VIA ELECTRONIC MAIL

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Re: Final Post-Workshop Comments, Resource Adequacy in MISO Zone 4

Dear Mr. Clausen:

On behalf of the People of the State of Illinois, represented by Attorney General Lisa Madigan (“the People” or “AG”), we are writing to provide our response to the Staff of the Illinois Commerce Commission’s (“ICC”) invitation to submit final post-workshop comments. Your invitation provided an outline of issues that parties could comment on if they wish. The outline is set forth below, along with the People’s responses to selected issues. Please note that failure to comment on any particular matter raised in the outline should not be taken as agreement or disagreement.

I. Resource Adequacy Standards

A. How should resource adequacy be defined and how does resource adequacy compare with or contrast with resiliency and reliability?

People’s/AG’s Response:

Resource adequacy is the availability of sufficient resources to provide electric power required to meet customer demand, including generation resources, energy efficiency, and demand response resources. It is a component of reliability and is also a component of the related concept of resiliency. Resiliency, as it is proposed to be defined by the Federal Energy Regulatory Commission (“FERC”), focuses on the grid’s ability to resist, withstand, and recover from low-frequency, high-impact events.¹

¹ The definition of resiliency, as proposed by FERC, is “[t]he ability to withstand and reduce the magnitude and/or duration of disruptive events, which includes the capability to anticipate, absorb, adapt to, and/or rapidly recover from such
The Midcontinent Independent System Operator (“MISO”), too, has stated its assumption “that resilience is an element of overall grid reliability.” Thus, assuring resource adequacy is a necessary, but not sufficient, condition for assuring reliability and resiliency of the grid because the availability of resource adequacy is only one part of a much larger system that requires sufficient and reliable dispatch, transmission, and distribution. Even if all generating resources were guaranteed to be available 100 percent of the time in amounts at or above demand, there must be sufficient functional transmission and distribution infrastructure to move the power generated to the load that requires it.

To illustrate: according to public power industry data, squirrels cause more customer outage-hours by damaging distribution infrastructure than any other cause, including unscheduled generator outages that imbalance generation and load, in an area that includes MISO Zone 4. Similarly, it is transmission line failures and extreme weather events that have been responsible for large-scale, widespread outages over the past several years—not insufficient generating capacity. During outages caused by distribution level events or cascading transmission line failures, resource adequacy has little to do with the problem: having more power available would not prevent the outage. For further illustration, the consulting firm Rhodium Group recently provided a chart of the share of total customer-hours disrupted by cause from 2012-16:

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B. What entities currently address resource adequacy, how do they do so, and how sufficient are such current measures?

People’s/AG’s Response:

Numerous federal, regional, and state entities are involved in evaluating resource adequacy issues: FERC, the National Electric Reliability Corporation (“NERC”), MISO, the ICC, and the Illinois Power Agency (“IPA”) each have a role. FERC approves and enforces standards for the bulk electric system that are developed by NERC. Industry participants accordingly direct sufficient revenue to the development of generation resources to meet such standards, or face stiff fines. Industry participants respond to standards, market rules, and market prices and signals and choose to participate in, enter, or exit the generation supply markets governed by FERC and administered by the RTO.

MISO is subject to FERC jurisdiction, too, and addresses resource adequacy in several ways. For example, it runs a capacity market, called the Planning Reserve Auction (“PRA”), that includes the Planning Reserve Margin Requirement that requires that 16% more megawatts be available over the expected peak. MISO also has two working groups that address resource adequacy: The “Loss of Load Expectation Working Group” and the Resource Adequacy Subcommittee. MISO’s tariff must be approved by FERC to have legal force and be implemented in MISO’s markets, which are designed to provide revenues sufficient to incent generator behavior to meet resource adequacy requirements, whether that occurs through using existing or building new power plants, improving transmission across the MISO area, or otherwise achieving the necessary amount of power available within MISO from existing plants.

