

Energy Resource Interconnection Service (ERIS) in PJM

*Findings from Aurora Energy Research analysis
& RMI recommendations for increasing uptake*

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Outline

- The ERIS value proposition
- Overview of recent Aurora research on ERIS
- Opportunities to enhance ERIS uptake in PJM
- Next steps

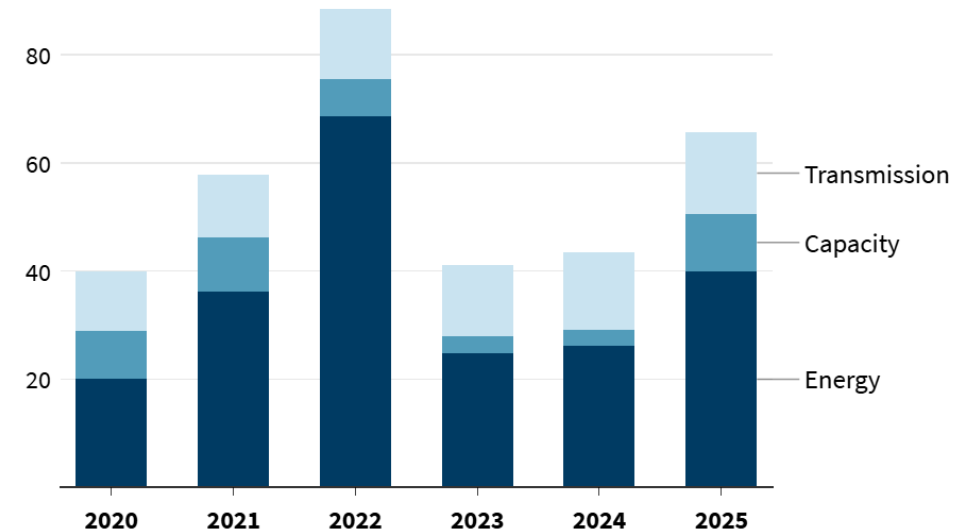
What is the value proposition of ERS in PJM?

ERS, established by FERC Order 2003 was meant to facilitate faster, more competitive access to the transmission system

- PJM and its ratepayers need **more, low-cost generation to help address affordability concerns**, which are being driven by both rising capacity and energy market costs.
- Under a well designed ERS interconnection process, **ERS resources could come online more quickly** to provide those low-cost MWhs.
- There are also likely **non-zero reliability benefits** to adding ERS resources, which may require changes to RA modeling and capacity constructs to fully realize.
- A robust ERS option facilitates **optimal use of the transmission system**, by enabling as-available resources to utilize system headroom when it would otherwise be idle

Energy market costs are consistently the largest component of PJM wholesale costs (billion 2025\$)

In 2025, energy market costs were almost 4x that of capacity market costs



Does not include ancillary and administration costs, which represent <5% of total costs for all years. Electricity bills include these plus distribution system (another large component) and other costs.

