

July 16, 2025

**The PJM Power Providers Group (“P3”)  
Response to Resource Adequacy Stakeholder Questions**

Illinois Power Agency,  
Illinois Commerce Commission,  
Illinois Environmental Protection Agency  
Inter-Agency Resource Adequacy Study Process  
[IPA.ContactUS@Illinois.gov](mailto:IPA.ContactUS@Illinois.gov)

Attached please find the comments of the PJM Power Providers Group (“P3”)<sup>1</sup> in response to the Inter-Agency Resource Adequacy Study Process Post-Workshop Stakeholder Questions issued on June 18, 2025.

**TOPIC 1: Resource Adequacy Study goals and scenario analysis considerations.**

**Question 1: *The Agencies recognize this study process is purposefully targeted in its nature, with Section 9.15(o) providing clear goals and expectations of the resource adequacy study and resulting report. What additional goals, objectives, or evaluation metrics should be considered, either as part of this study process or future resource adequacy study efforts?***

In conducting its Resource Adequacy scenario analysis, the study process should abide by other applicable energy laws in the state, including the State’s commitment to maintaining a competitive wholesale and retail market, as provided in the Electric Service Customer Choice and Rate Relief Law of 1997, P.A. 90-561, eff. 12-16-97. (Sec. 16-101 – 16.102). By definition, this law frames how Illinois should go about ensuring reliability for in-state ratepayers, *i.e.*, based on the assumption that market forces offer the best outcomes for ratepayers over time.

As well, the Agencies should review electrification and fleet turnover scenarios for the study’s power system analysis. The future-state modeling analysis designed by NREL assesses electrification’s potential impact on the mix, magnitude, location, and timing of new bulk power system infrastructure development and retirements, the generation mix and utilization of different classes of generators, and the costs, energy consumption, and air emissions assumptions based on the degree of fleet turnover. NREL’s [Regional Energy](#)

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<sup>1</sup> P3 is a non-profit organization dedicated to advancing federal, state and regional policies that promote properly designed and well-functioning electricity markets in the PJM Interconnection, L.L.C. (“PJM”) region. Combined, P3 members own over 83,000 MWs of generation assets and produce enough power to supply over 63 million homes in the PJM region covering 13 states and the District of Columbia. These comments represent the position of P3 as an organization but not necessarily the views of any particular member with respect to any issue. For more information on P3, visit [www.p3powergroup.com](http://www.p3powergroup.com).

[Deployment System \(“ReEDS”\) model](#) assesses how electrification-driven changes in electricity demand and changes in the supply stack impact the future end-states and operation of the bulk power system.<sup>2</sup>

Additional reliability metrics could also include:

- Interconnection queue reforms (PJM and MISO)
- Black-Start
- Synchronous Reserves
- Frequency Regulation
- Transmission capacity

**Question 2: *Which variables are the highest priority to explore? Further, are there important policies or drivers missing in addition to those outlined in the preceding stakeholder workshop that could help shape scenario development?***

The rate of unit retirement and the *pace* of deployment of replacement generation must be considered as a primary driver, considering expert load projections.

**Question 3: *Which of the following drivers are most critical to explore in the resource adequacy modeling scenarios and why?***

- a. *Extreme weather*
- b. *Demand growth*
- c. *Thermal retirements*
- d. *Transmission build and future needs*
- e. *Generation resource diversity*
- f. *Out-of-state reliance on generation resources*
- g. *Some other driver not described above*

In addition to the above listed drivers for Resource Adequacy modeling, consideration should also be given to the dependability of clean energy performance at times when wind/solar resources are not generating due to inclement weather. These resources can be augmented by batteries to some extent. However, currently, Illinois only has approximately 158 MW of operating batteries. An emphasis should be placed on system performance at the *peaks* – the times of highest demand – when customers need electricity the most, and when supply diversity tends to be constrained. Any assessment criteria should examine how to manage realistic battery storage/duration and the resource’s expected degree of market penetration over time.

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<sup>2</sup><https://www.nrel.gov/news/detail/program/2021/latest-electrification-futures-study-report-explores-how-the-supply-side-of-the-us-power-system-could-evolve>

We also recommend that suggested driver letter f, "out-of-state reliance on generation resources," should be defined so as to account for retirements of Illinois generation and whether/how Illinois will be forced to rely on out-of-state generation as a result.

To the extent that out-of-state reliance on generation resources is studied, the information should transparently provide the *source* and *emissions* of that replacement generation.

