UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

North Dakota Public Service Commission Montana Public Service Commission Arkansas Public Service Commission Mississippi Public Service Commission Louisiana Public Service Commission Complainants, v. Midcontinent Independent System Operator, Inc. Respondent.	)	Docket No. EL25-109-000

ANSWER OF THE MIDCONTINENT INDEPENDENT SYSTEM OPERATOR, INC.

Pursuant to Rules 206(f) and 213 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission ("FERC" or "Commission"),[1] the Midcontinent Independent System Operator, Inc. ("MISO") submits this Answer to the complaint filed in this proceeding by the North Dakota Public Service Commission ("NDPSC"), the Montana Public Service Commission ("MTPSC"), the Arkansas Public Service Commission ("APSC"), the Mississippi Public Service Commission ("MSPSC"), and the Louisiana Public Service Commission ("LPSC") (collectively, "Complainants")[2] pursuant to sections 206, 306, and 309 of the Federal Power Act

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[1] 18 C.F.R. §§ 385.206(f); 385.213.

[2] *See* Complaint of the Concerned Commissions and Request for Expedited Action and Fast Track Processing, Docket No. EL25-109-000 (July 30, 2024) ("Complaint").

("FPA").[3] On August 13, 2025, the Commission issued a notice extending the time for answers to, interventions in, comments on, and protests of the Complaint until September 9, 2025.

I. EXECUTIVE SUMMARY

At a time of rapid load growth and economic development by members across the MISO region, the need for and importance of transmission infrastructure to reliably and cost effectively support that growth has never been greater. Federal and state policies are dependent on this growth in electricity demand to advance the competitiveness of the United States in the deployment of artificial intelligence technologies and support needed economic development. MISO's well established, independent, and FERC-accepted transmission planning practices are positioning the MISO region to successfully meet these challenges.

The deficient and misleading Complaint filed in this docket puts at risk not only the needed infrastructure resulting from a comprehensive, stakeholder-driven planning process, but also future generation, transmission, and large load additions by creating regulatory uncertainty, which the Commission, federal and state policy makers, and the courts have sought to reduce. The Complaint jeopardizes the ability of MISO and its state partners to support the anticipated growth in electricity demand and would increase costs to customers within the MISO region by replacing an efficient, regional solution with a piecemeal one.[4] As explained below, the haphazard and unrealistic approach to regional transmission planning advocated by the Complainants is profoundly inconsistent with Commission policy and controlling precedent and should be rejected.

MISO's Long Range Transmission Planning ("LRTP") Tranche 2.1 Portfolio ("Tranche 2.1"), which is the primary target of the Complainants' attack, provides a critical infrastructure

[3] 16 U.S.C. §§ 824e, 825e, 825h.

[4] It is important to note that the several projects are underway and announced within MISO that reinforce the anticipated growth in electricity demand.

backbone that: (1) supports the integration of new electricity customers to cost effectively connect to the grid; (2) enables the integration of needed new generation resources; (3) lowers transmission congestion costs; and (4) further enhances reliability and resilience across the MISO Midwest Subregion. Moreover, Tranche 2.1 has a documented range of benefits of 1.8 to 3.5—meaning that for every dollar spent, Tranche 2.1 will provide $1.80 to $3.50 of benefits.[5] The estimated benefits can be viewed as understated based on changes in circumstances since Tranche 2.1 was approved.[6]

The LRTP initiative is a multi-year effort by MISO and its stakeholders to strengthen the MISO grid by building backbone regional projects to support the system's needs, similar to how the interstate highway system pairs with local roads to support broader transportation needs and economic development. Tranche 2.1 was approved by MISO's independent Board of Directors (also referred to herein as the "MISO Board") in December of 2024 to provide critically needed transmission infrastructure that maintains the reliability of the region and unlocks the electric grid to support today's economy and the future of technologies like artificial intelligence, greater electrification and the resurgence of manufacturing in the United States.[7] Tranche 2.1 received broad stakeholder support and accolades from various stakeholder groups, businesses and industries across the Midwest region, and many state regulators.

Under the Tariff,[8] MISO's role as a transmission planner is not to overtake state and local decisions on generation, load growth, and economic development and policy, but rather to leverage

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5 *See* Prepared Direct Testimony of Jeremiah Doner, Exhibit MISO-001, at 38 ("Doner Testimony"), attached hereto at tab A.

6 *Id.* at 57.

7 Tranche 2.1 is described in great detail in MISO's MTEP24 Report. *See* MTEP24 Transmission Portfolio ("MTEP Report"), available at: https://cdn.misoenergy.org/MTEP24%20Full%20Report658025.pdf.

8 When capitalized, the term "Tariff" or "MISO Tariff" means the MISO Open Access Transmission, Energy and Operating Reserve Markets Tariff. Unless otherwise defined herein, all capitalized terms shall be as set forth in

the region's rich resource diversity to develop a robust transmission plan that cost effectively supports those state and local decisions for the broader region's benefit.[9] Consistent with this role, MISO developed Tranche 2.1 by using a comprehensive, seven-step iterative process that began in July of 2022 and involved significant and extensive stakeholder input and involvement.[10] The stakeholder process included more than 300 meetings in various formats and forums, 500+ stakeholder revisions impacting the inputs of the process, and the consideration of 100 alternative solutions as part of the Portfolio.

While the Complainants allege a "Tariff violation" by MISO,[11] the essence of the Complaint is a technical disagreement with various models and planning assumptions that MISO used to study and develop Tranche 2.1,[12] and the Complaint fails to identify, let alone demonstrate, that MISO violated any provision of its Tariff.[13] Moreover, the Complainants seek to substitute their views and preferred decision(s) for that of the MISO Board, whose Tariff-defined role is to independently review and approve (or reject) tranches of projects resulting from the LRTP. Just because the Complainants' views did not prevail does not mean the seven-step iterative process was unreasonable or there was a Tariff violation. To the contrary, MISO's process is not only

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the Tariff. The Tariff is available at MISO's website, at: https://www.misoenergy.org/legal/rules-manuals-and-agreements/tariff/.

9 *See generally* Tariff, Attachment FF § I.

10 The MISO process to approve Tranche 2.1 is explained in great detail in Section II below.

11 *See* Complaint at 2.

12 *Id.* at 32-43.

13 MISO retained an independent consultant, The Brattle Group, to assess the Complainants' criticisms of MISO's planning models, assumptions and metrics. The Brattle Group concluded that the models, metrics and assumptions used in the Tranche 2.1 process were reasonable and the Complainants' claims of "Tariff violation" are baseless. *See* Prepared Direct Testimony of Johannes P. Pfeifenberger and John Michael Hagerty, Ex. MISO-002 ("Brattle Testimony"), attached hereto at tab B.

fully compliant with MISO's FERC-accepted Tariff, but is also a best practice as the Commission noted several times in Order Nos. 1920 and 1920-A.[14]

Similarly, there is nothing in the Complaint to support the baseless allegation that Tranche 2.1 somehow disadvantages or discriminates against the Complainants' states. In fact, one of the Complainants, the NDPSC, provided numerous requests for revisions to Tranche 2.1, *which were incorporated by MISO*, to help ensure expanded energy delivery from their state as a leading energy exporter in the Midwest.[15] As demonstrated in this Answer, both North Dakota and Montana significantly benefit from Tranche 2.1 in exchange for a very small percentage of the costs.[16] Moreover, the "concerned commissions" representing Louisiana, Arkansas, and Mississippi have no Tranche 2.1 projects located in their region and will *not* be allocated any costs from Tranche 2.1.[17] Despite the Complainants' protestations and evasions, the Complaint is nothing more than an impermissible collateral attack on MISO's planning processes and long-standing, Commission-approved regional cost allocation methodology.

To avoid far-reaching, harmful consequences, the Commission should swiftly dismiss the Complaint and deny all requested relief. Tranche 2.1 was approved nearly eight months ago, and critical reliability, load interconnection, and generation processes have already been undertaken that are dependent on the development of Tranche 2.1; consequently, those processes will be put at risk. The generation resources currently being studied in MISO's queue process will at a minimum sustain further delays in the completion of their interconnection studies, as well as delays

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[14] *See Building for the Future Through Electric Regional Transmission Planning and Cost Allocation*, Order No. 1920, 187 FERC ¶ 61,068 at P 102, *order on reh'g*, Order No. 1920-A, at P 111 (2024).

[15] *See* Doner Testimony at 62 and 63.

[16] *Id. See also infra* at 59.

[17] *Id.* at 44. Given that no Tranche 2.1 costs are allocated to Louisiana, Mississippi, and Arkansas, it is difficult to rationalize these state commissions' decision to join the Complaint, particularly given the far-reaching consequences if the Complaint is upheld.

in serving new large customer loads in the MISO footprint.[18] Further, to enable new generation to meet the unprecedented member load growth in the region, MISO recently developed and is implementing an innovative and critically needed Expedited Resource Additions Study ("ERAS") generation interconnection process that contains 47 generation projects representing more than 26,500 megawatts ("MW") proposed new capacity to the MISO footprint.[19] These generation project studies include the Tranche 2.1 investments as a base assumption and would need to be reevaluated for impacts if the Commission upholds this Complaint, introducing delays to the ERAS process. For these reasons, the Complaint will increase regulatory risks and costs associated with member plans to support continued electricity demand growth required by local economic development and data center development, and to maintain United States' technological competitiveness.

Finally, terminating or undermining the Tranche 2.1 Portfolio would create a chilling precedent not only in MISO, but across the nation, as transmission investment will be a key enabler of the robust energy future needed to support America's leadership in artificial intelligence and industry more broadly. Other regional transmission organizations ("RTOs") and transmission providers are watching how the Commission responds to this Complaint, and the consequences of the unprecedented reversal of Tranche 2.1 advocated by the Complainants will be profound. The Commission should act swiftly to avert this harmful outcome.

II. RELEVANT BACKGROUND

A. MTEP Development Process

As a Commission-approved RTO, MISO is registered with the North American Electric Reliability Corporation ("NERC") as a Planning Coordinator and, as such, fully evaluates and

[18] *Id.* at 67 and 68.

[19] *See Midcontinent Indep. Sys. Operator, Inc.*, 192 FERC ¶ 61,064 (2025) (accepting MISO's ERAS process).

plans for the reliability of the Transmission System in accordance with NERC's planning standards. The annual MTEP represents the culmination of a comprehensive, stakeholder-inclusive planning process to evaluate, build, and maintain an electric infrastructure to meet local and regional reliability standards, enable competition among wholesale capacity and energy suppliers in the MISO markets, and allow for competition among transmission developers.[20]

The MTEP planning process is set forth in Attachment FF of the Tariff, which includes MISO's Transmission Expansion Planning Protocol and is based on the MISO Transmission Expansion Planning Framework contained in Appendix B of the MISO Transmission Owners Agreement ("TOA").[21] MISO adheres to the Commission's requirements and guidelines, such as Order Nos. 890[22] and 1000,[23] and follows the process set forth in the Tariff.[24] This ensures an open and transparent regional planning process that results in balanced and comprehensive recommendations for expansion that are reported in the MTEP.[25]

All individual projects proposed to be included in the MTEP are thoroughly reviewed by the MISO staff and, based on that review, may be recommended to the MISO Board for approval.[26] Approval of the MTEP by the MISO Board certifies it as MISO's plan for meeting the transmission

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20 *See* generally Tariff, Attachment FF § I; Doner Testimony at 7-11.

21 *See* Agreement of Transmission Facilities Owners to Organize the Midcontinent Independent System Operator, Inc., a Delaware Non-Stock Corporation, MISO Rate Schedule No. 1, available at: https://www.misoenergy.org/legal/rules-manuals-and-agreements/tariff/ (under "Rate Schedules").

22 *Preventing Undue Discrimination and Preference in Transmission Service*, Order No. 890, FERC Stats. & Regs. ¶ 31,241, *order on reh'g*, Order No. 890-A, FERC Stats. & Regs. ¶ 31,261 (2007), *order on reh'g and clarification*, Order No. 890-B, 123 FERC ¶ 61,299 (2008), *order on reh'g*, Order No. 890-C, 126 FERC ¶ 61,228 (2009), *order on clarification*, Order No. 890-D, 129 FERC ¶ 61,126 (2009).

23 *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, Order No. 1000, 136 FERC ¶ 66,051 (2011), *order on reh'g*, Order No. 1000-A, 139 FERC ¶ 61,132 (2012), *order on reh'g and clarification*, Order No. 1000-B, 141 FERC ¶ 61,044 (2012), *aff'd sub nom. S.C. Pub. Serv. Auth.* v. *FERC*, 762 F.3d 41 (D.C. Cir. 2014) ("*S.C. Pub. Serv. Auth"*).

24 *See* generally Tariff, Attachment FF § I; Doner Testimony at 8.

25 *See* Doner Testimony at 8 and 9.

26 *Id*. at 10.

needs of all stakeholders, subject to any required approvals by federal, state and local regulatory authorities.[27]

B. MISO's LRTP Initiative

MISO's LRTP process is a part of MTEP which focuses on the development of robust solutions that proactively address future reliability challenges posed on the system, including those driven by load growth, resource plans, and member policy objectives.[28] Long range planning provides a comprehensive, forward-looking assessment of future needs based on a range of anticipated future conditions that identify the "least regrets" regional transmission expansion providing a range of benefits to maintain reliable performance under a range of operating conditions, cost efficient energy delivery, accessibility to resources, and flexibility in resource mix. MISO's LRTP process is a partnership with the MISO members and states to identify a transmission system that can reliably and efficiently serve load.

To date the LRTP initiative resulted in two approved "tranches" of regional transmission projects: Tranche 1 was approved by the MISO Board in July 2022, and Tranche 2.1 was approved in December 2024. These LRTP portfolios are comprised of Multi Value Projects ("MVPs"), which is a type of transmission project whose costs are regionally or, in the case of Tranche 1 and Tranche 2.1, sub-regionally shared.[29] Both Tranche 1 and 2.1 contain only projects located in the MISO Midwest MVP Cost Allocation Subregion ("Midwest Subregion") and the cost of both tranches is assigned under the MVP subregional option to the Midwest Subregion.[30]

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27 *Id*.

28 *Id*. at 11-12.

29 *See* Tariff, Attachment FF § III.A.2.g.

30 The subregional cost allocation option for MVPs was included in the MISO Tariff in 2022. *See Midcontinent Independent System Operator, Inc*., 179 FERC ¶ 61,124 (2022). The subregional option allows MISO to allocate the cost of an MVP Portfolio either to the Midwest Subregion or the MISO South MVP Cost Allocation Subregion ("South Subregion"). *See also* Doner Testimony at 14-15. The subregions are shown in Attachment XX of the Tariff. *See* Tariff, Attachment XX.