In the event that MISO identifies a region that may face a shortage of electric power due to retirement or unavailability, MISO also has the ability to designate a generation asset as a System Support Resource (“SSR”) (one that is needed for reliability and therefore cannot retire) with which it may enter into an agreement to fully cover the costs of continued operations, including a return on
investment (with FERC approval per agreement). With the SSR mechanism, MISO has the ability to generally prevent reliability issues from coming into existence.

In Illinois, there is an additional set of processes to address the provision of electric energy to consumers. The ICC reviews and approves IPA plans to procure energy and capacity on behalf of Illinois’ load-serving entities that provide electric energy to customers who do not buy electricity from an independent supplier. The IPA administers Illinois specific procurement processes that utilize market mechanisms to compensate generators for providing power to Illinois default customers. The ICC also has legal authority to regulate the load-serving entities within the state (such as ComEd and Ameren), who must file resource adequacy plans with MISO. Under MISO’s Module E tariff, the ICC may set its own resource adequacy target for the load-serving entities under its jurisdiction as the “Relevant Electric Regulatory Authority” in Illinois, per MISO definitions. The ICC may set a resource adequacy target above or below what MISO would have otherwise required for Zone 4. In sum, the number of expert entities with authority to take action to address resource adequacy issues, alone or in concert, assures that sufficient resources will be available in Zone 4.

II. Resource Adequacy Measurement

A. How much generation is currently available to meet Zone 4 resource adequacy requirements?

People’s/AG’s Response:

ICC Staff issued a whitepaper on resource adequacy in MISO Zone 4 on November 1, 2017, (“ICC Whitepaper”) noting that, “[c]urrently, Zone 4 has 57 utility-scale generating stations, with a combined nameplate capacity of over 16,000 MWs and summer capacity of over 14,000 MWs.” ICC Whitepaper at 6. Recent MISO capacity local clearing requirement for Zone 4, however, have been less than 6,000 MWs, demonstrating that the Zone 4 resources are currently more than adequate. Id. Further, the 2017 OMS-MISO Survey (“OMS” stands for Organization of MISO States) showed that the Outlook for resource adequacy for 2018 for Zone 4 shows a surplus, and that regional surpluses, such as that in Zone 4, are sufficient to cover the two MISO regions showing a deficit.

B. What generation resources formerly meeting Zone 4 resource adequacy requirements have recently been lost due to retirement, derating, declining capacity factor, or otherwise?

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6 MISO DOE NOPR Comments at 13-14. A coal-fired unit at Dynegy’s Edwards plant was designated an SSR as described by MISO’s MTEP15 report: “Edwards 1 (103 MW) – The Edwards Unit 1 requested to retire on December 31, 2012, and was identified as an SSR unit until transmission improvements are completed in December 2016. The SSR Agreement has been in place since January 1, 2013, and was renewed for an additional term of January 1, 2015, to December 31, 2015. It will be re-evaluated for an additional 2016 term.” http://www.misomtep.org/generation-retirements-suspensions-mtep15/.
C. What current generation resources available to meet Zone 4 resource adequacy requirements are at risk of becoming unavailable going forward and what are the implications of the loss of such resources?

People’s/AG’s Response:

Some generators have argued that they lack sufficient revenue to operate certain generating units, and that they need additional revenues to avoid closing generating units where the costs of operation exceed market revenues. However: “Currently, Zone 4 has 57 utility-scale generating stations, with a combined nameplate capacity of over 16,000 MWs and summer capacity of over 14,000 MWs.” ICC Whitepaper at 6. In the 2017 PRA, the MISO Zone 4 local clearing requirement was only 5,839 MWs. Id.; MISO 2017/2018 Planning Resource Auction Results at 9 (April 14, 2017). This demonstrates that Zone 4 does not currently face a capacity shortage and can expect to have more than sufficient capacity to address potential changes in both load and resources even if some uneconomic resources retire.

Given the more than sufficient capacity available to serve Zone 4 both from within Zone 4 and from other MISO zones, the market properly produces prices sufficient to compensate sufficient resources to serve Illinois and the entire MISO region at the lowest cost. Illinois rules, regulations, and laws should not be changed to increase market prices to protect operation of otherwise uneconomic and inefficient generating units.

