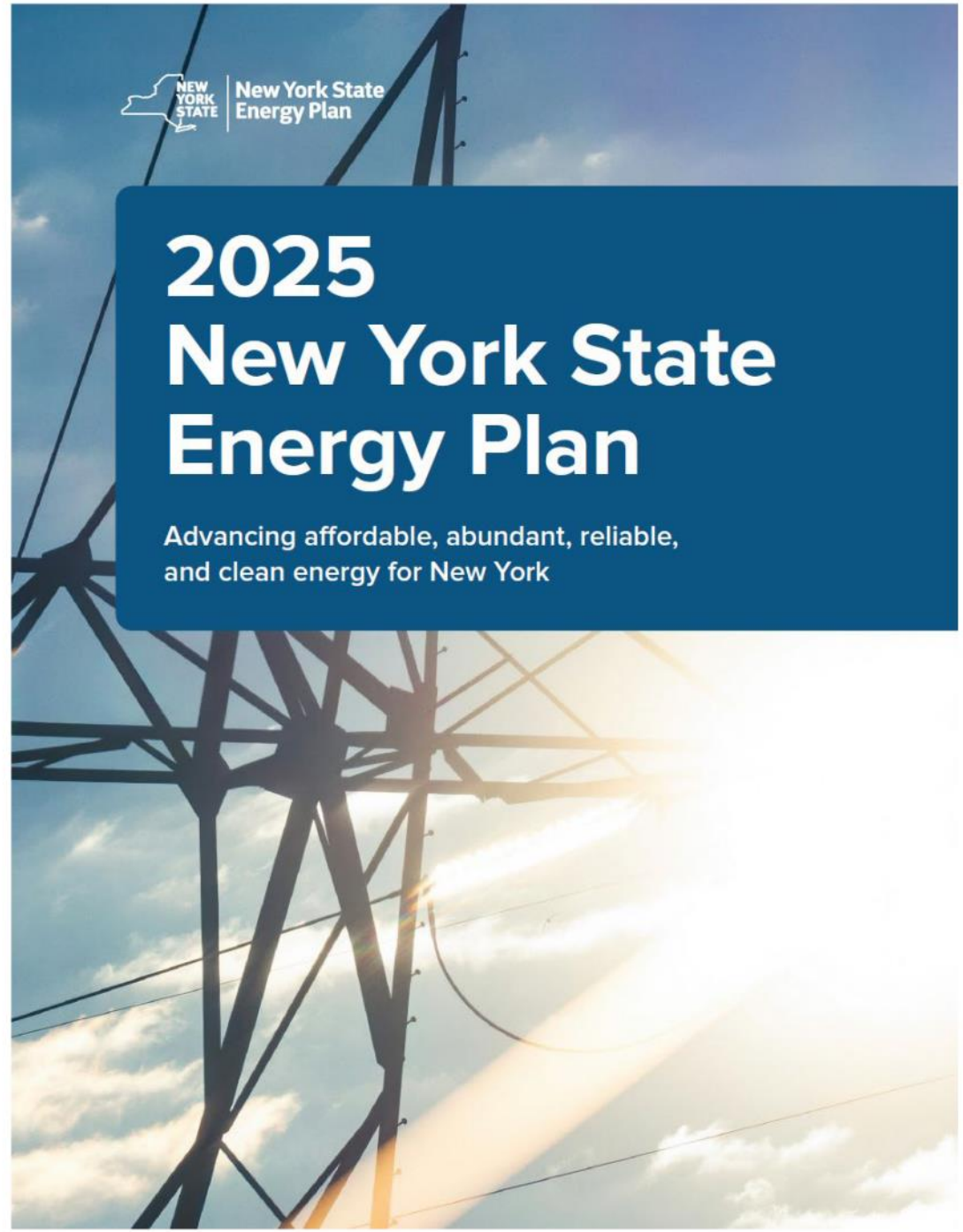




The New York State Energy Plan (Plan) provides broad policy direction that guides energy-related decision making within the State.

- The 2025 Plan includes an outlook through 2040 with recommendations for meeting future energy demands that prioritize an energy system that is **affordable**, **abundant, reliable**, **and clean** while supporting economic development, equity, and a healthy environment.
- The Plan builds on New York's significant progress toward a clean energy economy.

Scan the QR code or visit energyplan.ny.gov/2025-plan to view the plan.



New York is an emerging hub for battery and energy storage technologies and NYSERDA is investing in their development and safe deployment.

As we continue to choose renewable energy and electrify our buildings and transportation, adding energy storage to the electric grid will make the grid more flexible, efficient, and resilient.

Types of Energy Storage:



Residential

Primarily used for at-home back-up power, these systems can also shift energy use to "off-peak" hours and integrate onsite solar panels for a low-cost residential clean energy system.



Commercial

Businesses and institutions can install larger storage systems to pair with solar, provide back-up power, and even earn compensation from their utilities.

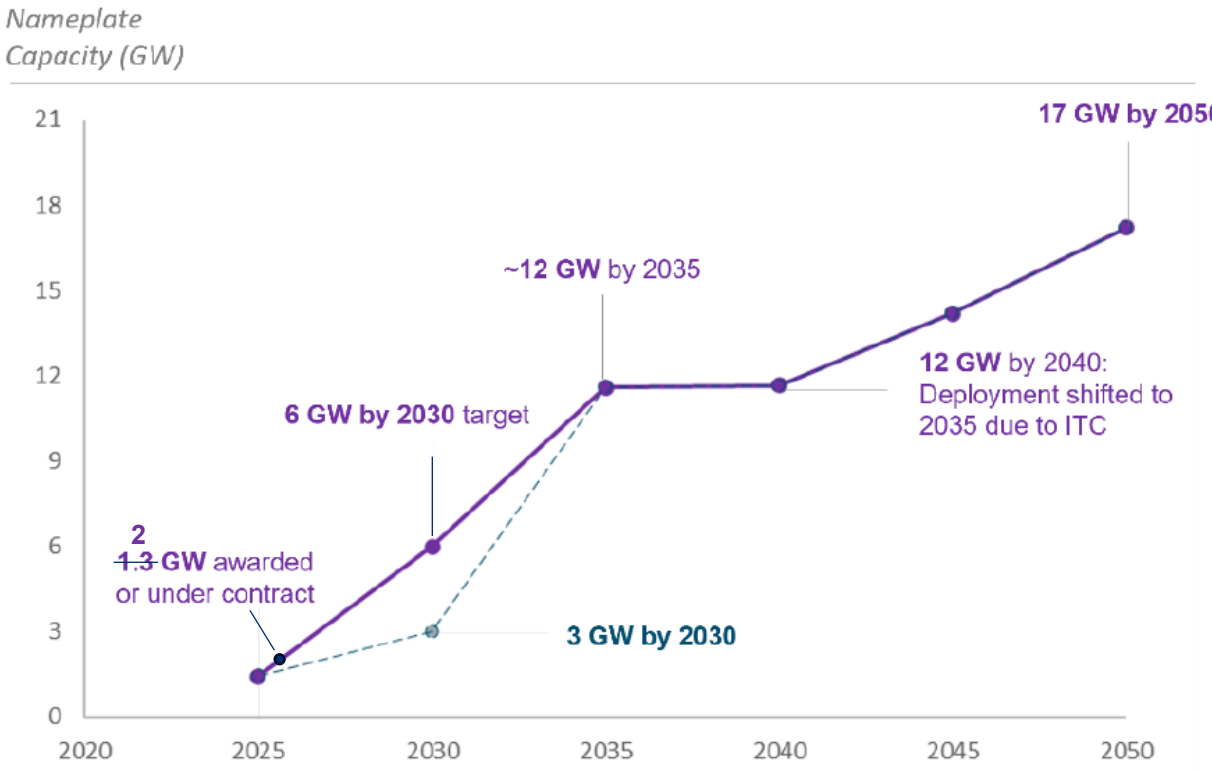


Bulk

These grid-connected storage projects help utilities integrate more renewable energy sources to our power supply while ensuring grid resilience and reliability.

