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**MISS. PUBLIC SERVICE
COMMISSION**

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSISSIPPI**

MISSISSIPPI PUBLIC SERVICE COMMISSION

DOCKET NO. 2021-AD-52

**IN RE: ORDER ESTABLISHING DOCKET TO INVESTIGATE THE
MEMBERSHIP OF ENTERGY MISSISSIPPI, LLC IN THE
MIDCONTINENT INDEPENDENT TRANSMISSION OPERATOR**

COMMENTS OF THE SUSTAINABLE FERC PROJECT

COMES NOW the Sustainable FERC Project, pursuant to the Mississippi Public Service Commission's (Commission) April 6, 2021, Order in this proceeding, and submits the following comments.

The Project, housed within Natural Resources Defense Council, is an education and advocacy initiative that represents a consortium of national and regional environmental, consumer, and energy policy non-governmental organizations with members throughout the United States. The Project focuses on removing barriers to wholesale power markets and planning processes for renewable energy, energy efficiency, and demand-side resources to ensure just and reasonable rates. Of relevance to this inquiry, the Project supports well-designed organized wholesale markets and planning processes that facilitate the prudent investment of state-regulated utility capital and consumer dollars. We appreciate the opportunity to submit comments on these important issues.

As we explain in our comments below, Entergy Mississippi, LLC's (Entergy Mississippi) membership in the Midcontinent Independent System Operator (MISO) provides substantial net benefits to Mississippi customers that would be lost if Entergy left MISO. MISO's large territory and independent operation save Entergy Mississippi and its customers money while improving reliability and resilience to extreme weather events through scale and integrated power dispatch,

among other benefits. Entergy Mississippi has praised the savings and efficiencies that MISO membership provides in filings before the Commission.¹ MISO also provides benefits to Mississippi customers through its transmission planning process. MISO is proactively studying and planning for future transmission needs as consumer demand, electrification, and renewable penetration shift load and generation needs.² The process also provides formal opportunities for state regulator participation in planning and cost-allocation decisions, allowing the Commission to give crucial input regarding the best interests of Mississippi customers. For all these reasons, Entergy Mississippi should remain in MISO and support MISO transmission planning processes to alleviate transmission constraints.

Despite the myriad of benefits—estimated by MISO to be in the billions of dollars for MISO members³—Mississippi is not utilizing Entergy’s membership and the state’s involvement to its full potential. The Commission should consider how to more productively engage in MISO’s planning process to increase the benefits to Mississippi customers.

¹ Entergy, *MISO Historical Benefits Calculation: Results of 2019 EML Analysis*, 5 (April 2020) https://www.psc.state.ms.us/InSiteConnect/InSiteView.aspx?model=INSITE_CONNECT&queue=CTS_ARCHIVE_Q&docid=650060.

² See, e.g., MISO, *MISO Electrification Insights*, 3, 22 (April 2021) <https://cdn.misoenergy.org/Electrification%20Insights538860.pdf>; MISO, *MISO Report Concludes Much Higher Levels of Renewables Integration Are Achievable*, Press Release (February 10, 2021) <https://www.misoenergy.org/about/media-center/miso-report-concludes-much-higher-levels-of-renewables-integration-are-achievable/>; MISO, *Long-Range Transmission Planning - Planning for the Evolving Future Grid*, Planning Advisory Committee (August 2020) <https://cdn.misoenergy.org/20200812%20PAC%20Item%2003c%20Long%20Range%20Transmission%20Planning%20Presentation465531.pdf>.

³ MISO, *2020 MISO Value Proposition*, 5 (February 12, 2021) <https://www.misoenergy.org/about/miso-strategy-and-value-proposition/miso-value-proposition/>.

Paragraph 5(a): MISO's evolving transmission planning and cost allocation methodologies; including, but not limited to MISO's assumptions about future generation resource portfolios and assumed increased demand tied to electrification.

The coming decades will bring significant changes to our nation's electricity system and the grid needed to support it, including in Mississippi. Demand for renewables and increased electrification is coming from customers, states, utilities, and businesses. MISO membership and its planning bolsters renewables opportunities in Mississippi and can give Mississippi a competitive edge.

MISO is actively studying these changes, and its transmission planning processes are well positioned to address future grid needs (especially if it receives the fulsome support of Entergy Mississippi and the Commission). MISO began planning for the reliable delivery of electricity services at its creation in 2001, and the degree of required planning and coordination has increased in response to directives from the Federal Energy Regulatory Commission (FERC). Planning continues to be a central and vital duty of MISO. Building transmission can take over a decade; accordingly, planning and approval of lines is necessary now to prepare for what the grid needs a decade in the future. MISO's evolving transmission and cost allocation process reflect the changing nature of the electricity industry, customers' needs, climate trends, and thus what is needed from the transmission grid. This process and its outcome are beneficial to Mississippi customers.

The transmission grid must be prepared for shifting customer demand patterns and generation portfolios. The generation and consumption of electricity has changed dramatically over the last forty years. Prices for energy generated by wind and solar continue to fall, and renewables are cost competitive with gas and far less costly than coal and nuclear in

Mississippi.⁴ Renewable generation from wind and solar also provide additional benefits, including reducing customers' exposure to fuel acquisition disruptions and fuel price fluctuations and allowing energy needs to be met without emitting public health-harming pollutants and climate-warming greenhouse gases. Thus, many companies and utilities, including Entergy, have themselves committed to reduce carbon emissions, which likely will require investments in renewable energy resources. Entergy has pledged to reduce greenhouse gas emissions by 50 percent by 2030 and to net zero by 2050.⁵ Entergy had cut emissions 23 percent below 2000 levels in 2018, and projected that a "probability-weighted reference carbon price" would result in another 19 percent reduction by 2030.⁶ Whether or not this speculative carbon price is in fact adopted, more reductions will be needed to meet Entergy's decarbonization goals. Regional grid membership could help close this gap. Further, it is highly likely that the Mississippi economy will continue to become more electrified and therefore dependent on a reliable and cost-effective power grid, whether electrifying vehicles, heating in homes, and even irrigation pumps, which Entergy has done in Louisiana.⁷ MISO continues to extensively study how both the increase in renewables and in electrification will impact the grid, and Mississippi can benefit from that work.

Renewable energy makes business sense for Mississippi (and not just Entergy); the access to renewables that MISO membership provides helps Mississippi appeal to more businesses. For example, only last week, Amazon announced plans to build a 175 MW solar

⁴ Natural Resources Defense Council, *Cost of Building Power Plants in Your State*, <https://www.nrdc.org/cost-building-power-plants-your-state>.