Source: Monitoring Analytics

Historically, interest in ERIS has been limited, especially in PJM

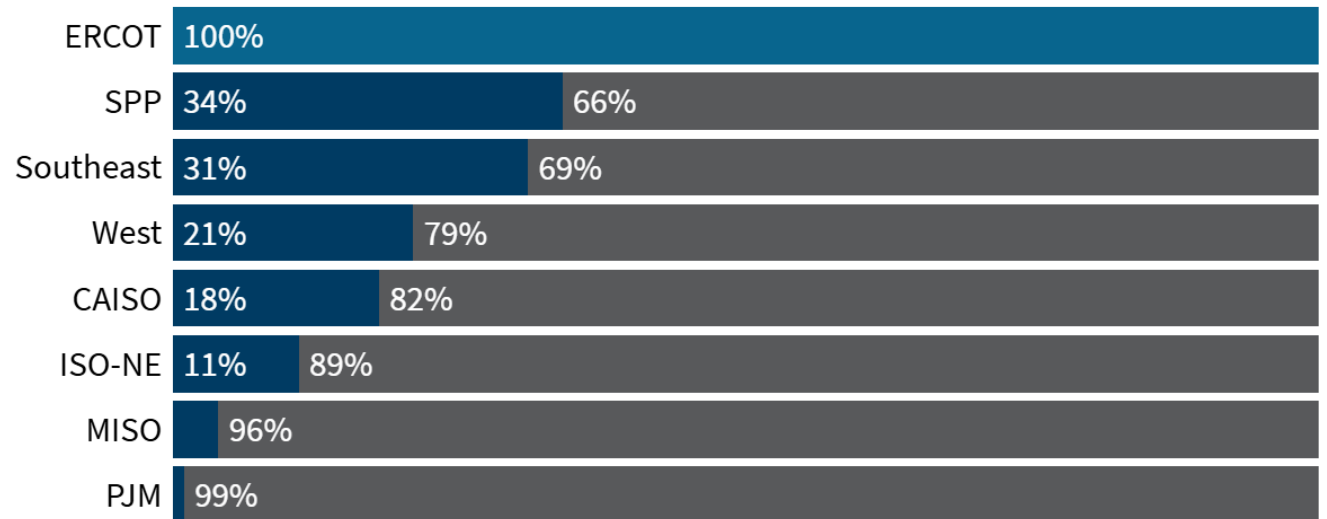
In practice, the value proposition of ERIS has been largely unrealized¹ due to:

- Conservative implementation of ERIS study rules
- Uncertain financial upside for developers
- A prevailing preference for NRIS resources given their assumed higher reliability value

ERIS integration in PJM lags the rest of the United States

As % of MW active in queue

■ ERIS ■ NRIS ■ ERCOT



Source: LBNL Queued Up, 2025



1. Gorman et al "A Review of United States Energy-only Generator Interconnection Service Policy and Considerations for Reform." February 2026.
<http://dx.doi.org/10.2139/ssrn.6870718>

RMI commissioned analysis from Aurora to explore whether and why an ERIS pathway might be valuable for PJM today



Viability and Benefits of Energy Resource Interconnection Service (ERIS) in PJM

March 2026

Commissioned by RMI (founded as Rocky Mountain Institute)

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Aurora Energy Research modeled the financial viability and system benefits of expanded use of the ERIS Pathway in PJM

They conducted their analysis in four representative zones:

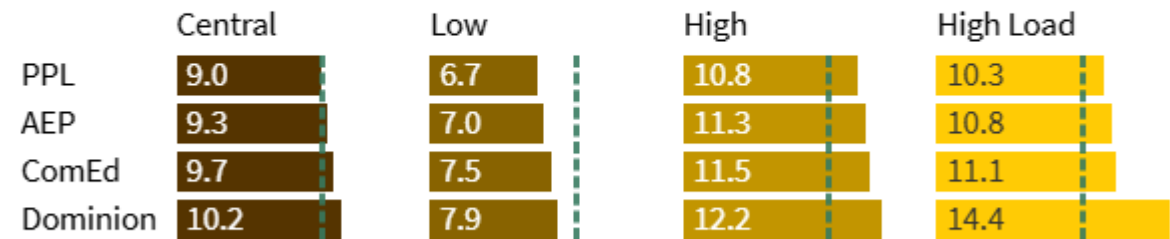
PPL, AEP, ComEd, and Dominion,
and under four future scenarios: low,
central, high, and high load

ERIS resources are financially viable in all four zones and across nearly all scenarios

Aurora’s analysis focused on solar and onshore wind as the two most likely resources to chose ERIS, and used a 9% internal rate of return as the benchmark for a project’s viability

IRR for most solar projects clears hurdle rates

Dashed green vertical line shows the 9% hurdle rate for projects with contracted offtake.