Under the Tariff, an MVP is a project that must be (i) evaluated as part of a portfolio of MVPs whose benefits are spread across the MISO footprint or subregion and (ii) must meet at least one of the following criteria, as stated in Attachment FF of the MISO Tariff:

> Criterion 1. A Multi-Value Project must be developed through the transmission expansion planning process for the purpose of enabling the Transmission System to reliably and economically deliver energy in support of documented energy policy mandates or laws that have been enacted or adopted through state or federal legislation or regulatory requirement that directly or indirectly govern the minimum or maximum amount of energy that can be generated by specific types of generation. The MVP must be shown to enable the transmission system to deliver such energy in a manner that is more reliable and/or more economic than it otherwise would be without the transmission upgrade.
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> Criterion 2. A Multi-Value Project must provide multiple types of economic value across multiple pricing zones with a Total MVP Benefit-to-Cost ratio of 1.0 or higher where the Total MVP Benefit-to-Cost ratio is described in Section II.C.7 of this Attachment FF. The reduction of production costs and the associated reduction of LMPs resulting from a transmission congestion relief project are not additive and are considered a single type of economic value.
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> Criterion 3. A Multi-Value Project must address at least one Transmission Issue associated with a projected violation of a NERC or Regional Entity standard and at least one economic-based Transmission Issue that provides economic value across multiple pricing zones. The project must generate total financially quantifiable benefits, including quantifiable reliability benefits, in excess of the total project costs based on the definition of financial benefits and Project Costs provided in Section II.C.7 of Attachment FF.[31]

Both Tranche 1 and Tranche 2.1 met the MVP criteria and were determined, in their respective MTEP processes, to provide benefits spread broadly across the Midwest Subregion. Accordingly, the costs of these LRTP tranches were allocated to the Midwest Subregion.

C. LRTP Tranche 2.1

1. Overview of the Tranche 2.1 Portfolio

The Tranche 2.1 Portfolio is a group of transmission projects distributed across the Midwest Subregion that will support system reliability, reduce generator production costs, and

[31] Tariff, Attachment FF § II.C; *see also* Doner Testimony at 12-13.

enable more economically efficient resource and transmission investment.[32] Tranche 2.1 is comprised of a 3,631-mile 345 kilovolt ("kV") and 765 kV backbone that ensures future reliability while providing benefits that exceed costs. It includes $21.8 billion (in 2024 dollars) in investment defined as 24 projects and 323 facilities across the Midwest Subregion. Projects are targeted to go in service from 2032 to 2034. Highlights of these projects' benefits include the following:

- Pro-actively provides reliability and efficiently enabling future generation in support of load growth and member plans.
- Adding a 765 kV backbone to the Midwest Subregion to support required energy transfers across the MISO system under multiple future system conditions to support system reliability. With a 765 kV backbone, more electricity can be delivered, while minimizing land use and reducing energy losses.
- Primarily a reliability-driven portfolio, that also provides a broad range of value with a benefit-cost ratio ranging from 1.8 to 3.5.[33]

Each project within the Tranche 2.1 Portfolio was determined to be a necessary component of the portfolio, and the entire Portfolio was shown to provide benefits that broadly span the MISO Midwest Subregion and meet at least one of the criteria to be classified as an MVP.[34]

2. Process to Develop the Tranche 2.1 Portfolio

MISO undertook a multi-year planning process in partnership with its stakeholders to define a range of potential snapshots, or Future scenarios, of what the transmission system may look like 20 years in the future, to identify issues in the reliable and efficient transmission of energy from generation to load in these scenarios, and to propose solutions that maintain reliability while lowering total delivered wholesale energy costs.[35]

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[32] *See* Doner Testimony at 16 and 17.

[33] *Id*. at 16 and 17.

[34] *Id*. at 15.

[35] *Id*. at 16 and 17.

To develop the Tranche 2.1 Portfolio, MISO engaged in its iterative seven-step process which includes: (1) developing scenario-based Future resource forecasting and siting; (2) developing planning models utilizing the Futures; (3) identifying potential transmission issues; (4) proposing solutions to address identified issues with sufficient value; (5) evaluating and justifying the effectiveness of various solutions, including assessing alternatives; (6) recommending preferred solutions; and (7) applying the appropriate cost allocation mechanism.

i. Step 1: Development of Futures

Futures are forward-looking planning scenarios used to understand what generation fleet and load landscapes could look like twenty years into the future, developed by MISO staff with input from stakeholders.[36] This input from MISO's members and states is critical to the Futures process, given that resource planning responsibilities fall to them and not to MISO. The Futures development process considers economic, policy and technological changes over time to model generation capacity expansion. The Futures allow for multiple rates of change for load growth, generator retirements, fuel prices, decarbonization, renewable energy levels and other factors.[37]

The Tranche 2.1 Portfolio was developed with a focus on the Future 2A scenario that falls in the middle of the three Futures scenarios, including such factors as a mid-level load growth forecast. Additionally, Future 1A, the most conservative Future including the lowest growth rate was used, along with Future 2A for the benefit metrics analysis to further validate the portfolio provides benefits in excess of costs.[38]

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[36] *Id*. at 17.

[37] *Id*. at 17 and 18.

[38] *Id*. at 18.

ii. Step 2: Develop Planning Models Utilizing Futures

MISO developed reliability and economic models to assess system performance expected under future conditions. For the reliability models, MISO built a series of 10-year, and 20-year models to reflect seasonal load and generation dispatch conditions and include additional transfer scenarios to cover a range of likely and possible dispatch with a focus on the worst credible conditions from the system point of view, while recognizing that local conditions may vary.[39] For the economic analysis, MISO built 10-year, 15-year and 20-year economic models, which apply a wide variety of operating constraints to assess future transmission needs.[40] These models were reviewed in the stakeholder process, and feedback was incorporated.[41]

iii. Step 3: Identify Potential Transmission Issues

Step three involved performing a reliability and economic analysis to identify transmission issues. The purpose of the reliability analysis is to ensure that the MISO Transmission System can reliably deliver energy from future resources to future loads under a range of projected load and dispatch patterns associated with the Future 2A scenario in the 10-year and 20-year time horizons.[42] The economic analysis identifies issues like congestion, generation curtailment, widespread price separation, and price to serve load.[43]

The economic and reliability analysis showed significant levels of overload on lower and higher voltage equipment across the footprint and severe voltage violations due to decreased reactive performance across the system.[44] Similarly, the economic analysis showed severe

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39 *Id*. at 21.

40 *Id*.

41 *Id*. at 22 and 23.

42 *Id*. at 23.

43 *Id*.

44 *Id*. at 25.

widespread congestion, price separation and significant generation curtailment due to congestion on the transmission.[45] The results also revealed opportunities to provide additional benefits by resolving energy losses from power transfers on existing transmission and by mitigating economic congestion.[46] MISO reviewed the economic and reliability study findings with stakeholders, and posted results for feedback to incorporate for further analysis and solution testing.[47]

iv. Step 4: Propose Solutions

As MISO understood the impacts of member plans throughout the planning process, conceptual ideas were developed and then refined to create potential transmission solutions. In December 2022, MISO shared a hypothetical roadmap taking concepts from its initial long-term roadmap shared in 2021.[48] The conceptual map was updated in March 2024 based on the reliability and economic results; then further amended based on stakeholder feedback in June 2024, focusing on a 765 kV regional solution to accommodate the higher regional transfers identified in the reliability and economic analysis. This near-final June 2024 portfolio included changes driven by stakeholder alternatives, including additions to the portfolio in Minnesota, Iowa, Indiana, North Dakota, South Dakota, Michigan, and a replacement in Missouri.[49]

v. Step 5: Evaluate and Justify Solutions

For Step 5, MISO assessed the proposed solutions (as developed in Step 4) and any alternative options submitted by stakeholders.[50] This evaluation was highly data-driven and included the following steps:

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45 *Id*. at 25.

46 *Id*.

47 *Id*.

48 *Id*. at 26.

49 *Id*. at 29.

50 *Id*. at 29.

- *Reliability and Economic Modeling with solutions:* MISO develops new reliability and economic models that incorporate the proposed transmission solutions.

- *Effectiveness testing:* MISO evaluates how well the solutions address the reliability and economic transmission issues identified in Step 3, such as thermal overloads, voltage problems, and increased congestion and curtailment.

- *Additional Alternative analysis:* Submitted alternative solutions are reviewed and tested for their effectiveness.

- *Business Case Analysis:* Projects and portfolios are tested against a range of future scenarios (or "bookends") using multiple types of benefits to ensure they provide long-term value, even if the future evolves differently than expected. For example, for LRTP Tranche 2.1, the Portfolio was tested against a lower-end "Future 1A" scenario.[51]

The reliability analyses for Tranche 2.1 demonstrated that the portfolio will provide significant improvement in the overall system performance by resolving more than 60% of > 200 kV constraints under single and multiple contingency events; provide substantial reactive power capability from the regional transmission system under most conditions; and enhance the overall stability of the system as demonstrated by a significant reduction in the number of transient voltage violations.[52]

The economic analyses for Tranche 2.1 demonstrated that the portfolio will: (1) reduce economic congestion on existing transmission across the MISO Midwest Subregion by 29.5%; (2) facilitate a more economical dispatch for the Midwest Subregion resulting in $8.1B in Adjusted Production Cost ("APC") savings (3) reduce curtailment in the Midwest Subregion by 27.1M MWh (11.2%), improving access to more economic generation; (4) support the Midwest Subregion by reducing price separation across the subregions and decreasing system cost to serve load; and (5) provide a robust regional backbone supporting 115.7 gigawatt ("GW") of Future 2A

[51] *Id*. at 29.

[52] *Id*. at 31.

resource enablement.[53] MISO conducted several in-depth discussions with stakeholders to present the details of the calculation methodologies for the benefit metrics and request feedback.[54] As the effort progressed, MISO refined the details and made additional presentations to stakeholders in a series of ongoing discussions to seek more feedback on the approaches used to quantify benefits and further adjustments were made to address concerns of overlapping benefits.[55]

MISO also leveraged its previous benefit metric work on the Tranche 1 Portfolio and developed, in collaboration with stakeholders, additional metrics to capture the full monetary value of the Tranche 2.1 Portfolio.[56] That work with stakeholders resulted in the following nine benefit metrics: (1) Mitigation of reliability issues; (2) Reduced risks of extreme weather impacts; (3) Avoided capacity cost; (4) Capacity savings from reduction in losses; (5) Avoided transmission investment; (6) Congestion and fuel savings; (7) Energy savings from losses; (8) Reduced transmission outage costs; and (9) Decarbonization.

Guided by the financially quantifiable benefits defined in the Tariff for MVP projects, the nine benefit metrics listed above were evaluated to determine the amount of value delivered by the Tranche 2.1 Portfolio. Tranche 2.1 Portfolio provides a benefit-to-cost ratio (also referred to herein as the "B/C ratio") of 1.8 – 3.5, which reflects net benefits potentially exceeding $72 billion.[57] This means for every dollar invested, the projects are projected to have a return of $1.80 to $3.50 in benefits.[58] Even under the more conservative Future 1A scenario the LRTP Tranche 2.1 Portfolio provides a B/C ratio of 1.2 to 2.2.[59]

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53 *Id*. at 32.

54 *Id*. at 42.

55 *Id*.

56 *Id*. at 50.

57 *Id*. at 16 and 38.

58 *Id*. at 38.

59 *Id*. at 38.

vi. Step 6: Recommending Preferred Solutions

During the sixth step of the LRTP, MISO and stakeholders reviewed the analysis of proposed transmission portfolios and alternatives to recommend final, preferred solutions. The analysis examined the reliability, economic benefits, and other performance metrics as described above to determine the optimal portfolio. This step was built on a transparent, stakeholder-driven process, which concluded with review and approval by the MISO Board.[60]

Following stakeholder review and feedback, the Portfolio was presented for approval. It was first reviewed and voted on by the Planning Advisory Committee ("PAC"). It then moved to the System Planning Committee ("SPC") of the MISO Board.[61] Finally, the Portfolio was presented to the full MISO Board for approval. For Tranche 2.1, the PAC review and motion occurred on November 8, 2024, and the SPC review and motion occurred on November 19, 2024.[62]

vii. Step 7: Apply Appropriate Cost Allocation

Analysis of the nine benefit metrics included identifying the distribution of each benefit across the Cost Allocation Zones ("CAZ") in the Midwest Subregion.[63] The distribution of benefits of the Tranche 2.1 Portfolio demonstrated that a subregional cost allocation approach (*e.g.*, MVP cost allocation) is appropriate given the benefits in excess of costs for each CAZ under Future 1A and 2A.[64] No costs of Tranche 2.1 were allocated to the South Subregion (*i.e.*, Arkansas, Louisiana, Mississippi, and Texas.[65] No requests for dispute resolution were submitted to MISO during the MTEP process.

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60 *Id*. at 42 and 43.

61 *Id*.

62 *Id*.

63 *Id*. at 43 and 44.

64 *Id*. at 44.

65 *Id*. at 44.

III. ARGUMENT

A. The Commission Should Dismiss the Complaint for Failure to Initiate a Timely Dispute Resolution Process.

As a threshold matter, the Commission should dismiss the Complaint because the Complainants failed to timely initiate available dispute resolution procedures under the Tariff. In this case, the Complainants' disregard of the rules is not an empty formality. The Complaint is highly prejudicial, seeking to retroactively undo the MISO Board's approval of the $21.8 billion Tranche 2.1 portfolio that is critically needed to strengthen MISO's high-voltage regional transmission backbone, enable load growth, support system reliability, reduce generator production costs, and enable more economically efficient resource and transmission investment. As detailed in the following sections, the disruptive effects of such a reversal will revibrate across MISO, with such effects extending beyond removing the significant reliability and economic benefits to load resulting from Tranche 2.1, but also including disruption to critical on-going transmission and resource planning processes (*e.g.*, reliably integrating new loads, timely process of generator interconnection studies), upending settled expectations of numerous market participants, and casting a pall over future transmission development for years to come.

The Commission should stop this misguided effort in its tracks, especially given that three of the Complainants (*i.e.*, MSPSC, APSC and LPSC) represent states in the South Subregion, which the Complaint acknowledges will *not* be allocated any of the Tranche 2.1 cost,[66] while the remaining two Complainants (NDPSC and MTPSC) represent states that will *benefit* from the Tranche 2.1 projects as part of the Midwest Subregion, while being allocated approximately 2 percent of the Tranche 2.1 costs.[67]

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[66] *See* Complaint at 19.

[67] *See* Doner Testimony at 63. As previously noted, Tranche 2.1 reflects several revisions proposed by the NDPSC that benefit North Dakota as an exporter of energy to the rest of MISO. *Id.* at 57 – 61.

The Complaint attacks the planning assumptions, models, and metrics that were used in the MTEP24 planning process to approve Tranche 2.1, but that process included multiple opportunities for such discussion prior to approval and decisively concluded with the MISO Board's approval on December 12, 2024. As detailed in the Background section above and Mr. Doner's testimony, the Tranche 2.1 process began in June 2022 and included multiple stakeholder meetings, presentations, and opportunities for input. By their own admission, the NDPSC and MTPSC were active participants in the Tranche 2.1 stakeholder process and were fully aware of MISO's planning assumptions, models, and metrics.[68] Through their Complaint, the Complainants seek to substitute their views and preferred decisions for that of the MISO Board, whose Tariff-defined role is to independently review and approve tranches of projects resulting from the LRTP initiative.