⁵ Entergy, *Entergy 2050 Net Zero Climate Commitment*, 1, 4 (December 2020) https://cdn.entergy.com/userfiles/content/environment/docs/ClimateReportAddendum_2020.pdf.

⁶ Entergy, *Climate Scenario Analysis and Evaluation of Risks and Opportunities*, 35 (March 2019) <https://cdn.entergy.com/userfiles/content/environment/docs/EntergyClimateScenarioAnalysis.pdf>.

⁷ *MISO Electrification Insights*, *supra* note 2, at 22.

facility in Mississippi as part of its efforts to reach net zero carbon emissions by 2040.⁸ Amazon is not alone, a 2019 study found that 23% of Fortune Global 500 companies have committed to become carbon neutral, to use 100% renewable power, or to set a science-based emission target.⁹ Carbon reduction commitments have increased dramatically in recent years and show no signs of slowing down.

Another indicator of demand for renewables is the Renewable Energy Buyers Alliance, an organization of over 230 companies, including BP, Shell, Nestle, and Walmart, that helps its members achieve their carbon reduction goals and easily procure more renewable energy.¹⁰ Increasing access to renewables while keeping the cost of energy low will help Mississippi attract more businesses and the renewable industry supply chain. Membership in MISO helps achieve these goals by connecting Mississippi to a larger grid with complementary generation and storage, including wind from the Midwest and solar from Mississippi and the South.

However, even now, with demand for renewables only increasing, Mississippi needs more transmission to get more projects online locally. If there is not space for the energy on the transmission lines, generation projects will not be developed, because they would have to pay for the entire line themselves. Having to shoulder interconnection costs unilaterally would kill almost any project. In Mississippi, from 2016 to October 2020, sixteen projects were withdrawn at advanced stages of development. These projects were estimated to have created 6,600 jobs.¹¹

⁸ Associated Press, *Amazon Announces Plans to Build Solar Farm in Mississippi*, (June 23, 2021)

<https://apnews.com/article/business-technology-environment-and-nature-5c6b430d706c79062a511d935c8f0d2b>.

⁹ Natural Capital Partners, *Deeds Not Words: The Growth of Climate Action in the Corporate World*, 2 (September 2019) https://assets.naturalcapitalpartners.com/downloads/Deeds_Not_Words_-_The_Growth_Of_Climate_Action_In_The_Corporate_World.pdf.

¹⁰ See Renewable Energy Buyers Alliance, *REBA Members*, <https://rebuyers.org/about/reba-members/>; Renewable Energy Buyers Alliance, *Our Vision* <https://rebuyers.org/about/vision/>.

¹¹ Sustainable FERC Project, *Map of Power Grid Queue Shows Mississippi's Clean Energy Potential – and Problems at MISO as Projects are Withdrawn*, https://sustainableferc.org/wp-content/uploads/2021/02/SFP_MISO-Queue-Analysis-and-Map_Mississippi_11.30.20final.pdf.

As of June 27, 2021, nine solar projects are currently in the MISO Mississippi Interconnection Queue.¹² MISO membership makes Mississippi more appealing to businesses with clean energy targets and with further support can create more clean energy jobs in Mississippi, because more transmission lines resulting from appropriate planning means more renewable projects can get built in Mississippi and elsewhere.

In August 2020, MISO embarked on the Long-Range Transmission Plan (LRTP) process to address transmission constraints. This process is not happening on a fixed timeline, instead intending to respond proactively to meet the needs of the changing grid. In this process, MISO and its stakeholders acknowledged that enhancements to regional transmission planning were necessary, and that there are efficiencies in considering of both short- and long-term needs and economic and reliability benefits together.¹³ MISO also recognized that its current tariffs do not account for the combination of economic and regional reliability benefits that new regional transmission lines will provide, and that therefore a new cost allocation methodology is needed. The LRTP is a logical response to changing grid and benefits of regional transmission.

The benefits of well-planned regional transmission are clear. The 2011 Multi-Value Projects (MVPs) have far exceeded any assumptions of benefits. MISO's most recent detailed assessment of the value of these lines in 2017 found project benefits amounting to 12–56 billion dollars, 21–36 percent above original estimates before all lines were built.¹⁴ These values do not account for the likely lifesaving role these lines play during extreme system emergencies, such as

¹² MISO, *Generator Interconnection Queue – Active Project Map*, <https://giqueue.misoenergy.org/PublicGiQueueMap/index.html>.

¹³ John Moore, *New MISO Grid Plan Could Solve Power Supply Problems*, Sustainable FERC Project Blog (August 13, 2020) <https://sustainableferc.org/new-miso-grid-plan-could-solve-power-supply-problems/>; *Long-Range Transmission Planning - Planning for the Evolving Future Grid*, *supra* note 2.

¹⁴ MISO, *MTEP17 MVP Triennial Review: A 2017 Review of the Public Policy, Economic, and Qualitative Benefits of the Multi-Value Project Portfolio*, 23 (September 2017) <https://cdn.misoenergy.org/MTEP17%20MVP%20Triennial%20Review%20Report117065.pdf>.

the February 2021 Polar Vortex, by maintaining grid reliability and stopping further rolling blackouts. Tragically, the Polar Vortex reminded us that electricity can be the difference between life and death; over 100 people died in Texas from causes like hypothermia and carbon monoxide poisoning.¹⁵ Renuka Chatterjee, executive director of system operations of MISO, noted the importance of the 2011 MVPs in avoiding MISO outages during the extreme cold spell.¹⁶ FERC has also lauded the ability of high voltage transmission to improve system reliability, resilience, and restoration ability when outages do occur.¹⁷

In sum, investing more in MISO planning and regional transmission will support a more reliable and resilient grid that helps to protect citizens during severe weather events, increase access to in-state and regional renewable energy, and improve economic opportunities for end-user businesses. The Commission should take this opportunity to support MISO planning and a fair cost allocation process that results in transmission expansion plans that serve Mississippians.

¹⁵ Catherine Whelan, *Texas Death Toll in February's Winter Storm Doubles to 111*, National Public Radio (March 16, 2021) <https://www.npr.org/2021/03/26/981594093/texas-death-toll-in-februarys-winter-storm-nearly-doubles-to-111>.

¹⁶ Amanda Durish Cook, *MISO Execs Defend Need for Long-range Tx*, RTO Insider (March 28, 2021) <https://www.rtoinsider.com/articles/20045-miso-execs-defend-need-for-long-range-tx>.

