



March 19, 2025

Ms. Lisa Felice
Michigan Public Service Commission
7109 W. Saginaw Hwy.
Lansing, MI 48909

Via E-File

RE: MPSC Case No. U-21471 & U-21472

Dear Ms. Felice:

Attached please find the enclosed documents for filing:

- Initial Brief by Citizens Utility Board of Michigan and Sierra Club;
- Proof of Service.

Thank you for your assistance in this matter. If you have any questions, please feel free to contact me.

Sincerely,

/s/ Lauren A. Teichner

Lauren A. Teichner

lauren@teichnerlaw.com

Digitally signed by Lauren A.
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CC: Parties to Case No. U-21471 & U-21472

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of **MICHIGAN ELECTRIC TRANSMISSION COMPANY, LLC** for an Act 30 certificate of public convenience and necessity for the construction of a major transmission line between Oneida Substation in Eaton County and Nelson Road Substation in Gratiot County, Michigan.

U-21471

In the matter of the application of **MICHIGAN ELECTRIC TRANSMISSION COMPANY, LLC** for an Act 30 certificate of public convenience and necessity for the construction of a major transmission line between the Indiana/Michigan state border at Gilead Township in Branch County and the new Helix Substation in Calhoun County, Michigan

U-21472

**INITIAL BRIEF BY
CITIZENS UTILITY BOARD OF MICHIGAN
AND SIERRA CLUB**

March 19, 2025

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I. INTRODUCTION

The Michigan Electric Transmission Company, LLC (“METC”) seeks two certificates of public convenience and necessity (“CPCNs”) from the Michigan Public Service Commission (“Commission”) under the Electric Transmission Line Certification Act, PA 30 of 1995, MCL 460.561 *et seq.* (“Act 30”). Specifically, METC requests the Commission issue CPCNs for two major proposed 345 kV transmission lines pursuant to two consolidated dockets – one between Oneida Substation in Eaton County and Nelson Road Substation in Gratiot County, Michigan (the “Oneida-Nelson transmission line”), under Case No. U-21471; and the other between the Indiana/Michigan state border at Gilead Township in Branch County and the new Helix Substation in Calhoun County, Michigan (the “Helix-Hiple transmission line”), under Case No. U-21472 (collectively, the “proposed transmission lines” or “proposed lines” or “proposed projects”).

As the evidence submitted in the consolidated dockets demonstrates, the proposed transmission lines are included in a portfolio of transmission projects designed by the Midcontinent Independent System Operator (“MISO”) across the Midwest and known as the Long-Range Transmission Planning Tranche 1 (“LRTP Tranche 1”). MISO is a not-for-profit, member-based, regional transmission organization (“RTO”) that provides reliability and market services to approximately 70,000 miles of transmission lines in fifteen states and one Canadian province. MISO is also the North American Electric Reliability Corporation (“NERC”) planning authority for its region.¹ MISO is governed by an independent Board of Directors with ten members, which approved LRTP Tranche 1 as an important part of the MISO Transmission Expansion Plan

¹ NERC’s mission is to “assure the effective and efficient reduction of risks to the reliability and security of the grid.” See NERC website, “About NERC,” available at: <https://www.nerc.com/AboutNERC/Pages/default.aspx> (last visited March 13, 2025).

(“MTEP”). MISO developed LRTP Tranche 1 through an extensive planning process involving numerous analyses and an extensive stakeholder process to address the changing energy landscape, growing reliability concerns, and an increased demand for renewable energy integration.

The Helix-Hiple transmission line will establish Michigan’s first 345 kV interstate connection in 50 years, linking Michigan’s transmission system to the broader regional grid through the Hiple Substation in Indiana. Together, the proposed projects will increase Michigan’s MISO Local Resource Zone (“Zone”) 7’s capacity import limit by 1,292 MW, reducing reliance on expensive local generation and enhancing reliability. The proposed transmission lines thus represent foundational backbone upgrades to Michigan’s energy infrastructure and will provide clear and well-documented public benefits to Michigan ratepayers in Zone 7 that more than justify their construction. These public benefits include the following: reduction in congestion and fuel costs; prevention of some costly local resource investments; elimination of unnecessary transmission investments; resolution of Michigan’s projected capacity shortfall; reduction in the risk of load shedding and blackouts; and facilitation of Michigan’s transition to clean energy, with its many significant economic, public health, and environmental benefits. MISO’s planning process has already demonstrated the necessity and cost-effectiveness of the Oneida-Nelson and Helix-Hiple transmission projects, as confirmed by the experts who have submitted their opinion testimony into evidence in the instant dockets. The Commission’s approval of CPCNs for these proposed projects will be a key step toward ensuring a reliable, affordable, and sustainable energy future both for Zone 7 in particular and Michigan on the whole.

Citizens Utility Board of Michigan and Sierra Club (“CUB-SC”) submit this brief on behalf of their members – Michigan ratepayers who will directly bear the costs and benefits of the proposed transmission lines – in support of METC’s application for CPCNs. As required by MCL

460.568(5)(a), METC has demonstrated that “the quantifiable and nonquantifiable public benefits of the proposed major transmission line[s] justify [their] construction” in both dockets.² The record overwhelmingly supports this conclusion.

II. LEGAL FRAMEWORK

Act 30 establishes the legal and regulatory framework for the construction of major transmission lines in Michigan. This legislation grants the Commission the authority to review applications from electric utilities, affiliated transmission companies or independent transmission companies for CPCNs for new transmission infrastructure.³ If the Commission determines that proposed lines meet all of the following four statutory requirements, then it “shall” grant the application and issue a CPCN:

- (1) The quantifiable and nonquantifiable public benefits of the proposed major transmission line justify its construction.
- (2) The proposed or alternative route is feasible and reasonable;
- (3) The proposed major transmission line does not present an unreasonable threat to public health or safety.
- (4) The applicant has accepted the conditions contained in a conditional grant.⁴

The Commission is a creature of statute – it exists at the Michigan Legislature’s will and must abide by the parameters expressed by the Legislature. Indeed, “[t]he Public Service Commission has no common-law powers. It possesses only that authority granted by the Legislature.”⁵ And

² CUB-SC will not be addressing Act 30’s standards regarding siting (MCL 460.568(5)(b)), public health or safety (MCL 460.568(5)(c)), or conditional grants (MCL 460.568(5)(d)) in this brief.

³ See MCL 460.565.

⁴ MCL 460.568(5)(a)-(d).

⁵ *Consumers Power Co v Mich Pub Service Comm’n*, 460 Mich 148, 155; 596 NW2d 126 (1999).

the word “shall” in all governing statutes, including MCL 460.568(5), “carries a mandatory, nondiscretionary connotation.”⁶ All Commission decisions must be “supported by competent, material and substantial evidence on the whole record.”⁷

III. ARGUMENT

Both the Oneida-Nelson and Helix-Hiple transmission projects represent critical upgrades to Michigan’s energy infrastructure, developed through MISO’s rigorous, data-driven planning process to address Michigan’s growing reliability challenges, rising congestion costs, and the need for increased renewable energy integration.

Under MCL 460.586(5)(a), METC must demonstrate that the proposed transmission lines have quantifiable and nonquantifiable public benefits that justify their construction.⁸ The record overwhelmingly supports this finding. METC’s application, as well as supporting testimony and exhibits in the record, establish that these proposed projects will enhance grid reliability, reduce long-term costs, and provide substantial economic and environmental benefits to Michigan ratepayers. As detailed in Argument Sections B through H below, respectively, these proposed transmission lines will provide significant public benefits in the following ways:

1. Significantly reduce congestion and fuel costs, resulting in over \$1 billion in fuel savings;
2. Prevent costly local resource investments, saving up to \$3.46 billion;
3. Avoid \$74 million in transmission investment costs over 20 years due to increased efficiency;

⁶ *People v Brown*, 249 Mich App 382, 386; 642 NW2d 382 (2002)); see also *People v Francisco*, 474 Mich 82, 87; 711 NW2d 44 (2006) (noting that “[s]hall is a mandatory term, not a permissive one”).

⁷ Const 1963, art 6, § 28; MCL 24.306(d).

⁸ See MCL 460.568(5)(a). Again, CUB-SC does not address Act 30’s standards regarding siting (MCL 460.568(5)(b)), public health or safety (MCL 460.568(5)(c)), or conditional grants (MCL 460.568(5)(d)) in this brief.

4. Improve resource adequacy and prevent Michigan's projected capacity shortfall;
5. Reduce the risk of load shedding and blackouts, preventing up to \$1.6 billion in losses;
6. Support Michigan's transition to clean energy and result in related cost savings and other public benefits due to reduced greenhouse gas emissions; and
7. The proposed projects' overall benefits exceed their costs.

