

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

Electrification and the Grid of the Future)

Docket No. AD21-12-000

**POST-TECHNICAL CONFERENCE COMMENTS OF
THE ORGANIZATION OF MISO STATES, INC.**

On May 17th, the Federal Energy Regulatory Commission (“FERC” or “Commission”) issued a Notice Inviting Post-Technical Conference Comments regarding Electrification and the Grid of the Future.¹ The Organization of MISO States, Inc. (“OMS”) appreciates the opportunity to share its views on the issues raised during the technical conference.

The OMS is a non-profit, self-governing organization comprised of representatives from the seventeen regulatory bodies with jurisdiction over entities participating in the Midcontinent Independent System Operator (“MISO”) and serves as the regional state committee for the MISO region. The purpose of the OMS is to coordinate regulatory oversight among its members, to make recommendations to MISO, the MISO Board of Directors, the Commission, and other relevant government entities and state commissions as appropriate, and to intervene in proceedings before the Commission to express the positions of the OMS member agencies.

Service of pleadings, documents, and communications in this proceeding should be made on the following:

¹ *Electrification and the Grid of the Future*, Notice Inviting Post-Technical Conference Comments, Docket No. AD21-12-000 (May 17, 2021).

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I. RESPONSES TO POST-TECHNICAL CONFERENCE QUESTIONS

A. Infrastructure Requirements of Electrification

6. What type of infrastructure investments are required to address the respective challenges of electrification (i.e., additional generation, local, regional or interregional transmission, and distribution investments)?

The number of upgrades to the grid that is required in areas experiencing large amounts of electrification is likely to be substantial both on the distribution and transmission systems. The planning, environmental review, and permitting associated with increased electrification is likely to take a substantial amount of time and require significant attention from state and local regulators. Some states, through their planning processes, are developing or improving ways to incorporate electrification trends. These modified planning processes and software improvements will also take time to develop and implement before they can be effectively used to determine what infrastructure is needed.²

State and local regulators charged with accounting and planning for these changes will need to leverage, or encourage use of, new planning, forecasting, and modeling tools to ensure appropriate infrastructure decisions are made in a timely manner without unacceptable cost impacts to customers.

² For example, Wisconsin's Focus on Energy program is investigating cold-climate heat pumps and has a rural, new construction homes heat pump pilot underway. This includes both resource and distribution system planning, which have become increasingly interconnected. Regulators will need to acknowledge that these activities will impact the level and pace of investment in generation and transmission. Focus on Energy is Wisconsin's statewide energy efficiency and renewable energy program.

7. What approaches are transmission owners and system operators taking to cost-effectively meet the infrastructure requirements of projected electrification in the current transmission, interconnection, and resource adequacy planning processes? How do these approaches consider reliability, and what impacts do those considerations have on the need for infrastructure investment for electrification?³

In MISO’s Long Range Transmission Planning (“LRTP”) effort, two of the “futures” in the scenario-based planning process include significant levels of electrification.⁴ Including a range of futures helps ensure the infrastructure that is approved will prove cost-effective over a wide range of potential outcomes. Notably, the resource plans of MISO members constitute a large portion of the assumptions behind the futures. The resource plans produced through state-level resource planning processes are intended to be reflected within one of the three MISO Transmission Expansion Plan Futures.⁵ As resource planning processes at the state-level are just beginning to consider the impacts of electrification, those plans, and any associated forecasts for impacts to load, will then be incorporated into the MISO Resource Adequacy Construct and Transmission Planning processes automatically through load forecast submissions.

8. What measures are being taken to identify and align the costs of investments needed for electrification with the beneficiaries?

This is an emerging area of planning within the states. Many states have approved electric vehicle and charging station pilot programs that attempt to balance the cost of infrastructure upgrades with the discrete benefits those upgrades provide to the system as a whole and individual electric vehicle owners. For instance, the Public Service Commission of Wisconsin opened a

³ The Louisiana Commission and the Mississippi Commission do not join in with the response to Question 7.

⁴ MISO, MISO Futures Report at p 30-38, available at: <https://cdn.misoenergy.org/MISO%20Futures%20Report538224.pdf>.

