

Clean Grid Alliance ("CGA") submits the following responses to the request for stakeholder feedback regarding the Illinois Resource Adequacy Study ("the Study"). CGA appreciates the opportunity provided by the Illinois Commerce Commission, the Illinois Power Agency, and the Illinois Environmental Protection Agency (collectively "the Agencies") to help shape the Study and urges alignment of this process with other Illinois policy implementation.

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(0) 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 addition to the goals and expectations delineated in Section 9.15(o) of the 2021 Illinois Climate and Equitable Jobs Act ("CEJA"), CGA recommends that the Agencies' evaluation of "the current and projected status" of resource adequacy throughout the Study period (e.g., through 2030) incorporates:

- The expected impact of the Central Illinois Grid Transformation Program, part of the MISO Long Range Transmission Plan ("LRTP") Tranche 1 that was recently approved by the Illinois Commerce Commission ("ICC").¹ A blend of new and upgraded high-voltage transmission lines, the four Illinois projects are planned to be in-service by the end of 2029 and are expected to unlock nearly 8 GW of wind, solar, and energy storage capacity, bolstering local and regional resource adequacy once they are energized.
- A realistic forecast of large load growth in Illinois. The Agencies should review the MISO-OMS Survey load forecast along with the load growth forecasts from Illinois utilities, and should also consult with the Illinois Department of Commerce and Economic Development and other associated stakeholders, such as Intersect Illinois and Illinois labor unions, in developing a reasonable forecast for large load growth in the state. Additionally, in developing a load growth forecast for the next five years, the Agencies should take other

¹ Illinois Commerce Commission. Docket No. 24-0088. "Joint Petition for a Certificate of Public Convenience and Necessity under Section 8-406 of the Public Utilities Act, 220 ILCS 5/8-406, Orders under Section 8-503 and 7-102 of the Act, 220 ILCS 5/8-503, 7-102, and Related Relief Authorizing the Joint Applicants to Construct, Own, Operate, and Maintain, and Transact Public Utility Business in Connection with, Certain High Voltage Electric Transmission Lines and Related Facilities in Hancock, Peoria, McDonough, Tazewell, Fulton, McLean, Adams, Champaign, Brown, Ford, Pike, Morgan, and Iroquois Counties, Illinois." (Filed February 5, 2024).



factors into account, including any construction and load-ramping periods as well as supplychain challenges faced by the data center industry and other sectors.

- In projecting resource availability, ensure that resources in the queue, including energy storage resources, are appropriately modeled, and consider the effects of queue reform at MISO and PJM.
- Alignment with concurrent Illinois policy implementation, including the 2026 Long-Term Renewable Resource Procurement Plan ("LTRRPP") and the Renewable Energy Access Plan ("REAP").

If the likelihood of a resource adequacy shortfall or reliability violation is reasonably demonstrated, in the resulting plan the Agencies should consider the following solutions alongside those already listed in Section 9.15(o), identifying opportunities to evaluate their potential and cost-effectiveness within this Study period in order to inform the subsequent resource adequacy plan.

- Implementing grid-enhancing technologies ("GETs") in future grid modernization programs;
- Developing demand-side management ("DSM") programs, including demand response, for large load customers;
- Utilizing surplus interconnection service at existing points of interconnection, particularly where generating facilities are slated for retirement;
- Reducing barriers to renewable energy development, such as addressing the RPS budget shortfall, streamlined statewide siting and permitting improvements for renewable energy and energy storage resources, and fast-tracking clean energy projects through expedited interconnection processes at MISO and PJM; and
- Increasing incentives for energy storage development, such as by instituting a utility-scale energy storage procurement mandate and property tax incentives for energy storage projects.

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?

Assuming this question is in reference to the data inputs listed in the June 16, 2025, Resource Adequacy Study Workshop (on slide 26), CGA makes the following comments pertinent to the variables listed below *[see next page]*.