D. What are the prospects for new generation resources becoming available to meet Zone 4 resource adequacy going forward?

People’s/AG’s Response:

In addition to transmission projects resulting in additional resources being able to serve Zone 4 (discussed below), new renewable resources in Central Illinois are expected to come online soon. The Illinois Power Agency (“IPA”) conducted the initial forward procurement pursuant to Public Act 99-0906, also known as the Future Energy Jobs Act. The winning bidders included:

<table>
<thead>
<tr>
<th>Name</th>
<th>Project Location</th>
<th>Project Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alta Farms Wind Project II, LLC</td>
<td>DeWitt County</td>
<td>200 MW</td>
</tr>
<tr>
<td>Broadlands Wind Farm LLC</td>
<td>Douglas County</td>
<td>202 MW</td>
</tr>
<tr>
<td>Cardinal Point LLC</td>
<td>McDonough/Warren</td>
<td>150 MW</td>
</tr>
<tr>
<td></td>
<td>Counties</td>
<td></td>
</tr>
<tr>
<td>Prairie State Solar, LLC</td>
<td>Unknown</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

Sources:
https://www.icc.illinois.gov/downloads/public/Public%20Notice%20of%202017%20Wind%20and%20Solar%20REC%20Procurement%20Results%202017-09-07.docx
http://tradewindenergy.com/project/altafarmswindproject/
http://www.capitalpower.com/generationportfolio/US/Pages/CardinalPointWind.aspx
See also ICC Whitepaper at 2-3 (“As of October 2017, there are twenty-eight generator interconnection projects totaling almost 4,400 MWs of capacity in MISO’s queue for Zone 4.”).

Central Illinois is also drawing interest from developers of new natural gas plants. For example, EmberClear is seeking to build a 1,100 MW combined-cycle gas plant near Pawnee, IL. The company’s project manager told Platts that he “believes an eventual buildout of 4,000 MW to 5,000 MW of gas-fired generation is possible in MISO Zone 4,” which only has 1,124 MW of combined-cycle gas generation currently (compared to 11,360 MW of coal, 1,065 MW of nuclear, and 3,229 MW of gas-fired peaking units). See also ICC Whitepaper at 7 (discussing Illinois’ large amount of peaker gas plants and small portion of combined-cycle technology).

Renewables and gas capacity are moving forward in development despite the slow growth of consumer demand for power due to improved efficiency throughout the economy. We can expect to see continuation of this trend through initiatives such as the Future Energy Jobs Act’s expansion of utility energy efficiency programs and reform of the Renewable Portfolio Standard. These trends indicate that new renewables and gas development can be expected to replace existing generation in MISO Zone 4, a turnover that further contributes to the adequacy of electric capacity in the region and to the health of area residents.

The 2017 OMS-MISO Survey (“OMS” stands for Organization of MISO States) is another data point supporting the robustness of energy capacity available now and going forward in the MISO-Illinois region. The 2017 OMS-MISO Survey projects surpluses of generation in Zone 4 of 700 to 1600 MWs in the 2018 delivery year and 400 to 1500 MWs for the 2022 delivery year. ICC Whitepaper at 10-11. Indeed, “[t]he reserve margin across the MISO region is expected to range from 16-22 percent in the 2018-2022 timeframe,” “above the target planning reserve margin requirement of 15.8 percent.” Id. at 10.

E. What non-generation resources are and may be available to meet resource adequacy and how do such resources impact resource adequacy?

People’s/AG’s Response:

As noted above, the Future Energy Jobs Act expanded utility energy efficiency programs which are designed to reduce demand for electricity. In addition, appliance standards and improvements in energy efficiency across the economy are resulting is small or no growth in energy demand. Less demand means that fewer generating resources are needed.