Further, the Complainants disregarded MISO's dispute resolution process. Section I.C.14 of Attachment FF includes a specific dispute resolution provision that applies during the MTEP process, stating as follows:

> Dispute resolution: Consistent with Attachment HH of this Tariff, [MISO] shall resolve disputes concerning MTEP issues. The first step will be for designated representatives of the affected parties to work together to resolve the relevant issues in a manner that is acceptable to all parties. If that step is unsuccessful, each affected party shall designate an officer who shall review disputes involving them that their designated representatives are unable to resolve. The applicable officers of the parties involved in such dispute shall work together to resolve the disputes so referred in a manner that meets the interests of such parties, either until such agreement is reached, or until an impasse is declared by any party to such dispute. If such officers are unable to satisfactorily resolve the issues, the matter shall be referred to mediation. Parties that are not satisfied with the dispute resolution procedures may only file a complaint with the Commission during the negotiation or mediation steps. If a matter remains unresolved, the affected parties may pursue arbitration.[69]

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[68] *See* Complaint at 31 and 55. The LPSC and the MSPSC also participated and provided comments during the LRTP Tranche 2.1 study.

[69] *Id*. § I.C.14.

This Tariff process allows parties participating in the MTEP process to present their disputes to MISO in a timely fashion. The Commission's rules recognize the importance of such mechanisms, requiring the Complainants to explain why "Tariff-based dispute resolution mechanisms" were not used.[70] The Complaint does not provide any such explanation. Instead, the Complainants confirm that they participated in the stakeholder process and raised their concerns, but then state that they "do not believe that dispute resolution will be timely or effective."[71]

MISO disagrees with these conclusory statements. As discussed above, the Tranche 2.1 process spanned many months and had the Complainants submitted their dispute *during that process*, it would have given all parties adequate notice of the issues and a fair chance of resolving them prior to the approval of Tranche 2.1. Instead, the Complainants declined to invoke a dispute, sat on their hands for nearly eight months after the approval of Tranche 2.1, and then filed their Complaint seeking to undo a critical major undertaking that MISO and its stakeholders had been working on for more than three years.

While parties have their FPA section 206 rights, MISO's Tariff dispute resolution mechanisms are there for a reason and should not be casually ignored, particularly in such a technical area as transmission planning. The Commission emphasized that, when transmission planning disputes arise, "they should first be addressed through the dispute resolution process set forth in the transmission provider's [tariff]"[72] and further stated that "it is essential that parties attempt to resolve their disputes before bringing them before the Commission."[73] Accordingly,

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70 18 C.F.R. § 385.206(b)(9).

71 Complaint at 55.

72 Order No. 890-A at P 189.

73 *Midwest Independent Transmission System Operator, Inc*., 115 FERC ¶ 61,177, P 12 (2006). *See also Strategic Energy L.L.C. v. California Independent System Operator Corp*., 95 FERC ¶ 61,312, at 62,069-70, *order on reh'g*,

because the Complainants have not justified their failure to invoke the MTEP dispute resolution process, their Complaint should be rejected.

B. The Complaint Fails to Establish a Tariff Violation by MISO.

1. The Complainants Have Not Met Their Burden of Proof.

The Complainants acknowledge that they bear the burden of proof to demonstrate that MISO has violated the Tariff.[74] The Commission's rules and precedent further require the Complainants to "identify relevant facts and the basis in fact and law"[75] and "make an adequate proffer of evidence including pertinent information and analysis to support [their] claims."[76] The Complainants must "identify the specific action alleged to violate applicable standard"[77] and "identify how the general actions violate applicable standard."[78] The Commission denies complaints that rely on speculative inferences and unsupported allegations, thereby failing to establish the requisite factual and legal foundation for the relief sought.[79] The Complainants have not met these *prima facie* requirements as the Complaint *fails to identify, let alone establish, any Tariff violation by MISO*.

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96 FERC ¶ 61,146 (2001) (FERC dismisses a complaint against an RTO, stating that "due to the limited time and resources of the Commission, we find that it is essential that the parties to the ISO Tariff attempt to resolve their disputes before bringing them before the Commission."); *Pac. Gas & Elec. Co*., 81 FERC ¶ 61,122, 61489 (1997).

74 *See* Complaint at 32.

75 18 C.F.R. § 385.203(a).

76 *Californians for Renewable Energy, Inc. v. Pacific Gas & Electric Co.,* 142 FERC ¶ 61,143, P 18 (2013).

77 18 C.F.R. § 385.206 (b)(1).

78 *Id*. § 385.206 (b)(2).

79 *See, e.g., California Wind Energy Assoc. v. California Indep. Sys. Operator Corp.*, 147 FERC ¶ 61,050 at P 37 (2014) (rejecting complaint where "Complainants provide no evidence to support the argument"); *Californians for Renewable Energy, Inc. v. Pacific Gas & Electric Co.,* 142 FERC ¶ 61,143, P 18 (2013) ("[W]e have admonished parties that 'rather than bald allegations, [complainants] must make an adequate proffer of evidence including pertinent information and analysis to support its claims.'"); *Louisiana Pub. Serv. Comm'n v. Sys. Entergy Res., Inc.*, 124 FERC ¶ 61,003, at P 15 (2008) (The Commission held that "the Louisiana Commission has not provided sufficient information to establish that System Energy's currently-effective ROE under the Agreement is unjust and unreasonable. . . . [The] evidence is insufficient to establish that the existing ROE may be unjust and unreasonable.").

The Complainants' focus their criticism on MISO's modeling assumptions and analyses to create Tranche 2.1,[80] as well as MISO's calculation of the B/C ratio using benefit metrics that were updated from prior metrics used for Tranche 1.0.[81] As detailed in this Answer, the stakeholder process used by MISO was thorough and extensive, with stakeholder input being used for review, analysis, refinement, and finalization of Tranche 2.1. As a part of this process, MISO punctually observed all applicable Tariff requirements and procedures.

Moreover, the modeling assumptions, analyses, and metrics themselves are *not* part of the Tariff. Contrary to the Complainants' arguments, MISO, as the transmission planner for the region, is afforded discretion by the Tariff in designing and revising its metrics and modeling assumptions, in collaboration with the stakeholders.[82] The actions that MISO took throughout the Tranche 2.1 planning process fall comfortably within the parameters and guidelines established by the Tariff and were comparable with the actions MISO took for the LRTP Tranche 1 Portfolio.

In a futile attempt to tie their claims to any express Tariff requirement, the Complainants assert that Tranche 2.1 does not meet the "1.0 or higher" B/C ratio[83] required for all MVP Portfolios.[84] This claim, however, is based entirely on the Complainants' alternative, unreasonable assumptions and methodologies that are neither stated in the Tariff nor consistent with Good Utility Practice. As further discussed below, the Complainants' preferred metrics and methodologies are based on a fundamental misunderstanding of MISO's role in the transmission planning process, ignore the Commission's policy and guidance, and, in any event, do nothing to

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80 *See* Complaint at 22.

81 *Id.* at 26.

82 *See generally* Tariff, Attachment FF § I.C (Development of MTEP).

83 *Id.* at § II.C.2.b.

84 *See* Complaint at 43.

demonstrate how the assumptions that MISO used for Tranche 2.1 violate the Tariff.[85] To the contrary, the Complaint acknowledges that MISO has the Tariff authority to use the benefit metrics that were developed through the stakeholder process.[86] For these reasons, the "alternative" Tranche 2.1 B/C ratio ranges calculated by the Complainants[87] should be rejected as speculative and having no basis in fact. Tranche 2.1 complies with all applicable Tariff rules requirements, including the B/C ratio requirement, and the Complaint does not show otherwise.

2. The Complaint Fails to Establish That the MISO Process Leading to LRTP Tranche 2.1 Approval Was in Any Way Deficient.

Consistent with Order Nos. 890 and 1000, the Tariff grants MISO broad authority with respect to the specifics of transmission planning, including model development. Order No. 890 established a principles-based approach that affords transmission providers considerable flexibility in the transmission planning process.[88] In the Order No. 1000 proceedings, the Commission declined "to specify a particular set of analyses that must be performed by public utility transmission providers within the regional transmission planning process"[89] and emphasized that its transmission planning reforms were "concerned with process" and were "not intended to dictate substantive outcomes, such as what transmission facilities will be built and where."[90] Instead, the reforms were "intended to ensure that there is an open and transparent regional transmission planning process that produces a regional transmission plan" and "[i]f public utility transmission providers' regional transmission processes satisfy these requirements, then they will be in

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85 As explained in Section III.E, *infra*, the Complainants also failed to meet their burden of proof under FPA section 206 to show that any MISO Tariff provision or practice is unjust, unreasonable, unduly discriminatory or preferential.

86 *See* Complaint at 9 and 10.

87 *Id.* at 27 and 43.

88 Order No. 890 at PP 426, 546 and 557.

89 Order No. 1000 at P 149.

90 Order No. 1000-A at P 188.

compliance with Order No. 1000's regional transmission planning requirements."[91] In upholding Order No. 1000, the U.S. Court of Appeals for the District of Columbia Circuit likewise emphasized that "the substance of a regional transmission plan and any subsequent formation of agreements to construct or operate regional transmission facilities remain within the discretion of the decision-makers in each planning region."[92]

These principles are reflected in MISO Attachment FF and the TOA,[93] which require an annual MTEP to be developed in collaboration with the stakeholders, providing extensive opportunities for stakeholder input in the planning process.[94] MISO also must develop the MTEP consistent with Good Utility Practice by taking into consideration long-range planning horizons[95] and expected use patterns under a wide variety of contingency conditions.[96] The Tariff affords MISO discretion in complying with these broad mandates and guidelines.[97]

The Tariff provides that MISO must seek guidance from Transmission Owners, state and local regulatory authorities, and other stakeholders through the Planning Subcommittee and/or the PAC prior to the beginning of each new planning cycle, including with respect to "the scope of planning studies to be undertaken, the development of future scenarios to be modeled and analyzed in long-term planning studies, and the development of suitable models and assumptions to support

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91 *Id*.

92 *S.C. Pub. Serv. Auth.*, 762 F.3d 41, 57-58.

93 *See* Doner Testimony at 8 and 9.

94 *See* Tariff, Attachment FF §§ I.C.

95 *Id*. Good Utility Practice is defined in the Tariff as "Any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision is made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather, intended to include acceptable practices, methods, or acts generally accepted in the region, including those practices required by Federal Power Act Section 215(a)(4)."

96 *Id*.

97 *See* Doner Testimony at 9 and 10.

such studies."[98] In addition, MISO is required to seek guidance through the same channels "prior to implementing changes or revisions to the scope, models, and assumptions during the planning cycle."[99] The Tariff establishes a collaborative process for MISO's development of planning models and provides an opportunity for stakeholders to review and comment on the posted models before commencing planning studies.[100] In accordance with the Tariff, each MTEP report must list the planning assumptions upon which MISO's analyses are based and establishes certain general principles for: (a) planning horizons; (b) load; (c) generation; (d) demand response resources; and (e) topology. Beyond these general principles the Tariff does not establish any specific requirements for the planning assumptions that MISO and the stakeholders must use in the MTEP process.

As discussed in the Background section, the Tariff also establishes certain requirements for MVPs.[101] The MVP provisions, however, allow for discretion in creating MVP Portfolios, subject to certain guidelines that emphasize broadly-spread, multi-range benefits and do not prescribe the content of specific modelling assumptions or metrics. In particular, the Tariff provides that MVPs must be evaluated on a Portfolio basis with the benefits of that portfolio "spread broadly" across the MISO footprint or across one of its two subregions.[102] While the Tariff establishes several criteria for MVPs (as listed in the Background section), those criteria are sufficiently flexible and do not prescribe any metrics or planning assumptions.[103] The Tariff also includes a list of various types of economic value that an MVP may provide, but this list is open-

98 Tariff, Attachment FF §§ I.C.2.b.

99 *Id*.

100 *Id*. § I.C.7.

101 *Id.* § II.C.

102 *Id.* § II.C.1.

103 *Id.* § II.C.2.

ended and expressly includes "any other financially quantifiable benefit to Transmission Customers resulting from an enhancement to the Transmission System and related to the provisions of Transmission Service."[104] In any event, the list does not require any particular planning assumption and does not describe any metric.

One of the Complaint's critical flaws is that it does not show how MISO violated the Tariff—in fact, it does not identify a Tariff provision that MISO allegedly failed to follow. It is undisputed that the Tranche 2.1 stakeholder process was extensive and robust.[105] The Complainants note that some stakeholder comments or proposals were not adopted by MISO,[106] but that is not a requirement of the stakeholder process.[107] As described in the Background section and Mr. Doner's testimony, MISO responded to all formal stakeholder comments it received during the LRTP Tranche 2.1 and MTEP processes.[108] MISO also complied with the Tariff process with respect to the formation and development of Tranche 2.1. Mr. Doner explains that MISO punctually followed the established seven-step LRTP process for Tranche 2.1, including with respect to applicable assumptions and modeling.[109] MISO also demonstrated that Tranche 2.1 met the applicable MVP requirements, including the quantification of the benefit to cost ratio. Each project comprising Tranche 2.1 was evaluated and determined to be a necessary component of the portfolio, which was shown to provide benefits broadly shared across the Midwest Subregion and met at least one of the MVP criteria, as required by the Tariff.[110]

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104 *Id.* § II.C.5.

105 *See* Doner Testimony at 64 and 65.

106 *See* Complaint at 31 and 55.

107 As discussed further below, MISO responded to the NDPSC comments and made revisions to Tranche 2.1 based upon such comments.

108 *See* Doner Testimony at 64 and 65.

109 *See generally* Doner Testimony.

110 *Id*. at 14, 16, 37, and 44.

The Complaint suggests that MISO's application of three out of the nine metrics for Tranche 2.1 was improper or at least suspect,[111] but these allegations are without merit. As an initial matter, the Tariff grants flexibility to MISO to revise or adjust the metrics; there is no requirement that MISO had to follow the same metrics for Tranche 2.1 that it used for Tranche 1. In fact, it was reasonable and desirable to revise and update the metrics to reflect lessons learned and other changing circumstances.[112] Accordingly, MISO engaged stakeholders on the development of appropriate Tranche 2.1 benefit metrics, an intense process that lasted 18 months, and the metrics were finalized based on stakeholder input.

As illustrated by Mr. Doner, that process was extensive and thorough. MISO started the discussion with the Tranche 1 benefit metrics and proposed changes to certain metrics and identified for consideration new benefit metrics.[113] Stakeholders were provided numerous opportunities to provide input throughout the process. Ultimately adjustments were made to the methodologies to reflect the updated Futures, more rigorous calculation to ensure distinct benefits without overlap, and further development of metrics that had been deferred from the earlier Tranche 1 effort, including benefits associated with losses, transmission outages, and reliability.[114]

The specific changes made to the Tranche 1 metrics were as follows:

- Included benefit metric analysis using Future 1A to ensure robust, least-regrets transmission solution;

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111 *See* Complaint at 26. The three metrics the Complaint cites are Mitigation of Reliability Issues, Avoided Capacity Costs, and Decarbonization.

112 *See* Brattle Testimony at 18 ("The industry is still learning how to best quantify some of these transmission benefits. We would hope and expect that improvements to metrics and analytical tools are made and continue to be made over time. Transmission planners, like MISO, have improved their benefit metrics and analytical tools as a result of gaining experience with prior benefit metrics and quantification, learning from others in the industry, the availability of improved modeling tools, and recognizing that changing transmission needs will require adjustments to benefit metrics to capture the benefits associated with the changing needs. This is also reflected in the fact that the benefit metrics and analytical tools used in the planning of the 2011 MVPs differed from those used for the 2022 Tranche 1 projects, which again differed from those used in the 2024 Tranche 2.1 projects.")

113 *See* Doner Testimony at 36.

114 *Id*. at 36 and 37.