WHY BULK ENERGY STORAGE IN NEW YORK

2022 Energy Storage Roadmap
Targets and Deployment to Meet System Needs



Drivers of Bulk Energy Storage in NYS

Growing renewables penetration

Zero-emissions grid goal

Peaker retirements

Reliability challenges

Economic opportunities

Near-term deployment needed to achieve 2030 and 2040 goals

THE INDEX STORAGE CREDIT – WHY AND WHAT

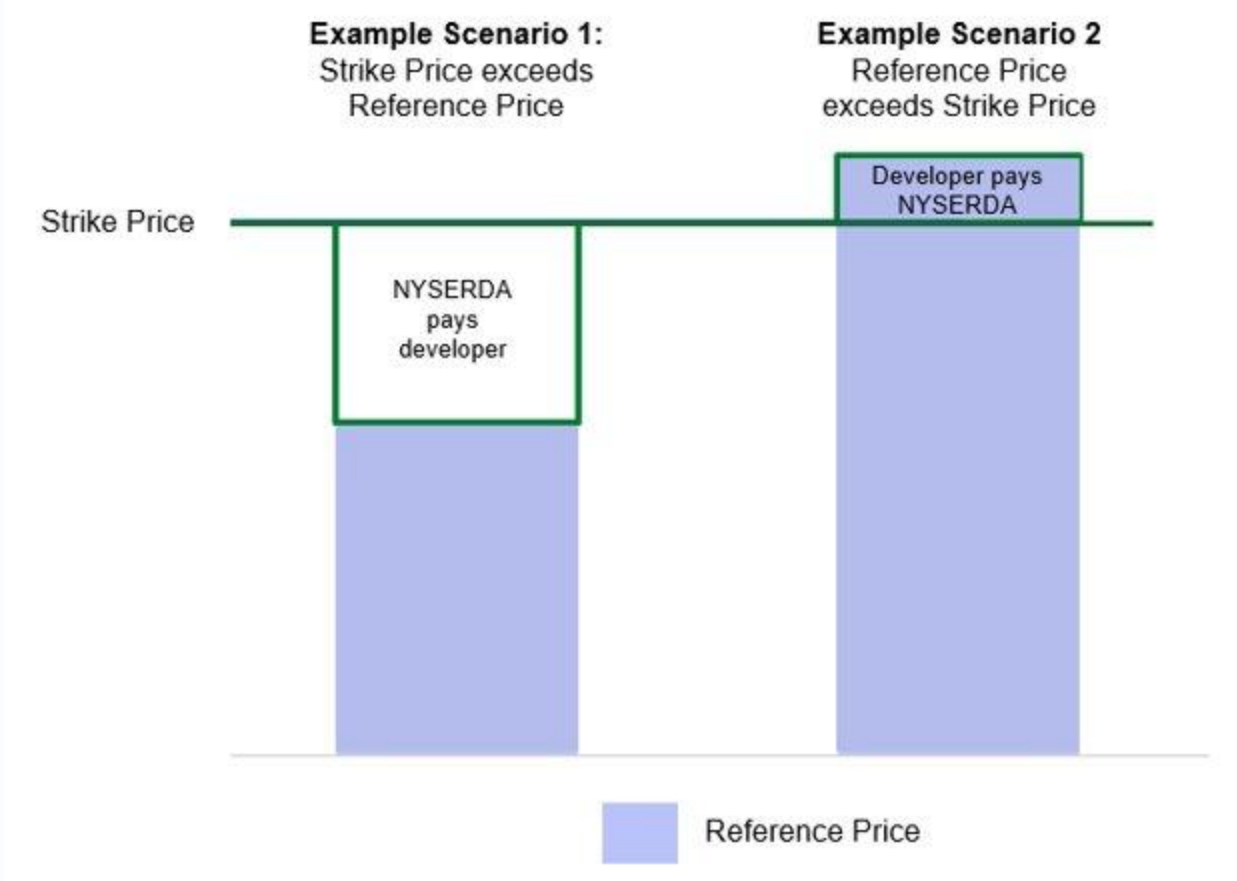
- Wholesale market revenues insufficient to support project viability
- Prior incentive–upfront, one-time—not providing long-term certainty

- Index Storage Credit (ISC) modeled on NYSERDA Index REC/OREC
- Incentive indexed to expected wholesale market revenues
- ISC payments over project life provide revenue certainty
- Creation of ISCs based on operationally available MWh
- Applies to bulk = 5+ MW, transmission or distribution connected

ISC = Strike Price – (Reference Energy Arbitrage Price + Reference Capacity Price)

HOW THE ISC WORKS

- Hedge against wholesale market revenue … “missing money” but not CfD
- Reference price assumes NYISO market participation
  - Energy market arbitrage (“TB” pricing)
  - Capacity market participation
- NYSERDA payment adjusts to market … ratepayer proection
- Payments over 15-25 years



Provide greater revenue certainty & financeability while protecting ratepayers

NYSERDA BULK ENERGY STORAGE PROGRAM

Recommended in Dec 2022 Energy Storage Roadmap

Approved in June 2024 PSC Order directing NYSERDA to:

- Conduct minimum of three bulk solicitations, at least annually ➡ 3 GW
- Issue first RFP no later than June 30, 2025
- Implement Index Storage Credit incentive mechanism
- Target 20% for 8+ hour projects in each solicitation
- Target at least 30% of projects in NYC (35% downstate)
- Include Fire Safety requirements