Considering all of these benefits together, MISO's own comprehensive modeling foresees that Zone 7 will receive between \$6.1 billion and \$9.4 billion in total benefits from the proposed transmission lines over the next 20 years, net-present value ("NPV"), with a benefit-cost ratio ("BCR") of 2.2 to 3.4 – meaning that for every dollar invested, Michigan consumers will receive between \$2.20 and \$3.40 in benefits.⁹ CUB-SC witness Douglas B. Jester independently confirms that these benefit projections by MISO are "reasonable," based on his own extensive monitoring of MISO's LRTP process and review of nearly every document prepared by MISO during the development process.¹⁰ He further explains that MISO's projections may even understate the importance of the proposed transmission lines in ensuring Michigan's energy security, affordability, and compliance with clean energy goals.¹¹ Each of these public benefits will be explored below in detail.

Yet, despite the overwhelming evidence supporting approval of these proposed projects, Commission Staff witnesses raise concerns about their necessity and cost-effectiveness, particularly if other LRTP Tranche 1 projects are delayed or not ultimately approved in neighboring states.¹² As discussed in Argument Section I below, these concerns are thoroughly rebutted by the

⁹ Direct Testimony of Charles L. Marshall, 5 TR 315-316.

¹⁰ Direct Testimony of Douglas B. Jester, 5 TR 943.

¹¹ *Id.* at 941-943, 952.

¹² Direct Testimony of Naomi J. Simpson 5 TR 1187-118910; Direct Testimony of Zachary C. Heidemann 5 TR 1238.

expert testimony of METC witness Charles L. Marshall, MEIC witness Michael S. Goggin, and Mr. Jester.¹³ Contrary to Staff witnesses' doubts, the evidence demonstrates that Michigan will realize substantial benefits from the proposed projects regardless of the status of transmission developments in other states, and delaying approval would expose Michigan ratepayers to increased costs, reliability risks, and unnecessary regulatory uncertainty.¹⁴

In light of the significant public benefits afforded by the proposed projects, CUB-SC respectfully request that the Commission approve the requested CPCNs for the Oneida-Nelson and Helix-Hiple transmission projects without delay.

A. MISO Developed and Approved the Proposed Transmission Lines, Affirming Their Public Benefits.

To assess whether CPCNs for the Oneida-Nelson and Helix-Hiple transmission projects should be approved, it is essential to examine MISO's underlying planning and approval process, which serves as the foundation for these investments. MISO's extensive analysis warrants that each of the proposed projects is cost-effective, necessary for grid reliability, and beneficial to Michigan ratepayers. This section outlines how MISO developed and approved the proposed transmission lines as part of its LRTP Tranche 1, a portfolio of 19 transmission projects across the

¹³ See generally Rebuttal Testimony of Charles Marshall 5 TR 210-264; Rebuttal Testimony of Michael S. Goggin 5 TR 851-854; Jester Direct, 5 TR 942-943.

¹⁴ Rebuttal Testimony of Charles Marshall, 5 TR 323-329, 3322; Rebuttal Testimony of Michael S. Goggin 5 TR 851-854; Jester Direct, 5 TR 942-943; Rebuttal Testimony of Carlo P. Capra, 5 TR 499-500.

Midwest with an overall estimated investment of \$10.3 billion,¹⁵ affirming their public benefits and economic justification.

MISO describes this portfolio as the “largest and most complex transmission study effort in MISO history.”¹⁶ This portfolio was designed to address urgent reliability needs stemming from imminent generation retirements, increasing renewable energy penetration, and rising demand from electrification and data centers in a cost efficient and flexible way.¹⁷ The Oneida-Nelson and Helix-Hiple transmission lines, designated as projects 17 and 18 within LRTP Tranche 1, are considered key components of the East-Central Corridor from Iowa to Michigan¹⁸ as they “support Michigan’s long-term reliability and create value to Michigan under [the] multi-value assessment.”¹⁹

MISO’s February 2024 Reliability Imperative Report confirms that the Midwest subregion has the most urgent reliability challenges of any MISO region due to imminent generation retirements and resource portfolio changes.²⁰ Additional transmission investment is needed to respond to major energy trends such as “transitioning to zero-carbon resources, challenges of

¹⁵ Direct Testimony of Natalie Lyijynen, 5 TR 816.

¹⁶ Marshall Direct, 5 TR 274 (citing Ex METC-3A (CLM-3A), p. 1).

¹⁷ See generally Jester Direct, 5 TR 940-950; Lyijynen Direct, 5 TR 814, 816, 819; Goggin Direct 5 TR 857; Marshall Direct 5 TR 273-274, 299, 301).

¹⁸ Lyijynen Direct 5 TR 816; Ex MEIC-4 (NL-4) (depicting the planned MISO LRTP Tranche 1 and Tranche 2.1 projects).

¹⁹ Marshall Direct, 5 TR 243.

²⁰ Lyijynen Direct, 5 TR 814 (citing MISO, Response to the Reliability Imperative (February 2024), available at: <https://cdn.misoenergy.org/2024%20Reliability%20Imperative%20report%20Feb.%2021%20Final504018.pdf?v=20240221104216>), 7 (citing MISO, MTEP21 Report Addendum: Long Range Transmission Planning Tranche 1 Executive Summary, available at: <https://cdn.misoenergy.org/MTEP21%20Addendum-LRTP%20Tranche%201%20Report%20with%20Executive%20Summary625790.pdf>, Figure 4, p. 5); Marshall Direct, 5 TR 219, 226-227; Ex METC-2A (CLM-2A), pp. 18-19; Ex METC-3A (CLM-3A), pp. 1-2.

extreme weather, supply chain and permitting delays, large single-site load additions like energy-intensive production facilities or data centers, and incremental load growth due to electrification.”²¹ These strains on the current system are already reflected in the lengthy generator interconnection queues and rising interconnection costs.²² Without MISO’s proposed transmission upgrades, Michigan’s grid will be unable to support the accelerating changes in energy generation and demand.²³

The proposed Helix-Hiple transmission line is particularly crucial for regional connectivity because it bolsters interstate connectivity and alleviates pressure on current transmission facilities in southern Michigan.²⁴ MEIC witness Natalie Lyijynen explains how such new transmission infrastructure will reinforce grid reliability overall:

“new or upgraded high-voltage transmission lines improve the reliability and resilience of the system by allowing utilities to more broadly source and distribute energy from generating resources, which helps to stabilize the existing system – particularly during periods of high risk, like extreme weather.”²⁵

²¹ Lyijynen Direct, 5 TR 823.

²² *Id.* at 825; Goggin Direct, 5 TR 867-870.

²³ Marshall Direct, 5 TR 226, 228-229, 243; Lyijynen Direct, 5 TR 825 (explaining that “the current transmission system in the MISO region cannot adequately support the expected load growth and increased renewable integration” as “[t]he existing grid infrastructure is not designed to handle the significant and rapid expansion of renewable energy sources like solar and wind.”); Ex METC-3A (CLM-3A), pp. 1-2.

²⁴ Lyijynen Direct, 5 TR 824-825.

²⁵ *Id.* at 823-824 (citing FERC, Report on Barriers and Opportunities for High Voltage Transmission (June 2020), available at: <https://www.congress.gov/116/meeting/house/111020/documents/HHRG-116-II06-20200922SD003.pdf>, p. 52).

Mr. Goggin further explains that MISO’s estimate of the need for and potential value of the LRTP Tranche 1 group is likely “significantly understated” due to the increase in demand for renewable energy resources in recent years,²⁶ which has only become more urgent over time.²⁷

Additionally, METC’s proposed transmission lines are an “integral part” of LRTP Tranche 1 portfolio.²⁸ As Ms. Lyijynen highlights, “without the projects, Michigan and other states in the MISO footprint would not receive the full set of economic benefits that are provided by the LRTP Tranche 1 portfolio and may have to pursue less optimal solutions to address the issues that LRTP [Tranche 1] was designed to resolve.”²⁹ What’s more, she says, the proposed projects are “necessary backbone projects” for “subsequent proposed tranches of necessary regional transmission upgrades.”³⁰ The success of future buildouts, including Tranche 2.1, depends on foundational, backbone projects such as these.³¹ If the proposed projects are not approved, the overall system will be forced to fall back on piecemeal solutions that will cost more in the long run and provide fewer benefits.³²

MISO selected all of its LRTP Tranche 1 projects based on extensive modeling, cost-benefit analysis, and input from utilities, regulators, and stakeholders.³³ MISO held over 200 internal and external stakeholder meetings between 2021 and 2022, with between 200 to 300

²⁶ Goggin Direct, 5 TR 857.