As part of both the MISO and PJM grids, Illinois has wholesale market supply flexibility. This benefits Illinois ratepayers by providing reliable supply at a low cost over time. MISO's and PJM's wholesale markets -- and economic signals from each that incentivize generation investment and retirement -- should be a key driver. Increased wholesale supply via regional access is a *pro-consumer* criterion.

**Question 4: *Are there known or expected developments in federal or state policy that should be integrated into scenario development? Please explain in detail and provide references where possible.***

The passage of H.R. 1, Public Law No: 119-106 - the One Big Beautiful Bill Act ("OBBBA") and the issuance of the July 7 Executive Order titled, "Ending Market-Distorting Subsidies for Unreliable, Foreign Controlled Energy Sources," directing federal agencies to enforce stricter standards for clean energy tax credits under the OBBBA, may have a direct impact on the availability and cost for new wind and solar generation projects. One possible scenario could be the increased cost and potential additional time constraints in procurements of renewable energy without the current federal clean energy tax credits. Overall, the Agencies should consider how the impacts of the passage of the OBBBA will generally impact energy markets. Any pipeline of solar and wind projects expected to come on line after 2028 will be squeezed from a cost perspective by the OBBBA.

In addition, on Monday, July 7, 2025, the U.S. Department of Energy ("DOE") released its [Report on Evaluating U.S. Grid Reliability and Security](#), which is responsive to President Trump's Executive Order, [Strengthening The Reliability And Security Of The United States Electric Grid](#), by delivering a uniform methodology to identify at-risk regions and guide Federal reliability interventions ("DOE Reliability Report"). The DOE Reliability Report references and its associated analysis were prepared for DOE purposes to evaluate both the current state of resource adequacy as well as future pressures resulting from the combination of announced retirements and large load growth. The DOE Reliability Report could be used as a reference point for the type of modeling, data and assumptions that were considered for a broader resource adequacy understanding across the country, including in the MISO and PJM footprints.

NERC's 2024 Long-Term Reliability Assessment<sup>3</sup> also provides relevant data, including energy risk assessments and assumptions, that should be examined in any scenario development. NERC's recent "[Statement on NERC's 2024 Long-Term Reliability](#)

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<sup>3</sup>[https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC\\_Long%20Term%20Reliability%20Assessment\\_2024.pdf](https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_Long%20Term%20Reliability%20Assessment_2024.pdf)

*Assessment*,”<sup>4</sup> finding that MISO recently “overstated the near-term energy shortfall risk” by submitting “mismatched data” should also be reviewed.

Another known, recent development is PJM's new Reliability Resource Initiative ("RRI"), approved by FERC on February 11, 2025. The RRI makes a one-time change to the interconnection process at PJM by getting shovel-ready, high-reliability projects on the grid faster. On May 2, 2025, PJM selected 51 projects that can come online quickly and provide more than 9,300 MW of reliable capacity.<sup>5</sup> Four of these projects, representing three nuclear uprates and one natural gas uprates, are in the ComEd zone.<sup>6</sup>

MISO's revised Expedited Resource Addition Study ("ERAS") proposal, currently pending at FERC in docket no. ER25-2454-000, should also be integrated into scenario developments. The ERAS proposal, similar to PJM's RRI, seeks to expedite the interconnection process for up to 68 generation projects by August 31, 2027.

**Question 5: *How should cost implications or other findings beyond potential reliability shortfalls be presented or considered to support constructive policy decisions?***

While the focus of the Resource Adequacy Study is on the potential for reliability shortfalls, the State's policy framework, relying on competition in retail and wholesale markets to drive prices down, should include a review of the fact that wholesale market signals from RTO-based capacity and energy markets have effectively attracted new capacity (or deferred retirements) in past instances of threatened supply shortages. The Brattle Group provides one such example when significant resource adequacy concerns over new (at the time) mercury regulation of coal plants was threatening generation shortfalls. Instead of the predicted shortfalls, the "market response prevented doomsday projections from being realized."<sup>7</sup>

**Question 6: *What blind spots or gaps in the RA Study process do you worry might be overlooked or otherwise not addressed?***

- a. *Are the identified blind spots or gaps unique to customer segments, modeling scenarios, market conditions or other targeted parameter?***

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<sup>4</sup> <https://www.nerc.com/news/Pages/Statement-on-NERC%E2%80%99s-2024-Long-Term-Reliability-Assessment.aspx>

<sup>5</sup> *PJM Chooses 51 Generation Resource Projects To Address Near-Term Electricity Demand Growth*: <https://insidelines.pjm.com/pjm-chooses-51-generation-resource-projects-to-address-near-term-electricity-demand-growth/>