¹⁷ Staff of the Federal Energy Regulatory Commission, *Report on Barriers and Opportunities for High Voltage Transmission*, A Report to the Committees on Appropriations of Both Houses of Congress Pursuant to the 2020 Further Consolidated Appropriations Act, 3 (June 2020) https://cleanenergygrid.org/wp-content/uploads/2020/08/Report-to-Congress-on-High-Voltage-Transmission_17June2020-002.pdf.

Paragraph 5(b): **Potential changes to generator accreditation, transition to a seasonal capacity auction, implementation of novel, untested market design changes including Available Capacity (ACAP), raising the administratively determined Value of Lost Load (VOLL) to \$10,000/MWh (particularly in light of the excessive prices of natural gas and electricity observed during the February 2021 Polar Vortex), MISO's application of VOLL to certain de-energized load busses during force majeure events (e.g., hurricanes) resulting in unreasonably high "uplift costs" and MISO's proposal to revise the recovery of those uplift costs so that they are paid only by the subregion of MISO affected by the force majeure event, and other repercussions that may result from MISO's Resource Adequacy and Need (RAN) initiative. [footnotes omitted]**

MISO has proposed a seasonal capacity construct for resource adequacy to address changes in resources mix. Sustainable FERC Project agrees this problem needs to be addressed, but we have concerns about whether the MISO proposal is the right solution. Indeed, it may create unforeseen negative consequences and exacerbate the problem it was intended to solve.

Among the problems with MISO's proposal is the use of a multi-year data set that inappropriately and incorrectly correlates wind and solar output to MISO-wide average peak temperature. Use of this flawed data set may result in incorrect assessment of reliability impacts and imprudent action taken in reliance thereof. This construct will also introduce significant uncertainty in planning and make planning in integrated resources plans particularly more challenging. Instead of focusing on this proposed solution, MISO should solicit and consider other alternatives from stakeholders. As it stands, MISO proposal may not solve this problem, resulting in unintended negative consequences and exacerbate the problem it is meant to address.

5(c): The categories and relative magnitude of benefits and costs associated with RTO membership, including:

- **Wide area economic commitment and generation resource dispatch;**
- **Effects on the quantity and cost of required capacity reserves;**
- **Effects on the quantity and cost of operating reserves;**
- **The value of transmission planning functions performed by MISO;**
- **Effects on local electric system reliability;**
- **Effects of MISO Interconnection Queue project application management.**

MISO membership provides substantial benefits to Mississippi residents that would be lost if Entergy left MISO. Entergy has recognized the “significant benefits” that Regional Transmission Organization (RTO) membership provides to customers, touting in its 2020 integrated report that “Entergy’s customers saved more than \$1.5 billion on electric bills as a result of MISO membership” since joining in 2014.¹⁸ The estimated benefits from Entergy’s economic analysis were primarily driven by increasing access to other generation resources in a single balancing area. This could be increased further through supporting beneficial projects identified through MISO’s transmission expansion process as discussed in our comments on Order’s Paragraph 5(a). Entergy has also reported that MISO membership saved Mississippi customers alone 233 million dollars through 2019, or 38.8 million dollars annually.¹⁹

There may be reason to believe that these estimates are conservative. By Entergy’s assessment, the bulk of these economic benefits derive from lowering Entergy’s capacity reserve requirements, as well as other market efficiencies from MISO’s regional system. MISO’s footprint diversity, large resource pool, and common market allow Entergy to “maintain reliability with less generation capacity than if the company were on its own.”²⁰

¹⁸ Entergy, *Forward Together: 2020 Integrated Report*, 42 (March 26, 2021) https://cdn.entergy.com/userfiles/content/investor_relations/pdfs/2020_Integrated_Report.pdf.

¹⁹ Entergy, *supra* note 1.

²⁰ Entergy, *supra* note 18, at 41.

While Entergy Mississippi does not detail its full methodology for calculating benefits, it appears that its analysis accounted only for energy- and capacity-related savings. It is therefore likely incomplete, failing to account for other economic benefits like from improved reliability and regulatory compliance savings²¹ or economic development benefits to the state of Mississippi.²² For that reason, a full accounting of MISO membership benefits to Entergy Mississippi customers could be greater even than the substantial benefits detailed above.

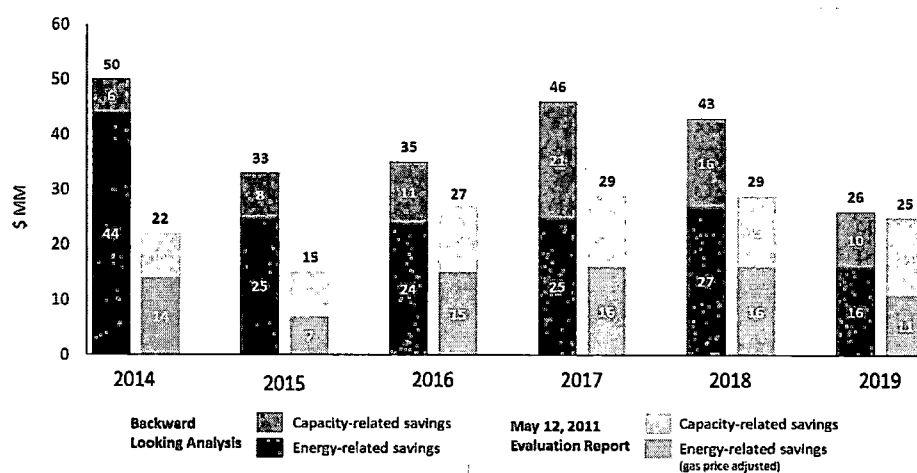


Figure 1: Entergy Mississippi Real and Projected Savings, 2014–2019.²³

MISO has also found that it provides large benefits to its members. Its 2020 Value Proposition report, for example, found that MISO provided between 3.1–3.9 billion dollars in value to members in 2020²⁴ which translates into or 33–42 million dollars in benefits to Entergy Mississippi customers if shared evenly among all MISO customers.²⁵ These savings are a result

²¹ MISO's value proposition, *supra* note 3, for example, quantifies these benefits. See Figure 2.

²² For example, the benefits that Mississippi businesses derive from access to affordable, reliable power, or the jobs created if Mississippi generators are able to export power to other states via MISO dispatch.

²³ Entergy, *supra* note 1.

²⁴ MISO, *supra* note 3.