²⁷ Marshall Direct, 5 TR 226, 228-229, 243.

²⁸ Lyijynen Direct, 5 TR 819.

²⁹ *Id.* at 819 (internal quotations and citations omitted).

³⁰ *Id.* at 819-820.

³¹ *Id.*; Goggin Direct, 5 TR 858-59; Marshall Direct, 5 TR 221; Ex MEIC-4 (NL-4).

³² Marshall Direct, 5 TR 258-259.

³³ *Id.* at 222-227, 241; Lyijynen Direct, 5 TR 818-819; Jester Direct, 5 TR 942.

attendees at each external workshop.³⁴ Mr. Jester, who is the Managing Partner of 5 Lakes Energy, and who has worked for more than 30 years in utility industry regulation and related fields,³⁵ has long closely monitored and selectively participated in these MISO stakeholder processes, including the processes leading to many of METC’s MISO-related exhibits submitted for consideration by the Commission in this case.³⁶ Mr. Jester explains that while the requirements and performance of each component of MISO’s portfolio depends on the broader transmission network,³⁷ each individual project has also been determined to contribute positively to the overall benefits and BCR of the entire portfolio³⁸ – indeed, this is a fundamental requirement under MISO’s Criterion 3 for Multi-Value Projects (“MVP”).³⁹ Specifically, Criterion 3 mandates that each project must address at least one Transmission Issue associated with a projected violation of a NERC or Regional Entity standard; resolve at least one economic-based Transmission Issue, providing economic value across multiple pricing zones;⁴⁰ and generate total financially quantifiable benefits – including reliability benefits – that exceed the total project costs.⁴¹ In other words, MISO has made certain that each of the proposed transmission lines provides net benefits to the entire MISO System, in addition to their combined aggregate benefits.⁴²

³⁴ Lyjynen Direct, 5 TR 818-819.

³⁵ See generally Ex CUB-1.

³⁶ Jester Direct, 5 TR 942-943.

³⁷ *Id.* at 942.

³⁸ *Id.* at 942-942.

³⁹ *Id.* at 943 (citing Consolidated Cases U-21471/U-21472 Errata to Comments of Midcontinent Independent System Operator, Inc., dated October 28, 2024, p. 8).

⁴⁰ *Id.*

⁴¹ *Id.*

⁴² *Id.*

Overall, MISO’s projections confirm that the total economic benefits of the LRTP Tranche 1 portfolio significantly exceed its costs,⁴³ as the following figure illustrates.⁴⁴

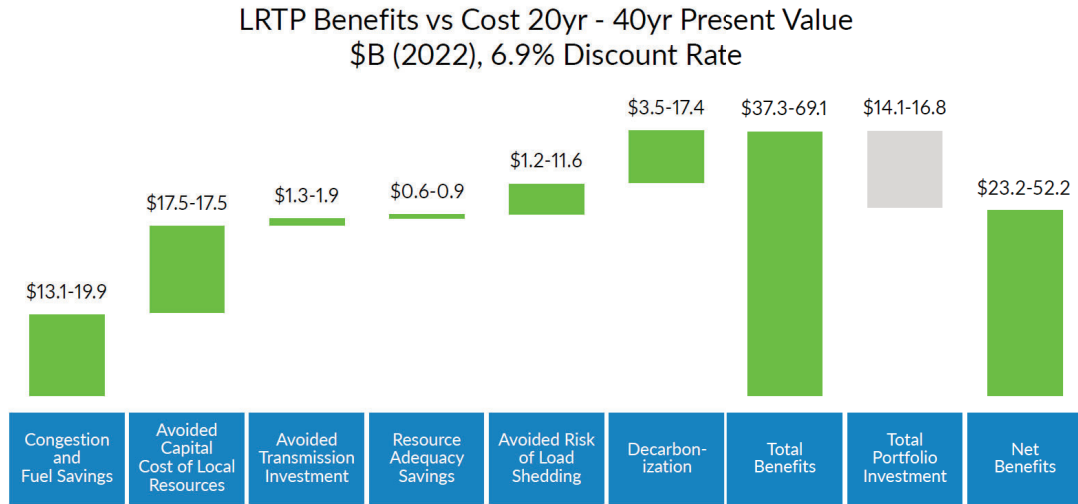


Figure 2: LRTP Tranche 1 Portfolio benefits far outweigh costs (Values as of 6/1/22)*

*Note: This implies benefit-to-cost (B/C) ratio ranges of 20-yr PV B/C = 2.6 and 40-yr PV B/C = 4.0

MISO also projects that the quantifiable benefits to Zone 7 in particular from the proposed projects outweigh the costs by a BCR of 2.2 to 3.4 for Michigan utility customers,⁴⁵ as demonstrated in the following graph:⁴⁶

⁴³ *Id.* at 942-944, 949; Ex METC-3A (CLM-3A), pp. 2-6; Ex CUB-4, p. 16.

⁴⁴ Ex METC-3A (CLM-3A), p.4 (Figure 2); Ex CUB-4, p. 16.

⁴⁵ Jester Direct, 5 TR 944-945; Marshall Direct, 5 TR 261-262.

⁴⁶ Ex METC-3A (CLM-3A), p. 5 (Figure 3).

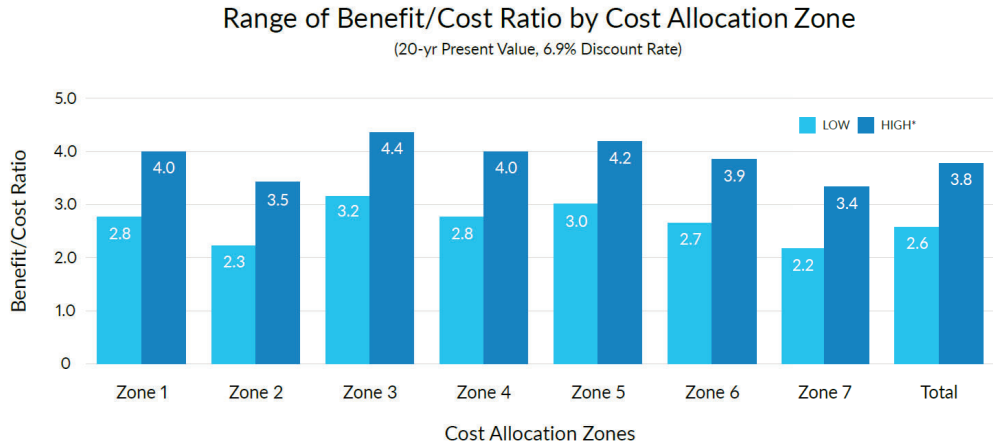


Figure 3: Benefits from the LRTP Tranche 1 portfolio exceed costs in every Midwest Subregion cost allocation zone

* The low and high range of benefit/cost ratios by Cost Allocation Zone are driven by changing two assumptions in the 20-year present value analysis: 1) increasing the Value of Lost Load (VOLL) from \$3,500/MWh (low) to \$23,000/MWh (high); and 2) increasing the price of carbon from \$12.55/ton (low) to \$47.80/ton (high).

The net Zone 7 benefits overall are projected to have a 20-year NPV of \$3.307 billion to \$6.649 billion.⁴⁷ And the benefits that directly impact utility customer bills – congestion and fuel savings, prevention of costly local resource investments, elimination of transmission investments, and resource adequacy savings – collectively result in a 20-year NPV of \$5.164 billion, with net on-bill benefits of \$2.375 billion.⁴⁸ MISO made a detailed presentation of these same quantifiable benefits in a stakeholder presentation held on June 25, 2022⁴⁹ – slides 57-58 of this presentation provide charts containing a comprehensive zonal summary of the quantifiable benefits.⁵⁰ The MISO Board of Directors approved these projects in July 2022 as part of its broader MISO Transmission Expansion Plan (“MTEP”), affirming their necessity and public benefits in doing so.⁵¹

⁴⁷ Jester Direct, 5 TR 949-950.

⁴⁸ *Id.*

⁴⁹ See generally Ex CUB-4.

⁵⁰ See Ex CUB-4, pp. 57-58; Jester Direct, 5 TR 945.

⁵¹ Jester Direct, 5 TR 942; Lyijynen Direct, 5 TR 816; Marshall Direct, 5 TR 219.