<sup>6</sup> List of Selected PJM RRI Projects: <https://www.pjm.com/-/media/DotCom/committees-groups/committees/pc/2025/20250506/20250506-rri-addendum--post-meeting.pdf>

<sup>7</sup> *Resource Adequacy Trends of the Energy Transition: Experience from North America*, Brattle Group, March 14, 2024 ("Brattle RA Report"), p. 14, citing NERC, 2013 Long-term Reliability Assessment, December 2013 and NERC, 2023 Long-Term Reliability Assessment, December 2023. [Resource Adequacy Trends of the Energy Transition: Experience from North America](#)

- b. How could the identified blind spots or gaps be addressed? (e.g. through additional scenarios, targeted data inputs, utilizing specific modeling, etc.)***

As noted above, the rate of fleet turnover in Illinois must be accounted for with realistic assumptions and scenarios. The analysis should create assumptions regarding a key metric: MW Replacement Rate. This calculation should account for planned and required retirements v. planned capacity additions over a relevant time period. The MW Replacement Rate should clarify how many MWs should be replaced, as well as additional MWs necessary to meet aggregate and spot load growth. The MW Replacement Rate should be calculated for baseload, mid merit and peaking units in Illinois.

***Question 7: Have any peer jurisdictions developed scenario(s) through the completion of their own resource adequacy assessments or studies that should also be considered by the Agencies through this Resource Adequacy Study?***

- a. Provide details concerning the scenario(s), which jurisdiction developed the scenario, and provide a link to the supporting detail(s).***

See above discussion regarding NREL's regional study approach and scenario development.

- b. Is the assessment part of a broader resource adequacy assessment, or an more detailed integrated resource planning effort?***

If the state adopts an IRP process, it should ensure that competitive wholesale opportunities remain in place for sellers to meet an LSE's resource adequacy needs.

- c. Are there any market conditions or policy considerations that are unique to the jurisdiction and/or the scenarios referenced?***

Again, Illinois is somewhat unique given its mandated unit retirement plan; therefore, the MW Replacement Rate is a critical component to model under various assumptions.

## **TOPIC 2: Analytical approach to analysis and data assumptions.**

***Question 8: Are there recommendations for specific data sources that could be utilized in this study?***

- a. Are there preferences for certain input assumptions that should be made?***
- b. What prior or concurrent studies could be referenced that might add value or ensure alignment with similar or adjacent work (e.g., queue assumptions, RTO projections)?***

***Question 9: Are there specific transmission constraints, expansions, or projects that should be considered and reflected in a model scenario? Further, Are these transmission considerations intended to target and/or solve specific challenges? Please explain, provide supporting documentation justifying inclusion, and provide pertinent reference materials including reports or studies.***

The Michigan Public Service Commission ("MPSC") recently approved two new electric transmission lines proposed by the Michigan Electric Transmission Company ("METC"). The projects are part of MISO's Long-Range Transmission Plan and aim to enhance grid reliability and support renewable energy. The two projects are the Nelson Road to Oneida project (39-mile, 345 kV double circuit line) and the Helix-Hiple project (55-mile, 345 kV line). To the extent that these two, new significant transmission lines lessen the need for Illinois to build new transmission lines of its own, they should be modeled and considered.<sup>8</sup>

**Question 10: *Are there specific assumptions that should be considered concerning generation resources, including buildout (queue, pace, technology availability) or retirements, both in-state and regionally in the RTO markets?***

- a. Which proposed assumptions should be considered as part of the base case and which are best considered as part of a prospective scenario? Provide any available references to RA studies, IRPs, or comparable assessments and reports to support your recommendations.*
- b. Which assumptions are contingent upon specific policy and/or legislative conditions being met or otherwise enacted? Please plain in detail.*

To the extent that the Agencies ultimately model “new generation” options, especially in the wake of loss of federal tax credits for renewable energy resources, the modeling assumptions should consider a range of new generation options to get a comparison among generation replacement types, including conversion from coal to gas, uprates to gas, new gas and storage. These assumptions should help drive a more accurate picture of not only new supply-side options, but those that are the most reliable with the least cost impacts to customers.

Respectfully submitted,

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<sup>8</sup> MPSC July 10, 2025 Order No. U-21471-0306: Grants certificates of public convenience and necessity for the construction of the major transmission lines, subject to the conditions described in the order: <https://mi-psc.my.site.com/s/filing/a00cs00000pvM6UAAU/u214710306>