NYSERDA BULK ENERGY STORAGE PROGRAM – RFP PROCESS

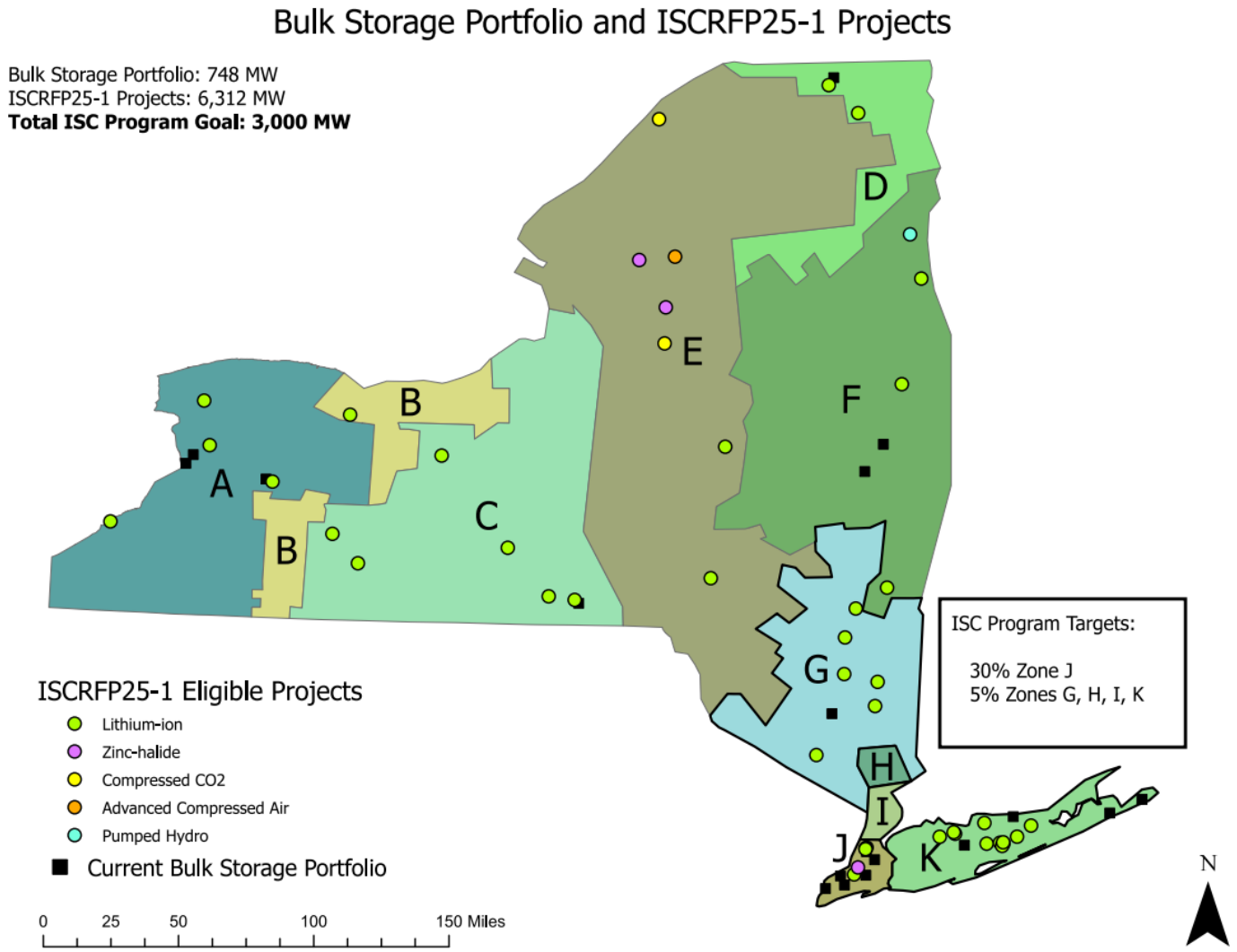
Price evaluation factors (levelized $/ISC cost) = 60%

Non-price evaluation factors = 40%

- Project maturity and viability
- Electricity system value
- Societal and economic benefits

1st RFP ("ISCRPF25-1") completed March 2026 (6 GW of proposals)
2nd RFP in preparation for Q426 issuance
3rd RFP in 2027

ISCRFP25-1 PROPOSED PROJECTS



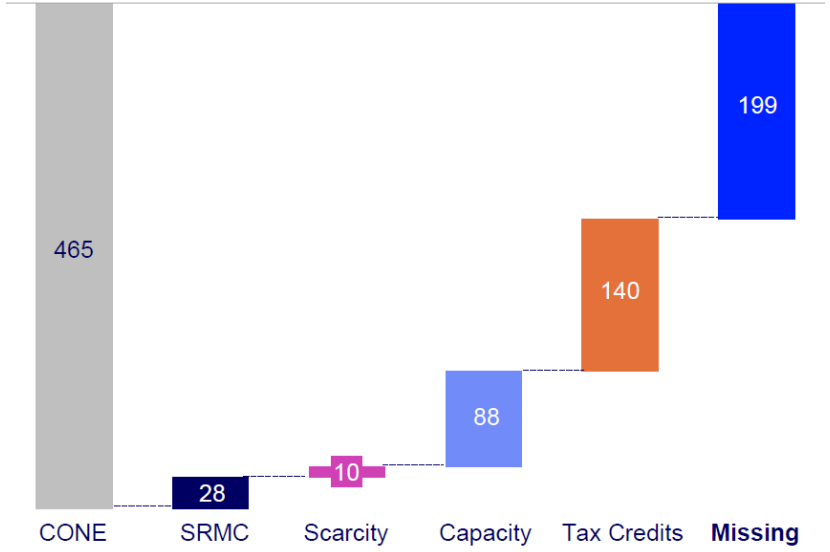
POLICY DIFFUSION OF ISC APPROACHES

Power demand growth opportunities and risks

New state-funded incentives are solving the missing money problem for storage

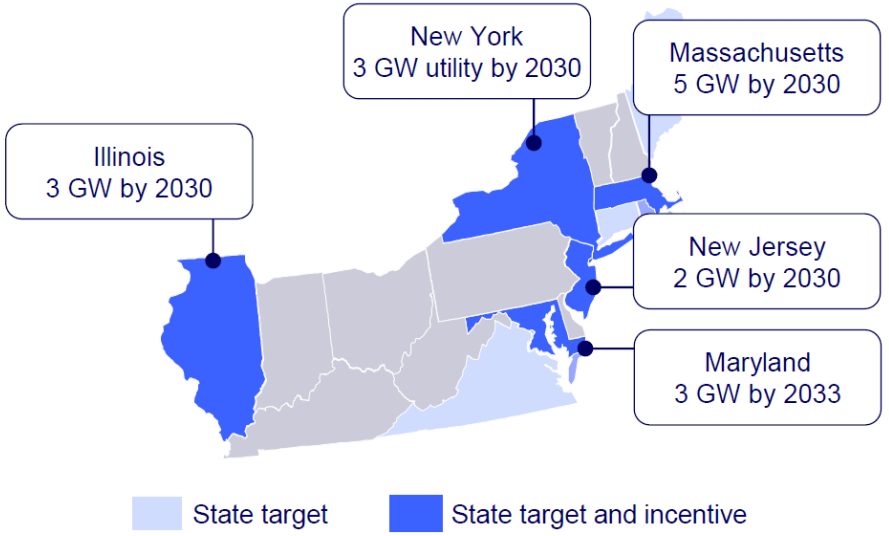
States with high costs of new entry, comparatively low merchant revenues, and ambitious storage targets are implementing incentives explicitly designed to solve the missing money for storage