Mr. Jester confirms that MISO’s projections are “reasonable” based on his own monitoring of MISO’s LRTP process as described above, including his careful review of nearly every document prepared by MISO during the development process.⁵² Mr. Jester explains that MISO’s projections of the public benefits of the proposed projects may even be low, in light of events and additional information that have evolved since 2022 when the analysis was originally completed, including the enactment of the federal Inflation Reduction Act (“IRA”) on August 16, 2022, and Michigan’s related law, 2023 PA 235, on November 28, 2023.⁵³ The increased renewable and clean energy standards of these statutes require even more increased transmission capacity than anticipated.⁵⁴ Additionally, a subsequent analysis of Michigan’s transmission needs – including findings from a report co-authored by Mr. Jester and submitted in Case No. U-21099 – suggests that the proposed LRTP Tranche 1 projects provide greater benefits to Zone 7 than MISO accounted for.⁵⁵ For these reasons, Mr. Jester asserts that the economic reliability advantages of the proposed projects (particularly in the areas of congestion and fuel cost-savings, and avoided risk of lost load) may be even greater than currently projected.⁵⁶

It is important to underscore that CUB-SC, as intervenors in the instant proceeding, have a vested interest in verifying that their own members, who are Michigan ratepayers, will not be unduly burdened by the costs of the proposed transmission lines. Their members, like all Michigan consumers, will ultimately bear these costs through their electric bills. Staff witness Ms. Naomi J.

⁵² Jester Direct, 5 TR 942-944, 949-950.

⁵³ *Id.* at 950-952; Lyijynen Direct, 5 TR 838-842; Goggin Direct, 5 TR 857-858.

⁵⁴ Jester Direct, 5 TR 950-952.

⁵⁵ *Id.* at 952; see generally Ex CUB-2 (main report); Ex CUB-3 (technical appendix).

⁵⁶ Jester Direct, 5 TR 950-952.

Simpson aptly highlights a fundamental principle: that robust due diligence in transmission planning essential to safeguarding ratepayers from unnecessary or imprudent utility expenditures.⁵⁷ Despite the costs imposed on their members, CUB-SC support the proposed lines, as both organizations recognize that the robust MISO planning process and projections, along with supporting testimony and exhibits in the consolidated dockets, confirm that the significant cost-savings and long-term reliability benefits of the proposed lines ultimately significantly outweigh the overall project costs.

B. The Proposed Projects Will Significantly Reduce Congestion and Fuel Costs, Resulting in Over \$1 Billion in Fuel Savings.

Efficient energy transmission is essential to reducing costs for Michigan ratepayers; yet MISO market data indicates that current congestion costs Michigan consumers millions of dollars each year, increasing wholesale energy prices and reducing system efficiency.⁵⁸ Congestion occurs when existing transmission infrastructure is unable to efficiently transfer electricity from lower-cost generation sources to areas of high demand, forcing the system to rely on less efficient, more expensive generation, and driving up costs for Michigan ratepayers.⁵⁹ According to Mr. Jester, congestion represents “the extra production (supply) cost incurred to satisfy constraints in the transmission system as calculated in the security-constrained economic dispatch process.”⁶⁰

The Oneida-Nelson and Helix-Hiple transmissions lines will significantly alleviate these congestion constraints by expanding Michigan’s transmission capacity, enabling a greater flow of

⁵⁷ Simpson Direct, 5 TR 1185-1186.

⁵⁸ See generally Ex MEIC-2 (NL-2); Goggin Direct, 5 TR 860.

⁵⁹ Lyijynen Direct, 5 TR 828.

⁶⁰ Jester Direct, 5 TR 946.

lower-cost energy and reducing reliance on expensive and inflexible generation resources.⁶¹ Mr. Jester explains:

“When the capacity of the transmission system is increased, and transmission constraints are relaxed, MISO is able to match supply to demand using power supplies that are less expensive to operate, primarily through reduced fuel; usage or fuel costs. Because the congestion charges are locational, reflecting transmission constraints between potentially cheaper supply and load in a particular place, avoided congestion charges allow cost savings to be attributed to a particular load zone.”⁶²

In particular, LRTP Tranche 1 will enable an increased delivery of low-cost wind and solar resources in Michigan.⁶³ It is no surprise then that MISO’s LRTP Tranche 1 Detailed Business Case, as presented to stakeholders on June 25, 2022, identifies “congestion and fuel savings” as a core benefit of the proposed transmission lines.⁶⁴ By increasing the efficiency of energy transfers across the grid, these projects will allow Michigan to maximize the use of cheaper generation sources, reducing overall energy costs while improving system congestion and reliability.⁶⁵

The economic impact of these savings is substantial. MISO’s detailed economic modeling projects that the proposed transmission lines generate approximately \$1.006 billion in congestion and fuel savings for Michigan ratepayers in Zone 7, with a 20-year net present value (“NPV”) calculated at a 6.9% discount rate.⁶⁶ Additional analyses suggest that these projections may even

⁶¹ Lyijynen Direct, 5 TR 828; see generally Ex MEIC-2 (NL-2).

⁶² Jester Direct, 5 TR 946.

⁶³ Goggin Direct, 5 TR 861.

⁶⁴ Lyijynen Direct, 5 TR 821 (citing MISO, LRTP Tranche 1 Portfolio Detailed Business Case (June 2022), available at: <https://cdn.misoenergy.org/LRTP%20Tranche%201%20Detailed%20Business%20Case625789.pdf>, p. 10); Ex CUB-4, pp. 16-19.

⁶⁵ Lyijynen Direct, 5 TR 828; Goggin Direct, 5 TR 861-868.

⁶⁶ Jester Direct, 5 TR 946 (citing Ex CUB-4, pp. 57-58).

be conservative. Mr. Jester notes that a further review of Zone 7's transmission needs – including findings from a report co-authored by Mr. Jester and submitted in Case No. U-21099 – indicates that the LRTP Tranche 1 projects will not only increase Zone 7's import capacity from the rest of MISO, by approximately the same quantity as assessed by MISO, but will also enhance Zone 7's ability to import power from other transmission regions by approximately 300MW.⁶⁷ This increased import capacity expands Michigan's access to diverse, lower-cost energy sources, further reducing congestion and fuel costs while improving system reliance. These benefits appear to be absent from MISO's original benefits projections, suggesting that the total congestion and fuel savings may be even greater than projected.⁶⁸

The Commission should issue CPCNs for the proposed projects in light of their critical role in reliably reducing congestion costs and securing significant long-term fuel savings for Michigan consumers.

C. The Proposed Projects Will Prevent Costly Local Resource Investments, Saving Up to \$3.46 Billion.

Without the proposed transmission projects, Michigan utilities will be forced to invest in costly, duplicative local generation capacity, ultimately increasing rates for Michigan consumers.⁶⁹ The proposed lines, on the other hand, will enable the efficient transfer of electricity across regional, pooled markets, allowing Zone 7 to rely on lower-cost energy imports rather than

⁶⁷ Jester Direct, 5 TR 952; see generally Ex CUB-2 (main report); Ex CUB-3 (technical appendix).

⁶⁸ Jester Direct, 5 TR 952; Goggin Direct, 5 TR 872-875.

⁶⁹ Jester Direct, 5 TR 947 (citing Ex CUB-4, pp. 57-58).

expensive new local generation.⁷⁰ This ensures that Michigan’s utilities can meet the energy demand without passing on billions in additional local resource investment costs to ratepayers.⁷¹

MISO’s own economic analysis for LRTP Tranche 1 confirms that the proposed projects will eliminate up to \$3.46 billion (at a 20-year NPV) in such unnecessary local resource investments that would otherwise be required to maintain system reliability.⁷² Furthermore, as described earlier, subsequent analysis of Zone 7’s transmission needs – including the findings from the report co-authored by Mr. Jester and submitted in Case No U-21099 – indicates that LRTP Tranche 1 will not only increase the capacity import limit of Zone 7 for imports from within MISO, but will also further enhance Michigan’s ability to import power from outside MISO by approximately 300 MW.⁷³ This expanded import capacity, which was not accounted for in MISO’s original modeling, reduces reliance on new local generation by increasing access to diverse and cost-effective power sources from other transmission regions. These avoided costs represent a significant long-term savings opportunity for Michigan consumers, preventing the need for costly local capital expenditures that would ultimately be passed down as increased electricity rates.

The Commission should issue CPCNs for the Oneida-Nelson and Helix-Hiple transmission projects, as they are vital to avoiding unnecessary local generation investments and will thereby deliver billions in cost savings to Michigan consumers.

⁷⁰ *Id.*

⁷¹ Marshall Direct, 5 TR 236-240.

⁷² Jester Direct, 5 TR 947 (citing Ex CUB-4, pp. 57-58).