²⁵ Entergy Mississippi serves 456,000 customers to MISO's 42 million. $456,000/42,000,000 * 3.1-3.9$ billion dollars = 33–42 million dollars of benefit to Entergy Mississippi customers. See Entergy, *supra* note 18, at 30 (stating that Entergy Mississippi serves 456,000 customers); MISO, *MISO Forward: Utilities of the Future: What Do They Need from a Grid Operator?* 16 (March 2020) https://cdn.misoenergy.org/MISO%20FORWARD_2020433101.pdf (stating that MISO serves 42 million customers).

of large scale planning and efficient access to a regional market for energy, and are passed on to customers in improved reliability and cost savings. MISO details these economic benefits by source in Figure 2.

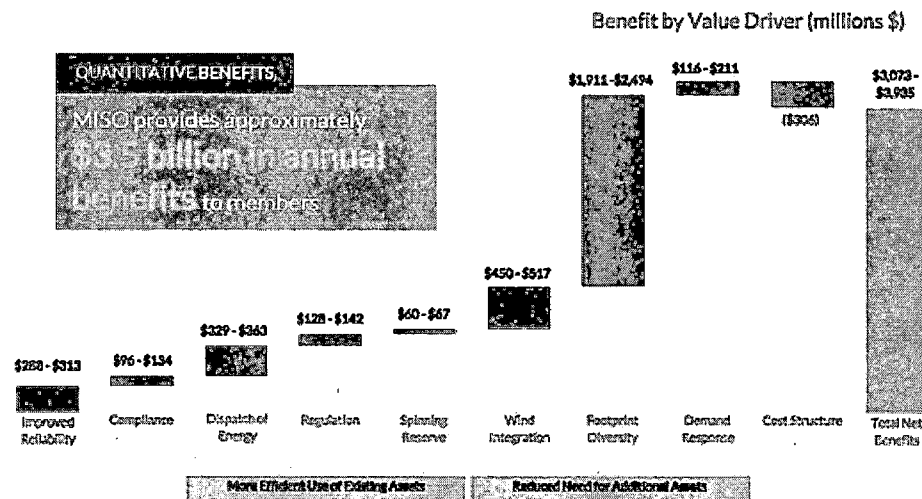


Figure 2: MISO 2020 Participation Benefits by Source.²⁶

Exiting MISO would limit Entergy Mississippi's ability to draw from resources in other states and regions in the event of supply shortages, requiring it to build more generation in-state to meet peaks. Doing so could be quite expensive. Avoiding the need to support additional generation capacity to meet peak loads saved customers across the MISO region 1.5–2.9 billion dollars last year,²⁷ which on a per-customer basis is 16–31 million dollars for Entergy Mississippi customers.²⁸

²⁶ MISO, *supra* note 3.

²⁷ *Id.*

²⁸ 456,000 Entergy Mississippi customers/42,000,000 MISO customers * 1.5–2.9 billion dollars benefit = 16–31 million dollars benefit for Entergy Mississippi customers. See sources cited in *supra* note 25 on the number of customers that Entergy Mississippi and MISO serve.

MISO membership also provides general market efficiencies to Mississippi customers.

Entergy reports that MISO membership saves customers by introducing competition into the power market thereby allowing for “more efficient” dispatch of resources.²⁹ When demand is high in Mississippi, MISO can direct low-cost power to Mississippi customers. Lower delivered energy costs mean rate relief and economic development benefits for Mississippi residents and businesses. Conversely, when Mississippi generators have excess supply capacity and demand is high elsewhere, generators, including Entergy Mississippi, can export that surplus power to other states.

MISO participation also provides substantial reliability benefits to Mississippi customers. Entergy has noted operational and information-sharing reliability benefits of MISO participation, explaining that “operating within MISO enhances reliability by informing all market participants of the state of grid conditions, market operations, and other key system information.”³⁰ MISO membership also promotes reliability by facilitating power imports from other regions during capacity shortages in Mississippi. These benefits helped Mississippi to manage generator outages during the February 2021 Polar Vortex. The fact that MISO’s service territory covers generating resources in different weather systems allows Mississippi utilities to readily import power from other regions when local capacity alone cannot meet load. MISO facilitates reserve sharing, seamless transfers within region, and real-time coordinated dispatch, enabling efficient in-region power flow to where surplus capacity is needed. While Entergy Mississippi could import power from other RTOs absent MISO membership, doing so would require bilateral coordinated transactions and payment for transmission services.

²⁹ Entergy, *Entergy Utility Customers Realize Significant Benefits After 5 Years as MISO Member*, Entergy Newsroom (December 16, 2019) <https://www.entergynewsroom.com/news/entergy-utility-customers-realize-significant-benefits-after-5-years-as-miso-member/>.

³⁰ Entergy, *supra* note 18, at 41.

The reliability benefits of membership in a large footprint RTO are particularly valuable during extreme weather events, as illustrated by the February 2021 Polar Vortex: While ERCOT's transmission isolation left it unable to replace unavailable generation capacity resulting from constraints on natural gas deliverability or equipment failures, MISO was able to limit outages more successfully.³¹ Despite the loss of as much as 44 percent of the installed capacity in MISO South (MISO territory in Arkansas, Louisiana, Mississippi, and Texas),³² MISO managed outages by importing power from the less-affected Upper Midwest and the neighboring PJM Interconnection, LLC (PJM) region to make up its own supply deficits.³³ As discussed further in the response to Order's Paragraph Seven, these reliability benefits could be further improved through increasing the high voltage transmission capacity connecting the northern and southern regions of MISO, allowing more power to flow between regions.

MISO membership also supports Entergy to meet its decarbonization commitments cost-effectively while maintaining affordable and reliable service. Entergy has pledged to reduce greenhouse gas emissions by 50 percent by 2030 and to net zero by 2050.³⁴ MISO's regional transmission planning process will be essential to facilitate interconnection of zero-carbon energy resources to the Mississippi grid. In the face of transmission constraints, generators often must unilaterally pay very high interconnection costs, even when benefits of interconnection investments are shared with other stakeholders. These high costs can contribute to project

³¹ Roughly 90,000 Mississippi customers lost power compared to 4.5 million in Texas. *Compare Mississippi Clarion Ledger, Live Weather Updates: When Will Power Be Restored? Thousands of Linemen in Mississippi to Help* (February 19, 2021) <https://www.clarionledger.com/story/news/2021/02/19/live-weather-updates-closures-continue-slight-warm-up-friday/4497799001/> with Hobby School of Public Affairs, University of Houston, *The Winter Storm of 2021*, 1 (2021) <https://uh.edu/hobby/winter2021/storm.pdf>.