NYC merchant revenue forecast, 2030 ($/kW-yr)



Source: Wood Mackenzie, Wood Mackenzie Lens; SRMC = short-run marginal cost

US state-level energy storage targets and incentives



THREE PARTING THOUGHTS

Targets matter … no ISC without 6 GW/2030

Underlying drivers remain … independent of political emphasis (clean, reliable, affordable, bankable, safe)

Utility-scale storage increasingly needs contracted revenue to scale on a sustainable basis in desired timeframe … ISC or otherwise

The Storage Imperative



Seth Dunn

Center for Resource Solutions | NERA, Climate Week NYC

September 22, 2026

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STORAGE BY THE NUMBERS: DEPLOYMENT, DEMAND, CONSTRAINTS



Tanuj Deora
VP Commercialization
Sparkfund

Tuesday, September 22, 2026 10:25 – 10:45 am

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sparkfund

September 22, 2026

By the Numbers:
How Storage can Unlock the Clean Energy Transition

Tanuj Deora
NERA NYCW



Every form of storage has to scale



More capacity, fast
U.S. peak demand is forecast to reach ~995-1,050 GW by 2030-2035, an increase of 25% to 35%, after a flat decade.



Cost, carbon, reliability together
New capacity has to put downward pressure on rates, and keep the system reliable, not trade one for another.

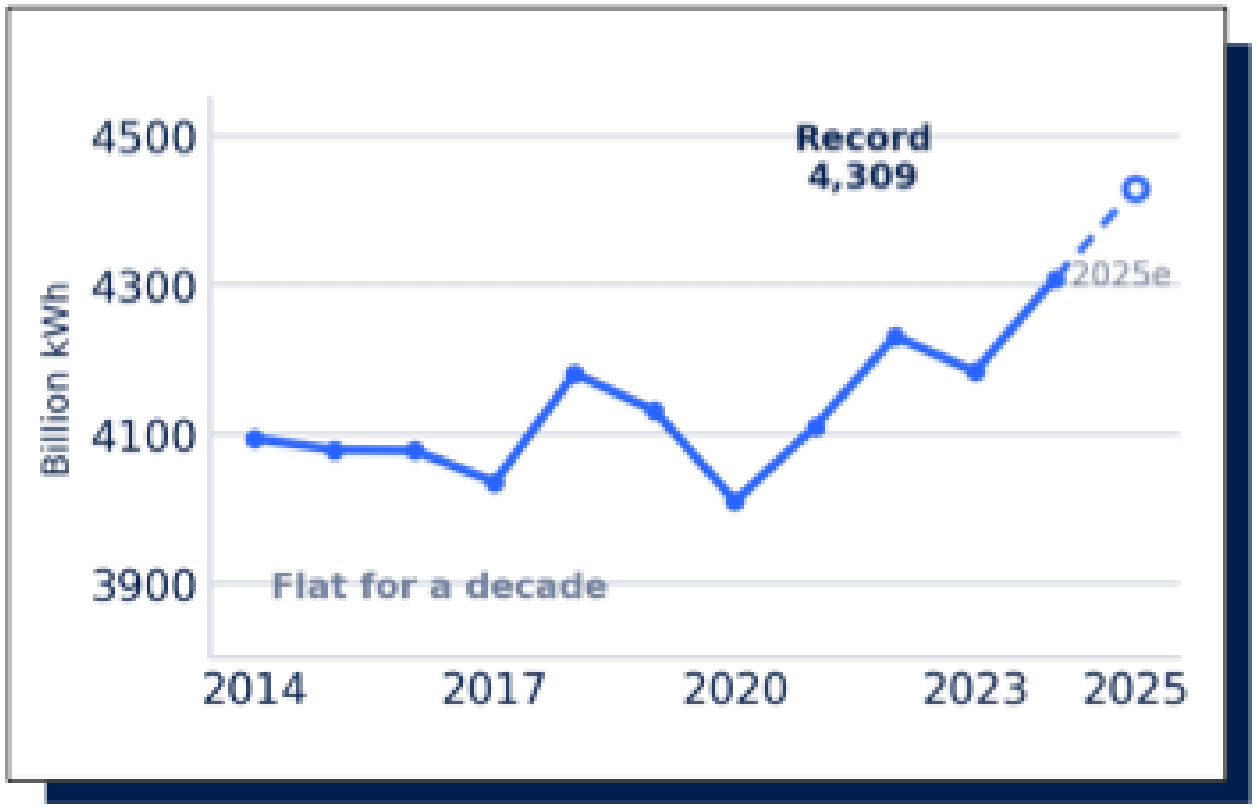


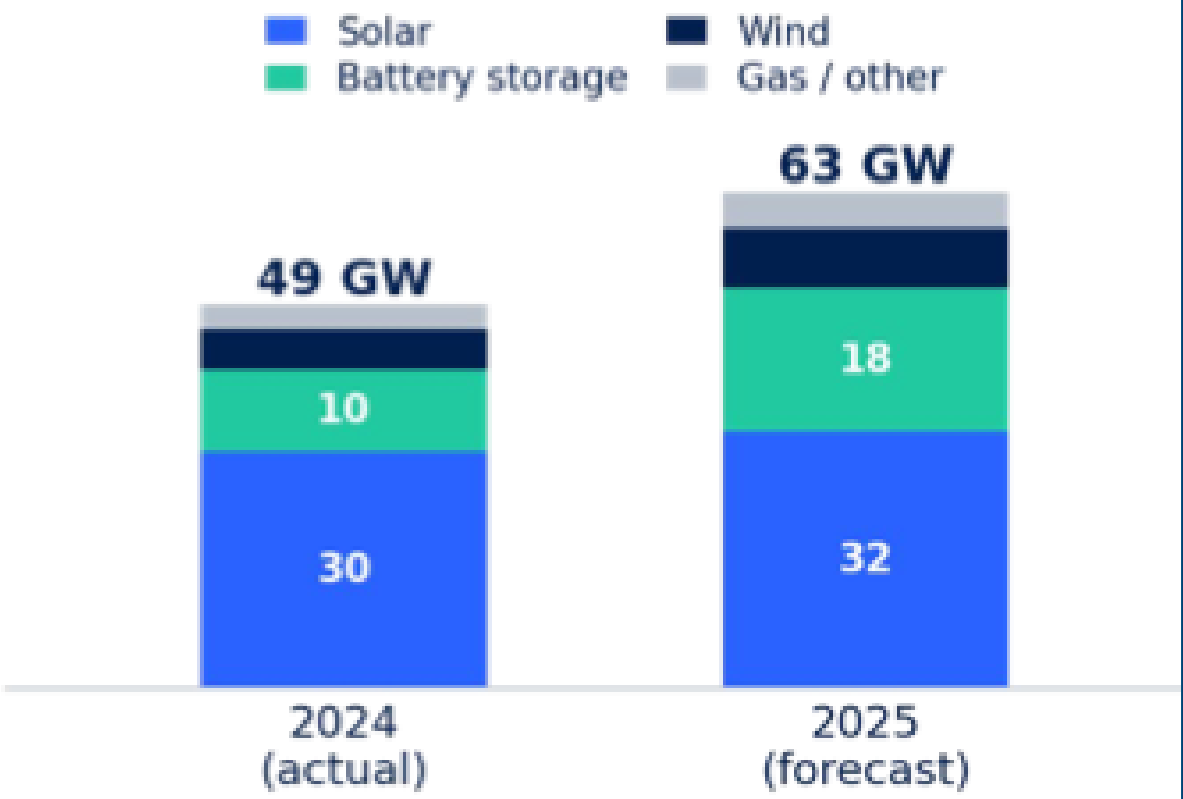
Utilization is the lever
Storage can increase grid utilization, integrating new load at lower-than-average cost.