⁷³ *Id.* at 952; see generally Ex CUB-2 (main report); Ex CUB-3 (technical appendix).

D. The Proposed Projects Will Avoid \$74 Million in Transmission Investment Costs Due to Increased Efficiency.

Once built, the proposed transmission lines will increase efficiency and optimize power flows, reducing strain on the existing infrastructure in Zone 7. By increasing regional transfer capability and alleviating congestion, these proposed projects will allow the system to function more efficiently, reducing the need for certain local transmission upgrades or replacements to the aging infrastructure. As a result, Michigan ratepayers in Zone 7 will avoid up to \$74 million in transmission investment costs over the next 20 years (NPV), based on MISO's economic modeling.⁷⁴ Without these high-voltage transmission upgrades, utilities will be required to reinforce or rebuild existing lower-voltage lines in an incremental or piecemeal way to maintain reliability in the short-term, an approach that is significantly more expensive, less effective, less reliable in the long-run, and offers fewer holistic benefits.⁷⁵ The LTRP Tranche 1 was designed to optimize cost-effective infrastructure planning by preventing redundant transmission upgrades over time and ensuring that transmission investments serve long-term grid needs rather than short-term bottlenecks.⁷⁶

The Commission should approve CPCNs for the proposed projects as they prevent such unnecessary transmission upgrades and consequently save ratepayers millions in avoidable infrastructure costs.

⁷⁴ Jester Direct, 5 TR 947 (citing Ex CUB-4, pp. 57-58).

⁷⁵ Marshall Direct, 5 TR 236-237, 258-259; Goggin Direct, 5 TR 854-55, 882; Ex MEIC-2, pp. 11-13.

⁷⁶ Lyijynen Direct, 5 TR 823-825.

E. The Proposed Projects Will Improve Resource Adequacy and Prevent Michigan’s Projected Capacity Shortfall.

Michigan’s ability to maintain a stable and affordable energy supply is increasingly at risk due to persistent capacity shortfalls and rising reliability concerns. MISO’s reliability analysis demonstrates that without the proposed transmission lines, Zone 7 will face a 465 MW shortfall in local generation capacity, making it the only MISO zone that is projected to have such insufficient local resources.⁷⁷ This persistent shortfall highlights the critical need for increased import capacity to maintain system reliability and affordability for Michigan consumers, as the proposed transmission lines would provide.

Mr. Marshall emphasizes that Michigan has repeatedly faced capacity shortfalls in MISO’s Planning Reserve Auction (“PRA”), which indicates a compromised ability to meet reliability standards. The PRA is “intended to provide visibility into capacity demand and ideally send a market price signal.”⁷⁸ In the 2020/2021 PRA, Zone 7 was the only zone in MISO with insufficient resources to meet NERC’s required planning reserve margins, leading to Capacity Auction Prices (“CONE”) clearing at the maximum price level of \$911 million. This situation repeated in 2022/2023. While prices moderated in the most recent auction, Michigan continues to experience tight capacity conditions, driving up costs for ratepayers. Marshall explains, “[i]n short, the risk of a capacity shortfall in the near future continues and [Zone] 7 is being impacted economically by higher prices in the interim.”⁷⁹

⁷⁷ Jester Direct, 5 TR 947-948; Ex METC-3A (CLM-3A), p. 71 (Table 7-4).

⁷⁸ Marshall Direct, 5 TR 237.

⁷⁹ *Id.* at 237-238.

Marshall identifies two potential solutions to address Michigan’s resource adequacy concerns. The first option is to build “new dispatchable generation,” which he argues would conflict with many of Michigan’s policy goals and be more costly than transmission-based alternatives. The second, more effective option – which Marshall champions as the “far better option for Michigan” – is to develop new transmission infrastructure, such as the proposed projects.⁸⁰ By constructing the Oneida-Nelson and Helix-Hiple transmission lines, Michigan will not only eliminate its projected capacity shortfall but also gain an excess of 827 MW over minimum capacity requirements. This additional margin strengthens Zone 7’s ability to meet future peak energy demands through the transmission network rather than responding locally, with a net reduction in total supply resource requirements, and without relying on expensive emergency capacity purchases.⁸¹

MISO’s LRTP Tranche 1 modeling estimates that Zone 7 will achieve \$624 million in related resource adequacy cost-savings, with a 20-year NPV – figures that underscore the decisive role of these projects in preventing future shortfalls and ensuring long-term grid reliability.⁸² Notably, exceeding minimum capacity requirements in this way increases the likelihood that Zone 7 will always have access to adequate resources, thereby generating additional value under the category of “avoided risk of load shedding.”⁸³ These avoided costs are discussed in greater detail in Section F below.

⁸⁰ *Id.* at 238-239.

⁸¹ *Id.*

⁸² *Id.* at 260; Ex CUB-4, pp. 57-58.

⁸³ Jester Direct, 5 TR 947-948 (citing Ex CUB-4, pp. 57-58).

Mr. Goggin emphasizes that MISO’s resource adequacy modeling is “conservative,” as it not fully account for the increased import capacity enabled by expanded transmission ties between Michigan and PJM (another RTO that coordinates wholesale electricity markets in 13 states in the eastern United States and the District of Columbia), as well as between Michigan and the Southwest Power Pool (“SPP”) and other external markets.⁸⁴ Expanding interregional transfer capacity between MISO and its neighboring RTOs reduces the total required generating capacity in MISO by increasing the ability to import power when needed, which can save consumers billions of dollars.⁸⁵ Moreover, expanding Michigan’s transmission connections through LRTP Tranche 1, and anticipated future tranches, will yield substantial long-term benefits, as multiple studies have confirmed that MISO’s internal transmission constraints and interfaces with SPP and PJM have the largest need for expansion in both the Alternating Current and Direct Current optimized solutions.⁸⁶ The U.S. Department of Energy’s congestion study in October 2023 further identified that the MISO-PJM seam has the greatest need for expanded transfer capacity in the country, reinforcing the importance of these transmission upgrades.⁸⁷ Finally, LRTP Tranche 1 will also likely expand transmission capacity into Missouri and South Dakota, which will provide MISO with greater access to SPP resources, including abundant wind generation, and will improve resilience during extreme weather conditions in Michigan.⁸⁸

⁸⁴ Goggin Direct, 5 TR 883.

⁸⁵ *Id.* at 884.

⁸⁶ *Id.* at 884-885.

⁸⁷ *Id.* (citing the U.S. Dept. of Energy, “National Transmission Needs Study” (October, 2023), available at https://www.energy.gov/sites/default/files/2023-12/National%20Transmission%20Needs%20Study%20-%20Final_2023.12.1.pdf).

⁸⁸ *Id.* at 885.

All of these interregional enhancements will reduce Michigan's reliance on local generation, lower the risk of future capacity shortfalls, and justify the Commission's approval of the Oneida-Nelson and Helix-Hiple transmission projects. Expanding transmission infrastructure is the most cost-effective and reliable solution for Michigan's long-term energy needs.

F. The Proposed Projects Will Reduce the Risk of Load Shedding and Blackouts, Preventing Up to \$1.6 Billion in Losses.

The LRTP Tranche 1 portfolio is critical to reducing the risk of load shedding within Zone 7.⁸⁹ Load shedding refers to the deliberate temporary shutdown of electric power to consumers when electricity demand nears supply limits, in order to prevent catastrophic grid failures. Without adequate transmission infrastructure, Michigan remains vulnerable to severe weather events and unexpected generation shortfalls, increasing the probability of blackouts. As described briefly in Section E above, MISO's reliability planning framework assumes that the avoided risk of load shedding associated with the proposed transmission lines will generate significant economic value due to preventing outages that would otherwise cause widespread disruption and financial loss.⁹⁰

MISO's economic modeling projects that the avoided cost of load shedding from the LRTP Tranche 1 projects will provide a 20-year NPV benefit to Zone 7 of between \$246 million to \$1.618 billion, based on the Value of Lost Load ("VOLL"), which ranges from \$3,500 to \$23,000 per MWh.⁹¹ Mr. Goggin explains that MISO's modeling does not fully capture the proposed transmission lines' benefits in this area because it assumes that all transmission lines are fully operational at all times and does not account for the growing frequency and severity of extreme

⁸⁹ Marshall Direct, 5 TR 237, 246-247.

⁹⁰ Jester Direct, 5 TR 948 (citing Ex CUB-4, pp. 57-58).

⁹¹ Jester Direct, 5 TR 948; Ex CUB-4, pp. 32-37, 57-58.

weather events.⁹² This conservative assumption means that MISO likely underestimates the true value of the proposed projects in preventing large-scale grid failures.