- Did not use resource adequacy metric to ensure no overlapping value with avoided resource cost benefit metrics;

- Focused congestion and fuel savings on transmission value by including a consistent resource set across reference and change cases;

- Enhanced reduced risks from extreme weather impacts to include a probabilistic approach versus deterministic for identifying weather events; and

- Incorporated additional benefit metrics to capture unaddressed types of transmission benefit in Tranche 1 – 1) energy and capacity savings from reduced losses, 2) transmission outage production costs, and 3) mitigation of reliability issues).[115]

All of these changes were made with stakeholder input and were thoroughly discussed in the process. There simply is no basis for the Complainants' speculation that MISO's adoption of the revised metrics was designed to validate some pre-ordained outcome[116] -- such speculation seems to illogically assume that MISO completed analysis on a portfolio that had not been defined, using models finalized with insufficient time to conduct analysis and then began a stakeholder process to revise metrics to ensure a certain result was obtained. This is not only false, but it is implausible.

The Tranche 2.1 benefit metrics were the product of reasoned deliberation, which was responsive to stakeholder feedback received in Tranche 1 and Tranche 2.1 stakeholder discussion, based on extensive technical analyses and stakeholder engagement. No Tariff rules or requirements were violated throughout the Tranche 2.1 development process, and the Commission should so conclude.

[115] *Id*. at 37.

[116] *See* Complaint at 26 and 47.

2. The Complainants Have Not Shown That the Metrics and Assumptions That Were Used for Tranche 2.1 Violate the Tariff.

The lynchpin of the Complaint is an attack on "MISO's assumptions and analysis to create Tranche 2.1."[117] In the Complainants' own words, "[i]t is MISO's creation and use of [the Tranche 2.1] benefit metrics and changes to existing metrics that this Complaint challenges; metrics that do not reflect actual benefits and, therefore, do not justify classifying the Tranche 2.1 projects as MVPs."[118] The Complainants specifically focus on three Tranche 2.1 metrics: (1) the Avoided Capacity Costs metric; (2) the Mitigation of Reliability Issues metric; and (3) the Decarbonization metric.

As discussed in the preceding section, the Tariff does not prescribe any particular modeling assumption and does not specify the content of any metric; in fact, the process MISO used for the development of the Tranche 2.1 metrics was consistent with Tariff requirements. Although the Complainants have not established any "Tariff violation," MISO nonetheless provides below a substantive, step-by-step rebuttal to the Complainants' claims regarding the Tranche 2.1 metrics. This rebuttal demonstrates that, contrary to the Complainants' allegations, the Tranche 2.1 assumptions and underlying analyses were sound and in accordance with the Tariff and Good Utility Practice.

a. The Avoided Capacity Cost Benefits for LRTP Tranche 2.1 Were Properly Calculated.

The Complainants first attack the Avoided Capacity Cost metric used for Tranche 2.1.[119] This metric is designed to capture savings in generation resource investment that result from the increased transfer capability to enable access to a more geographically diverse pool of resources.[120]

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[117] *Id*. at 22.

[118] *Id*. at 27.

[119] *Id.* at 33-35.

[120] *See* Doner Testimony at 46.

The Tranche 2.1 projects alleviate numerous transmission constraints that limit access to generation resources, avoiding the need for additional generation capacity above what is included in the Future 2A scenario. According to MISO's models, the Avoided Capacity Cost benefit of Tranche 2.1 is estimated to be $16.3 billion in long-term savings.[121]

MISO's analysis of the Avoided Capacity Cost benefits followed a long-standing industry practice that acknowledges the value of transmission to efficiently moving energy from where it generated to where it is needed, leveraging the system diversity and allowing for the collective region to invest in fewer resources to meet the energy needs of customers. The analysis method first identifies the additional reserve requirement by using a simplified transmission constraint model that represents a change in zonal transmission limits and applies probabilistic Loss of Load Expectation ("LOLE") analysis. This determines the additional reserves needed to achieve the same level of LOLE with and without LRTP using a 1-day-in-10-year criterion (0.1 d/y).[122]

This additional reserve value is then applied as an adjustment to the planning reserve margin ("PRM") requirement in an incremental EGEAS resource expansion analysis that determines the amount and types of resources that are built to meet the added requirements. For this additional expansion in EGEAS, model built and flex capacity from Future 2A is built into the base model as committed capacity. The PRM adjustment is phased in, starting with the assumed portfolio in-service year and increased to the full value in the 2042 study year. The EGEAS expansion for this metric is performed in combination with the Capacity Savings from Reduced Losses ("CSRL") metric to reflect the total impact of the LRTP Tranche 2.1 Portfolio. The Avoided Capacity Cost and CSRL components are split out after modeling completes, in

[121] *Id*. at 55.

[122] *Id*. at 46.

proportion to their contribution to the total reserve requirement adjustment in 2042.[123]

The Complainants assert that this methodology is based "on the faulty premise that, without Tranche 2.1, there will be increased congestion that will increase the [PRM] of MISO's system, mandating capacity investment in addition to the Future 2A resources to meet the PRM (*i.e.,* the Base Case Reliability Generation)."[124] The Complainants dispute that the cost of these additional resources properly reflects the Avoided Capacity Cost benefit of the Tranche 2.1 because, according to the Complainants, "it incorrectly assumes states and utilities will build the same Future 2A generation resources regardless of whether Tranche 2.1 is built."[125] The Complainants claim that "the cost of the Future 2A generation resources that would not be deliverable without Tranche 2.1 is not a sunk cost" and "[i]n the real-world, utilities and their state regulators would recognize that with the Base Case Reliability Generation sited close to load, much of the Future 2A generation would not be needed or built, thereby avoiding those costs."[126] Additionally, the Complainants contend that MISO's Flex Units were incorrectly excluded from the EGEAS model to create Future 2A.[127] After "correcting" for these alleged errors, the Complainants' witness Dr. Hogan concluded that "a proper analysis would value the Avoided Capacity Cost benefit of Tranche 2.1 at $0."[128]

The Complainants misunderstand the nature of the Avoided Capacity Cost benefit and rely on implausible assumptions about MISO's role as the transmission planner to support their "zero" benefit value argument. The essence of the Complainants' (and their witness, Dr. Hogan's)

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123 *Id*. at 47.

124 Complaint at 33.

125 *Id*.

126 *Id*. at 33-34.

127 *Id*. at 34.

128 *Id*.

critique of MISO's analyses relates to how MISO placed the new generation needed to serve load, claiming that the need for and benefits of the Tranche 2.1 transmission portfolio are driven primarily by the generation siting assumptions.[129] The Complainants suggest that the need for Tranche 2.1 projects is driven by MISO placing too much generation far from loads, implying that the Tranche 2.1 projects could be avoided simply by placing generation closer to load.[130] Contrary to these assumptions, the primary objective of the transmission identified through the LRTP initiative, including Tranche 2.1, is to reliably and efficiently enable the resource plans of MISO members by creating a "least-regrets" regional transmission backbone. As an RTO, MISO is not a resource planner and must respect the rights of MISO utilities and states as the resource planners for their respective areas. Consequently, MISO's role as the regional transmission planner is to plan the transmission given the resource fleet defined by MISO utilities and states. In light of this fundamental reality, the Complainants' and their witness' assumption that the Tranche 2.1 metrics should be constructed as if MISO were an integrated transmission *and* resource planner is contrary to the Tariff.

MISO reasonably developed the generation assumptions for Future 2A before starting the Tranche 2.1 transmission needs analysis.[131] These assumptions were developed by projecting the total resources that would be needed across the Midwest Subregion to cost effectively serve the projected load growth, maintain resource adequacy, and achieve state and utility clean-energy goals.[132] Approximately half of the total new generation resources that this analysis found to be required would be met by resources already planned by MISO members while the other half was

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[129] *See* Brattle Testimony at 20.

[130] *Id*.

[131] *Id.* at 20-21. *See also* Doner Testimony at 17-21.

[132] Brattle Testimony at 21.

modeled based on MISO's capacity expansion analysis.[133] Given the combination of significant load growth and clean-energy goals set by MISO states and utilities, MISO's analysis found that the least-cost generating resources to meet these requirements are a diverse set of wind, solar, battery storage, and natural gas resources.[134]

This type of a long-term outlook for generation is necessary as a starting point for determining long-term transmission needs, giving a balanced consideration to future load growth, as well as state and utility public policy goals.[135] It is consistent with Order No. 1920, which specifically requires that long-term regional planning consider such state and utility goals, develop reasonable estimates of the future resources needed to achieve those goals, and include those resources in evaluating long-term transmission needs.[136] In contrast, the Complainants' approach is unreasonable and would yield a long-term plan with avoidable generation investments and unnecessary transmission and would run against the FERC-mandated long-term modeling approach.[137]

While the Complainants assert that locating generation closer to load would eliminate the need for transmission, there is "no evidence to support that such a future build out of resources is even possible."[138] Moreover, siting this scale of resources and the necessary types of resources to meet state and utility policy goals closer to loads is likely neither possible nor desirable because it would be challenging and expensive due to permitting issues, local opposition, lack of access to fuel, lower quality resources, and other similar obstacles.[139] Notably, MISO members have

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133 *Id.*

134 *Id.*

135 *Id*

136 *Id.*

137 *Id.*

138 *Id.* at 21-22.

139 *Id.* at 22.

proposed no such generation buildouts.[140]

The Complainants' criticism of MISO's model-based generation assumptions is similarly unfounded. MISO's approach relies on data sources that implicitly consider the costs of both generation technologies and transmission necessary for interconnecting the resources.[141] Generation developers submit resources into the MISO generator interconnection queue seeking out the least-cost locations for building and interconnecting new resources, accounting for both the costs of the generation facilities and the costs of transmission upgrades.[142] It is reasonable to take this data into account and MISO also relied on recognized third-party studies and ensured that each of its zones had enough generation to meet its zonal resource adequacy requirements, placed generation preferentially at locations with sufficient grid capacity, and utilized available generator interconnection capacity at brownfield sites—all of which will tend to site new resources closer to load.[143] By providing stakeholders the opportunity to identify shifts in generation locations and then moving a number of resources to different locations based on that feedback, MISO further ensured the assumed locations for modeled generation additions are consistent with the needs of its members.[144] As a result, the model-built generation resources are reasonably distributed across the Midwest Subregion rather than being concentrated in distant locations to inefficiently increase the need for transmission.[145] In fact, MISO's methodology for developing and siting new generation resources for long-term transmission planning studies "is the most common approach

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140 *Id*.

141 *Id.* at 23

142 *Id*.

143 *Id.* at 23-24.

144 *Id.* at 24.

145 *Id.* at 27. Much of the additional model-built generation was "placed in locations similar to those of the existing and already-planned generation, ensuring that each MISO zone has sufficient generation to meet its zonal resources adequacy requirements, and creating a mix of local resources and more distant resources. *Id*. at 27-28.

to long-term regional transmission planning across the country" and aligns with similar regional transmission planning approaches completed by other RTOs and transmission planners.[146]

Perhaps the major flaw of the Complainants' approach regarding the quantification of benefits is their patently unreasonable suggestion that the avoided capacity benefit of Tranche 2.1 should be zero. The Complainants miss "the very nature of the cost savings MISO attempted to estimate in its avoided capacity cost metric: a more geographically integrated MISO transmission system provides load and resource diversity value that reduces the footprint's resource adequacy requirement and associated planning reserve margin."[147] Significantly, the avoided capacity costs are not driven by load growth or any assumptions about the location of resource additions, but by the differences in timing of high demand periods and generation output across the MISO market. Thus, even if load did not grow and no new generation had to be built, increasing the transfer capabilities between MISO zones with different patterns of reliability-driven needs will tend to reduce the total PRM requirement and reduce the costs of achieving resource adequacy.[148]

Various alternative approaches to estimating the avoided capital costs of Tranche 2.1 confirm that the improved resource adequacy would not be eliminated by placing generation closer to load.[149] Further, the ability of transmission upgrades to enable resource adequacy savings through geographic diversity broadly has been recognized in studies by NERC, the U.S. Department of Energy and other transmission planners.[150] For this reason, the Complainants'

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146 *Id.* at 29-30.

147 *Id.* at 34.

148 *Id.* at 34-35.

149 *Id.* at 40-41.

150 *Id.* at 41-44.

"correction" of the geographic diversity benefits offered by MISO's Tranche 2.1 projects is unreasonable and inconsistent with industry studies and practice.[151]

Finally, the Complainants' criticism of how Flex Units were considered in MISO's zonal LOLE simulations is based on a misunderstanding. Contrary to the Complainants' assumptions, the zonal LOLE simulations did in fact include the Flex Units in both the cases with and without Tranche 2.1 projects.[152] In any event, the inclusion or exclusion of Flex Units in MISO's LOLE simulations would not fundamentally change the estimated resource adequacy benefit and associated avoided capacity cost savings because adding Flex Units does not fundamentally change the nature and magnitude of load and resource diversity across the large MISO footprint.[153]

For the above reasons, the Commission should conclude that the Tranche 2.1 Avoided Capacity Cost Benefit metric was properly constructed and applied.

b. MISO Reasonably Assessed the Reliability Benefits of Tranche 2.1.

The Complainants next attack the Mitigation of Reliability Issues metric,[154] which is focused on capturing the monetary value the Tranche 2.1 Portfolio provides by pro-actively resolving thousands of reliability issues projected to occur over the long-run.[155] Under the metric, the benefits of remediating reliability issues are determined by quantifying the amount of last-resort load shedding, which is used as a measure of the reliability risk that would need to be

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151 *Id.* at 44.

152 *Id*. *See also* Doner Testimony at 48 ("Flex Units were included in all steps of the analysis, including the LOLE analysis and EGEAS modeling that identified the additional resources needed to meet the higher planning reserve margin.")

153 Brattle Testimony at 44-45.

154 *See* Complaint at 35-38.

155 *See* Doner Testimony at 49. Traditionally, the NERC TPL standards have been used to ensure the transmission system is planned to be reliable in the near-term, but the TPL standards do not explicitly require addressing reliability issues that are projected to occur 10 years and beyond which is the timeframe of focus for LRTP studies. *Id*.

addressed rather than an operating action that would occur to resolve issues, and monetizing the value.[156]

The benefits are analyzed through a two-step process which applies preventive generation re-dispatch in the first step to mitigate initial overloads followed by a corrective load re-dispatch process to calculate the minimum load shedding to address the contingency violations. Thermal overloads identified in each of the core (seasonal) study scenarios for the 2032 and 2042 study years that are relieved by the addition of the Tranche 2 portfolio, and their associated contingencies are compiled and monitored in the first past generation re-dispatch step. The unresolved overloads from the generation redispatch step are compiled and monitored in the second pass load redispatch step to calculate load shedding needed to mitigate the remaining thermal overloading. Benefits are accrued on a one-time basis for each of the study years; any reliability issues that are identified are assumed to be mitigated and pose no further risk in the later years to provide a more conservative estimate.[157]

The Complainants claim that MISO based the Mitigation of Reliability Issues metric "on the faulty premise that without the Tranche 2.1 benefit of addressing or mitigating local reliability issues, there is a risk of unserved load that exceeds planning requirements."[158] The Complainants argue that MISO's calculation of the Mitigation of Reliability Issues benefit is unreasonable for the following five reasons: (1) although MISO concluded in its Avoided Capacity Cost analysis that its system would need the Base Case Reliability Generation (22.8 GW) without Tranche 2.1, MISO did not include the Base Case Reliability Generation in its base case reliability analysis; (2) MISO accelerated the retirement timeline for gas-fired generation units in Future 2A, thereby

[156] *Id*.