Regarding load forecasts and profiles:

- The Agencies should assess the potential for large load additions and for residential and commercial electrification, considering both projected capacity and rates of growth for each sector.
- Forecasted demand growth should be disaggregated by customer class (e.g., industrial, commercial, and residential) to produce an estimate of potential demand from each sector.² Resulting scenarios should estimate low, moderate, and high demand.
- DSM market potential for large loads and other customers should be treated as a variable that can shave system peaks and provide capacity to avoid or defer supply-side investments, depending on the level of customer participation. Resulting scenarios should estimate low, moderate, and high demand savings per varying levels of DSM enrollment.

Regarding new resource options and costs: The Agencies should review capital costs, operating and maintenance costs, environmental and regulatory compliance costs, and fuel prices for each resource type across the life cycle of the plants, relying on reputable third-party sources such as the National Renewable Energy Lab's All-Technology Baseline ("NREL ATB") and the Agencies' own experience in conducting resource procurement.

CGA agrees that the external forces and policy decisions outlined in the Resource Adequacy Study Workshop (on slide 32) are critically important to the study scenarios. However, we note additional drivers and policy considerations impacting resource adequacy that should be incorporated into the study:

• *Technology availability:* Although "costs" and "constraints" are generically listed as deployment barriers, we recommend the Agencies specifically consider both supply-chain constraints resulting from tariffs on critical materials and components and potential delays in bringing resources online related to local permitting challenges, separately from any timing considerations related to transmission buildout and queue reform as these factors already noted under Market Resource Adequacy Constructs.

² See recommended best practices for regulators regarding large load forecasting. RMI. "Get a Load of This: Regulatory Solutions to Enable Better Forecasting of Large Loads." (February 2025). Accessed at: <u>https://rmi.org/insight/get-a-load-of-this/-RMI</u>



• *Regulation:* While the proposed regulatory considerations list REC/ZEC incentives as relevant to resource adequacy, they do not include the possibility of property tax incentives for energy storage development. Further, regulations incentivizing energy efficiency, electric vehicles, and building electrification are not listed. However, state and federal incentives that encourage consumers and states to implement energy efficiency measures, electric vehicle adoption, and electrification will impact the electric demand forecast. Additionally, energy storage procurement mandates, as was contemplated by Senate Bill 40 from the 104th Illinois General Assembly, and streamlined statewide siting and permitting would drive clean energy deployment.

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

The drivers listed in this questionnaire are certainly foundational to ensuring resource adequacy and CGA encourages the Agencies to explore each of them in the modeling scenarios informing the resource adequacy report. Further, CGA makes the following recommendations as to certain drivers:

- 1) *Extreme weather:* Extreme temperatures hot or cold place immense strain on power systems. When forecasting system peaks during very hot or very cold temperature days, the Agencies should strive to understand how much capacity is potentially available due to commercial and/or residential demand response programs that can be initiated during extreme weather events to manage very high loads. The Agencies should also explore expected energy availability during extreme weather, relying on the capacity accreditation practices of MISO and PJM and on an evaluation of historic generating performance of Illinois-based resources.
- 2) Demand growth: As noted above, demand growth projections should be disaggregated by customer class. For large load customers such as data centers, the period over which these load additions are expected to materialize should include construction and ramping periods to account for incremental demand. During the Resource Adequacy Policy Session ("the Policy Session") hosted by the ICC on February 20, 2025, ComEd's representative noted that data center construction takes 3-5 years to complete while subsequent load ramping occurs over several years following construction completion.
- 3) *Thermal retirements:* MISO modified its generator replacement study process and interconnection requirements, receiving approval from the Federal Energy Regulatory Commission in June 2025. The Agencies should review the feasibility of generator



replacement at the site of planned generator retirements, and specifically explore whether this option would facilitate expedited replacement of retiring capacity.