Grid Strategies (Nov 2025); NERC 2025 LTRA; Brattle, The Untapped Grid (2026)

THE NEED

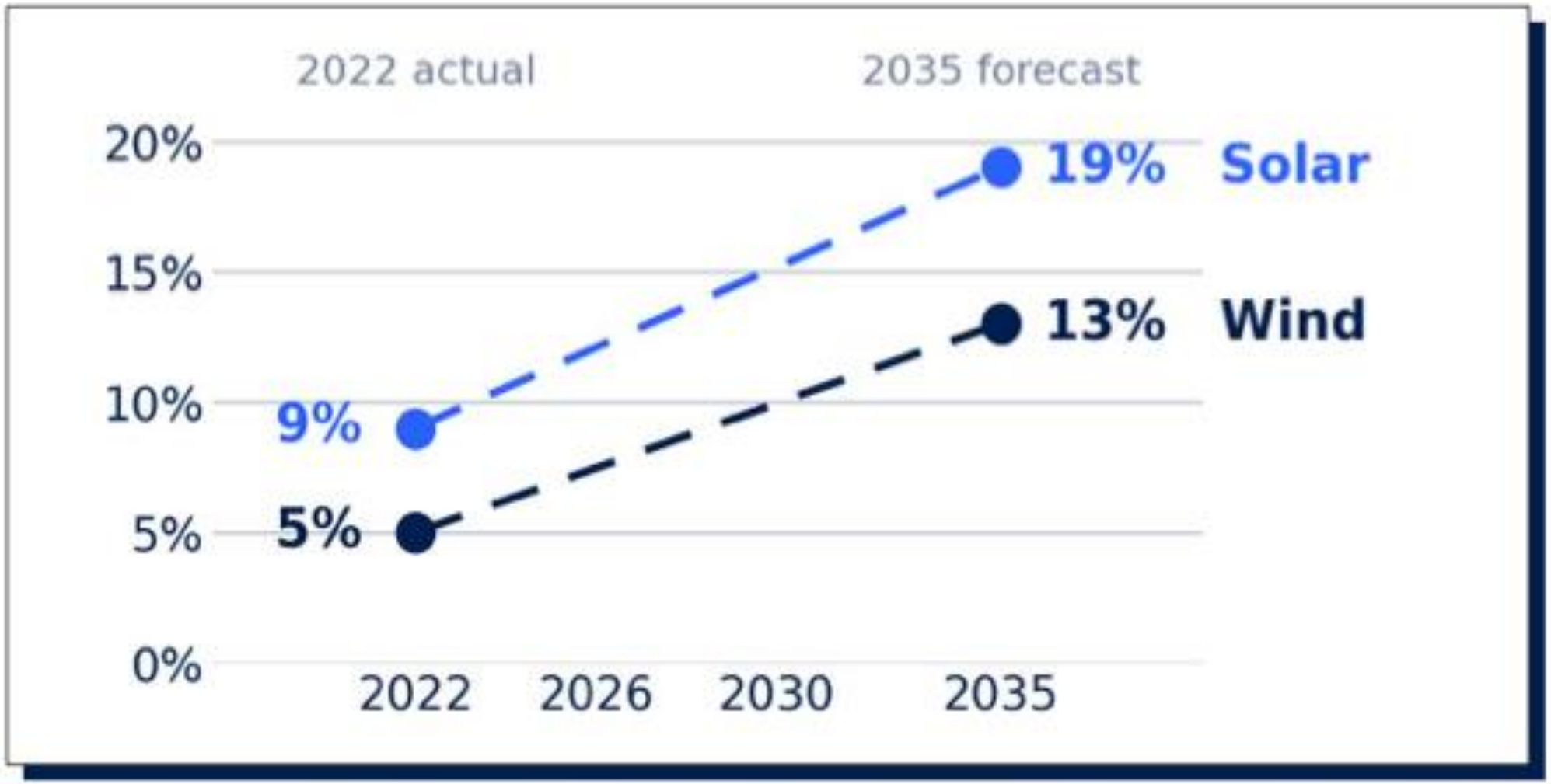
Demand is climbing again, and capacity has to follow





EIA (2024–2025); Grid Strategies (Nov 2025)

Curtailment climbs as wind and solar scale



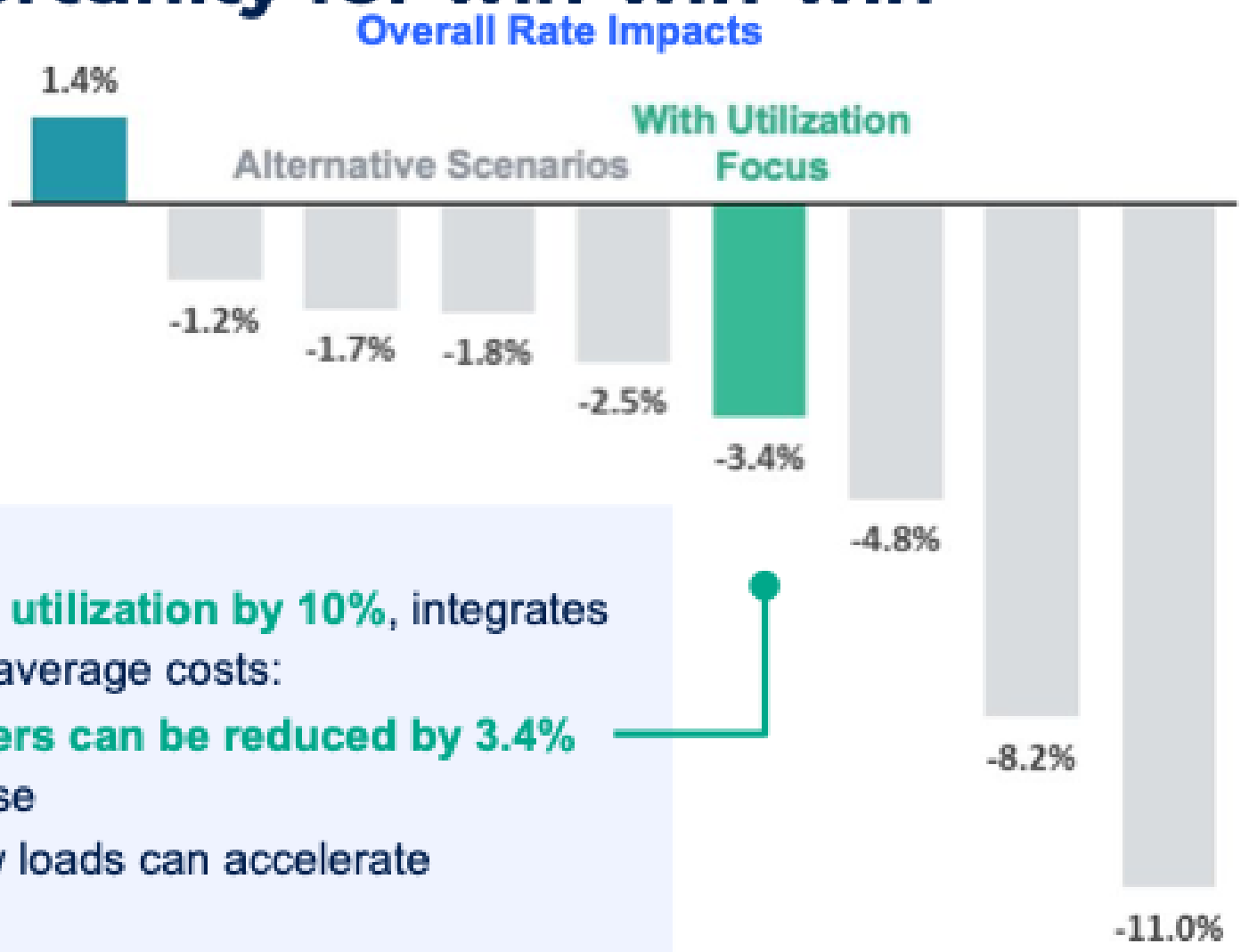
EIA (ERCOT projection, 2023; CAISO 2024)