[157] *Id*. at 50-51.

[158] Complaint at 35.

preventing existing gas-fired generation from meeting the reliability needs identified by MISO in Future 2A absent Tranche 2.1; (3) MISO "artificially" restricted Flex Unit dispatch in its modeling that could have resolved reliability issues by limiting the dispatch of Flex Units during reliability events to enforce the renewable energy production levels that are established to restrict their dispatch for environmental reasons; (4) MISO incorrectly assumed that absent building Tranche 2.1, MISO, utilities and state commissions would take no other actions over twenty years to prevent future load shed; and (5) MISO's calculation ignores the likelihood that federal rules may change the economics driving certain resource decisions (*e.g.,* the elimination of tax credits).[159] Based on these alleged flaws, the Complainants' witness Dr. Hogan concludes that Tranche 2.1 "would likely provide no reliability benefits if [the Mitigation of Reliability Issues] metric were properly quantified."[160]

The Complainants' criticism of MISO's Mitigation of Reliability Issues analysis is without merit, and the alleged "zero" reliability benefit of Tranche 2.1 transmission is plainly unreasonable. As an initial matter, the Complainants' apparent assumption that transmission reliability needs associated with the substantial MISO load growth could simply be resolved by siting generation differently is implausible. Even if all new generation was sited at or near customer locations, substantial local and regional reliability transmission investments would still be necessary to: (1) serve the growing load; (2) deliver the generation to nearby loads; and (3) deliver the generation to other loads whenever local load and generation output do not coincide.[161] In the absence of Tranche 2.1, such reliability-driven transmission upgrades would have to be planned on a shorter-term and more piecemeal basis through MISO's local and regional reliability

[159] *Id.* at 35-38.

[160] *Id.* at 38.

[161] *See* Brattle Testimony at 47.

planning processes, resulting in less-efficient, higher-cost solutions and delays in the interconnection of new loads and generation resources.[162]

Further, the Complainants' conclusion that "Tranche 2.1 would likely provide no reliability benefits" is based on Dr. Hogan's misunderstanding that MISO's benefit assessment was based on a "large amount of assumed load shedding."[163] In reality, MISO's transmission reliability metric is not based on the assumption that load would actually be shed in the future.[164] Rather, MISO first projected through detailed power flow analyses the reliability violations that would exist without Tranche 2.1 upgrades and then quantified how much load would need to be reduced to avoid these reliability violations.[165] The amount of load reduction was then valued at VOLL as a monetary measure of the reliability risks that MISO would face without the Tranche 2.1 upgrades.

The reliability risk metric allowed MISO to avoid the substantial effort of projecting all reliability-driven transmission upgrades that MISO would need to eventually make over the next 40 years in a hypothetical world without the Tranche 2.1 transmission portfolio, identifying near-term reliability upgrades piece-by-piece through annual future local and regional reliability planning effort.[166] Although the reliability risk metric is a novel approach, it is a reasonable proxy for the long-term, real-world transmission reliability benefits provided by MISO's Tranche 2.1 projects.[167]

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[162] *Id*.

[163] *See* Complaint at 38 and n.155.

[164] *See* Brattle Testimony at 47-48. *See also* Doner Testimony at 52 ("MISO is not assuming utilities would do nothing over the next 20 years to prevent load shedding. As explained earlier in my testimony the LRTP Tranche 2.1 Portfolio is resolving thousands of future reliability issues that put the system at risk of load shed and would need to be addressed in the future. The mitigation of reliability issues benefit metric monetizes the avoided risk as the value the LRTP Tranche 2.1 Portfolio provides by pro-actively resolving reliability issues.")

[165] Brattle Testimony at 48.

[166] *Id*.

[167] *Id*. In fact, "it is safe to assume that over the next 20 years a substantial amount of incremental transmission upgrades would need to be approved through MISO's local and regional reliability planning processes to address

The remaining criticisms of the reliability metric likewise are without merit. The retirement assumptions used in development of MISO Futures for LRTP Tranche 2.1 were based on member input and age-based retirements by resource type and all retirement assumptions, whether unit specific or resource-type based, were reviewed with stakeholders and modified as appropriate based on stakeholder feedback.[168] Also, MISO did not "artificially" restrict Flex Unit dispatch. Instead, dispatchable resources, including Flex Units, were allowed to adjust to maintain power balance and for the mitigation of constraints in single element contingency scenarios to avoid capturing overlapping benefits with the congestion and fuel savings benefit metric. For higher order contingency scenarios, dispatchable resources, including Flex Units, were only adjusted to maintain power balance.[169]

Finally, MISO's estimate of the reliability benefits of Tranche 2.1 was reasonable.[170] The Complainants' advocate a return to incremental reliability planning, but given MISO's projected 30 GW of peak load growth in MISO Midwest Subregion by 2042, the cumulative long-term costs of such incremental reliability-driven upgrades might exceed the costs of MISO's Tranche 2.1 projects.[171] The Commission, therefore, should conclude that MISO's Mitigation of Reliability Issues metric and calculations were reasonable.

c. MISO Reasonably Calculated the Decarbonization Benefits.

The Complainants do not challenge the methodologies underlying the Decarbonization metric (which was previously used in LRTP Tranche 1), but assert that MISO inflated the benefits

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the reliability issues created by the substantial projected load growth and the interconnection of generating resources, no matter where these loads and resources will be located in the MISO footprint." Id. at 49.

168 *See* Doner Testimony at 51.

169 *Id*. at 51 and 52.

170 Brattle Testimony at 49-50.

171 *Id.* at 50. This is supported by recent outcomes of the transmission planning processes in PJM and ERCOT, which identified significant reliability-driven transmission projects required to support large load increases. *Id.* at 50-51.

calculated under the metric.[172] The Decarbonization metric benefits are associated with avoided CO2 emissions that result from the more efficient dispatch of lower-cost resources.[173] The addition of LRTP transmission alleviates congestion, allowing dispatch of lower cost, and coincidently lower carbon, renewable energy that provides benefits through avoided carbon emissions.[174]

To analyze the decarbonization benefits, MISO used the emissions data from the Adjusted Production Cost ("APC") analysis used for the base Congestion and Fuel Savings benefit metric and compared the change in CO2 emissions between the reference case without LRTP and the change case with LRTP. The reductions in annual CO2 emissions were converted to metric tons and monetized by applying a range of carbon prices that reflect the value of decarbonization.[175]

The Complainants assert that in performing its analysis, MISO incorrectly used the $85 - $249 low-end to high-end cost of carbon value for Tranche 2.1 because the low end $85 value was derived from the federal 45Q tax credit for carbon sequestration while the high end $249 value was based on a 2023 EPA report on the Social Cost of Carbon ("SCC"), as codified by the Minnesota legislature.[176] The Complainants contrast these values with the carbon values used for Tranche 1 of $12.55 per metric ton on the low-end and $47.80 per metric ton on the high-end, and argue that MISO should have used: (1) the federal SCC value, which Dr. Hogan estimates to be approximately $50 per metric ton, as the low end estimate; and (2) the federal 45Q tax credit value of $85 per metric ton as the high-end estimate.[177]

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172 *See* Complaint at 35.

173 *See* Doner Testimony at 53.

174 *Id*. at 52.

175 *Id*. at 53.

176 *See* Complaint at 38-39.

177 *Id*.

While MISO acknowledges that there are varying opinions on how to value decarbonization, the Complainants are incorrect when they assert that the decarbonization benefits were inflated or otherwise unreasonably calculated for Tranche 2.1. MISO developed its methodology to value decarbonization in Tranche 1 and that same methodology was used for Tranche 2.1, as reviewed with stakeholders in LRTP workshops. Initial stakeholder feedback did not provide a consensus on the cost of carbon value, so MISO chose to retain a range of values consistent with the approach taken in Tranche 1.

Further, it is reasonable and appropriate to capture the value of decarbonization for the Midwest Subregion, even if some states or stakeholders may not recognize the benefit. To accommodate diverse viewpoints, MISO provided the decarbonization benefit as a separate benefit to clearly show the estimated monetary value attributed to this metric. This enables MISO stakeholders to understand the contribution to the Portfolio and the distribution of this benefit across the Midwest Subregion.[178]

Based on the above, the process MISO undertook to arrive at the range of Decarbonization metric benefits was reasonable and reflected available, documented values. However, even if a value of $50 per metric ton was used as a low end, as the Complainants suggest, the Tranche 2.1 Portfolio provides a greater than 1.0 B/C ratio under Futures 1A and Futures 2A.[179]

d. The Complainants' Disagreement With MISO's Use of Flex Units in The Modeling of Tranche 2.1 Does Not Demonstrate Any "Tariff Violation."

The Complainants claim that MISO "artificially inserted the siting of 29.8 GW of Flex Units" to be able to conclude that "the remote renewable resources would be reliably delivered to

[178] MTEP24 Substantive Comments Review at 10 (Nov. 19, 2024), https://cdn.misoenergy.org/20241119%20System%20Planning%20Committee%20of%20the%20BOD%20Item%2004%20MTEP24%20Substantive%20Comments%20Review660535.pdf.

[179] *See* Doner Testimony at 53.

load and resource adequacy would be achieved."[180] The Complainants state that the assumed Flex Units technology was described "as having the operational capabilities of efficient gas turbines but without carbon effluents" and further argue that the assumption is improper because such technology does not exist today.[181] In addition, the Complainants state that "even if the technology existed today, no utility or developer has obligated itself to build these Flex Units."[182] Lastly, the Complainants argue that "if the Flex Units had the capabilities that MISO describes, and if MISO was relying on them to be built, MISO should have reduced the future projected resource capacity."[183]

The Complainants' arguments misrepresent the purpose, role, and use of the Flex Units, as incorporated into the Tranche 2.1 modeling, and should be rejected. While developing the Futures from Tranche 2.1, MISO performed an energy validation of the resource expansion results. Generation shortfalls were identified for 3-4 hours per day during twilight hours (before sunrise or at sunset) up to 26 days of the modeled year for Future 2A, with a maximum shortfall of 29 GW in a single hour. Resources were added to the model to mitigate these shortfalls and ensure sufficient dispatchable capacity for those hours.[184]

e. The Major PJM Network Upgrades Associated With Tranche 2.1 Were Properly Included And Any Additional Upgrades Will Have No Material Impact On The Tranche 2.1 B/C Ratio.

Tranche 2.1 includes several transmission facilities that will be located in the PJM region and constructed by applicable PJM transmission owners.[185] As described in MTEP24, the Tranche

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[180] Complaint at 41.

[181] *Id*.

[182] *Id*.

[183] *Id*.

[184] *MISO Response to IMM Memo* at 9, https://cdn.misoenergy.org/MISO%20Response%20to%20IMM%20Memo646682.pdf (emphasis added).

[185] *See* Doner Testimony at 54 and 55.

2.1 facilities located in the PJM region are required to complete the interconnection of the Tranche 2.1 facilities and deliver the Tranche 2.1 value identified for MISO customers. Similar to all other Tranche 2.1 projects, these PJM facilities were included in Tranche 2.1's business case and their estimated costs were included in in the B/C ratio for Tranche 2.1.[186]

In addition to the MTEP-listed PJM facilities, PJM is in the process of studying what additional upgrades may be needed to the PJM transmission system to ensure that the MTEP-listed PJM facilities do not cause reliability harm to the PJM transmission system. The Complainants are incorrect when they assert that the need for such "do no harm" upgrades was for the first time revealed in June 2025.[187] MISO first shared with stakeholders at the March 15, 2024 LRTP workshop that the proposed Tranche 2.1 Portfolio could include transmission facilities interconnecting with the PJM system, and therefore require PJM Transmission Owners to own and operate facilities required as part of the Tranche 2.1 Portfolio.[188] Further, these "do no harm" upgrades are expected to be a relatively small share of the overall costs of the PJM facilities and as such will not materially affect the B/C ratio for Tranche 2.1.[189]

MISO's treatment of the PJM "do no harm" upgrades is consistent with the Tariff[190] and the Commission's guidance in Order No. 1000 that the transmission planning process in a planning region "must identify consequences for other transmission planning regions, such as upgrades that may be required in another region and, if the original region agrees to bear costs associated with

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186 *Id*.

187 *See* Complaint at 42.

188 *See* Doner Testimony at 54.

189 *Id*. at 55.

190 *See* Tariff, Attachment FF § II.E ("As part of the evaluation of any proposed [MVP], [MISO] will determine whether the proposed [MVP] causes any violations of NERC reliability standards on the transmission system(s) of the adjacent neighboring transmission planning region(s). If [MISO's] evaluation identifies any such violations of NERC reliability standards, [MISO] will contact and coordinate with the other potentially affected adjacent neighboring transmission planning region(s) on any further evaluation.").

such upgrades, then the original region's cost allocation method or methods must include provisions for allocating the costs of the upgrades among the beneficiaries in the original region."[191] In its Order No. 1000 compliance filings, MISO explained that "to the extent that MISO has an agreement with another transmission planning region regarding funding of upgrades required in one planning region necessitated by projects approved in the other planning region, MISO will follow such agreements, which may in some instances require payment for upgrades in neighboring planning regions."[192]

3. The Tranche 2.1 B/C Ratio Was Properly Calculated.

The Complainants assert that MISO "misclassified" Tranche 2.1 as MVPs because it did not achieve the required 1.0 or higher B/C ratio.[193] The claim, however, is based entirely on the Complainants' erroneous criticism of MISO's modeling assumptions, as discussed above. Although the Tariff does not require MISO to follow any specific modeling assumptions, the Complainants attempt to substitute their own preferred approach for the methodologies adopted by the stakeholders. There is no Tariff basis for this substitution and, hence, there is no "Tariff violation."

As discussed above, one of the major flaws of the Complainants' approach is the implausible claim that the Avoided Capacity Costs and the Mitigation of Reliability Issues benefit metrics, which account for the bulk of the Tranche 2.1 benefits, should both be set to zero. As MISO's witnesses explain, "even if one disagrees with the specifics of MISO's stakeholder-vetted

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191 Order No. 1000-A at P 696.

192 *See Midwest Independent System Operator, Inc*., transmittal letter, Docket No. ER13-187-003 at 29 (July 22, 2013). The Commission accepted this commitment in *Midwest Independent System Operator, Inc*., 147 FERC ¶61,127, P 404 (2014). Any such agreements with applicable PJM transmission owners will be filed with the Commission.

193 *See* Complaint at 42-43.

approach to the benefit calculations, it is unreasonable to simply zero out these benefits."[194] The Complainants ignore the fundamental underlying value that regional transmission creates by increasing transfer capability between areas to materially reduce the amount of resource capacity needed to reliably serve load, by offering an "avoided capacity cost" benefit that cannot be "zero".[195] Similarly, it is unreasonable to set the reliability benefits created by Tranche 2.1 to zero. The multi-value nature of Tranche 2.1 projects offers reliability benefits by addressing MISO's future reliability needs that cannot be met efficiently through incremental "reliability-only" projects and the Tranche 2.1 backbone high-voltage transmission network resolves documented reliability issues and will provide numerous benefits to the Midwest Subregion.[196] As MISO's witnesses attest, the "magnitude of savings from MISO having to mitigate future reliability issues is reasonable."[197]

Once the Complainants' erroneous "set to zero" assumptions are corrected, it is clear that MISO's benefit calculations are reasonable and comfortably exceed the required B/C ratio. In fact, far from being "inflated," MISO's Tranche 2.1 analyses and assumptions were conservative. Specifically, MISO's witnesses estimate several of the quantified Tranche 2.1 benefit metrics, the fuel and congestion cost savings, extreme weather benefits, and transmission outage cost savings, significantly *understate* the actual benefits.[198] Moreover, even if alternative approaches for calculating the two core benefits are used, they still yield large non-zero values, resulting in the overall Tranche 2.1 benefits exceeding project costs.[199]

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194 Brattle Testimony at 4.