- 4) *Transmission buildout and future needs:* The Agencies should model the capacity that will be enabled by the Central Illinois Grid Transformation Program as a resource starting in 2030, as the four Illinois transmission projects comprising Tranche 1 of MISO's LRTP are slated to be placed in-service by the end of 2029. The Agencies should model a scenario involving some level of GETs deployment across Illinois. Regarding future needs, keep in mind that MISO is developing the next tranche of regional transmission projects under the LRTP.
- 5) *Out-of-state reliance on generation resources:* Illinois has historically been a net energy exporter on an annual basis (although not necessarily during peak load periods). Thus, potential import capacity should be evaluated specifically for periods of system peak against any capacity import limits established by MISO and PJM.
- 6) Some other driver not described above:

Deployment of emerging technologies:

- Long-duration energy storage ("LDES") is essential to supporting a clean electricity system, as LDES systems can store power for more than four hours and up to multiple days (based on the particular technology). Experts expect the costs of LDES to continue to decline into the mid-2030s. The Agencies should model a scenario that includes some level of LDES penetration.
- GETs, noted as a potential resource adequacy shortfall solution in response to Question 1 above, should also be modeled in a scenario.
- Queued supply-side capacity: Queue reform will unlock 68 GW of Illinoisbased capacity in MISO³ and another 2.5 GW in PJM⁴ within this Study period, much of it from clean energy resources like wind, solar, and storage. All scenarios should include some level of supply-side additions based on these queues, with the particular inputs varying from lesser to greater capacity emerging from the interconnection study process.

[continued next page]

³ MISO. "Generator Interconnection Queue". Accessed at: <u>https://www.misoenergy.org/planning/resource-utilization/GL_Queue/</u>

⁴ PJM. "2024 Illinois State Infrastructure Report". (June 2025). Accessed at: <u>https://www.pjm.com/-/media/DotCom/library/reports-notices/state-specific-reports/2024/illinois.pdf</u>



• **Peak shifting:** During the Policy Session held on February 20, 2025, presenters noted the potential for Illinois utilities to shift from summer peaking to winter peaking by the mid-2030s. While perhaps not relevant to *this* Study, CGA recommends the Agencies explore how seasonal peak shifting could impact energy imports, and thus, *future* resource adequacy.

Queston 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.

State policy. The Illinois veto session is planned for mid-October of 2025, at which point the legislature is expected to take up an energy omnibus bill addressing multiple legislative priorities and policy issues, including a 6 GW storage target and funding the Renewable Portfolio Standard ("RPS") budget to adjust for inflation and maintain buying power. Other possible state policy reforms include permitting and siting improvements for wind, solar, and storage projects; statewide property tax assessments for storage; and better processes at the IPA. Thus, CGA recommends the development of a scenario that incorporates strong state policy support (via regulation and incentives) for clean energy development and is fully aligned with CEJA goals.

Federal policy. Congress passed a budget reconciliation bill in July of 2025 that eliminates the production tax credit ("PTC") and investment tax credit ("ITC") for wind and solar projects placed in-service after December 31, 2027, unless they reach construction milestones by July 4, 2026. As the Agencies are likely aware, these policy changes may place projects that have already been awarded through the Illinois Power Agency's Indexed REC procurement process at severe risk. One scenario should assume the phased-out credits increase project costs such that some projects withdraw from the procurement process and clean energy capacity is severely constrained, but another should assume that at least some of the already-awarded projects advance through either the traditional MISO and PJM queues or the expedited interconnection queues in time to access the tax credits as planned.

While the phased-out PTC and ITC, and other federal policy changes, are expected to negatively impact wind and solar development in the near future, CGA recommends the Study include one scenario where federal policy support for clean energy (via regulation <u>and</u> financial incentives) is strong. Specifically, the agencies should assume the clean energy tax credits are renewed in the 2029/2030 timeframe under this scenario. Two federal elections will take place over the course of this Study: the Congressional midterms in 2026 and a presidential election in 2028. The production and investment tax credits have been a political football for decades, suggesting their possible return *[see figure next page]*:



Figure 1. Status of clean energy tax credits since 2001.⁵

PTC and ITC have a long and bumpy history

Long history of expirations and renewals, creating ongoing uncertainty for industry US lower-48 generating capacity by online year (GW) Sola Battorios Win 50 1 year PTC extension 40 PTC with phase out through 2019 PTC expired 11 months before extension 30 PTC renewed for remainder of 2013 aft PTC allowed to expire 20 PTC renewed for 2 years 10 2000 2001 2002 2003 2004 2005 2011 2012 2016 2017