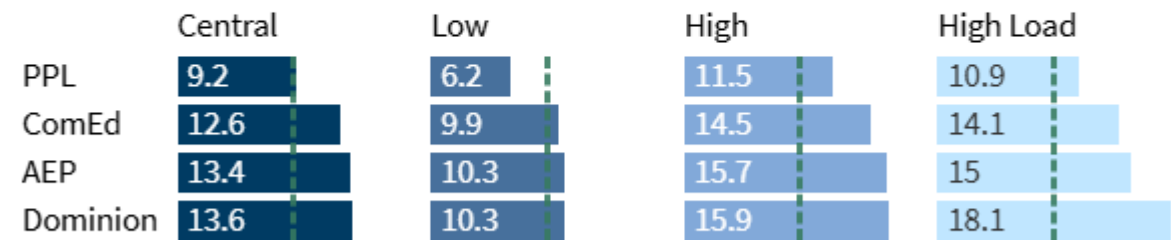
Assumes no network upgrade costs beyond the point of interconnection, as in ERCOT.

Source: Aurora Energy



IRR for almost all wind projects significantly clears hurdle rates

Dashed green vertical line shows the 9% hurdle rate for projects with contracted offtake.



Assumes no network upgrade costs beyond the point of interconnection, as in ERCOT.

Source: Aurora Energy

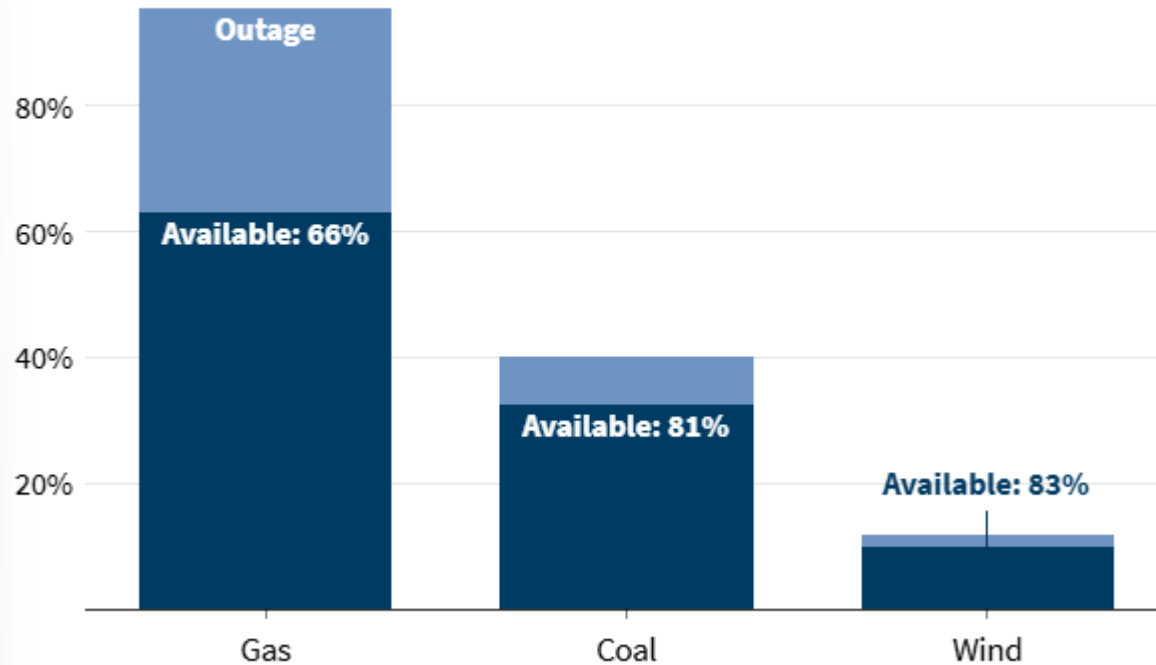


Note that the “high load” case reflects 100% of PJM’s latest public load forecast, whereas the “central” case represents 33%

ERIS resources can provide system benefits of both reliability and affordability

PJM's wind fleet had higher generator availability rates than coal and gas during Winter Storm Elliott

PJM generator availability (GW nameplate)



Source: Aurora Energy



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Adding 10 GW of solar and wind in 2028 could save PJM ratepayers \$10.9 billion over a decade

Potential PJM ratepayer savings from new ERIS resources (\$ billion, 2025)