195 *Id.* at 5.

196 *Id.* at 5-6.

197 *Id.* at 6.

198 *Id.* at 6-7 and 51-57.

199 *Id.* at 4-5.

The simple truth is that there is no Tariff basis for the "corrections" advocated for in the Complaint and the B/C ratio for Tranche 2.1 was properly calculated, in accordance with the methodologies adopted by the stakeholders in the lengthy and detailed LRTP process. Moreover, the B/C ratio is conservative, based upon changes in circumstances since Tranche 2.1 was approved.[200] In fact, MISO's assessment of need for Tranche 2.1 is consistent with other national planning scenarios and studies.[201] The Complainants failed their *prima facie* case to establish a Tariff violation by MISO and the Commission should deny their Complaint on the pleadings and evidence submitted.

C. The Filed Rate Doctrine and the Rule Against Retroactive Ratemaking Prohibit The Cancellation of Tranche 2.1 Sought By the Complainants.

Because the Complainants did not establish a Tariff violation, the filed rate doctrine, and its concomitant rule against retroactive ratemaking, bar the retroactive relief sought in the Complaint, *i.e.*, the cancellation of Tranche 2.1. The MISO Board properly approved Tranche 2.1 pursuant to the rules and requirements set in the Tariff, the Competitive Developer Selection Process with respect to Tranche 2.1 has commenced, the Tariff-created obligations to construct have attached, and the filed rate doctrine prohibits any reversals based on the Complainants' favored methodologies and approaches.

Under the FPA, the rates a utility charges must first be filed with FERC and be made publicly available.[202] Once filed, "no change shall be made . . . in any such rate, charge, classification, or service, or in any rule, regulation, or contract relating thereto, except after sixty days' notice to the Commission and to the public" through another filing with the Commission.[203]

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200 *See* Doner Testimony at 57.

201 *See* Brattle Testimony at 58-63.

202 16 U.S.C. § 824d(c).

203 Id. § 824d(d).

Alternatively, the filed rate can be changed through a complaint under FPA section 206, but solely on a prospective basis.[204] These statutory provisions "mandating the open and transparent filing of rates and broadly proscribing their retroactive adjustment are known collectively as the 'filed rate doctrine.'"[205]

The Supreme Court has required "strict adherence to the filed rate . . . despite its harsh consequences . . . ."[206] The recent FERC and judicial precedent likewise emphasizes the importance and strictness of the filed rate doctrine for the orderly federal regulation of the electric utility industry. Under this recent precedent, the Commission, "has 'no discretion to waive the operation of a filed rate or to retroactively change or adjust a rate for good cause or for any other equitable considerations.'"[207] The filed rate doctrine is "a nearly impenetrable shield' and does not yield, 'no matter how compelling the equities.'"[208] The courts have explained that "[o]nce a tariff is filed, the Commission has no statutory authority to provide equitable exceptions or retroactive modifications to the tariff."[209] It does not matter whether the proposed change is to a rate or non-rate term; the FPA "prohibits changes, not just to a rate, but also to 'any such rate, charge, classification, or service, or in any rule, regulation, or contract relating thereto.'"[210] Thus, just like rates, "[n]onrate terms within the tariff may not be changed retroactively."[211]

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204 16 U.S.C. § 824e(b).

205 *Old Dominion Elec. Coop. v. FERC*, 892 F.3d 1223, 1226-27 (D.C. Cir. 2018) ("*Old Dominion"*). *See also Ark. La. Gas Co. v. Hall*, 453 U.S. 571, 577 (1981) (The filed rate doctrine "forbids a regulated entity to charge rates for its services other than those properly filed with the appropriate federal regulatory authority.")

206 *Maislin Indus., U.S., Inc. v. Primary Steel, Inc*., 497 U.S. 116, 132 (1990); *accord Am. Tel. & Tel. Co. v. Cent. Off. Tel., Inc*., 524 U.S. 214, 223 (1998) (explaining the applicability of the filed rate doctrine). These cases involved application of the filed rate doctrine to an industry outside of the Commission's jurisdiction, but the requirement of strict adherence to the doctrine applies equally to this proceeding.

207 *Okla. Gas & Elec. Co. v. FERC*, 11 F.4th 821, 826 (D.C. Cir. 2021) ("*Oklahoma Gas*") (citing *Old Dominion*, 892 F.3d at 1230; *see also Columbia Gas Transmission Corp. v. FERC*, 895 F.2d 791, 794-97 (D.C. Cir. 1990).

208 *Oklahoma Gas*, 11 F.4th at 829-30 (citing *Old Dominion*, 892 F.3d at 1230).

209 *Id.* at 824-25.

210 *Id.* at 830 (citing 16 U.S.C. § 824d(d)).

211 *Id*.

As relevant here, the U.S. Court of Appeals for the Third Circuit ("Third Circuit") recently considered the application of the filed rate doctrine in a context that is similar to this case.[212] In *PJM Providers*, "the filed rate" was the PJM Open Access Transmission Tariff ("PJM Tariff"), which sets forth the procedures governing PJM's capacity auctions. Under those procedures, PJM ran its annual 2024-25 capacity auction ("Auction"), but subsequently identified an "anomaly" in a small area within the PJM region, which it tried to cure with two subsequent tariff amendment filings under FPA sections 205 and 206. The amendments sought to decrease a specific parameter used in the Auction, known as the Locational Deliverability Area ("LDA") Reliability Requirement, as applied to the affected area.[213] The Commission accepted the proposed revisions, concluding that they were "not retroactive because the Auction had not yet obligated any suppliers to provide capacity or determined clearing prices" and PJM then determined the Auction results using the adjusted parameter.[214]

The Third Circuit, however, reversed the Commission's orders, concluding that accepting PJM's tariff revisions had violated the filed rate doctrine. In reaching that decision, the Court held that retroactivity exists where "the new provision attaches new legal consequences to events completed before its enactment," such as "impair[ing] rights a party possessed when he acted, increas[ing] a party's liability for past conduct, or impos[ing] new duties with respect to transactions already completed."[215] The Court concluded that the filed rate doctrine was triggered because the PJM Tariff revisions accepted by the Commission "permitted PJM to use a different LDA Reliability Requirement to reflect certain resources' lack of participation," thereby "alter[ing] the legal consequence attached to PJM's calculation and posting of the LDA Reliability

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212 *See PJM Providers Group v. FERC,* 96 F.4th 390 (3rd Cir. 2024) ("*PJM Providers*").

213 *Id*. at 395.

214 *Id*. at 396.

215 *Id*. at 398.

Requirement."[216] The Court rejected the Commission's arguments that "PJM's compliance with "one stage of the auction process" did not preclude it from "updating the manner in which that LDA Reliability Requirement is incorporated into a later phase of the auction process," holding that the relevant inquiry is whether the revisions "alter[ed] the legal consequences attached to past actions."[217]

The Court also emphasized the importance of predictability as the underlying rationale for the filed rate doctrine "because electricity markets depend on it," [218] explaining as follows:

> Stable markets depend on stable rules. FERC's position makes auction rules inherently unstable because, in its view, it can change auction rules any time before clearing prices are final and capacity commitments are awarded without running afoul of the filed rate doctrine. FERC's disregard of the filed rate doctrine as a limiting principle creates unpredictability in the markets. Under FERC's interpretation of the filed rate doctrine, suppliers must submit binding offers "with no assurance about what rules may eventually be applied." Auction rules would become, at best, a "moving target." By eroding confidence in the markets, FERC may ultimately harm consumers who buy electricity in those markets.[219]

These important legal principles figure prominently in the instant proceeding. MTEP24, including Tranche 2.1, was approved on December 12, 2024—nearly eight months before the Complaint was filed, creating various binding legal obligations for MISO, MISO Transmission Owners and various other parties. In particular, following the MISO Board's approval of MTEP24, MISO was required by the Tariff and the TOA to designate ownership and construction responsibilities for the Tranche 2.1 projects.[220] Consistent with the Tariff, MISO completed these designations on March 6, 2025.

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216 *Id*. at 400.

217 *Id*.

218 *Id*.

219 *Id*.

220 *See* Tariff, Attachment FF § V and VIII.G; TOA Appendix B § VI.

Once the designation of ownership and construction responsibility was determined, the entity with the designated responsibility has an obligation to construct the planned project.[221] MISO also commenced the Competitive Developer Selection Process for Tranche 2.1, which is subject to specific Tariff-established timeframes and requirements. As of the date of the Complaint, MISO has already issued multiple Requests for Proposals for Competitive Transmission Projects included in Tranche 2.1 and has chosen a Selected Developer for one of the Tranche 2.1 competitive transmission projects.[222] MISO also assigned multiple Tranche 2.1 facilities to applicable Transmission Owners under the Tariff's right-of-first-refusal and/or upgrades provisions.[223] The applicable competitive developers and Transmission Owners have incurred various obligations and costs with respect to these requirements. For this reason, cancelling the Tranche 2.1 would "alter the legal consequences" attached to these past Tariff-mandated actions and is prohibited by the filed rate doctrine.

D. The Cancellation of Tranche 2.1 Is Contrary to the Public Interest and Should Not Be Allowed Under Any Circumstances.

The preceding sections demonstrate that the Complaint failed to establish any Tariff violation by MISO. Nonetheless, even if the Commission concludes that any assumption or methodology used by MISO to approve Tranche 2.1 was inconsistent with the Tariff, the harmful retroactive relief proposed in the Complaint still should be rejected. The Complainants briefly reference section 309 of the FPA[224] as the basis for their proposed cancellation of Tranche

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221 *Id.*

222 https://www.misoenergy.org/link/10fe7c4040e74f6182b0667de4c41fe9.aspx

223 *Id.* § VIII.A (describing exceptions to the Competitive Developer Selection Process).

224 16 U.S.C. § 825h ("The Commission shall have power to perform any and all acts, and to prescribe, issue, make, amend, and rescind such orders, rules, and regulations as it may find necessary or appropriate to carry out the provisions of this chapter.").

2.1,[225] but the Commission is not required to provide any remedies under FPA section 309, let alone retroactive ones. In fact, the courts have held that the Commission has remedial discretion "even in the face of an undoubted statutory violation unless the statute itself mandates a particular remedy."[226] Here, of course, the Complainants have not established any "undoubted statutory violation" and weighty reasons exist for avoiding any retroactive relief under the circumstances.

The harm that will result from the proposed retroactive cancellation of Tranche 2.1 will be vast and substantial. The cancellation will not only eliminate the significant reliability and economic benefits that result from Tranche 2.1, but it will also upend MISO's existing modeling across the board, including studies required for NERC compliance, create risks related to the transmission requirements for recently studied large load additions, delay MISO's generator interconnection studies, and upset the settled expectations of many market participants, developers and Transmission Owners in the MISO footprint. At the same time, the Complaint fails to substantiate any harmful effects on the "concerned commissions" and their respective states. As discussed above, three of the Complainants, MSPSC, APSC, and LPSC, are protected from *any* financial impacts of the alleged Tariff violation because the costs of Tranche 2.1 is borne entirely by the Midwest Subregion. The other two Complainants, NDPSC and MTPSC, represent load that bear approximately 2 percent of the costs while benefiting significantly from the Tranche 2.1 Portfolio.

In choosing a remedy under FPA section 309, the Commission must balance the equities. The Commission has recognized the need for regulatory certainty in choosing appropriate

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225 *See* Complaint at 1.

226 *Consolidated Edison Co. v. FERC*, 510 F.3d 333, 339 (D.C. Cir. 2007) (quoting from *Conn. Valley Elec. Co., Inc. v. FERC*, 208 F.3d 1087, 1044 (D.C. Cir. 2000)); *see also Towns of Concord v. FERC*, 955 F.2d 67, 72-73 (D.C. Cir. 1992) (affirming FERC's remedial discretion to deny refunds on remand even when the utility has extracted charges in excess of the filed rate).

remedies[227] and the courts held that the Commission must consider whether its decisions would "pull the economic rug out from under" MISO members that "made operational decisions in reliance" on the MISO Tariff and "would be unable to 'undo' those transactions retroactively in light of the new, corrected rates."[228] Here, the minimal effects on the Complainants and their states are greatly outweighed by the significant and real adverse consequences for the entire MISO footprint that will result from the cancellation of Tranche 2.1, particularly given the Complainants' prejudicial delay in filing their Complaint.[229] For this reason, cancelling Tranche 2.1, as requested by the Complainants, would be contrary to the public interest.

1. Cancellation of Tranche 2.1 Will Have Significant Negative Effects.

As noted earlier in this Answer, Tranche 2.1 was approved by the MISO Board on December 12, 2024. Since the approval, the Tranche 2.1 Portfolio has been included, or is planned to be included, in base cases for pending and future interconnection studies; the Portfolio is included in the base case for the ERAS process; the annual MTEP transmission planning process, including assessment of large load additions and NERC compliance work; and entities that were given notices to construct have undertaken significant work towards receiving states' approval for siting and construction. Cancelling Tranche 2.1 will upend these ongoing activities, resulting in significant harm across the board.

a. Delays to Interconnection Studies resulting from the elimination of Tranche 2.1.

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[227] *See, e.g., Midcontinent Indep. Sys. Operator, Inc.,* 169 FERC ¶ 61,233 P 136 (2019) (recognizing "the need for regulatory certainty and ease of administration" as a consideration for balancing equities).

[228] *La. Pub. Serv. Comm'n v. FERC*, 883 F.3d 929, 933 (D.C. Cir. 2018); *see also Black Oak Energy, LLC*, 167 FERC ¶ 61,250 at P 30 (applying the same standard).

[229] *See PJM Interconnection, L.L.C.,* 178 FERC ¶ 61,079, at P 61 (2022), *aff'd in relevant part*, *XO Energy MA, LP v. FERC*, 77 F.4th 710 (D.C. Cir. 2023) (denying a retroactive remedy because it would "permit the complainants to profit from their unreasonable, prejudicial delay in raising the issue to the detriment of other PJM customers.") *See also W. Bend Mut. Ins. Co. v. Procaccio Painting & Drywall Co.*, 794 F.3d 666, 678 (7th Cir. 2015) ("equity aids the vigilant, not those who sleep on their rights") (quoting *Ikelionwu v. United States*, 150 F.3d 233, 237 (2d Cir.1998)).