Interconnection reform. MISO is implementing reforms to the interconnection study process that are expected to enable the completion of Definitive Planning Phase studies ("DPP") for all resources in the queue, enabling generator interconnections agreements ("GIAs") by 2026.⁶ Nearly 110 GW of capacity from DPPs 2020, 2021, 2022, and 2023 – primarily solar and storage – is currently "active" in MISO's Central Study Group (which covers Illinois).⁷ The base case scenario should assume capacity from DPPs 2020-2022 (over 72 GW) reaches GIA in time to access the federal PTC and ITC, and another scenario (such as the strong federal policy support scenario articulated above) should assume the full amount of capacity in DPPs 2021-2023 is available within this Study period.

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

The Agencies should strive to address potential reliability shortfalls with least-cost solutions that do not significantly alter the trajectory of the State of Illinois in ultimately meeting its clean transition goals as required by CEJA. Constructive policy decisions will balance short-term

⁵ Source: S&P Global, Market Intelligence. "North American Power Market Outlook: From Demand Boom to Development Bottlenecks", webinar on July 1, 2025.

⁶ MISO. Interconnection Process WG. "DPP Study Schedule Update". (June 3 2, 2025). Accessed at: <u>20250603</u> <u>IPWG Item 03b DPP Study Schedule Update699704.pdf</u>

⁷ MISO. "MISO Generator Interconnection DPP Active Queue Overview". Accessed at <u>GIQ Web</u> <u>Overview272899.pdf</u>



needs versus long-term objectives, recognizing that supply-side decisions will resonate at least through the book life of any generating resources added to the system. Additionally, the Agencies should respond to any reliability shortfall with targeted measures that address root causes and should be wary of policy solutions that do not appropriately assign costs.

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

CGA is concerned that the Study process could overlook opportunities to maximize capacity of the existing electric system in the near-term, such as potential surplus interconnection capacity, which is estimated at a utilization rate of only 37% and 42% of its potential in Illinois within MISO and PJM, respectively;⁸ DSM programs for new large loads; GETs; and stand-alone storage and storage hybrid development at existing generating facilities. There is potential to over-build new generating resources or to extend the operations of thermal units and thereby delay the transition to a clean energy system when the stakes are as high as in this current era of extraordinary demand for electricity. Relatedly, load forecasting, particularly relating to new large load customers, is an inherently fraught and ultimately flawed practice that is nevertheless worthwhile. Meshing an accurate forecast with available capacity will be a delicate undertaking.

Throughout these comments, CGA recommends solutions to addressing these potential blind spots. At the risk of being repetitive, we briefly recap these below.

[see table next page]

⁸ GridLab and the University of California-Berkeley. "Surplus Interconnection". (2025). Accessed at: <u>https://scarcitytosurplus.com/re/dashboard</u>



Table 1. Potential blind spots/gaps and proposed solutions for the RA Study process.

| Potential blind spots/gaps | Proposed solution(s) |
|--|---|
| Load forecast uncertainties | Model scenarios with base, moderate, and high load growth forecasts; disaggregate load forecasts by customer class; and evaluate DSM potential. |
| | Unique to data center additions, scenarios should include incremental load growth through 2030. |
| Overlooked opportunities to maximize existing resources | Evaluate and model surplus interconnection potential, GETs, and co-located storage capacity. |
| Misalignment with on-going Illinois policy implementation | Coordination and consistency with the LTRRPP and REAP. |
| Changes to state and federal policy | Model strong state and federal support (regulatory, legal, and financial) for clean energy and limited federal support for clean energy through 2030. |

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 a 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?

Yes. CGA would like to highlight two relevant approaches to assessing resource adequacy undertaken by other states in the MISO-North region: the biennial Strategic Energy Assessment ("SEA") conducted by the Public Service Commission of Wisconsin ("the PSCW") and the



integrated resource planning parameters ("IRPP") being updated by the Michigan Public Service Commission ("the MPSC").