⁵ *Id.* at p. 44-81.

docket⁶ on Electric Vehicle Policy and Regulation and issued an order⁷ encouraging utilities to develop electric vehicle pilots and providing regulatory clarity on the information the Commission will use to evaluate pilot proposals, including information clarifying how utility proposals are consistent with cost causation principles. This led to approval of EV pilot programs for three of Wisconsin's largest utilities, with four now approved in total from 2014-present.⁸ The approved programs have included specific pricing and program design components intended to ensure program beneficiaries bear applicable costs. Additionally, in Minnesota, the Public Utilities Commission (MNPUC) requires rate-regulated utilities to file Transportation Electrification Plans (TEPs) and Integrated Distribution Plans (IDPs)⁹ biannually which are intended to provide visibility into utility expectations for transportation electrification and distribution system trends and longer-term forecasts.

Further, managing the costs of switching from natural gas to electricity will also be a key focus area for state regulators in order to ensure the benefits do not accrue only to a sub-set of customers, possibly leaving others responsible for the financial repercussions of stranded assets.

⁶ *See generally* Public Service Commission of Wisconsin, Investigation of Electric Vehicle Policy and Regulation, Docket No. 5-EI-156.

⁷ Public Service Commission of Wisconsin, Investigation of Electric Vehicle Policy and Regulation, Order, Docket No. 5-EI-156 (December 23, 2020).

⁸ These utilities are Madison Gas & Electric, Xcel Energy, We Energies, and Wisconsin Public Service. (For context, Madison Gas & Electric was originally approved in Public Service Commission of Wisconsin Docket No. 3270-UR-120 in 2014).

⁹ *See generally*, Minnesota Public Service Commission, Docket No. 17-879 for TEPs and Dockets No. 18-251, 18-253, 18-254 and 18-255 for IDPs.

B. Local, State, and Federal Coordination

9. What role can coordination among local, state, and federal governmental entities play with regard to electrification?

Coordination between local, state, and federal government entities is key. Ensuring that federal and state policies are not in conflict or redundant will promote clear policy direction. Additionally, coordination between various jurisdictions can promote the identification of barriers to electrification, including historic restrictions on fuel switching, and the historic promotion of solely energy conservation (while not incenting load shifting) through policy changes. Coordination can ensure there is alignment between wholesale and retail market signals, and whether new loads are properly considered in resource planning.

Cooperation on EV corridors, normalizing standards for chargers, plugs, and other related technology would be a good way for federal regulators and state and local regulators to coordinate. Involvement of standards development agencies demonstrates the need to get states involved who may not be part of those processes otherwise.

Because there could be large impacts on existing state and local processes, consistency across jurisdictions could impact the services and technology provided. There should be an identification of where proper federal standards or policies should exist. Coordination should optimize the use of each level of each government's resources and policy strengths. For example, federal actions on standardization or battery research make sense, whereas state and local input on charging stations location or building codes that encourage charging stations are better left to state and local regulators.

10. What planning and coordination among local, state, and federal governmental entities is necessary to facilitate the provision of grid services by newly electrified resources in a way that maximizes benefits to the grid while decreasing the potential reliability, operational, and cybersecurity risks that electrification could pose?

The objective of coordination should be to maximize value for consumers, while minimizing cost and ensuring reliability. Entities at various jurisdictional levels should work to come to agreements on how to measure those benefits. While it may be difficult, the Commission should start early in trying to help develop a framework for evaluating these benefits.

Federal, state, and local governmental entities need to ensure they are aware of the minimum ‘grid needs’ under their jurisdiction. Where transformation to a more decentralized, digitized system is occurring, it will be increasingly important to ensure the fundamental systems and services that maintain reliability are clearly evaluated and defined so that the appropriate entity responsible for them ensures they are available.

Also, as cybersecurity threats often target the weakest part of a system, it could be useful for the Commission and other federal agencies to work together and with state and local regulators to ensure that grid-connected devices are cybersecure. Since the weakest link is at lower levels, it makes sense to have the federal government involved to ensure adequate regulation where vulnerabilities exist.

11. Regional initiatives and multi-state cooperation efforts have formed in recent years to coordinate EV charging infrastructure deployment. What can we learn from those efforts and what role, if any, does the federal government play in supporting those efforts?