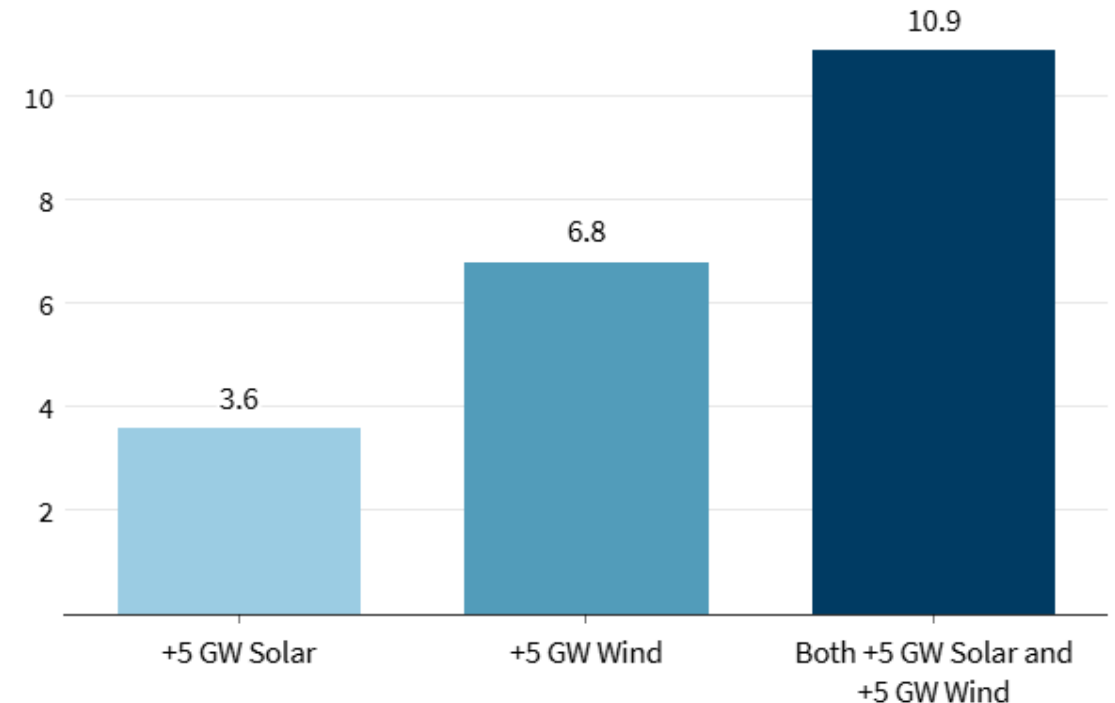


Chart: RMI • Source: Aurora Energy



Further interconnection process reforms can help speed and scale the ERIS opportunity in PJM and other regions

PJM and other grid operators should update their ERIS study pathways to ensure the following:

Study ERIS in a separate and parallel track

- Study timelines should be short and clearly defined
- A separate study process for ERIS could also support NRIS cluster stability

Minimize scope of network upgrades

- ERIS study scope should be limited to ensuring a reliable connection to the point of interconnection
- Studies should include realistic dispatch assumptions
- Full deliverability should not be studied or required, as ERIS resources can be curtailed during times of congestion

Transmission planning addresses congestion

- Grid congestion resulting in high curtailment should be considered in transmission planning processes to deliver system wide benefits

Next steps

The new Generator Deliverability (“GD2”) Test Requirements represent an improvement from the pre-TC2 status quo but may still fall short of an optimal ERIIS interconnection pathway

- **Assess whether GD2 delivers meaningful cost and timing improvements**

If TC2 IPD cost and timing outcomes are not significantly reduced compared to NRIS study outcomes, further study reforms may still be needed.

- **Recognize the resource adequacy contributions of ERIIS resources**

Even where GD2 enables faster interconnection through ERIIS, additional reforms may be needed to appropriately recognize the resource adequacy value of resources that can demonstrate deliverability. GridLab & Telos’s *Deliverability and Resource Adequacy* analysis highlights the need to better represent both NRIS and ERIIS resources in RA assessments by modeling all physically interconnected resources regardless of transmission service type.



Thank You

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