Wisconsin SEA. The PSCW conducts the SEA to "evaluate the adequacy and reliability of the state's current energy supply" as directed by statute.⁹ The current SEA, which addresses the period from 2024-2030, involved capacity expansion modeling under several scenarios developed by the PSCW assuming more and less aggressive decarbonization and load growth, as well as other variables. The PSCW scenarios were largely informed by the MISO Future 2A planning scenario. Wisconsin utilities, as in Illinois, do not submit integrated resource plans ("IRP") to the PSCW, so the example of the SEA is relevant to this and future resource adequacy studies conducted by these Agencies. The SEA is available in full <u>here</u>; discussion of the PSCW planning scenarios begins on p. 39.

Michigan IRPP. The MPSC is in the process of updating Michigan IRP filing requirements and planning parameters in response to a 2023 state law.¹⁰ While regulated Michigan utilities do file IRP with the MPSC, the new IRPP dictate scenario development and require utilities to conduct capacity expansion modeling under multiple scenarios. As with the Wisconsin SEA, one scenario must be based on a MISO Future. The Michigan case is relevant to these Agencies as the MPSC takes an active role in shaping modeling scenarios by defining the terms of at least one model run. The draft IRPP is available <u>here</u>; scenario development requirements start on p. 40. Additionally, Michigan is partially deregulated and allows electric retail choice from alternative energy suppliers ("AES") for up to 10% of regulated utility retail sales. While AES are not required to submit IRP, these energy providers are required to submit Clean Energy Plans ("CEP") by January 1, 2028,¹¹ and must include in the CEP peak demand forecasts and proposed resource plans. The draft CEP filing requirements are available <u>here</u>.

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)?

Regarding resource cost data sources and input assumptions. When developing resource cost projections for the modeling scenarios, CGA recommends the Agencies reference reputable, publicly available industry sources (e.g., the NREL ATB, Lazard's latest Levelized Cost of

⁹ Wisconsin Statute § 196.491(2)(a).

¹⁰ Michigan Public Act 231 ("P.A. 231") § 460.6t.

¹¹ The AES CEP filing requirements are under development at the MPSC, also in response to P.A. 231.



Energy, the Electric Power Research Institute TAGWeb database, and/or the U.S. Energy Information Administration's Annual Energy Outlook). As noted in Question 4 above, CGA encourages the Agencies to assume clean energy tax credits are renewed in the 2029/2030 timeframe when factoring policy incentives into the Study in at least one model run.

Regarding load growth data sources and input assumptions. When developing load forecasts, the Agencies should review forecasts from Illinois utilities, Illinois economic development organizations, MISO and PJM, large energy user associations, and globally reputable sources, such as S&P Global, Wood Mackenzie, or London Economics International. Regarding input assumptions, the Agencies should assume global trade dynamics and supply availability could slow large load development across multiple sectors. For example, data center developers are facing many of the same supply constraints as the electric sector, and S&P Global recently reported that <u>no entity without a contract for gas turbines today</u> will be able to acquire the equipment before 2029.¹² Meanwhile, London Economics International estimates that the current data center forecast for development in the U.S. would require 90% of global semiconductor chip supply and manufacturing capacity through 2030, <u>supply U.S. data centers would be competing against other countries to acquire.</u>¹³ CGA encourages the Agency to model incremental load additions reflecting these material realities.

Regarding other studies for the Agencies to reference.

- The Illinois REAP. As the REAP is being developed concurrently with this Study, the Agencies should align data sources used in both studies for consistency.
- Annual OMS-MISO Survey. While CGA encourages the Agencies to reference this survey, which assesses resource adequacy across the MISO region, we also caution that previous versions have incorporated flawed assumptions leading to deeply problematic results which CGA has described in detail in multiple recent filings to the Federal Energy Regulatory Commission ("FERC").¹⁴ For example, the 2024 OMS-MISO Survey

¹² S&P Global, Market Intelligence. "North American Power Market Outlook: From Demand Boom to Development Bottlenecks". (July 1, 2025, webinar).