Severe winter weather events – such as Winter Storm Uri in 2021, which caused widespread rolling blackouts in Texas, and Winter Storm Elliott in 2022, which resulted in \$350 million in congestion costs in MISO over just two days – demonstrate the catastrophic consequences of insufficient transmission infrastructure.⁹³ During the 2019 polar vortex, the Midwest was forced to rely heavily on transmission imports from neighboring regions to prevent grid failure when local generation was unable to meet demand.⁹⁴ Such severe weather events have been occurring at regular intervals over the past 40 years,⁹⁵ and are expected to increase in frequency and intensity.⁹⁶ NERC’s recent Interregional Transfer Capability Study concluded that if severe weather events like those in 2011, 2020 and 2021 reoccur in Michigan under the current system constraints, the state could face a generation shortfall of up to 6,410 MW.⁹⁷ The same report recommends expanding transmission import capacity to MISO west by at least 2,000 MW and to PJM west by at least 1,000 MW, and potentially expanding total ties to those regions by more than 4,000 MW, to mitigate this risk.⁹⁸ As described in Section E above, by expanding interregional transmission with PJM and SPP, the proposed projects will boost grid resilience by

⁹² Goggin Direct, 5 TR 873.

⁹³ *Id.* at 889-890.

⁹⁴ Lyijynen Direct, 5 TR 827.

⁹⁵ See Ex CUB-4, p. 33.

⁹⁶ Marshall Direct, 5 TR 221, 226, 229; Ex CUB-4, p. 32-37.

⁹⁷ Goggin Direct, 5 TR 889-890 (citing NERC, *Interregional Transfer Capability Study Final Report*, available at: https://www.nerc.com/FilingsOrders/us/NERC%20Filings%20to%20FERC%20DL/ITCS_Filing_Fall2024_signed.pdf, p. 105).

⁹⁸ *Id.*

improving Michigan’s ability to import power from other regions during emergencies, reducing Michigan’s dependence on local emergency generation, preventing local supply shortages, and thereby lowering the risk of related blackouts.⁹⁹

Expanding Michigan’s transmission infrastructure via the proposed Oneida-Nelson and Helix-Hiple transmission projects is the most cost-effective and reliable solution for preventing future blackouts and related economic losses, and ensuring long-term system resilience; accordingly, the Commission should issue the requested CPCNs.

G. The Proposed Projects Support Michigan’s Transition to Clean Energy and Results in Related Cost Savings and Other Public Benefits Due to Reduced Greenhouse Gas Emissions.

Michigan’s clean energy transition is dependent on the expansion of its transmission network, and the proposed transmission projects will play a pivotal role in meeting the state’s stringent new targets. The recently enacted 2023 Public Act 235, which was signed into law on November 28, 2023, sets ambitious renewable and clean energy standards that will significantly increase the demand for expanded transmission capacity to integrate growing renewable energy resources in the coming years.¹⁰⁰ The law requires Michigan utilities to generate 50% of their electricity from renewable resources by 2030 and 60% by 2035, while also increasing reliance on clean energy to 80% by 2035 and achieving 100% by 2040.¹⁰¹ Mr. Jester’s analysis in Exhibit CUB-2 confirms that “the availability of adequate transmission, both within lower Michigan and connecting lower Michigan with its neighbors, will be a major determining factor in how well

⁹⁹ *Id.* at 883-886; Lyijynen Direct, 5 TR 826-827.

¹⁰⁰ Jester Direct, 5 TR 950-952; Lyijynen Direct, 5 TR 815-816, 838-842; Goggin Direct, 5 TR 857-858.

¹⁰¹ Jester Direct, 5 TR 950-952; Lyijynen Direct, 5 TR 815-816, 838-842; Goggin Direct, 5 TR 876.

Michigan achieves its clean energy goals.”¹⁰² Despite the fact that recent federal policy decisions have signaled an executive branch retreat from certain clean energy funding initiatives, thereby creating uncertainty in the national energy landscape, there is no question that market forces, state-level commitments, and technological advancements continue to drive the expansion of clean energy resources.¹⁰³ Michigan has already implemented its state-wide commitment to a modernized, reliable, and diversified energy grid through Public Act 235.

To comply with its own mandates, Michigan should optimally double its current level of transmission capacity.¹⁰⁴ Without the proposed projects, Michigan will face serious constraints in integrating new renewable generation, forcing utilities to rely on fossil fuels longer than anticipated and driving up compliance costs.¹⁰⁵ Moreover, Michigan’s utilities are retiring more than 5,000 MW of fossil fuel generation by 2035, with planned renewable energy additions meant to replace this capacity.¹⁰⁶ However, these clean energy projects require expanded in-state and out-of-state transmission in order to be effectively integrated into the grid.¹⁰⁷ Without sufficient transmission, utilities in the state may be forced to delay these retirements and continue using fossil fuels longer than planned or required. Transmission constraints also suppress MISO market prices

¹⁰² Ex CUB-2, pp. 15, 28.

¹⁰³ Lyijynen Direct, 5 TR 829, 838-842.

¹⁰⁴ Jester Direct, 5 TR 951-952 (citing Denholm, Paul, Patrick Brown, Wesley Cole, et al. 2022. Examining Supply-Side Options to Achieve 100% Clean Electricity by 2035. Golden, CO: National Renewable Energy Laboratory. NREL/TP 6A40-81644, available at: <https://www.nrel.gov/docs/fy22osti/81644.pdf>).

¹⁰⁵ Goggin Direct, 5 TR 878-881; Lyijynen Direct, 5 TR 826.

¹⁰⁶ Marshall Direct, 5 TR 234 (citing *In the matter of the application of DTE Electric Company for approval of its Integrated Resource Plan pursuant to MCL 460.6t, and for other relief*, Case No. U-21193, Order Approving Settlement Agreement (July 26, 2023), at ordering ¶ 3; *In the matter of the application of Consumers Energy Company for approval of its integrated resource plan pursuant to MCL 460.6t and for other relief*, Case No. U- 21090, Order Approving Settlement Agreement (June 23, 2022), at ordering ¶ 16).

¹⁰⁷ *Id.* at 235-236.

and generator revenues, discouraging renewable energy investments while increasing costs for utilities attempting to comply with Public Act 235’s clean energy mandates.¹⁰⁸ And without sufficient transmission capacity, utilities may be forced to purchase more expensive out-of-state renewable energy credits (RECs), increasing compliance costs that are then passed on to Michigan consumers.¹⁰⁹

The proposed transmission lines are, according to Mr. Marshall, “backbone” transmission projects that are “essential to achieving our state’s clean energy goals and requirements.”¹¹⁰ Both proposed transmission lines will support Michigan’s compliance with the new Public Act 235 standards by increasing the ability to import and distribute renewable energy, ensuring that wind and solar resources can be efficiently utilized;¹¹¹ reducing congestion, allowing lower-cost clean energy sources to displace more expensive fossil fuel generation;¹¹² and expanding access to regional energy markets, increasing reliability.¹¹³

What’s more, the LRTP Tranche 1 portfolio on the whole will reduce greenhouse gas emissions by nearly 20 million metric tons per year over the first 20 years,¹¹⁴ generating substantial decarbonization benefits. The projected 20-year NPV of these benefits in Zone 7 alone ranges between \$687 million and \$2.656 billion.¹¹⁵ MISO’s detailed decarbonization analysis values these

¹⁰⁸ Goggin Direct, 5 TR 861-869.

¹⁰⁹ *Id.*

¹¹⁰ Marshall Direct, 5 TR 211.

¹¹¹ *Id.* at 239, 261.

¹¹² Jester Direct, 5 TR 952-953.

¹¹³ Goggin Direct, 5 TR 872, 888; Marshall Direct, 5 TR 211, 232, 235, 238-240.

¹¹⁴ Marshall Direct, 5 TR 261.