³² MISO, *Overview of February 2021 Extreme Weather*, 13 (March 11, 2021) <https://cdn.misoenergy.org/20210311%20MSC%20Item%2004%20Max%20Gen%20Feb%2015530356.pdf>.

³³ Toba Pearlman, *MISO and SPP Can Benefit from a More Connected Grid*, Sustainable FERC Project Blog (March 3, 2021) <https://sustainableferc.org/miso-and-spp-can-benefit-from-a-more-connected-grid/>.

³⁴ Entergy, *supra* note 5.

withdrawals; from January 1, 2016 to October 15, 2020, for example, a Sustainable FERC Project analysis found that more than 30 percent of MISO solar, wind, and battery storage projects in development had been removed from the MISO queue, translating to roughly 72,000 lost jobs.³⁵ This includes 16 projects, representing 2,212 MW of capacity withdrawn in Mississippi, over half of all projects active during the period under review.³⁶ MISO's large footprint can also support delivery of lowest-cost zero-carbon energy to Mississippi customers especially with increased regional transmission, allowing for importation of wind energy or export of solar—resources that have complementary production profiles—to and from the Midwest, for example.

Last, interconnection across weather systems can improve reliability as more renewables are incorporated in Mississippi and elsewhere and the grid manages of the inherent variability of wind and solar power. As a North American Electric Reliability Corporation task force report explains:

Variability and uncertainty can be reduced through aggregation. Larger aggregations of wind and solar generation are proportionately less variable. Forecast accuracy is also improved for larger wind and solar aggregations. Net variability is reduced when variable energy resources (VERs) are aggregated with load, and it is net variability that must be balanced to maintain reliability. The pool of flexible resources, like generators and responsive load, increases as the size of the balancing authorities (BAs) is increased. Balancing should be conducted over the largest geographic area possible, either through consolidating smaller BAs or through coordinated operations.³⁷

³⁵ Sustainable FERC Project, *Updated Interactive Map Shows Clean Energy Projects Withdrawn from MISO Queue: Grid Constraints Are Holding Back Renewable Energy and Job Creation*, 1, <https://sustainableferc.org/wp-content/uploads/2021/01/SFP-MISO-Queue-Map-Update-2-pager-11-9-20.pdf>.

³⁶ Sustainable FERC Project, *supra* note 11..

³⁷ North American Electric Reliability Corporation, *Integration of Variable Generation Task Force: Summary and Recommendations of 12 Tasks*, 56 (June 2015) https://www.nerc.com/comm/PC/Integration%20of%20Variable%20Generation%20Task%20Force%20I1/IVGTF%20Summary%20and%20Recommendation%20Report_Final.pdf.

Especially given the complementary production of wind and solar resources, the ability to aggregate with wind-rich regions will be crucial to achieving high zero-carbon energy penetration while affordably maintaining power reliability.

As Figures 1 and 2 illustrated, MISO membership offers substantial and diverse benefits to Entergy Mississippi and its customers, for pennies on the dollar. Exiting MISO is highly likely to cost Mississippi customers more for Entergy Mississippi to deliver less reliable power and reduce Mississippi generators' abilities to export surplus power to other states. Doing so is not in the public interest.

Paragraph 6: The Commission seeks comments regarding whether Entergy Mississippi and its customers would enjoy net benefits and be exposed to less risk in an alternative operational environment, including, but no limited to, joining the newly formed Southeast Energy Exchange Market (SEEM).

MISO's scale and competitive market provide substantial net benefits to Mississippi and its residents. Exiting MISO to join SEEM (which is not yet an approved market structure) would be a considerable step backwards for Entergy Mississippi and its customers. First, the prospective (and still hypothetical) benefits of SEEM pale in comparison to the quantifiable benefits of MISO. Second, SEEM membership poses several significant drawbacks relative to MISO membership. Those drawbacks include a weak governance structure that provides for less competition, increased vulnerability to exercise of market power, less reliability, diminished influence of the Commission and other state regulators, and anemic processes to allow independent power producer (IPP) development.

It is worth noting that SEEM does not exist yet, and uncertainty remains as to its ultimate form and approval by FERC. Southern Company Services, Inc. (Southern Company) filed a

proposed SEEM agreement with FERC on behalf of itself and other proposed SEEM members for approval under section 205(c) of the Federal Power Act on February 12, 2021.³⁸ But, FERC did not approve the proposal, instead issuing a deficiency letter on May 4, 2021 requesting additional information on a number of significant topics.³⁹ The SEEM proponents' response, which appears to have done little to address FERC's concerns,⁴⁰ is pending before FERC, and it is not clear whether FERC will approve the revised proposal, reject it, or require further revisions. It therefore would be premature for the Commission to determine that Entergy Mississippi membership in SEEM is preferable before the full relative value of SEEM versus MISO membership can be assessed.

Even assuming that FERC were to approve the SEEM proposal in some form, the alleged direct economic benefits of SEEM membership are small compared to the benefits accruing from MISO. The SEEM members estimate that SEEM in its current form would generate roughly 40 million dollars in annual benefits to members.⁴¹ That figure appears bullish: It assumes that all economic trades occur, and that adequate transmission exists. In any case, 40 million dollars in annual benefits spread across the entire SEEM territory is paltry compared to MISO's 3.1–3.9 billion dollars in value provided in 2020⁴²—it is closer, in fact, to the 38.8 million dollars in

³⁸Southeast Energy Exchange Market Agreement, Accession No. 20210212-5033 (Feb. 12, 2021). (SEEM Proposal).

³⁹ *Ala. Power Co.*, Deficiency Letter, Docket Nos. ER21-1111-000, ER21-1112-000, ER21-1114-000, ER21-1115-000, ER21-1116-000, ER21-1117-000, ER21-1118-000, ER21-1119-000, ER21-1120-000, ER21-1121-000, ER21-1125-000 ER21-1128-000 (May 4, 2021). (Deficiency Letter).

⁴⁰ *See, e.g.*, Protest of Public Interest Organizations, Docket Nos. ER21-1111-000, ER21-1112-000, ER21-1114-000, ER21-1115-000, ER21-1116-000, ER21-1117-000, ER21-1118-000, ER21-1119-000, ER21-1120-000, ER21-1121-000, ER21-1125-000 ER21-1128-000 (June 28, 2021) (“Instead of taking this opportunity [to explain how their Proposal would benefit customers in the Southeast], the SEEM Utilities responded to Intervenor’s concerns and the Commission’s Deficiency Letter by doubling down on a flawed, self-serving proposal, dodging Commission questions, and making only minimal improvements to transparency that do not address concerns about market power or provide the public with any more information about how SEEM would function.”).