THE OPPORTUNITY

We have a new opportunity for win-win-win

Status Quo

Without system utilization improvement, the cost of serving new customers exceeds the new revenue collected.



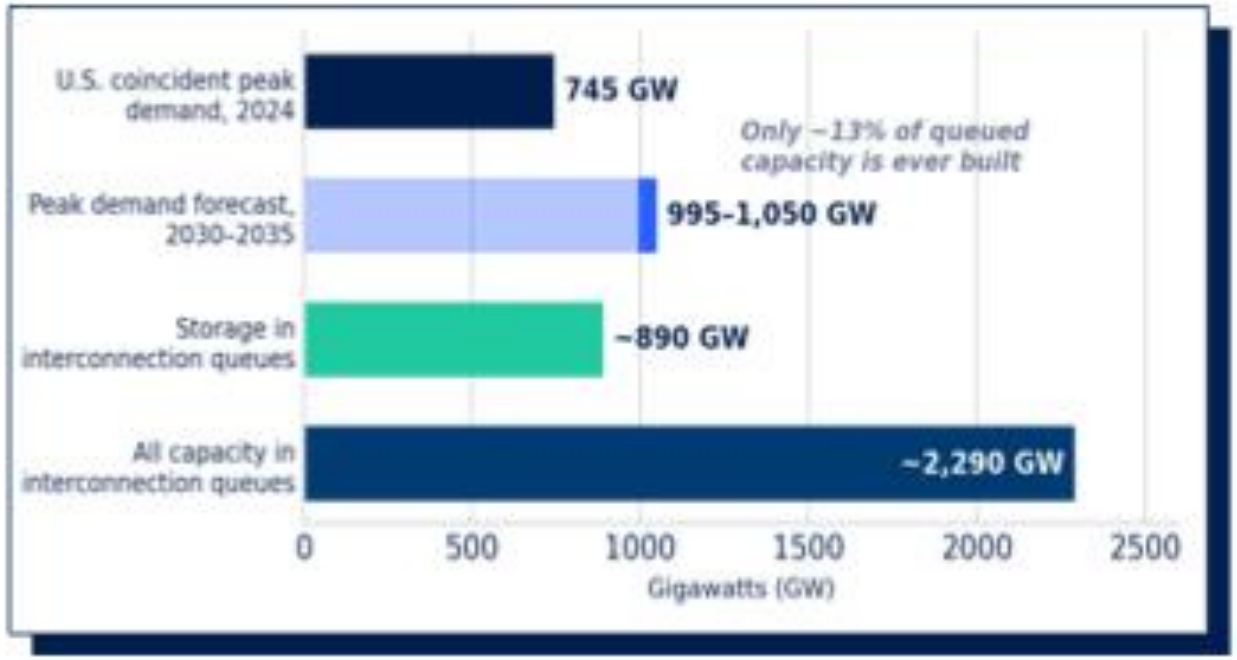
Increasing annual system utilization by 10%, integrates the new load at lower-than-average costs:

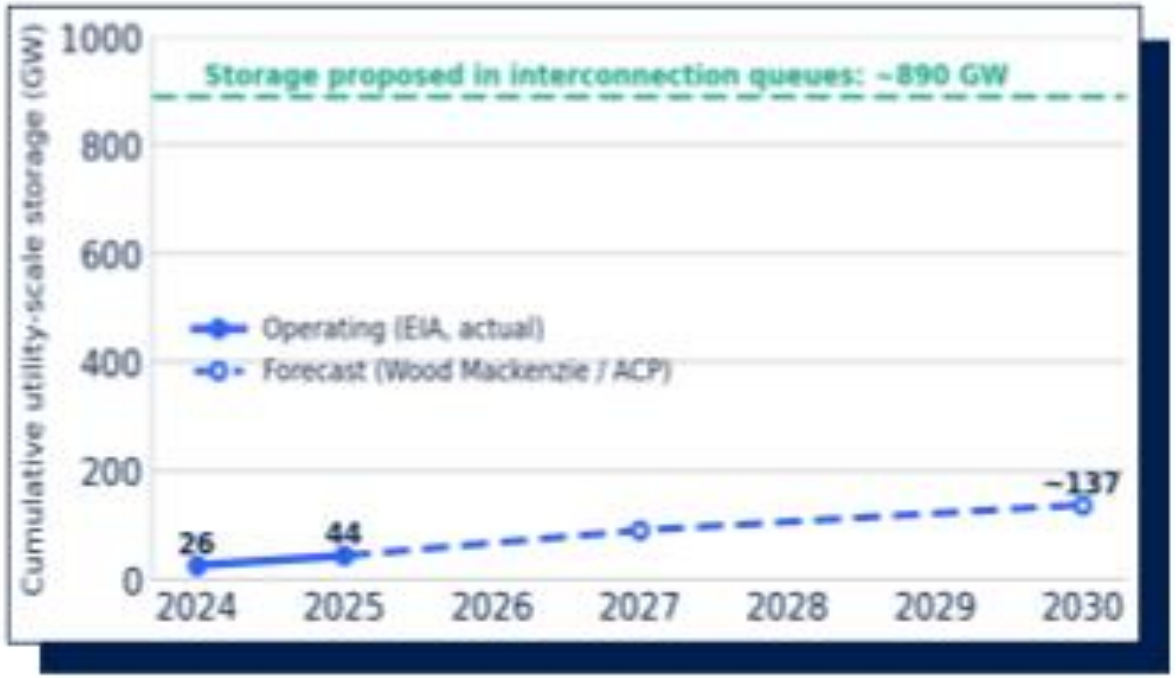
- **Rates for all customers can be reduced by 3.4%**
- Utility earnings increase
- Connection of the new loads can accelerate

The Untapped Grid: How Better Utilization of the Power System Can Improve Energy Affordability, Brattle, March 2026
https://www.brattle.com/the-untapped-grid/

THE DEPLOYMENT CHALLENGE

Plenty of capacity is proposed. Getting it built is the constraint.