F. How well do existing programs and initiatives predict future resource adequacy?

People’s/AG’s Response:

The existing system of evaluating and maintaining resource adequacy in the United States works well enough to ensure sufficient capacity. As demonstrated by comments here and by other parties in the workshop process, and through the ICC Whitepaper itself, the current system of FERC, NERC, RTO, and state oversight have resulted in a robust and reliable generation mix in the MISO-

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Illinois area. Virtually all power outage incidents that occur are due to distribution level events or transmission line failures caused by equipment or extreme weather—not insufficient generating capacity. Accordingly, major interventions into our system of electric reliability are unnecessary and disruptive; for example, FERC dismissed the DOE’s Grid Reliability Proposal after it produced widespread opposition from stakeholders across the energy industry as both unnecessary and disruptive to energy and capacity markets. Grid Reliability and Resilience Pricing, FERC Docket No. RM18-7, Order Terminating Rulemaking Proceeding, Initiating New Proceeding, And Establishing Additional Procedures (Jan. 8, 2018).

III. Market Design Impact on Resource Adequacy

A. What alternative opportunities are available to resources that could otherwise be used to meet resource adequacy in Zone 4 and how do these opportunities impact Zone 4 resource adequacy?

B. How does the transmission system impact resource adequacy?

People’s/AG’s Response:

A key advantage in Zone 4 is “transmission import capability,” which allows Illinois to access low-cost generation resources from other zones in MISO and from areas outside MISO, thereby minimizing the cost of capacity and energy for Illinois consumers. Id. at 12. Also, under construction are new MISO transmission lines in Illinois and other zones that, “[w]hen completed, [] will increase the import capability for almost all transmission zones in MISO and, in particular, enable access to lower-cost surplus generation located outside of Zone 4.” Id. at 13.

MISO itself believes transmission planning (i.e., new-build transmission lines) is a superior approach to addressing resource adequacy, reliability, and resiliency over supporting generation resources and explained as much in its Comments to FERC regarding the DOE NOPR (RM18-1-000):

The reserve margin for the MISO-wide region is projected to be in the range of 16 percent to 22 percent during the 2018-2022 timeframe, sufficiently above the current expected Planning Reserve Margin Requirement (“PRMR”) of 15.8 percent. The OMS-MISO survey further indicates that the majority of zones within MISO will have sufficient local capacity through 2022 to meet their PRMR. While certain zones are currently projected to have insufficient local resources, there is sufficient excess capacity and available transmission for load serving entities in these areas to reliably acquire capacity from outside their zones to meet these needs. This is an important element of the regional reliability benefits that MISO provides as an RTO, the value of which is demonstrated in MISO’s Value Proposition.9

Indeed, one of the very reasons for interconnecting the grid and creating RTOs was to facilitate the sharing of generation resources across larger regions.10

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9 MISO DOE NOPR Comments at 12-13 (emphasis added).

10 See, e.g., Regional Transmission Organizations, Order No. 2000, 89 FERC ¶ 61,285 at 89-90 (1999) (“[RTO] benefits will include: increased efficiency through regional transmission pricing and the elimination of rate pancaking;
C. How do facilities owned by municipals and cooperatives affect resource adequacy?

People’s/AG’s Response:

Springfield’s City Water Light & Power (“CWLP”) and the Southern Illinois Power Cooperative (“SIPC”) are connected to the MISO system. They can purchase their power and capacity from MISO but also have their own generation resources and contracts. CWLP has 724 MWs of generating capacity from coal, gas, and oil units and also contracts for wind power from NextEra Energy Resources.11 SIPC has 433 MWs of coal and gas capacity and contracts for coal, hydro, and wind power.12 Excess power and capacity from CWLP’s and SIPC’s generation resources can be sold into the MISO system and help support overall resource adequacy in the region.

D. How does bilateral contracting, self-supply, and fixed resource adequacy planning affect resource adequacy?

People’s/AG’s Response:

MISO includes both vertically-integrated, traditionally-regulated utilities and independent generators. As a result, it offers numerous means to meet resource adequacy requirements. MISO’s innovation and flexibility in this regard is noteworthy. Bilateral contracting, self-supply, and fixed resource adequacy planning and market purchases through MISO's capacity PRA are the primary means by which load-serving entities in the MISO territory meet their resource adequacy (capacity) requirements. The PRA serves as a backstop; it functions as a residual auction to increase the efficiency of the MISO system. The PRA enables vertically-integrated utilities to sell excess capacity to one another and to LSEs in market-based states, and enables both vertically integrated and market-based states to efficiently balance their capacity needs with resources from across the MISO territory that are subject to the cost discipline of markets.13

E. How do so-called out-of-market revenues (revenues separate and apart from those obtained in wholesale markets (e.g., Zero Emission payments or renewable energy credits) impact resource adequacy?