⁴¹ SEEM Proposal, *supra* note 38, at Attachment E-1: Benefits Analysis by Guidehouse Inc. and CRA International, 8.

⁴² MISO, *supra* note 3.

average annual benefits that MISO saved *for Mississippi ratepayers alone* through 2019.⁴³ Put another way, if spread evenly, SEEM participation would save residential customers in the proposed SEEM footprint around one dollar per year each⁴⁴ compared with the roughly 57 dollars that MISO membership would have conservatively saved Entergy Mississippi customers in 2019 if savings had been shared evenly.⁴⁵

Leaving MISO for SEEM also imposes other costs and risks on Entergy Mississippi and its customers. First, transitioning from MISO's organized marketplace to SEEM's decentralized power pool will likely increase customers' rates. MISO membership provides customers seamless access to least cost power from a large and diverse pool of generators. The benefits of competition, scale, and independent operation reduce the cost of delivered energy. Provision of power only on a contract basis through SEEM, in contrast, will provide no such benefits.

Moving to SEEM could also result in rate increases by exposing customers to the exercise of market power. The proposed SEEM structure gives incumbent members means to exclude potential competitors from joining. To become a SEEM participant and gain access to SEEM's transmission services, an entity must meet several requirements, including entry into an Enabling Agreement—"a bilateral agreement for the purchase and sale of Energy"—with at least three SEEM participants.⁴⁶ SEEM participants, however, are not obligated to enter Enabling Agreements with other entities, and are not prevented by the current SEEM Proposal from

⁴³ Entergy, *supra* note 1.

⁴⁴ Maggie Shober, *Southeast Exchange Energy Market: What We Know, Q&A Style*, (March 17, 2021) <https://cleanenergy.org/blog/seem-what-we-know-qa-style/>.

⁴⁵ Entergy Mississippi reported that MISO membership provided 26 million dollars in value in 2019, a year when Entergy Mississippi served 451,000 customers. 26,000,000 dollars benefit/451,000 customers = 57.65 dollars/customer. See Entergy, *supra* note 1 (noting 26 million dollars in benefits in 2019); Entergy, *Building the Premier Utility: 2019 Integrated Report*, 21 (March 27, 2020) https://cdn.entergy.com/userfiles/content/investor_relations/pdfs/2019_Integrated_Report.pdf (noting that Entergy Mississippi served 451,000 customers in 2019).

⁴⁶ SEEM Proposal, *supra* note 38, at Attach. A, App. B.

refusing to enter Enabling Agreements in a discriminatory manner. (FERC requested clarification on whether anything limits SEEM participants' rights to refuse to enter Enabling Agreements; the filing parties responded that "the Southeast EEM Agreement does not contain any such limitations."⁴⁷)

The proposed structure also grants incumbent SEEM participants tools to prevent competitors' transactions.⁴⁸ The SEEM Proposal required that all SEEM participants have "toggled on" at least three unaffiliated potential counterparties each time they bid or offer, allegedly to promote competition.⁴⁹ In reality, however, this grants the SEEM participants the unconstrained ability to block competitors known to have lower cost resources from placing bids or offers. If three of the five largest generation owning entities coordinated to withhold generation offers, they could prevent lower cost parties and merchant generators from making trades.⁵⁰ These efforts could be difficult to detect, without a record of transactions not made. Mississippi customers would be left worse off, captive to anti-competitive efforts. Notably, RTO membership combats this type of anti-competitive conduct—the Department of Justice (DOJ), for example, considered RTO membership a sufficiently significant cure to past allegations of anti-competitive conduct that it paused an investigation into Entergy after it committed to join MISO.⁵¹

⁴⁷ *Ala. Power Co.*, Response to Deficiency Letter, FERC Docket Nos. ER21-1111-000 *et seq.* (June 6, 2021). (Response to Deficiency Letter).

⁴⁸ Motion to Intervene and Limited Protest and Comment of Public Interest Organizations, Docket Nos. ER21-1111-000 *et seq.* (March 15, 2021) Exhibit A, Sotkiewicz Aff. at P 38. (Sotkiewicz Aff.).

⁴⁹ SEEM Proposal, *supra* note 38, at 41.

⁵⁰ Sotkiewicz Aff., *supra* note 48, at P 63.

⁵¹ U.S. Department of Justice, *Justice Department Statement on Entergy Corp.'s Transmission System Commitments and Acquisition of KGen Power Corp.'s Plants in Arkansas and Mississippi: Department Will Not Challenge Entergy's Proposed Acquisitions of Hinds and Hot Spring Power Plants; Investigation into Alleged Exclusionary Conduct Remains Open*, Justice News (November 14, 2012) <https://www.justice.gov/opa/pr/justice-department-statement-entergy-corp-s-transmission-system-commitments-and-acquisition>.

In addition, exiting MISO for SEEM could make the delivery of Mississippi's electricity less reliable. As noted above, MISO's real time dispatch and reserve sharing functions allow Entergy Mississippi to import power seamlessly when load surpasses generation capacity. In SEEM, by contrast, there is no comparable system operator with the wide-area visibility and coordinated regional dispatch in a single balancing area. Transaction costs will increase, and power imports will be more difficult, thereby straining grid reliability in ways not currently experienced in MISO.

Transferring Entergy Mississippi membership from MISO to SEEM would also diminish the power of the Commission to protect Mississippi customers. MISO has established procedures to ensure state regulators can influence outcomes. MISO Tariff Attachment FF, for example, includes explicit participation of state regulatory authorities in transmission planning and cost allocation processes. The SEEM Proposal contains no comparable formal provisions requiring solicitation of state regulatory input. Approving an Entergy Mississippi move to SEEM would mean transferring a measure of control over the Mississippi grid from the Commission to out of state conglomerates like the Southern Company. Even if the Commission finds that SEEM membership somehow reduces risk exposure for Entergy and its members, that reduction must be assessed relative to the increased risk resulting from less Commission power to protect customers.

Last, an RTO is crucial to driving more renewables development. Power purchase agreements (PPAs) are the foundation of most utility-scale projects, and the PPAs require the delivery of power into a competitive liquid market. Only an RTO can provide that price certainty

and flexibility, and for that reason most utility-scale renewable energy is developed in RTOs.⁵²

The SEEM will not provide comparable benefits.

Leaving MISO for SEEM entails too many costs, and far too little benefit, to be in Mississippi customers' interests.

