<u>From</u> :	Office of the Illinois Attorney General
<u>To</u> :	Illinois Power Agency, Illinois Commerce Commission, Illinois Environmental Protection Agency (the "Agencies")
Subject:	Response to RA Study Stakeholder Questions

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?

IL OAG Response: The Office of the Attorney General ("OAG") has a statutory duty to protect the interests of all Illinois electricity customers.¹ For customers, the cost of essential electric service is the abiding concern. Thus, the Resource Adequacy Study, and any plan to address resource adequacy needs identified in the study, must consider the impact on the ratepayers who will ultimately be footing the bill. We urge the IPA, ICC, and IEPA (the "Agencies") to not simply weigh affordability as one factor among many but to prioritize identifying the least-cost alternative to meeting the State's resource adequacy needs.

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?

IL OAG Response: The highest priority variable is the impact of large load additions, particularly data centers, on load forecasts and the determination of the State's resource adequacy needs. As the Agencies are no doubt aware, the PJM capacity market cleared at nearly \$270/MW-day for the current delivery year, and the MISO capacity market cleared at \$217/MW-day, including a summer seasonal clearing price of \$666/MW-day. In each case, the RTOs attributed the price increases to tightening supply and demand conditions and the need to send a price signal that incentivizes new generation.

¹ 15 ILCS 205/6.5(c).

More than anything else, data center load additions are driving this trend. In the case of PJM, the Independent Market Monitor found that the spike in the recent capacity clearing price was almost entirely attributable to data center load projections and estimated the cost to existing consumers to be in excess of \$9 billion.² Similarly in MISO, much of the projected increase in load growth, particularly load growth above baseline scenarios, is coming from data centers.³

There is reason to be skeptical of these projected, massive demand increases that are driving these steep capacity cost increases. One expert has estimated that we are "seeing five to 10 times more interconnection requests than data centers actually being built."⁴ A recent paper prepared for Southern Environmental Law Center, London Economics International ("LEI") found that "projections of electric power demand by data centers in the United States exceed the capability of global chip manufacturers to supply the semiconductor chips that data centers need."⁵ Moreover, LEI found that data centers and, in some cases, utility companies, are incentivized to engage in behaviors that inflate load forecasts.

While incorrect load forecasts are one of life's few certainties, the degree to which they are incorrect matters significantly for purposes of the Resource Adequacy study. Overreaction to speculative growth expectations will end up punishing existing ratepayers who have nothing to do with, and little to gain from, the games that data centers are incentivized to play.

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

² Monitoring Analytics, Analysis of the 2025/2026 RPM Base Residual Auction, Part G, page 1 (June 3, 2025).

³ Organization of MISO States ("OMS") and MISO, OMS-MISO Survey Results, slide 10, available at <u>https://cdn.misoenergy.org/20250606%20OMS%20MISO%20Survey%20Results%20Workshop%20Presentat</u> ion702311.pdf.

⁴ Brian Martucci, "A fraction of proposed data centers will get built. Utilities are wising up." Utility Dive (May 15, 2025) (quotation from Astrid Atkinson, a former Google senior director of software engineering and current CEO of grid optimization software provider Camus Energy).

⁵ London Economics International, "Uncertainty and Upward Bias Are Inherent in Data Center Electricity Demand Projections, Prepared for Southern Environmental Law Center," (Jul. 7, 2025), page 2.

- e. Generation resource diversity
- f. Out-of-state reliance on generation resources
- g. Some other driver not described above

IL OAG Response: As discussed above, demand growth is the primary issue that appears to be driving concerns over resource adequacy. In the extreme case, the demands on the grid outpace our ability to meet them, resulting in supply shortages. But just as concerning from the perspective of existing ratepayers is the price resulting from the need to accurately assess demand and maintain resource adequacy. For Illinois, this price is largely set and charged through the RTOs' capacity market.

As noted above, data centers are driving load growth much more than any other source, and they are a unique challenge. The scale of the load connection requests is immense, with single customers requesting service equivalent to tens of thousands, if not hundreds of thousands, of residential customers. This strains the ability of existing mechanisms to build sufficient generation on the desired timeline, and it creates unprecedented reliability risks for the transmission and distribution systems. The prospective data center customers have both the ability and incentive to pursue multiple points of interconnection in different states, zones, or even regions, which can inflate the load forecasts that RTOs rely upon to determine their needs and allocate capacity costs.

In the PJM market in particular, the forward auction design means that the RTO procures capacity on the basis of expected data center load growth with no guarantee that the data centers will be connected and use the full amount of their projected capacity need when the delivery year actually arrives. In the meantime, existing ratepayers pay the high capacity costs based on this expectation of hyperscale data center load growth to incent new generation for a very few, very specific, and unique users. Thus, if the load forecasts are inflated, then existing ratepayers will be harmed. As part of the Resource Adequacy Study, the Agencies must attempt to formulate realistic and reliable load growth scenarios, and their policy recommendations should include a discussion of how to appropriately allocate excessive costs associated with large loads to the customers that cause them.