MISO recently finished the interconnection studies for Definitive Planning Phase ("DPP") 2022 Phase 1, relying heavily on Tranche 2.1 as mitigation for that cycle, which includes a total of 49.8 GW in the Midwest Subregion.[230] Additionally, MISO is about to use Tranche 2.1 in the base case for DPP 2023 that will kick off soon, and includes an additional 67.7 GW in the Midwest Subregion. MISO also plans to use Tranche 2.1 in the base case of DPP 2025 that closes in October 2025 and will kick off in January of 2026.[231] Consequently, there would be a tremendous upheaval to the DPP queue cycles if Tranche 2.1 is cancelled, as many pending interconnection requests would drop out of the queue and MISO would have to restudy several cycles that would create queue delays.[232]

b. Delays to ERAS

The ERAS process was accepted by the Commission on July 22, 2025, to speed up the approval of new generation resources needed to address reliability and resource adequacy needs caused by rising demand. This temporary, targeted process allows certain generation projects to utilize ERAS instead of the standard, often backlogged, DPP interconnection queue to obtain a Generator Interconnection Agreement ("GIA") faster and connect to the grid in significantly less time. The ERAS program is a short-term solution designed to meet urgent needs and will sunset by August 31, 2027, or after 68 projects have been studied. On August 26, 2025, MISO published that it had already received 47 ERAS applications across 12 states for more than 26,500 MW of

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230 Section 6.1.1.1 "Thermal analysis" of MISO's BPM-015 authorizes LRTP and MTEP projects to take the place of network upgrades identified for Interconnection Requests, provided that certain requirements are met. Section 6.1.1.1 states, "To mitigate a constraint, MISO will check the MTEP appendices and discuss with the impacted TO(s) to determine if there already exists a planned project which will alleviate the constraint. A Long Range Transmission Planning (LRTP) project included in an approved Multi-Value Project (MVP) Portfolio can only replace a previously identified Network Upgrade as constraint mitigation if that LRTP project is the same facility as the identified upgrade (i.e., same connecting substations at identical voltage); this is to avoid a full model build and restudy that would be required by including the MVP Portfolio."

231 *See* Doner Testimony at 67.

232 *Id*.

proposed new generation capacity.[233] Significant economic development efforts depend on ERAS, which is intended to provide a GIA within three months. LRTP Tranche 2.1 will be in the base case model for any ERAS study.

Therefore, the elimination of Tranche 2.1 would require MISO to evaluate the impacts of the changes in the base cases – introducing a delay in the ERAS process. All ERAS applications which were determined to be impacted in that evaluation would then require restudy, introducing additional delays for those study completions.[234] This is an outcome that cuts against the public policy supporting ERAS and the Commission's order accepting it.

c. Elimination of LRTP Tranche 2.1 will disrupt the annual MTEP Process

Similar to the DPP and ERAS, the LRTP Tranche 2.1 Portfolio is a part of the base case for the MTEP 25 analysis.[235] This could result in restudies for some of the 434 projects recommended for MTEP25 approval in December, including those which support 11.6 GWs of large load additions.[236] These projects include those completed through the Tariff defined expedited review of certain projects, or Expedited Project Review ("EPR"). This process has been increasingly utilized by Transmission Owners that desire to serve large load additions on a more expedited basis, and who must start construction on the transmission to support those projects more quickly than would be enabled under normal MTEP timelines. To the extent any EPRs rely on Tranche 2.1, those studies may need to be revisited, which will delay service to new loads.[237]

d. Elimination of LRTP Tranche 2.1 will nullify the time, resources, work, and expenditures undertaken by MISO members to pursue the portfolio of projects.

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[233] *See* Doner Testimony at 68; *see also* https://www.misoenergy.org/meet-miso/media-center/2025---news-releases/miso-announces-first-10-eras-project/

[234] *Id*.

[235] *Id*.

[236] *Id*.

[237] *Id*.

Although to MISO's knowledge no state certificate of need filings have yet been made with respect to the transmission facilities included in Tranche 2.1, MISO is aware that its members are actively taking steps to prepare such filings and otherwise pursue certification, routing, and construction of such projects. MISO routinely participates in the states' certification proceedings and is aware that the development of such petitions by MISO members includes, among other work: (a) detailed project description; (b) proposed routes; (c) cost and benefit analyses; (d) environmental and socioeconomic impact studies; (e) alternatives analyses, and (f) plans for impact mitigation. MISO's understanding is that such work takes months to undertake, as well as significant work and cost expenditures. Given that MISO followed its Tariff-approved process for developing and finalizing Tranche 2.1, as well as the nearly eight months before the Complaint was filed, MISO members had a good faith reliance and expectation that Tranche 2.1 was moving forward. Cancelling Tranche 2.1 will nullify the time, resources, work, and expenditures undertaken by MISO members, which is not in the public interest. Moreover, such a result will understandably make MISO members hesitant to pursue development efforts in the future if prospective LRTP tranches are approved by the MISO Board for implementation.

e. Elimination of LRTP Tranche 2.1 will eliminate benefits that North Dakota is expected to receive.

The Complaint asserts that the NDPSC's comments fell on deaf ears, but in reality MISO incorporated numerous requests from the NDPSC into Tranche 2.1, including siting significant additional wind resources into North Dakota, based on the NDPSC's requests and including additional transmission projects identified by local Transmission Owners.[238] Of particular note, on May 28, 2024, the then Governor of North Dakota, Doug Burgum, sent a letter to MISO CEO John Bear, highlighting North Dakota as a high exporter of wind generation to other MISO

[238] *Id*. at 59-62.

states.[239] The governor asked that the tranche be revisited to include critical transmission infrastructure to bridge North Dakota to the market.[240] Mr. Bear provided a letter in response on May 31, 2024, which stated that MISO would be adding additional transmission projects in western MISO that will benefit North Dakota and the MISO region.[241] Mr. Bear noted that the added projects would enable 7,500 MW (energy to power 6 million homes) of congestion relief for the Dakotas and Minnesota.[242]

Accordingly, Tranche 2.1, in addition to multiple local economic and reliability benefits, will provide North Dakota an opportunity to further increase its role as an energy exporter.[243] In contrast, if Tranche 2.1 is cancelled, North Dakota will lose the benefits that it sought to sustain through its comments to MISO.

f. The claim that LRTP 2.1 projects can be easily re-classified/re-designated is unsupported.

Perhaps being aware of the unreasonableness of their proposed retroactive relief, the Complainants suggest that Tranche 2.1 projects could be redesignated under other Tariff categories, preferably those that do not trigger any regional cost allocation.[244] This claim is baseless and betrays a misunderstanding of the MVP category and its role under the Tariff. MVPs are the only project type that assesses broad reliability, economic and public policy benefits on a portfolio basis. Under the Tariff, the MVP category is designed to displace the other, more incremental project types, such as Baseline Reliability Projects, not the other way around. MISO

239 *Id*. at 61 and 62.

240 *Id*.

241 *Id*. at 63.

242 *Id*. Indeed, the final Tranche 2.1 included an additional major transmission line connecting Maple River, North Dakota to Cuyana, Minnesota.

243 *Id*.

244 *See* Complaint at 2.

pioneered the MVP approach 15 years ago and this approach has been cited by the Commission on many occasions as the gold standard for transmission planning, particularly with respect to long-range transmission planning.[245] In contrast, the other project categories rely on narrow technical or economic criteria and represent the localized, incremental planning approach that the Commission and other RTOs have been moving away from. Going back to that approach is no solution at all and is contrary to the portfolio-based approach for long-range transmission planning that has been upheld in MISO and endorsed by the Commission, as well as the Organization of MISO States' cost allocation principles, which state that cost allocation methodology for a project should be fixed at the time of project approval. [246]

2. The Complainants and Their States Will Not Bear Any Unreasonable Costs Associated With Tranche 2.1.

As previously discussed, the subregional MVP cost allocation option applicable to Tranche 2.1 prevents any allocation to loads located in Mississippi, Louisiana, and Arkansas. Accordingly, the MSPSC, the LPSC, and the APSC, and their respective states, will not be harmed by any

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[245] For example, Commission stated in Order No. 1920, "[A]s the Commission observed in the NOPR, MISO's [MVP] transmission planning process proactively planned over a 20-year period for two key drivers of transmission needs: the impacts of changing state laws on the resource mix, and a large increase in the number of generator interconnection requests. To mitigate the uncertainties associated with such long-term projections of transmission needs, MISO relied on scenarios to consider a range of potential future conditions and disclosed the assumptions and inputs underlying each scenario. The MVP process then identified a portfolio of transmission projects that were projected to provide multiple kinds of reliability and economic benefits under all the alternate future scenarios studied. This process resulted in MISO identifying, evaluating, and selecting transmission facilities that are estimated to generate $2.20 to $3.40 of benefit per dollar invested." Order No. 1920 at P 102. The Commission further stated in Order No. 1920-A: "For instance, the Commission was persuaded by empirical evidence demonstrating the success of MISO's Long-Range Transmission Plan in delivering more efficient or cost-effective transmission solutions. By addressing public policy, economic, and reliability transmission planning needs simultaneously through its MVP category, MISO eliminated the need for $300 million in future baseline reliability upgrades and provided production cost savings that exceeded the entire cost of the portfolio by $10 billion. The Commission noted that the cost savings that MISO experienced were the direct product of more comprehensive, longer-term regional transmission planning." Order No. 1920-A at P 111.

[246] *See,* e.g., https://www.misostates.org/images/stories/meetings/Cost_Allocation_Principles_Committee/2022/Presentations_Combined.pdf -- Cost Allocation for Long Range Transmission Planning Projects, Cost Allocation Principle number 6.

allegedly incorrect Tranche 2.1 metrics or planning assumptions. With respect to Montana and North Dakota, MISO's studies indicate that the costs and benefits associated with Tranche 2.1 are roughly commensurate with each other, which is supported by the benefit-cost ratios calculated at the Cost Allocation Zone-level that show a B/C ratio for CAZ 1 under Futures 2A ranging from 2.2 to 4.9 and Futures 1A from 1.5 to 2.9.[247]

It would be highly problematic from a regulatory policy perspective to allow two states allocated just two percent of Tranche 2.1 costs and three states that are not even allocated any costs for the Tranche 2.1 projects to cancel or delay the development of grid investments needed to address surging new load growth and to more quickly interconnect the necessary generating resources.[248] The need for the Tranche 2.1 is clearly established and cancelling Tranche 2.1 over alleged planning assumptions and metrics imperfections "would imprudently delay urgently needed transmission infrastructure investments by several years, impede economic growth in MISO's Midwestern subregion, and require many more incremental reliability upgrades, planned in a more piecemeal fashion, that would likely lead to higher costs in the long term and delays for serving load growth across MISO."[249] The balance of equities, as well as weighty policy considerations, point towards denying this Complaint.

E. The Complainants Have Not Established Any Basis For Prospective Relief.

The preceding sections explained that the Complainants failed to demonstrate any Tariff violation by MISO and focused on the impermissibility of the proposed retroactive relief. In the event the Commission decides to consider any prospective relief, MISO submits that the Complainants have not met their burden of proof under FPA section 206 for the same reasons they

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[247] https://cdn.misoenergy.org/MTEP24%20Full%20Report658025.pdf at pp. 146 and 147.

[248] *See* Brattle Testimony at 63.

[249] *Id.* at 65.

failed to establish a Tariff violation case against MISO. Section 206 requires the Complainants to demonstrate that the existing Tariff provisions are unjust, unreasonable or unduly discriminatory.[250] Any proposed remedy that the Commission may adopt must be shown to be just and reasonable.[251] As discussed at length, MISO's current process and Tariff requirements continue to be just and reasonable while the alternative approach proposed by the Complaints is inconsistent with MISO's role as an RTO and is contrary to FERC policy. MISO will not restate these points again and incorporates them by reference here.

For current purposes, MISO will focus on the following two outstanding claims by the Complainants that: (1) the MTEP process inappropriately favors renewable generation goals of some MISO states, resulting in undue discrimination; and (2) more regulatory oversight is required, including the filing of MISO's business case. Both of these claims lack merit and do not demonstrate that MISO's procedures or requirements are unduly discriminatory or otherwise unjust and unreasonable.

1. The Complainants' Cost Causation and Undue Discrimination Arguments Are Baseless and Are A Collateral Attack On The MVP Cost Allocation Methodology.

The Complainants claim that in approving Tranche 2.1 MISO inappropriately relied on the renewable energy goals of some states in its footprint to the detriment of certain other states that do not have such goals.[252] The Complainants state that this allegedly policy-induced demand for remote renewable generation "creates an artificial need for enormous transmission investment."[253] The Complainants contend that that, "absent Tranche 2.1, these utilities/states would meet their

[250] 16 U.S.C. § 824e(b).

[251] *Id*.

[252] *See* Complaint at 43-47.

[253] *Id.* at 44.

goals by developing resources closer to load."[254] The Complainants then claim that designating Tranche 2.1 as MVPs violates the Commission's cost causation and undue discrimination requirements because "MISO is able to direct construction of transmission projects designed to enable some states and utilities to meet their clean energy and decarbonization goals while (i) reducing the network upgrade costs these states would pay (through power purchase agreements with new generation siting remotely), (ii) avoiding the capital cost of constructing local renewable generation to serve their load, and (iii) inappropriately shifting the cost to build Tranche 2.1 to others."[255] These arguments fail for several reasons.

First, Tranche 2.1 was *not* "designed to effectuate the renewable energy goals of certain states and utilities at the expenses of others" through "results-oriented planning." Contrary to the Complainants' assertions, the purpose of Tranche 2.1 is not to construct transmission to deliver geographically remote generators to load centers but to create a regional high-voltage transmission backbone that will strengthen the interconnection between states in the Midwest Subregion through increased transfer capability, resolving scores of reliability issues, and will provide substantial additional economic benefits through the Midwest Subregion for decades into the future. As detailed in the Background section and Mr. Doner's testimony, the reliability benefits of Tranche 2.1 include enhancing the overall stability of the transmission system and providing enhanced voltage and reactive power support. Regarding the economic benefits, the Tranche 2.1 Portfolio enhances the economic value for the Midwest Subregion and enables member plans for fleet transition and load growth by: (1) reducing economic congestion on existing transmission across the MISO Midwest subregion by 29.5 percent; (2) reducing curtailment in the Midwest Subregion by 27.1M MWh (11.2%), which will improve access to more economic generation; (3)

[254] *Id*.

[255] *Id.* at 46.

supporting the Midwest Subregion by reducing price separation across the subregions and decreasing system cost to serve load; (4) facilitating a more economical dispatch for MISO Midwest resulting in $8.1B in APC savings; and (5) providing a robust regional backbone supporting 115.7 GW of Future 2A resource enablement. These benefits are spread broadly across the Midwest Subregion, including the western portion encompassing North Dakota and Montana.

Second, the Complainants contend that MISO has turned itself into a resource planner by effectuating certain policy priorities of its states. The reality is directly the opposite. It is precisely because MISO is the region's transmission planner rather than resource planner, it must respect the resource planning decisions of its states. This is fully consistent with the MVP methodology, which allows MISO to recognize such resource planning decisions for reliability, economic, and/or public policy drivers.[256] The Complainants' arguments are little more than an impermissible collateral attack on the MVP portfolio approach and long-standing recognition of the broad reliability, economic, and public policy benefits provided by regional transmission identified under the MVP methodology.

Third, while the Complainants profess to have no issues with the MVP cost allocation methodology,[257] their cost causation and undue discrimination arguments are yet another collateral attack on that methodology. MISO recognizes that broad regional cost allocation of transmission has always been a difficult subject in MISO and other RTOs. Yet, both the Commission and the courts have repeatedly affirmed regional cost allocation methodologies, including with respect to MVPs.[258] When the benefits of new transmission are broadly spread across a geographical area,

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[256] *See* Tariff, Attachment FF § II.C.