The role of state and local agencies that have participated in these efforts have varied by state and region. In addition to public utility commissions, EV charging infrastructure development will involve pollution control agencies or entities, departments of transportation and potentially economic development councils and natural resource agencies. Public utility commissions need to

ensure the connection between infrastructure deployment and utility planning is efficient, benefits consumers, and is not at odds with larger system needs or wholesale markets trends.

Even if this infrastructure covers multiple Transmission Organizations, it is not clear that these types of regional initiatives would have impacts at a scale that would require additional federal government involvement. Most of these entities are regulated at the state and local level and therefore need to consider state and local jurisdictional processes when investments are designated as part of a utility's rate base.

12. How can interoperability protocols and standards be coordinated across local, state, and federal jurisdictions?

As electrification of the grid advances, it will become increasingly important for state and local governments to be aware of and participate in existing standard-development bodies that they may not have worked with in the past. Examples include new or additional NERC or National Electrical Code (NEC) standards, building codes, efficiency standards, IEEE standards development, NAESB, UL standards, among others.

13. What coordination efforts among local, state, and federal governmental entities have been most effective in addressing electrification? How could those coordination efforts be improved?

In the MISO region, load serving entities submit their load forecasts to MISO's regional resource adequacy and transmission planning processes. This aggregation process allows for those closest to the load to inform the regional planning processes. MISO has employed guidelines and reviews to ensure that all load forecast methods have a sufficient degree of consistency. In the transmission planning process, MISO has also employed the use of a third-party consultant to provide additional insights into potential load impacts. These two sources of information are combined to provide the basis for MISO's future load projections. This coordination between bottom-up and top-down forecasting provides many opportunities for dialogue between impacted

stakeholders and ensures there are appropriate checks and balances on assumptions that could have large financial implications.

The NARUC/NASEO Comprehensive Electricity Planning effort that recently completed its work and is another example of how different state governmental entities can work together to identify the tools needed for effective planning and how to best integrate, coordinate, and evaluate resource and system solutions across all levels of planning (generation, transmission and distribution).¹⁰

Lastly, the NERC Regional Entities have recently made a concerted effort to reach out to state regulators in the MISO footprint to open lines of communication. The OMS views this as a positive step and sees this as a key area where coordination can be improved. The NERC process is primarily industry led with state and local regulators typically far-removed from the conversation. As electrification impacts both the distribution and transmission system, it will be increasingly important to have state and local voices be a part of the bulk system reliability conversation.

II. CONCLUSION

The OMS submits these Comments because a majority of OMS members support this filing. Individual OMS members reserve the right to file separate comments regarding the issues discussed in these comments. The following members generally support this filing:

The Arkansas Public Service Commission
The Illinois Commerce Commission

¹⁰ National Ass'n of Regulatory Utility Commissioners, NARUC-NASEO Comprehensive Electricity Planning Task Force Announces 16 State Members, available at: <https://www.naruc.org/about-naruc/press-releases/naruc-naseo-comprehensive-electricity-planning-task-force-announces-16-state-members/>; ARUC-NASEO Comprehensive Electricity Planning Task Force Announces 16 State Members – NARUC and National Association of State Energy Officials, Comprehensive Electricity Planning Library, available at: <https://www.naruc.org/taskforce/comprehensive-electricity-planning-library/>

Indiana Utility Regulatory Commission
Iowa Utilities Board
Kentucky Public Service Commission
Louisiana Public Service Commission
Michigan Public Service Commission
Minnesota Public Utilities Commission
Mississippi Public Service Commission
Missouri Public Service Commission
Montana Public Service Commission
The Council of the City of New Orleans
North Dakota Public Service Commission
South Dakota Public Utilities Commission
Public Utility Commission of Texas
The Public Service Commission of Wisconsin

The Manitoba Public Utilities Board was not present during the vote on this filing.

Respectfully submitted,

/s/ Marcus Hawkins

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Dated July 1st, 2021

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list prepared by the Secretary for the above-captioned docket in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure. 18 C.F.R. § 385.2010.

DATED at Madison, Wisconsin this the 1st of July 2021.

/s/ Marcus Hawkins

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