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.

IL OAG Response: Recent changes in federal policy will present significant challenges to the State. First, the phase-out of tax credits for certain renewable energy resources will make resources like wind and solar more expensive, particularly for residential customers. For utility-scale projects, the elimination of federal subsidies will shift project costs previously borne by federal taxpayers to Illinois ratepayers. As a result, the cost of indexed renewable energy credits ("RECs") that the IPA procures to subsidize utility-scale renewable generation will increase. In short, the State will be paying more for less, and this could further stress the Renewable Portfolio Standard ("RPS") budget.⁶

Second, the two RTOs covering Illinois have designed their capacity markets to ensure sustained high prices based on a predicted decline in reserve margins. For example, PJM's capacity market will have a price floor for the next two delivery years which will guarantee that the RTO-wide clearing price is much higher than it has been for most of PJM's history. MISO has implemented significant changes to its capacity market, including adopting a reliability-based demand curve that is expressly designed to incentivize new entry of generation and procure supply above the required reserve margin. Both RTOs provide relatively low, and declining, effective load carrying capability ("ELCC") ratings for intermittent renewable generation, which make up the bulk of the resources in their interconnection queues, and interconnection of energy storage and hybrid renewable/storage resources has been slow.

Third, the Department of Energy's ("DOE") recent actions under Section 202(c) of the Federal Power Act and the DOE's study on resource adequacy indicate an apparent desire to circumvent existing RTO processes and mandate that certain generation resources continue to run. The DOE's assumption appears to be that fossil generation is necessary to meet resource adequacy challenges. It is far from clear that the most cost-effective approach is to (a) require aging and expensive plants that would otherwise retire to run and allow them to recover their full cost-of-service from ratepayers, and (b) increase barriers to renewable generation and energy storage.

Supply chains for all electricity generation and storage resources and grid equipment are already constrained. While the cost of renewables will likely increase, one industry executive estimates that the cost of building a new

⁶ Illinois Power Agency, Updated Renewable Portfolio Standard Budget Forecast (May 12, 2025), page 6.

natural gas plant has more than tripled in the past 3 years.⁷ Together with increased tariffs and uncertain federal trade policies, there is risk that the cost of electricity generation and delivery is going to increase regardless of fuel type. To the extent the agencies will use this Resource Adequacy Study process to make recommendations beyond simply whether to modify emissions limits (for example, potential changes to subsidy programs, procurements, and integrated resource programs), accurate cost information for both renewable and fossil resources will be necessary.

At the state level, the carbon mitigation credits ("CMCs") and zero emissions credits ("ZECs") supporting most of the nuclear generation in the State will expire in 2027. Illinois electricity customers funded the construction of these plants and have provided necessary financial support going back decades. The CMCs have at times turned out to be an important hedge against spiking prices in PJM. The expiration of these incentives could put further upward pressure on electricity costs.

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

IL OAG Response: The Agencies should quantify the costs to ratepayers of any plan developed as a result of the Resource Adequacy Study. If the Agencies develop a plan to reduce or delay emission requirements in Section 9.15 of the Environmental Protection Act, then they must consider the impact to ratepayers of continuing to maintain those plants as compared with potential alternatives to replace them. If the Agencies develop alternatives to *avoid* modifying the emission reduction requirements, then they should compare the cost of such a plan to an alternative scenario in which the requirements of Section 9.15 are reduced or delayed. While it may be the case that cost alone is not decisive, a least-cost alternative should be the north star by which the Agencies orient themselves when weighing potential paths forward.

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?

⁷ Nicholas Cunningham, "Costs to build gas plants triple, says CEO of NextEra Energy," <u>Gas Outlook</u> (Mar. 25, 2025).

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

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).
- b. Is the assessment part of a broader resource adequacy assessment, or an more detailed integrated resource planning effort?
- c. Are there any market conditions or policy considerations that are unique to the jurisdiction and/or the scenarios referenced?

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.

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.

Question 11: As a component of the RA Study, the Agencies will be seeking to obtain utility and RTO load forecast projections and the underlying assumptions behind the load forecasts. In addition to these utility forecast assumptions, what additional assumptions

should also be considered, either embedded in a base case or considered in scenarios? Further, what data sources should be drawn upon, supporting any load forecast modifications? (i.e. large load / electrification growth).

- a. Provide details on why these additional assumptions should be considered during the modeling process?
- b. Are any proposed load forecast assumptions directly impacted and/or predicated upon specific to policy, legislative, or other conditions being met and/or otherwise enacted? Please explain in detail.

Question 12: Are there any additional considerations – data inputs, policy, drivers, or assumptions – that Stakeholders believe the Agencies should consider, not already explain in response to the preceding questions? Please explain in detail.