[257] *See* Complaint at 47.

[258] *See, e.g., Midcontinent Independent System Operator, Inc*., 179 FERC ¶ 61,124, PP 72 and 77 (2022); *Illinois Commerce Commission v. FERC*, 721 F.3d 764, 774-75 (7th Cir. 2013).

there is nothing wrong with allocating the cost of such transmission to that area on a uniform basis, which for MVPs is a uniform energy usage rate with actual costs to customers varying each month based on the volume of energy withdrawn from the system. Doing so is not "undue discrimination," as erroneously contended by the Complainants, but simply a reflection of the well-known principle that the allocated costs should be "*roughly* commensurate" with the benefits received.

Finally, while excruciating precision certainly is not required, MISO's MVP cost allocation methodology does provide some granularity through the subregional option, which was utilized in this case. As discussed previously, the subregional option was added in 2022 to recognize certain transmission constraints between the Midwest Subregion and the South Subregion. Tranche 2.1 is cost allocated under the subregional option and, consequently, the loads in the South Subregion will not bear the cost of the Tranche 2.1 projects. Accordingly, there can no "undue discrimination" or "cost shift" as far as Louisiana, Arkansas, and Mississippi loads are concerned. And, as noted earlier, with respect to Montana and North Dakota, MISO's studies indicate that the costs and benefits associated with Tranche 2.1 are roughly commensurate with each other.

2. The Current MISO Process Provides Appropriate Regulatory Oversight and Is Consistent With FERC Policy.

The Complaint claims that there should be more regulatory oversight over MISO's transmission planning process.[259] According to the Complainants, absent a complaint being filed, there is no regulatory oversight over the "MVP process."[260] As support for their request for more regulatory oversight, the Complainants inaccurately claim that states lack regulatory authority and that MISO sought to silence its Independent Market Monitor ("IMM").[261] The Complainants

[259] Complaint at 47.

[260] *Id.* at 48.

[261] *Id.* at 48 and 49.

propose that MISO be directed to file at the Commission all future business cases used to support MVPs, so that stakeholders, state commissions, and the Commission will have an opportunity to review and comment on metrics.[262] As discussed below: (1) the alleged bases for additional regulatory oversight are inaccurate and misleading; (2) requiring the filing of future business cases with the Commission would be redundant and delay implementation of critical transmission infrastructure; and (3) MISO's transmission planning process imbues independence, fully complies with its transmission planning and expansion obligations and, consequently, no additional regulatory oversight is needed.

a. States have a critical regulatory role.

States have a critical role when it comes to implementation of transmission projects resulting from MISO's Tariff-based transmission planning process. In particular, states have jurisdiction over issuing certificates of need and siting of transmission projects and review and approve transmission projects that result from the LRTP. MISO's understanding is that no Tranche 2.1 projects have been submitted to the MISO states for review and potential certification at the time of this filing. However, Tranche 1 projects have been submitted and the MISO states have either thoroughly reviewed and considered or are still reviewing and considering whether such projects should be approved for need, siting, and construction. Table 1 below shows the status of the Tranche 1 projects' state certification proceedings.

Table 1 – Tranche 1 State Certification Cases[263]

[262] *Id.* at 49.

[263] The state certificate of need proceedings for LRTP Tranche 1.0 projects in Iowa have been impacted by litigation regarding an Iowa right of first refusal law. *See LS Power Midcontinent LLC v. State of Iowa*, 21 N.W.3d 551 (Iowa 2025).

LRTP Tranche 1 Projects	Project Names	State Certification Status
LRTP-1	Jamestown – Ellendale	North Dakota Public Service Commission granted a Certificate of Public Convenience and Necessity on 11.20.2024
LRTP-2	Big Stone South – Alexandria – Cassie's Crossing	Public Utilities Commission of the State of South Dakota granted a facilitiy permit on 1.30.2025.
LRTP-2	Big Stone South – Alexandria – Cassie's Crossing	Minnesota Public Utilities Commission granted a Certificate of Need on 10.3.2024.
LRTP-3	Iron Range – Benton County – Cassie's Crossing	Minnesota Public Utilities Commission granted a Certificate of Need on 1.23.2025
LRTP-4	Wilmarth – North Rochester – MN/WI State Line	Proceedings before the Minnesota Public Utilities Commission are ongoing.
LRTP-4	MN/WI State Line – Tremval	Proceedings before the Wisconsin Public Service Commission are ongoing.
LRTP-5	Tremval – Eau Claire – Jump River	Proceedings before the Wisconsin Public Service Commission are ongoing.
LRTP-6	Tremval – Rocky Run – Columbia	Proceedings before the Wisconsin Public Service Commission are ongoing.
LRTP-7	Webster – Franklin	Proceedings before the Iowa Utilities Commission are ongoing.
LRTP-7	Franklin - Marshalltown	A petition for a franchise has not yet been filed with the Iowa Utilities Commission.
LRTP-7	Marshalltown - Morgan Valley	Proceedings before the Iowa Utilities Commission are ongoing.
LRTP-8	Beverly – Sub 92	A petition for a franchise has not yet been filed with the Iowa Utilities Commission.
LRTP-9	Orient – IA/MO State Line	A petition for a franchise has not yet been filed with the Iowa Utilities Commission.
LRTP-9	IA/MO State Line – Denny - Fairport	Proceedings before the Missouri Public Service Commission are ongoing.
LRTP-10	Denny – Zachary – Thomas Hill – Maywood	Missouri Public Service Commission granted a Certificate of Need on 7.16.2025.

LRTP Tranche 1 Projects	Project Names	State Certification Status
LRTP-11	Maywood – MO/IL State Line	Proceedings before the Missouri Public Service Commission are ongoing.
LRTP-11	MO/IL State Line - Meredosia	Illinois Commerce Commission granted a Certificate of Need on 7.3.2025.
LRTP-12	Madison – Ottumwa	A petition for a franchise has not yet been filed with the Iowa Utilities Commission.
LRTP-12	Ottumwa - Skunk River	A petition for a franchise has not yet been filed with the Iowa Utilities Commission.
LRTP-13	Skunk River to IA/IL State Line	A petition for a franchise has not yet been filed with the Iowa Utilities Commission.
LRTP-13	IA/IL State Line to Ipava	Illinois Commerce Commission granted a Certificate of Public Convenience and Necessity on 7.3.2025.
LRTP-14	Ipava – Maple Ridge – Tazewell – Brokaw – Paxton East	Illinois Commerce Commission granted a Certificate of Public Convenience and Necessity on 7.3.2025.
LRTP-15	Sidney – Paxson East – Gilman South – IL/IN State Line	Illinois Commerce Commission granted a Certificate of Public Convenience and Necessity on 7.3.2025.
LRTP-15	IL/IN State Line – Morrison Ditch	Indiana Utility Regulatory Commission does not have jurisdiction over the siting of transmission projects.
LRTP-16	Morrison Ditch – Reynolds – Burr Oak – Leesburg – Hiple	Indiana Utility Regulatory Commission does not have jurisdiction over the siting of transmission projects.
LRTP-17	Hiple – IN/MI State Line	Indiana Utility Regulatory Commission does not have jurisdiction over the siting of transmission projects.
LRTP-17	IN/MI State Line – Duck Lake	Michigan Public Service Commission granted a Certificate of Need on 7.10.2025.
LRTP-18	Oneida – Nelson Rd.	Michigan Public Service Commission granted a Certificate of Need on 7.10.2025.

The table above clearly shows, contrary to the Complaint's misleading impression, that states maintain an active role and have critical regulatory authority.

The Complaint also claims that states do not control costs of transmission projects.[264] This is inaccurate. While it is true that *state-approved* projects' costs are ultimately allocated via a Commission-accepted Tariff to wholesale customers, the states continue to have authority over their utilities' retail rates.

b. MISO did not ignore the IMM's LRTP comments.

The Complaint heavily relies on the IMM's LRTP comments, which the Complaint claims fell on "deaf ears" and that MISO sought to silence the IMM.[265] Again, these assertions are inaccurate and misleading. As MISO demonstrated in its Answer to the IMM's protest in Docket No. EL25-80,[266] MISO substantively responded to the IMM's comments. Specifically, MISO provided an eighteen-page memo[267] responding to the IMM's recommendations, including where MISO agreed and incorporated such recommendations. MISO also provided a memorandum to the System Planning Committee of the Board of Directors addressing MISO's response to Potomac.[268] The memorandum noted that the IMM had not provided supporting analysis to validate the benefit-cost concerns with Tranche 2.1. Therefore, the claim that MISO ignored the IMM's comments is neither an accurate nor a legitimate basis for additional regulatory review.

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264 *See* Complaint at 48.

265 *Id*.

266 Motion for Leave to Answer and Answer of the Midcontinent Independent System Operator, Inc., Docket No. EL25-80-000 (June 30, 2025).

267 MISO Response to IMM Memo646682.pdf (9/13/24 LRTP Workshop).

268 20241030 System Planning Committee of the BOD Item 03a Market Monitor Feedback on LRTP Memo655619.pdf.

c. Stakeholders and states already have significant opportunities to review and comment on metrics and assumptions.

The Complaint claims that the directive for MISO to file all future business cases with the Commission will provide an opportunity for stakeholders, state commissions, and the Commission to review and comment on metrics used to justify transmission investment.[269] To be clear, such opportunities already exist today under MISO's Tariff, are fully utilized, and has a direct impact on the review, analysis, refinement and finalization of resulting transmission projects, including projects identified through the LRTP process. The LRTP is a stakeholder-driven process that uses extensive public engagement to identify and approve large-scale transmission projects. Utilities, state regulators, and other stakeholders influence the LRTP through feedback, solution submissions, and active participation in workshops.

In the case of LRTP Tranche 2.1, stakeholders were substantially engaged, with more than 300 meetings in various formats and forums, numerous one-on-one discussions, email exchanges and more. Workshops averaged 275 participants, and MISO combined the oral feedback from these workshops with 10 instances of formal or informal written comments to refine the LRTP processes and results.[270] More than 100 alternative solutions were submitted to MISO's initial LRTP Tranche 2.1 Portfolio, representing 47 projects. These alternatives shaped the final LRTP portfolio, with some being directly implemented, others found to be less valuable than the initial portfolio, and others captured for future regional or local studies.

There is no need to duplicate the stakeholder process through filings at the Commission. Moreover, it is axiomatic that such filings will delay transmission planning. Delaying the

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[269] *See* Complaint at 49.

[270] Examples of input and revisions to the LRTP process includes: the Futures and Siting process was informed by 500+ stakeholder revisions impacting the inputs of the process; MISO received significant stakeholder feedback and used the feedback to implement changes to the reliability and economic models throughout multiple months; and stakeholder feedback informed the transfer scenarios selected as part of the LRTP scope.

transmission planning process will in turn delay the implementation of critical transmission infrastructure in the MISO footprint, which in the case of the LRTP includes: (1) delaying lower electricity costs and billions of dollars in savings for customers; (2) delaying mitigation of grid congestion to prevent blackouts during extreme weather; and (3) delaying the ability of the MISO region to meet future energy demands reliably and affordably.

d. MISO already independently undertakes transmission planning.

As discussed above, there is no need for any additional regulatory oversight. Furthermore, MISO's transmission planning process already imbues independence and fully complies with its transmission planning and expansion obligations. In addition to the robust opportunities for stakeholder involvement summarized above, which ensures transparency, the MISO Board's role in the transmission planning process is a key component of the independence of the process. First, pursuant to MISO's Principles of Corporate Governance, as well as MISO's TOA and Bylaws, all Directors (who are not an officer or employee of MISO) are required to comply with independence requirements, including: (1) not being a director, officer, or employee of a MISO member, user, or affiliate of a member or user for one year prior to election; and (2) not having a direct financial interest in or a conflict of interest with any member, user, or affiliate of a member or user.[271] Second, Directors are required to possess the highest personal and professional ethics, integrity, and values.[272] Third, the System Planning Committee of the MISO Board of Directors is tasked with: (1) overseeing system planning matters affecting transmission

[271] MISO's Principles of Corporate Governances § I.A.1, *available at* https://cdn.misoenergy.org/MISO%20Principles%20of%20Corporate%20Governance110859.pdf (last visited May 6, 2025).

[272] *Id*. § I. In addition, specific qualifications are required for Directors: (1) six of the Directors are required to have expertise in, among other things, corporate leadership, engineering, or utility laws and regulation; and (2) three of the Directors are required to have expertise in the operation of electric transmission systems, the planning of electric transmission systems, and in commercial markets and trading, and associated risk management. *Id*. § I.B.

expansion; (2) monitoring the development and implementation of the MTEP; (3) making recommendations to the Board of Directors; and (4) reporting to the Board of Directors regarding the progress of achieving expansion plans. The System Planning Committee also reviews stakeholder and MISO Staff comments before making recommendations to the Board of Directors for approval, which then independently considers approval of the portfolio of projects.[273] This process ensures independence and thorough oversight of MISO's transmission planning efforts.

IV. NOTICE AND COMMUNICATIONS

All correspondence and communications in this matter should be addressed to:

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V. EXHIBITS

Tab A: Ex. MISO-001- Prepared Direct Testimony of Jeremiah Doner

Tab B: Ex. MISO-002 - Prepared Direct Testimony of Johannes P. Pfeifenberger and John Michael Hagerty

Tab C: Admissions and Denials

VI. ADMISSIONS AND DENIALS; AFFIRMATIVE DEFENSES

Tab C to this Answer includes MISO's specific denials, where possible. MISO affirmative defenses are as set forth elsewhere in this Answer and include the following, subject to amendment and supplementation:

[273] TOA, Appendix B.

(1) The Complaint fails to state a claim upon which relief can be granted.

(2) The Complainants have not shown that MISO's actions or inaction have violated the Tariff, the FPA or any Commission rule or regulation.

(3) The requested relief violates the filed rate doctrine and the rule against retroactive ratemaking.

(4) The Complainants have failed to carry their burden of proof under Section 206 of the FPA to show that the current Tariff is not just and reasonable or is unduly discriminatory or preferential.

(5) The Complaint violates the Commission's complaint regulations.

As demonstrated in this Answer, as well as by MISO's witnesses, the highly-prejudicial Complaint seeks to eliminate a portfolio of transmission projects that resulted from a comprehensive, Tariff-compliant, stakeholder-driven process that began in June of 2022 and resulted in critically needed transmission projects that will strengthen MISO's high-voltage regional transmission backbone, enable load growth, support system reliability, reduce generator production costs, and enable more economically efficient resource and transmission investment. Tranche 2.1 provides significant reliability and economic benefits, including helping the United States advance its competitiveness in the deployment of artificial intelligence technologies and economic development. Upholding the Complaint will result in profound, significant, and widespread detrimental consequences. WHEREFORE, for the reasons set forth herein, MISO respectfully requests that the Commission dismiss the Complaint and/or deny the relief requested by the Complainants.

Respectfully submitted,

/s/ Matthew Loftus

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Attorneys for the Midcontinent Independent System Operator, Inc.

Dated: September 9, 2025

CERTIFICATE OF SERVICE

I hereby certify that I have caused to be served this day the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated this 9th day of September, 2025 in Carmel, Indiana.

/s/ Cortney Sanders

Cortney Sanders
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