LBNL Queued Up 2025; Grid Strategies / ACEG (2025); DOE (2024)

A PROMISING SOLUTION

The next wave: turning EV batteries into grid resources



V1G · Managed charging

Shift when and how fast EVs charge to grid conditions.
Unidirectional, low cost, deployable today.



V2B · Vehicle-to-building

The EV discharges to power a building for backup or bill savings.
Bidirectional, early commercial.



V2G · Vehicle-to-grid

The EV discharges back to the grid for the full set of services.
Highest potential, highest hardware bar.

~2.6–3.8 TWh

EV battery capacity potentially available to the grid globally by 2030

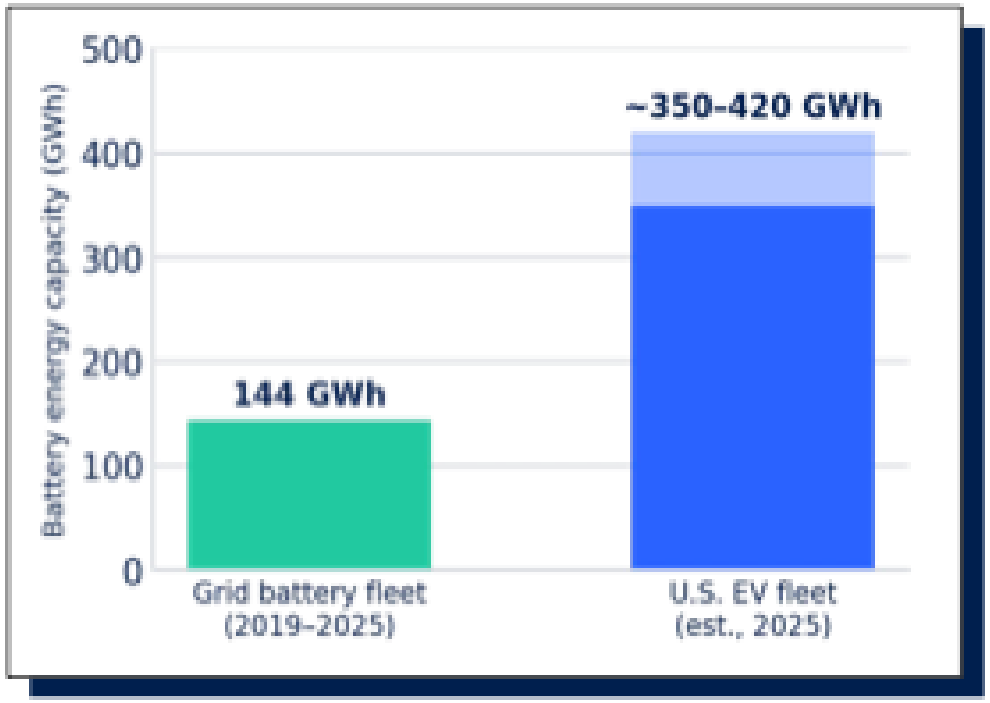
Nature Communications, 2023

IEA, Vehicle-to-grid technology; Xu et al., Nature Communications (2023); IEA Global EV Outlook 2025

THE DEPLOYMENT CHALLENGE

Behind-the-meter has yet to deliver meaningful capacity

Grid Battery Capacity vs. EV Battery Capacity in 2025



EV-fleet figure is a bottom-up estimate; not dispatchable to the grid today

Lots of promise, limited delivery

- Latent, not dispatchable.
- V2G is early
- Customer / behavior dependent


Virtual Power Plants: Buzzword or Breakthrough?

Wood Mackenzie / ACP; IEA Vehicle-to-grid technology; Sparkfund estimate (EV fleet)

Distributed Capacity Procurement

A New Utility Resource Class

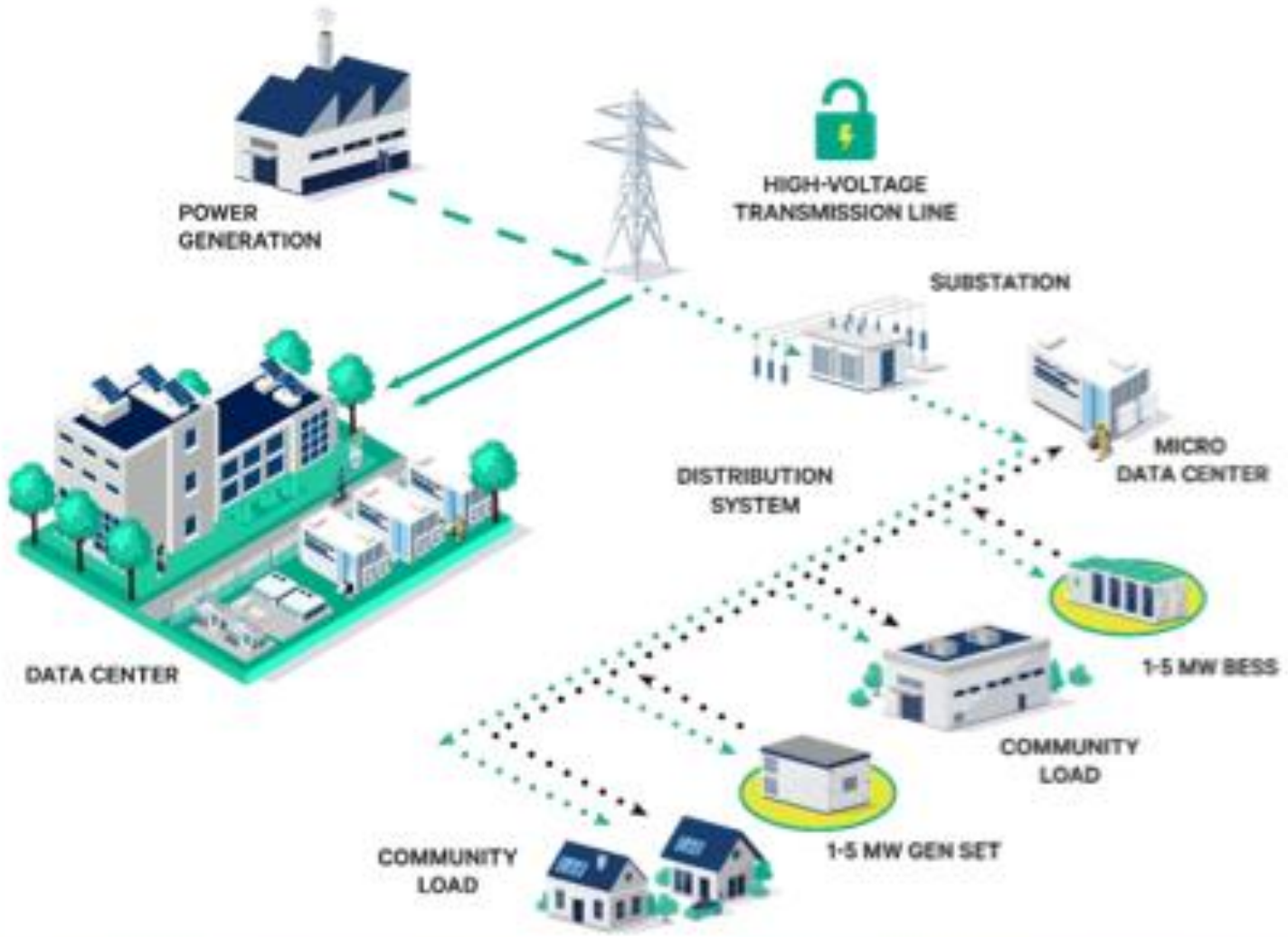
Approach: Sparkfund deploys distributed assets in partnership with the utility