People’s/AG’s Response:

Zero Emission Credits (“ZECs”) have the effect of supporting resource adequacy in Zone 4 by helping to retain resources that might be uneconomic or might close in the absence of additional

improved congestion management; more accurate estimates of ATC; more effective management of parallel path flows; more efficient planning for transmission and generation investments; increased coordination among state regulatory agencies; reduced transaction costs; facilitation of the success of state retail access programs; facilitation of the development of environmentally preferred generation in states with retail access programs; improved grid reliability; and fewer opportunities for discriminatory transmission practices.”) (emphasis added).

12 https://www.sipower.org/p/powersupply.php
compensation for their environmental attributes. As a result, additional resources are available to support resource adequacy in Zone 4 if a plant such as the Clinton Nuclear Generating Station remains open longer than it would have otherwise. Renewable Energy Credits (“RECs”) can also affect Zone 4 resource adequacy by providing additional revenues to develop or retain resources such as wind and solar power in Illinois and adjacent states.

IV. Scope

A. Please provide commentary on any relevant substantive or process issue you believe has not been adequately captured in the Sections above.

B. Should this examination be extended in time?

People’s/AG’s Response:

Yes, numerous ongoing efforts warrant an extension of time for this examination. The most significant is MISO’s pending report to FERC on the topic of resiliency within the MISO territory. In dismissing the DOE’s proposal for grid resiliency pricing, FERC initiated a new docket to solicit information from the RTOs and ISOs, including MISO. MISO will provide a report 60 days after FERC’s Order in AD18-7: March 9th. Stakeholders will then have the opportunity to provide comment to FERC with respect to the grid operators’ submittals.

In addition, transmission projects are currently underway in Illinois, including the Mark Twain/Illinois Rivers project being built by Ameren. The large, high-capacity line is a MISO “Multi-Value Project” consisting of over three hundred miles of 345 kV transmission lines. The project will substantially increase the amount of transmission capacity available to MISO Zone 4, and will almost certainly have a positive impact on its import capability (which will allow more resources outside Zone 4 to supply load located within it). The ICC should continue to monitor the development of such projects and their impact on resource adequacy concerns in Zone 4. In addition, enhanced transmission will also enable export from Zone 4 to other MISO zones, potentially changing the conditions and opportunities available to Zone 4 generators.

C. Please provide commentary on any substantive or process issue not covered above.

V. Potential Policy Options

A. What changes, if any, should be made to better enable measurement and assessment of what resources are available to meet Zone 4 resource adequacy requirements?

People’s/AG’s Response:

Zone 4 resources are currently adequately reported to various authorities, including MISO and the United States Energy Information Agency, and available to the public. To the extent that a generator claims that its costs exceed market prices and justify a change in regulatory treatment or

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14 [https://www.icc.illinois.gov/AmerenILRiversProject/](https://www.icc.illinois.gov/AmerenILRiversProject/)
market rules, cost data should be made publicly available to support claims that a generator is uneconomic.

**B. What changes, if any, should be made to MISO’s capacity construct including to the MISO planning resource auction to better ensure resource adequacy?**

People’s/AG’s Response:

This subject is continually under discussion at MISO and was the subject of a FERC Order rejecting a MISO proposal to change the Zone 4 PRA. FERC Docket No. ER17-284, *Midcontinent Independent System Operator*, Order Rejecting Tariff Filing (Feb. 2, 2017). Stakeholders are free to propose changes to MISO and have the option of seeking administrative and judicial review if they believe the MISO markets are not producing just and reasonable rates.