¹³ London Economics International, on behalf of the Southern Environmental Law Center. "Uncertainty and upward bias inherent in data center electricity demand projections". (July 7, 2025). Accessed at: <u>https://www.selc.org/wp-content/uploads/2025/07/LEI-Data-Center-Final-Report-07072025-2.pdf</u>

¹⁴ See FERC. Docket No. ER25-1674-000. "Protest of CGA" and "Protest of the Clean Energy Organizations". (filed April 7, 2025).



assumed that 0 MW of storage capacity would be available within the next 5 years, based on data from a 3-year historical average that included only the notoriously atypical years of 2020-2022. This led MISO to declare the likelihood of a capacity shortfall. Yet when MISO asked utilities directly about planned capacity additions, generator retirements, and load forecasts via that same survey, the likelihood of a resource adequacy shortfall was shown to be low, and relatively small at that, while the likelihood for surplus capacity was strong if "favorable changes in development drivers" were achieved.¹⁵ Included among drivers of positive change, according to the 2024 OMS-MISO survey, are "continued improvements to the queue". Fortunately, current efforts at MISO to process the interconnection queue more effectively, such as through the implementation of new software reducing the time from interconnection request to Generator Interconnection Agreements ("GIAs"), appear to be effectively driving "positive change".¹⁶ And yet, the 2025 OMS-MISO Survey shows the same deficits.¹⁷

Ouestion 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.

Transmission expansion projects for inclusion in model scenarios and for consideration.

MISO Long Range Transmission Plan ("LRTP"). As noted, the Central Illinois Grid Transformation Program, the first tranche of MISO's multi-phase LRTP slated to be energized by the end of this Study period, should be included in all scenarios. Meanwhile, the Agencies should keep in mind the impact on alleviating congestion and facilitating new capacity that Tranche 2.1 of the LRTP will provide in the early 2030s. This phase includes

¹⁵ MISO. "2024 OMS-MISO survey". (June 20, 2024). Accessed at: <u>https://cdn.misoenergy.org/OMS%20MISO%20Survey%20Results%20Workshop%20Presentation628355.pdf</u> ¹⁶ See MISO. "MISO's benchmarking of Pearl Street SUGAR". (April 15, 2025). Accessed at:

https://cdn.misoenergy.org/20250422%20IPWG%20Item%2003c%20MISOs%20Benchmarking%20of%20Pearl%2 0Street%20SUGAR691554.pdf. See also RTO Insider. "MISO: New software effective, faster than previous queue process". (April 23, 2025). Accessed at: https://www.rtoinsider.com/103644-miso-sugar-software-effective-fasterthan-previous/

¹⁷ MISO. "2025 OMS-MISO survey". (June 5, 2025). Accessed at: https://www.misoenergy.org/meet-miso/mediacenter/2025---news-releases/annual-oms-miso-survey-results-highlight-resource-adequacy-challenge/



additional high-voltage projects in Illinois that would be in-service during the next resource adequacy study period (estimated between 2032 and 2034).¹⁸

• **Grain Belt Express.** The Grain Belt Express, a high-voltage transmission line extending from Kansas to an interconnection point at the eastern Illinois border, is planned to deliver 2,500 MW of capacity to the state of Illinois. Phase 1 of Grain Belt Express is expected to be energized in 2028 with the Phase 2 extension from mid-Missouri to the interconnect at the Illinois-Indiana border to follow. The Phase 2 extension should be modeled in one prospective scenario.

Transmission constraints to be reflected in model scenario(s). Southern Illinois experiences severe congestion, which should be reflected in model scenarios [see figure next page]:

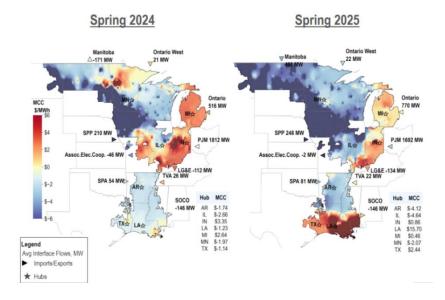


Figure 2. Average real-time transmission congestion in MISO.¹⁹

However, the Study should include one prospective scenario in which these transmission constraints are alleviated to at least some degree.