Assets: 1-5 MW FTM batteries deployed as grid infrastructure.

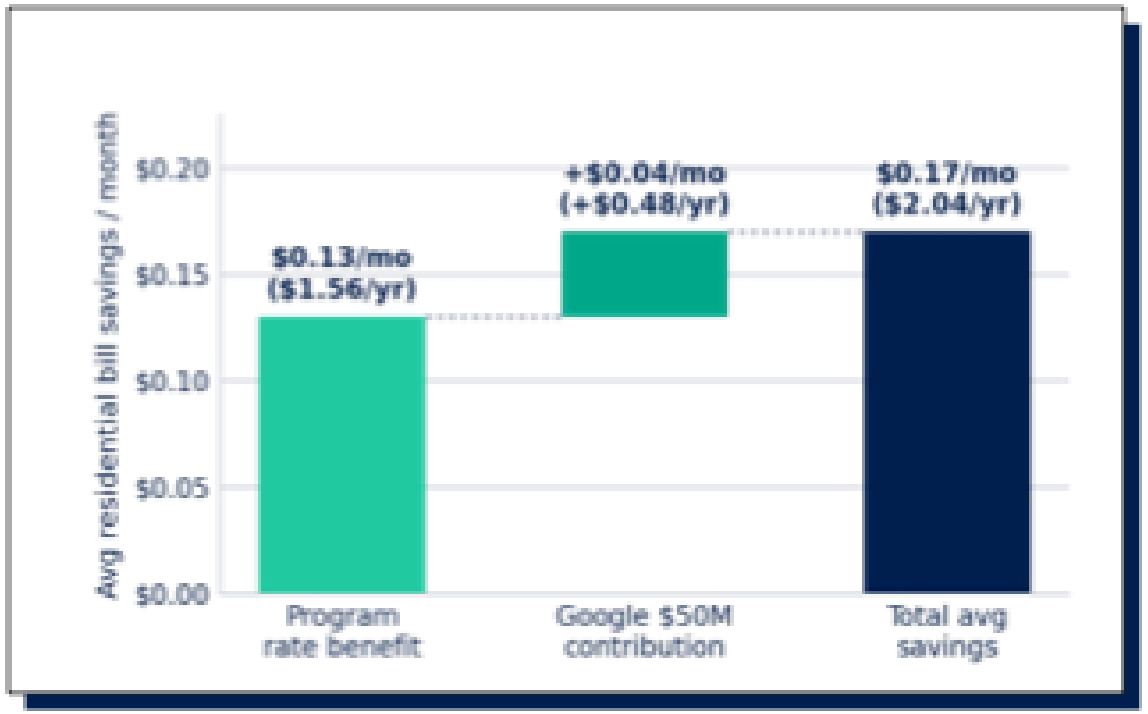
Scale: Aggregated program delivery of 200-500+ MW of reliable, utility-grade power.

Function: Utility-owned with sole dispatch rights, providing accredited capacity.

Resource: Utility distribution infrastructure, integrated into system planning and operations just like transformers, substations, and capacity banks.



Capacity*Connect puts downward pressure on rates



Savings Calculated Based on:

- **Bulk system capacity:**
  MISO-accredited capacity as primary dispatch
- **Distribution capacity deferral:**
  Avoided substation and feeder upgrades as primary siting
- **Avoided line losses + energy arbitrage**
  Additional quantified benefits

Additional Value Streams not quantified include opportunity for ancillary services, DRIPE, speed-to-power, bespoke use cases for renewables integration or non-wires alternatives

Xcel Energy, Compliance Filing — Bill Impact Analysis, Docket No. E002/M-25-378 (April 24, 2026)

OUTLOOK

Different tools, different jobs

Each solves a different problem; DCP fills the gap the others can't.

	Utility-scale	BTM stationary	BTM EV (V2X)	DCP
Location	Wholesale / bulk system	Customer site	Customer site / plug	**Distribution / FTM**
Ownership	IPP or utility	Customer + aggregator	Customer + aggregator	**Utility or IPP**
Primary value	Bulk energy + capacity	Bill savings + backup	Bill savings + backup	**Bulk + Distribution**
Accredited capacity	Yes (market)	Partial	Limited	**Yes (planning-grade)**
Dispatch	Firm to market signal	Customer first, then utility	Customer first, then utility	**Firm to utility signal**
Typical scale	10s–100s MW	kW–low MW	1 kW to 1 MW	**1–5 MW / site**

Sparkfund analysis; RMI (2015); IEA; NREL

WHAT IT TAKES

To turn need into megawatts, we still have to work together



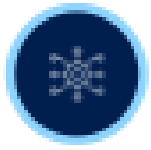
Unblock bulk storage

Remove the permitting and interconnection bottlenecks holding up utility-scale projects.



Plan for distribution storage

Incorporate distribution storage (BTM, EV, and DCP) into utility integrated system planning.



Operate it together

Align RTOs and LSEs on market access, use cases, dispatch protocols, and DERMS to optimize the value stack.



Supply it domestically

Develop a coherent focus on a domestic supply chain for energy storage.

BUILDING AT SCALE: MAKING CLEAN ENERGY STORAGE BANKABLE, CLAIMABLE, AND INVESTABLE



Matt Clouse
Head of Market Development
Center for Resource Solutions



Ben Chee
Senior Managing Director
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Paul Jacob
CEO
Rye Development

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FROM ACCOUNTING TO ACTION: CHALLENGES IN TRACKING AND REWARDING STORED ENERGY



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Senior Manager,
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Harry Singh
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Goldman Sachs



Scott Burns
SVP Commercial & Product
Private Equity Partners



Rowen VonPlagenhoef
Manager, Origination & Strategy
ESVolta

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