Paragraph 7: The Commission seeks comments regarding factors that may limit Entergy Mississippi's access to benefits from continued membership in MISO, including:
(a) The effects of limited transmission capacity (physical and contractual) between MISO South and the rest of the MISO system;
(b) The effects of existing and future planning and cost allocation procedures on potential transmission investments to expand interregional transmission capability, including accounting for economic impacts of local generation investment.

While access to MISO's interconnected transmission system provides substantial economic and policy benefits to Mississippi, *see our* response to Order's Paragraph Five, transmission constraints between MISO South and the rest of the MISO system leave the full potential of RTO membership unrealized. Specifically, transmission constraints limit Mississippi's ability to seamlessly import power without paying for service, limiting customer's access to low-cost power and Mississippi's ability to offset losses from extreme weather or renewable intermittency. Rather than exiting MISO, Entergy Mississippi and the Commission should attempt to address these constraints by encouraging MISO to pursue robust transmission planning and buildout, especially to increase transmission capacity between MISO South and MISO North (i.e., MISO territories in Illinois, Indiana, Iowa, Kentucky, Manitoba, Michigan, Minnesota, part of Missouri, Montana, North Dakota, and South Dakota).

⁵² See Advanced Energy Economy, *Organized Wholesale Markets and Advanced Energy Procurement* (2021), <https://blog.aee.net/to-unlock-more-corporate-advanced-energy-procurement-look-to-rtos-and-isos>.

At present, MISO North and MISO South are connected by a thin strip in southern Missouri allowing transmission of 1,000 MW of contract path capacity. MISO supplements transmission over this strip via a 2015 MISO-Southwest Power Pool (SPP) Settlement Agreement requiring MISO to pay SPP to transmit additional energy through the SPP system.⁵³ This service comes at a high cost; MISO paid SPP tens of millions of dollars in 2020 alone in market-to-market sales⁵⁴ that could have been avoided though increased transmission capacity between MISO North and MISO South. Cost-effective transmission investments would alleviate the need to pay these expensive service fees and save customers money.

Limited transmission capacity can reduce some of the reliability benefits provided by MISO membership. During the February 2021 Polar Vortex, for example, while MISO South was able to *limit* outages by importing power, some 90,000 Mississippi customers still lost power.⁵⁵ Meanwhile, Illinois, Michigan, Indiana, and Kentucky in MISO North had surplus capacity.⁵⁶ Instead of power flowing south where it was needed, interconnection bottlenecks effectively trapped the power above Mississippi. The low prices in the Upper Midwest and high prices in much of Mississippi shown in Figure 3 illustrate these bottlenecks at work on the morning of February 15th,⁵⁷ the day that the outages began in Mississippi.⁵⁸ Rather than leaving

⁵³ See, e.g., Southwest Power Pool, *SPP, MISO and Joint Parties Reach Transmission Usage Agreement*, Press Release (October 13, 2015) <https://spp.org/newsroom/press-releases/spp-miso-and-joint-parties-reach-transmission-usage-agreement> (noting that “[t]he level of compensation [for SPP transmission service] will be determined by the application of a capacity factor for flows above MISO’s existing 1,000 megawatts (MWs) of contract path.”).

⁵⁴ Tom Kleckner, *SPP, MISO See \$22.8M in M2M Settlements*, RTO Insider (January 12, 2021) <https://rtoinsider.com/rto/spp-miso-m2m-settlements-183619/>.

⁵⁵ Mississippi Clarion Ledger, *Live Weather Updates: When Will Power Be Restored? Thousands of Linemen in Mississippi to Help* (February 19, 2021) <https://www.clarionledger.com/story/news/2021/02/19/live-weather-updates-closures-continue-slight-warm-up-friday/4497799001/>.

⁵⁶ Pearlman, *supra* note 33.

⁵⁷ Michael Goggin and Rob Gramlich, *Observations on Winter Electric Reliability Event in South Central U.S.*, Energy Central (February 17, 2021) <https://energycentral.com/c/gr/observations-winter-electric-reliability-event-south-central-us>.

⁵⁸ Gabriela Szymanowska, *Over 54,000 Customers Without Power Monday, As Experts Say Some Power Outages Could Last Days*, Mississippi Clarion Ledger (February 17, 2021)

MISO, Entergy Mississippi and the Commission should help address these bottlenecks directly, joining other MISO states⁵⁹ in encouraging MISO to increase regional transmission efforts, especially between MISO North and MISO South.

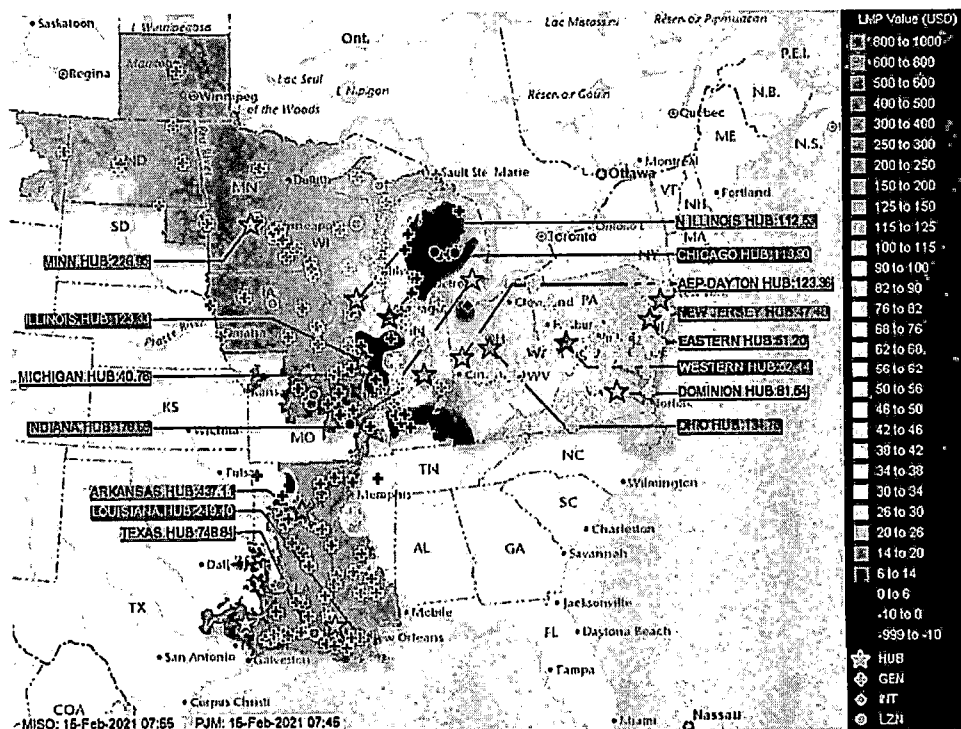


Figure 3: Surplus Generation Capacity in the Upper Midwest Was Unable to Reach MISO South⁶⁰

Limited transmission capacity also curtails Mississippi generators' abilities to capitalize on scarcity pricing during extreme weather events in MISO North. For example, during an Upper Midwest heatwave in July 2020, transmission constraints "trapped" an average of "more than 1,700 MW" in MISO South during afternoon peaks each day for over a week.⁶¹ Had

<https://www.clarionledger.com/story/news/local/2021/02/15/power-outages-ms-homes-businesses-without-power-due-winter-storm/6749306002/>.