¹⁸ MISO. "LRTP – Tranche 2.1 Competitive Transmission Projects Schedule Of Planned Release Dates For Each RFP". (February 13, 2025). Accessed at:

https://cdn.misoenergy.org/LRTP%20Tranche%202.1%20RFP%20Release%20Schedule671259.pdf

¹⁹ Potomac Economics. "Independent Market Monitor Quarterly Report: Spring 2025". (July 10, 2025). Accessed at <u>cdn.misoenergy.org/20250710 MSC Item 05 IMM Seasonal Review of Markets705586.pdf</u>



Question 10: Are there specific assumptions that should be considered concerning generation resources, including buildout (queue, pace, technology availability) or retirements, both instate 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?
- b) Which assumptions are contingent upon specific policy and/or legislative conditions being met or otherwise enacted?

Generation buildout assumptions: Queue and pace.

- **MISO queue reform.** The efficacy of MISO's implementation of SUGAR to process DPP 2022 should be considered in the base case scenario, whereby those projects are constructed by the end of 2028.
- Expedited generation processes. Both MISO and PJM are seeking to increase the pace of interconnection for new generation within the period covered by this Study. PJM's Reliability Resource Initiative ("RRI"), which was approved by FERC in February 2025, will add 9,300 MW of unforced capacity ("UCAP") to the system by 2031.²⁰ Five projects selected through the RRI add 2,275 MW of battery storage capacity and another five add 1,383 MW of nuclear power (one new project and four uprates) for a total addition of 3,658 MW of zero-carbon capacity.²¹ MISO submitted a revised Expedited Resource Addition Study ("ERAS") proposal to FERC on June 6 and seeks approval this July, which if approved would allow up to 68 projects to qualify for fast-tracked review and interconnection from now to August 31, 2027.²² Assuming FERC approves ERAS as revised, the effect of capacity additions through ERAS and RRI should be considered in the base case scenario. If FERC does not approve ERAS, one prospective scenario should consider some level of expedited generation addition in MISO based on the likelihood the ISO will continue to seek such a pathway.

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²⁰ PJM. "RRI Results Summary". May 6, 2025. Accessed at: <u>20250506-item-06---reliability-resource-initiative---</u> <u>summary-results.pdf</u>

²¹ Ibid.

²² FERC. Docket No. ER25-2454-000.



Generation buildout assumptions: Technology availability.

• New technologies. As noted elsewhere, LDES and GETs are emerging as critical solutions to many current challenges, and levels of deployment are expected to increase within the next decade. This will depend, in part, on state and federal policy and regulatory environments, but at least one prospective scenario should include incremental additions of these technologies that assumes incentives for their deployment.

Generation retirement assumptions. A prospective scenario should assume the use of the MISO generation replacement opportunity at thermal retirement sites such that the retiring capacity is replaced within one year, per MISO's Generator Replacement X and BPM-015 updates.

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.

CGA addressed load forecast assumptions in detail in response to Question 8. For the reasons discussed above, the base case scenario should assume large load additions <u>only</u> for large loads that have or will soon have (e.g., by the end of 2025) an agreement to interconnect with an Illinois utility. Large load additions beyond that level of demand should be studied under prospective scenarios assuming gradually increasing load additions over the course of the Study.

Regarding policy impacts to load forecast assumptions, the current federal regulatory and policy environment disincentivizes electrification. One prospective scenario should assume limited federal policy support for electrification and a low rate of related demand growth, and another should assume a more supportive policy environment in the 2028/2029 timeframe such that the rate of electrification increases to some degree.



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

Yes. In terms of policy, MISO is expected to begin expediting interconnection processes for up to 68 resources over the next three years, per its ERAS proposal (pending FERC approval). The Illinois Commerce Commission ("ICC") will need to establish a process verifying ERAS eligibility for Illinois-based projects, which CGA recommends the ICC do at once to facilitate ERAS review of clean energy projects, particularly for those already awarded through the state's Indexed REC procurement. For purposes of this Study, the Agencies should consider a scenario where previously awarded projects <u>now at risk</u> of missing the PTC and ITC deadlines *are* expedited such that construction commences in time for those projects to utilize the tax credits, and a scenario under which these previously awarded projects *are not* expedited in time to realize the tax credits and are thus rendered financially infeasible.