**C. What changes, if any, should be made to MISO’s energy or ancillary service constructs that would help maintain resource adequacy?**

People’s/AG’s Response:

See response to V.B, above.

**D. What actions should the Illinois Commerce Commission and/or the Illinois Power Agency take, if any, to address resource adequacy assuming no new legislative authority?**

People’s/AG’s Response:

Energy prices in Illinois have been stable and have largely followed the IPA’s procurement of energy for default customers based upon its risk-managing procurement strategy. Additionally, there have been no reliability issues to date or forecasted to occur in Illinois in the reasonably foreseeable future. The IPA reviews its procurement strategy every year, which is open to stakeholder comment and review and approval by the ICC. We see no need for the IPA to significantly adjust its strategy at the present time, and the agency’s most recent Procurement Plan likewise does not indicate any major changes to its strategy are needed (and no major departures from past practices were made in the 2018 Plan).

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15. 2018 IPA Procurement Plan at 60 (“Given the volatility in forward energy prices from month to month and within months experienced in the last several years, the IPA investigated the merit of considering alternative procurement schedule strategies with the goal of further minimizing the volatility of the resulting portfolios of contracts for each delivery month.”)

16. *Id.* at 49 (“The RTO-based reliability assessments examined in this Section are important measures of resource reliability in Illinois because the Illinois electric grid operates within the control of these two RTOs. The IPA concludes that it does not need to include any extraordinary measures in the 2018 Procurement Plan to assure reliability over the planning horizon.”).

17. *Id.* at 1-2 (“The 2018 Plan proposes to continue using the risk management and procurement strategy that the IPA has historically utilized . . . . The IPA’s energy hedging strategy for the 2018 Procurement Plan is consistent with the strategy used for the 2017 Plan.”).
There should be no opposition to the ICC continuing to gather information and stakeholder feedback regarding resource adequacy. The People support a process with which the ICC measures, appraises, and responds to evolving energy needs through careful, data-driven consideration. The ICC should continue seeking information on, *inter alia*, generation retirements, generation additions, transmission retirements, transmission additions, demand response deployment and performance, and distributed resource installations.

**E. What actions should the Illinois General Assembly take, if any, to address Zone 4 resource adequacy?**

**People’s/AG’s Response:**

No action is currently needed by the Illinois General Assembly to address Zone 4 resource adequacy. The existing regime is producing a reliable electric grid with plenty of generating capacity. As such, the People do not believe that changes are needed to state rules, regulations, or laws due to concern for resource adequacy.

**F. Please describe any additional potential policy option(s) you would like to see considered or that you would recommend not be considered.**

**G. Is it important for any selected policy option to be market-based? If so, why? If not, why not?**

**People’s/AG’s Response:**

In 1997, the State of Illinois opted to move from a system that regulated distribution and generation of electricity to one that relies on market forces to produce reliable and reasonably priced electricity supply. *See* 220 ILCS 5/16-101, creating the Electric Service Customer Choice and Rate Relief Law of 1997. As a result of this shift in regulation, generators accepted the risks and the rewards associated with competitive markets. People have benefited from this shift to competitive markets because they have saved consumers millions of dollars by selecting the least-cost options for meeting demand by using market forces to govern market participation, entry, and exit. As discussed above, Illinois and Zone 4 and MISO generally have more than sufficient resources for meeting customer demand, ensuring system reliability. Further, MISO’s substantial investment in transmission, paid for in consumer rates, further enhances reliability as well as resiliency by enabling the delivery of electricity from multiple locations.

Competitive markets are central features of an overall trend toward fostering competition in the sector that has been ongoing for the past 30 years. Abandoning a market-based approach to electricity supply would be to go backwards, would be counter to current public policy, and should not be pursued.

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18 *See, e.g.*, *id.* at 49.

19 [http://www.misomatters.org/2016/03/miso-delivering-value-every-day/](http://www.misomatters.org/2016/03/miso-delivering-value-every-day/)

Thank you for your consideration of these comments. We can be reached at the telephone numbers and email addresses listed below should you have any questions or wish to discuss our comments.

Sincerely,

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