⁵⁹ Letter from Governors Gretchen Whitmer, J.B. Pritzker, Tim Walz, & Tony Evers to Mid-Continent Independent System Operator, Inc. RE: Support for MISO's Long-Range Transmission Planning Effort to Cost-Effectively Maintain System Reliability in the Face of a Changing Climate, (June 7, 2021) https://cleanenergygrid.org/wp-content/uploads/2019/04/MISO-LRTP-letter_June-2021_Final.pdf.

⁶⁰ Michael Goggin and Rob Gramlich, *Observations on Winter Electric Reliability Event in South Central U.S.*, Energy Central (February 17, 2021) <https://energycentral.com/c/gr/observations-winter-electric-reliability-event-south-central-us> (citing data from the Joint and Common Market).

⁶¹ David Patton, *IMM Quarterly Report*, MISO Independent Market Monitor, 4 (September 15, 2020) https://www.potomaceconomics.com/wp-content/uploads/2020/09/IMM-Quarterly-Report_Summer-2020.pdf.

transmission constraints been alleviated, Mississippi and other MISO South generators likely could have helped their northern neighbors reduce outage risk while earning generous rates. Instead, both MISO North and MISO South lost out. The same is true even absent extreme weather events: Transmission constraints more generally dampen the competitive benefits to customers and generators that MISO membership provides by effectively shrinking the size of the MISO footprint that can reach a given territory.

Nevertheless, it is notable that Entergy has expressed confidence in the ability of MISO to provide transmission value. Its 2020 Integrated Report explains that “MISO mitigates congestion, in significant part through price signals, allowing for more timely and efficient congestion management.” Further, “[p]articipation in MISO provides a wealth of useful information to transmission planners about new transmission facilities and upgrades that are likely to provide economic savings.”⁶² Renewed commitment to this process could help Mississippi to reap the fullest benefits that MISO participation offers.

Paragraph 8: The Commission seeks comments regarding any factors limiting benefits to Entergy Mississippi whether and to what extent additional transmission investments would be required for Entergy Mississippi to participate in alternative regional pooling arrangements, such as SEEM.

As discussed above in response to Order’s Paragraph 6, SEEM, or any regional pooling arrangement short of an RTO or equivalent organized market, will not provide the same degree of benefits as MISO to Entergy and its customers, including regional planning and reliability and market benefits resulting from being in the MISO territory. This question cannot otherwise be answered meaningfully absent a detailed, Commission-directed assessment of the specific types

⁶² Entergy, *supra* note 18, at 41.

of regional pooling arrangements Entergy should consider (as noted above, as of the date of this filing the SEEM is still only a proposal).

Paragraph 9: The Commission seeks comments regarding whether there are any identifiable "deal breaker" events or categories of events that would make it unreasonable or cost-prohibitive for Entergy Mississippi to be an RTO member.

As explained above, Entergy Mississippi's MISO membership provides substantial net benefits to Mississippi customers. Exiting MISO would deprive Entergy Mississippi customers of those benefits. It would also expose Entergy to significant legal risk and require payment of large exit fees. This risk and cost make it unreasonable and cost-prohibitive for Entergy Mississippi to exit MISO.

In thinking about Entergy Mississippi's ability to exit MISO, it is important to remember the circumstances that led to initial membership. Entergy joined MISO in the first place against the backdrop of a DOJ anti-trust investigation into potential anti-competitive conduct by the company.⁶³ Specifically, DOJ was investigating whether Entergy "ha[d] harmed consumers by exercising its control over its transmission system and dominant fleet of gas-fired power plants to exclude rival operators of low-cost combined-cycle gas turbine (CCGT) power plants from competing to sell long-term power."⁶⁴

The DOJ paused this investigation in 2012 after Entergy pledged to join MISO and divest its transmission system to a third party.⁶⁵ DOJ emphasized, however, that it was not closing its investigation, and pledged to "closely monitor developments" and "take appropriate enforcement

⁶³ Entergy, *Entergy Corporation Cooperating with the U.S. Department of Justice on Civil Investigation*, Press Release (October 12, 2010) <https://www.entergynewsroom.com/news/entergy-corporation-cooperating-with-u-s-department-justice-on-civil-investigation/>.

⁶⁴ U.S. Department of Justice, *supra* note 51.

⁶⁵ *Id.* Entergy has not followed through on its pledge to divest its transmission holdings.

action, if warranted[,]” if Entergy did not make meaningful progress to join MISO. Absent MISO membership, the concerns that motivated DOJ’s investigation may become relevant again. SEEM membership, as discussed above, would not address and may even exacerbate these concerns.

In addition, costs and benefits of Entergy Mississippi’s MISO membership cannot be evaluated without consideration of potential exit fees, which can be in the range of tens of millions of dollars. ⁶⁶ These fees must be incorporated into cost-benefit calculations to determine whether they offset other benefits the Commission projects from MISO exit. Exposing Entergy Mississippi and its customers to unnecessary legal risk, the potential costs that result, and exit fees for scant speculative benefits is not reasonable and not in the public interest.

CONCLUSION

Respectfully submitted this 28th day of June, 2021.



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⁶⁶ See, e.g., Commonwealth of Kentucky Public Service Commission, *PSC Allows LG&E and KU to Leave MISO*, News Release, 1 (May 31, 2006) http://psc.ky.gov/agencies/psc/press/052006/0531_r02.pdf (noting that the utilities would have to pay a 40 million dollar exit fee to leave MISO).

CERTIFICATE OF SERVICE

I, John Moore, hereby sign and certify that on this 28th day of June, 2021, I have filed an electronic copy of the foregoing with the Commission at this address: efile.psc@psc.state.ms.us, and that I served copies of the Comments to the following persons via email:

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