¹¹⁵ Jester Direct, 5 TR 949-952; Ex CUB-4, pp. 57-58; Marshall Direct, 5 TR 261.

reductions based on updated federal Social Cost of Carbon estimates, which have increased to “\$190 per metric tonne” in 2020, escalating by “\$40/tonne each decade.”¹¹⁶ When these updated figures are applied, MISO’s previous estimate of \$3.5 billion to \$17.4 billion in system-wide decarbonization benefits could exceed \$70 billion.¹¹⁷

Beyond emissions reductions, the clean energy transition enabled by these proposed transmission projects will also deliver other significant public benefits. First, public health will be greatly benefited by cleaner air resulting from decreased fossil fuel combustion, which will reduce pollution-related health issues such as asthma, bronchitis and cardiovascular disease.¹¹⁸ Related cumulative public health cost savings are projected to reach \$2.5 billion in West Michigan and up to \$16 billion in the Detroit Metro area by 2040.¹¹⁹ These health benefits will extend to Michigan’s other eight prosperity regions as well.¹²⁰

Second, the federal IRA and Public Act 235 (which depend on the expanded transmission facilitated by LRTP Tranche 1 and other related projects) will drive significant economic growth, including an estimated 17,090 new clean energy jobs and annual GDP growth of \$2.39 billion in West Michigan by 2040, and 40,240 new clean energy jobs and annual GDP growth of \$5.22 billion in the Detroit Metro area by 2040¹²¹ due to cost savings, emission reductions, related job creation, and economic development.¹²² These economic benefits will also extend to Michigan’s

¹¹⁶ Goggin Direct, 5 TR 893.

¹¹⁷ *Id.*

¹¹⁸ Goggin Direct, 5 TR 892-893; Jester Direct, 5 TR 956 (citing Case No. U-20471, Direct Testimony of George Thurston, 7 Tr 2879-2918, and Direct Testimony of Kindra Weid, 7 Tr 2920-2946).

¹¹⁹ Ex MEIC-5, pp. 18, 23.

¹²⁰ *Id.* at 15-23.

¹²¹ *Id.*

¹²² *Id.* at 29.

other eight prosperity regions, resulting in statewide job creation and development opportunities.¹²³

Third, regional infrastructure of this magnitude requires long-term planning and development; such projects can take as many as ten years to develop. Thus, the present timing of these proposed projects is itself a crucial public benefit in light of the “extended planning horizon” and the “rapidly changing energy landscape.”¹²⁴ Timely approval of these proposed projects is essential to supporting a reliable, affordable, and clean energy future in Michigan.

Lastly, these proposed projects are crucial for accelerating the retirement of legacy fossil fuel plants. The Commission itself has repeatedly emphasized in Integrated Resource Plan (“IRP”) cases involving DTE Electric and Consumers Energy the need for exploration of expanded transmission to enable the cost-effective retirement of aging coal and gas plants.¹²⁵ For example, in Case No. U-18418, the Commission found DTE’s evidence regarding transmission constraints and options for enabling delivery of energy resources from outside the MISO region to be outdated and lacking.¹²⁶ Similarly, in Case No. U-20471, the Commission found that:

“[I]n the very near future, an examination of potential ways to increase the [capacity import limit] will become a necessary component of any IRP, and the Commission directs DTE Electric to include such an examination in its next IRP filing The next transmission analysis shall provide the Commission with an examination of the full suite of options, including renewable energy imports, transmission limits and transmission growth opportunities, and ways to optimize the utility’s portfolio to reduce risk and improve cost-effectiveness.”¹²⁷

¹²³ *Id.* at 15-29.

¹²⁴ Lyijynen Direct, 5 TR 820; Marshall Direct, 5 TR 231-232.

¹²⁵ Jester Direct, 5 TR 952-956.

¹²⁶ See Case No. U-18418, Order, April 27, 2018, p. 112.

¹²⁷ See Case No. U-2041, Order, February 20, 2020, pp. 82-83.

And in Case No. U-21090, the Proposal for Decision explained that Consumers’ limited analysis of transmission and imports was insufficient to meet the Company’s obligations under a settlement agreement and the Commission’s Order in U-20471.¹²⁸ DTE Energy and Consumers Energy themselves have committed to achieving net-zero emissions by 2050, reinforcing the urgent need for new transmission investments to meet state and utility decarbonization goals.¹²⁹ There is no question, as Mr. Marshall aptly summarizes, that “. . . Michigan’s energy landscape is rapidly changing.”¹³⁰ Along these same lines, Ms. Lyjynen affirms, “the resource mix is changing. More conventional power plants are being retired and more weather-dependent renewable resources, such as wind and solar, are being built as many utilities and states work toward decarbonization goals.”¹³¹

Without the proposed projects, Michigan risks falling behind on its clean energy goals, facing higher compliance costs, and failing to fully realize the economic, environmental, and public health benefits of decarbonization. Granting CPCNs for the Oneida-Nelson and Helix-Hiple transmission projects will facilitate Michigan’s leading role in clean energy development.

¹²⁸ See Case No. U-20190, PFD, March 7, 2022, pp. 122-123.

¹²⁹ Lyjynen Direct, 5 TR 816-817.

¹³⁰ Marshall Direct, 5 TR 232-233 (incorporating Exhibit METC-6A (CLM-6a), which is Table 1 of the Commission’s report, *Status of Renewable Energy, Distributed Generation, and Legacy Net Metering in Michigan* (Sept. 29, 2023) to illustrate the change, and explaining that this table does not include the additional renewable energy projects being added by the many unregulated electric providers).

¹³¹ Lyjynen Direct, 5 TR 816.

H. The Proposed Transmission Lines' Overall Benefits Exceed the Costs to Michigan Energy Consumers.

The economic case for the proposed projects is compelling. MISO's comprehensive, high-level economic analysis confirms that the LRTP Tranche 1 projects will generate \$6.1 to \$9.4 billion dollars in total benefits to Zone 7 over the next 20 years (NPV).¹³² These benefits are derived from a set of six distinct benefit metrics, which have been detailed individually in the preceding sections: (1) congestion and fuel savings, (2) avoided capital cost of local resource investment, (3) avoided transmission investment, (4) resource adequacy savings, (5) avoided risk of load loss, and (6) decarbonization benefits.¹³³ The BCR for Zone 7 is estimated between 2.2 to 3.4, reinforcing that the public benefits of the proposed projects "far exceed the costs to Michigan energy consumers."¹³⁴ In practical terms, this BCR means that for every dollar invested in the proposed projects, Michigan consumers will receive between \$2.20 and \$3.40 in benefits. MISO's analysis demonstrates that the proposed projects provide multidimensional benefits that far exceed their costs while addressing Michigan's most pressing energy needs and challenges.

Given the overwhelming evidence supporting the necessity and related public benefits of these proposed projects, the Commission should grant the requested CPCNs.

I. The Public Benefits of the Proposed Transmission Projects Are Certain Whether or Not the Entire LRTP Tranche 1 Portfolio is Timely Constructed.

Despite the well-documented benefits of the proposed transmission projects, Commission Staff witnesses raise concerns regarding their necessity and cost-effectiveness if the entire LRTP

¹³² Marshall Direct, 5 TR 261.

¹³³ *Id.*

¹³⁴ *Id.* at 52.

Tranche 1 portfolio is not constructed as planned. Staff witness Ms. Naomi Simpson argues that the estimated \$6.1 to 9.4 billion in benefits to Michigan assumes full completion of LRTP Tranche 1, stating that “[i]f the entire portfolio is not built as planned or with reasonable modifications, it is not clear that the quantifiable benefits justify the cost of construction.”¹³⁵ Staff witness Mr. Zachary C. Heidemann echoes this concern, asserting that “[a] delay or failure to receive regulatory approval on one or more of these projects could affect the benefits to Michigan ratepayers.”¹³⁶ Mr. Heidemann further suggests that Michigan ratepayers will pay between 18 to 22 percent of the costs of the entire LRTP Tranche 1 portfolio (\$1.858 billion to \$2.271 billion), implying – incorrectly – that these costs are unavoidable, regardless of whether other portions of LRTP Tranche 1 move forward.¹³⁷ Consequently, Staff witness Ms. Simpson recommends that the Commission condition approval of the Oneida-Nelson and Helix-Hiple transmission lines on the regulatory approval of LRTP Tranche 1 segments 12, 13, 14, 15, and 16 in their respective states.¹³⁸

However, rebuttal testimony from Mr. Marshall and Mr. Goggin strongly refutes these concerns. Both experts affirm that Michigan will receive substantial benefits from these proposed transmission projects regardless of the status of projects in neighboring states.¹³⁹ Mr. Marshall emphasizes that, while LRTP Tranche 1 projects 12-16 would maximize benefits, they are not required for Michigan to benefit from the proposed lines. He explains:

“Expanding Michigan’s transmission system beyond our borders aids in increasing [Zone] 7’s capacity import limit . . . , promoting reliability of Michigan’s system,

¹³⁵ Simpson Direct, 5 TR 1187.

¹³⁶ Heidemann Direct, 5 TR 1238.

¹³⁷ *Id.* at 1241-1242.90.

¹³⁸ Simpson Direct, 5 TR 1188-1189.

¹³⁹ Marshall Rebuttal, 5 TR 323-329; Goggin Rebuttal, 5 TR 851-854.

supporting the growth of Michigan[’s] overall renewable generation portfolio, and bringing job and economic growth to the state.”¹⁴⁰

Similarly, Mr. Goggin highlights that “the Projects will likely still have large net benefits to Michigan even if some other portions of Tranche 1 projects 12-18 do not move forward . . . from increasing the ability to import energy, capacity, and renewable energy”¹⁴¹ He further underscores that it is unlikely that other segments will fail to receive necessary approvals given the high BCR for each LRTP Tranche 1 segment in each respective state.¹⁴² Mr. Marshall further clarifies that Michigan ratepayers will only be responsible for paying 18 to 22 percent of the costs of those LRTP Tranche 1 projects that are ultimately constructed and placed in service,¹⁴³ meaning that if certain segments are not built elsewhere, Michigan’s cost allocation will be proportionally reduced.

Staff’s recommendation to delay approval could significantly increase project costs due to supply chain constraints¹⁴⁴ and expose Michigan ratepayers to unnecessary risks. Mr. Goggin explains on rebuttal that “average lead time for large power transformers has increased from 50 weeks in 2021 to 120 weeks in 2024,” making timely Commission approval crucial to ensuring project completion on schedule and keeping costs under control.¹⁴⁵ Additionally, the Western Area Power Administration estimates that lead times for large power transformers are now up to four years, while circuit breakers can take as long as 5.5 years to procure, further emphasizing the

¹⁴⁰ Marshall Rebuttal, 5 TR 324.

¹⁴¹ Goggin Rebuttal, 5 TR 904-905.

¹⁴² Goggin Rebuttal, 5 TR 903-904.

¹⁴³ Marshall Rebuttal, 5 TR 332.

¹⁴⁴ Capra Rebuttal, 5 TR 499-500.

¹⁴⁵ Goggin Rebuttal, 5 TR 901-902.

urgency of securing approvals now to prevent costly delays.¹⁴⁶ Other risks of delaying the proposed projects include slowing Michigan’s progress toward its renewable energy goals,¹⁴⁷ and delaying the next phase of MISO’s LRTP Tranche 2.1 projects, as Tranche 1 is designed to lay the structural groundwork for such future regional upgrades.¹⁴⁸ The experts are clear that Michigan ratepayers “do not have the luxury of time” for any transmission investment delays. The state’s immediate transmission needs – including near-term capacity and energy risks due to impending extreme weather conditions – are too great.¹⁴⁹ It is imperative that these projects move forward without unnecessary delays. As Mr. Marshall warns, the unintended consequences of postponing these investments “would reach far beyond Michigan.”¹⁵⁰

Despite highlighting these concerns, Staff witnesses do not dispute MISO’s projected benefits as already explored throughout this brief. In fact, Ms. Simpson herself accepts that the “three main categories of non-quantifiable benefits” outlined in Mr. Marshall’s direct testimony are legitimate public benefits that should be considered by the Commission.¹⁵¹ These benefits include that the proposed projects: (1) support reliable energy delivery under various conditions modeled through the LRTP Tranche 1 process; (2) increase Zone 7’s capacity import limit, potentially providing utilities access to additional resources; and (3) serve as a backbone transmission infrastructure that, once built, will provide greater flexibility in bringing new power

¹⁴⁶ *Id.* at 5.

¹⁴⁷ Marshall Rebuttal, 5 TR 325.

¹⁴⁸ *Id.* at 368-369.

¹⁴⁹ *Id.* at 370-371.

¹⁵⁰ Marshall Rebuttal, 5 TR 328-329.

¹⁵¹ Simpson Direct, 5 TR 1187-1188.

on the grid and servicing new load in Michigan.¹⁵² Moreover, she acknowledges the significant benefit the Helix-Hiple transmission line will bring in providing the first new 345 kV connection with a neighboring state in 50 years, further enhancing Michigan’s access to regional power markets.¹⁵³ Other Staff witnesses, including Mr. Szajner, Marceline Champion, and Mr. Heidemann, similarly adopt the significant quantifiable and non-quantifiable benefits of the proposed projects, recognizing the proposed transmission lines’ role in increasing Michigan’s capacity import limit, integrating new renewable resources, helping meet its clean energy goals, and reducing wholesale energy prices.¹⁵⁴

Again, MISO’s planning process ensures that “each individual project contributes positively to the benefits and benefit-cost ratio of the portfolio,” meaning that Michigan will realize substantial benefits even if the entire consolidated LRTP Tranche 1 portfolio is not fully constructed.¹⁵⁵ Given these assurances, Michigan should prioritize its own energy security and cost-savings, as detailed throughout this brief, rather than hinge approval of the proposed projects on uncertain decisions in other states. The Commission should reject Staff’s recommendation to condition issuance of the CPCNs on external regulatory processes beyond its control, as doing so would only introduce unnecessary delays, increased costs, and heightened reliability risks.¹⁵⁶

¹⁵² *Id.*

¹⁵³ *Id.*

¹⁵⁴ Direct Testimony of Marceline Champion, 5 TR 1223-1225; Szajner Direct, 5 TR 1204-1205; Heidemann Direct, 5 TR 1238-1242.

¹⁵⁵ Jester Direct, 5 TR 942-943.

¹⁵⁶ See generally Goggin Rebuttal 5 TR 896-906; Marshall Rebuttal, 5 TR 325-326.

IV. CONCLUSION

The Oneida-Nelson and Helix-Hiple transmission projects are critical investments for Michigan's long-term energy reliability, economic stability, and clean energy goals. As the state transitions toward a cleaner energy grid, modernizing and expanding the transmission infrastructure – consistent with METC's and MISO's plans – is essential to effectively integrating new renewable energy resources. The record, including the direct and rebuttal testimony of Mr. Marshall and Mr. Goggin, as well as the direct testimony of Mr. Jester and Ms. Lyijynen, along with MISO's own modeling and analysis, overwhelmingly demonstrates that these projects will provide substantial net benefits. Their approval pursuant to MCL 460.568(5)(a) is both necessary and prudent for Michigan ratepayers in Zone 7.

The economic and reliability benefits of the proposed transmission lines far outweigh their costs. MISO's comprehensive modeling estimates that, overall, Zone 7 will receive between \$6.1 billion and \$9.4 billion in total benefits over the next 20 years (NPV), with a BCR of 2.2 to 3.4, meaning that for every dollar invested, Michigan consumers will receive between \$2.20 and \$3.40 in benefits. These projects will reduce congestion and fuel costs; prevent costly local resource investment; eliminate unnecessary transmission investments; resolve Michigan's projected capacity shortfall; reduce the risk of load shedding and blackouts; and facilitate Michigan's transition to clean energy, with its many significant economic, public health, and environmental benefits. MISO, Michigan utilities, experts, and regional stakeholders all agree: these investments are necessary to maintaining a stable, cost-effective, and resilient energy grid.

While Staff raises concerns about Zone 7's benefits should the entire LRTP Tranche 1 portfolio not be constructed as planned, those concerns are addressed and refuted in the rebuttal testimony of Mr. Marshall and Mr. Goggin. Moreover, Staff has affirmed the fundamental benefits

of the proposed projects, regardless of whether the other lines are built. Given the extensive planning and construction timeline required for major transmission infrastructure, delaying approval of these proposed lines would expose Michigan ratepayers to higher energy costs, increased blackout risks, and slower clean energy transition.

For all these reasons, the Sierra Club and Citizens Utility Board respectfully request on behalf of their members – who are Michigan ratepayers directly impacted by the public benefits of the proposed projects – that the Commission approve the requested CPCNs for the Oneida-Nelson and Helix-Hiple transmission projects without delay.

Respectfully submitted,

Date: March 19, 2025

/s/

By:

Lauren A. Teichner

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STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of **MICHIGAN TRANSMISSION COMPANY, LLC** for an Act 30 certificate of public convenience and necessity for the construction of a major transmission line between Oneida Substation in Eaton County and Nelson Road Substation in Gratiot County, Michigan.

Case No. U-21471
(Lead Case for Filing)

In the matter of the application of **MICHIGAN ELECTRIC TRANSMISSION COMPANY, LLC** for an Act 30 certificate of public convenience and necessity for the construction of a major transmission line between the Indiana/Michigan state border at Gilead Township in Branch County and the new Helix Substation in Calhoun County, Michigan.

Case No. U-21472

PROOF OF SERVICE

On the date below, an electronic copy of **Initial Brief by Citizens Utility Board of Michigan and Sierra Club** was served on the following:

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The statements above are true to the best of my knowledge, information and belief.

TROPOSPHERE LEGAL, PLC
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Date: March 19, 2025

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