UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

	)	
Midcontinent Independent System Operator, Inc.	)	**Docket Nos. EL24-80-000**
PJM Interconnection, L.L.C.	)	**EL24-81-000**
Southwest Power Pool, Inc.	)	**EL24-82-000**
ISO New England, Inc.	)	**EL24-83-000**
	)	**(not consolidated)**

Response of the Public Interest Organizations

Pursuant to Rule 212 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission ("Commission") and Ordering Paragraph (E) of the Show Cause Order issued by the Commission, Sierra Club, Sustainable FERC Project, and Natural Resources Defense Council (collectively, "Public Interest Organizations" or "PIOs") submit this response to the Responses to the Show Cause Order filed by the Southwest Power Pool, Inc., SPP Transmission Owner Group, Midcontinent Independent System Operator, Inc., MISO Transmission Owners, PJM Interconnection, L.L.C., PJM Transmission Owners, ISO New England, Inc., and ISO-NE Transmission Owners (collectively "Responses") on September 11, 2024.[1]

[1] Response to Order to Show Cause of Southwest Power Pool, Inc., Docket No. EL24-82 (Sept. 11, 2024), Accession No. 20240911-5162; Motion to Terminate Proceeding, Alternative Motion to Hold Proceeding in Abeyance, and Responses of the Southwest Power Pool Transmission Owner Group, Docket No. EL24-82 (Sept. 11, 2024), Accession No. 20240911-5143; Response to Order to Show Cause of Midcontinent Independent System Operator, Inc., Docket No. EL24-80 (Sept. 11, 2024), Accession No. 20240911-5160; Response of MISO Transmission Owners, Docket No. EL24-80 (Sept. 11, 2024), Accession No. 20240911-5144 (hereinafter "MISO TOs' Response"); Response to the Commission's 06/13/2024 Show Cause Order of PJM Interconnection, L.L.C., Docket No. EL24-81 (Sept. 11, 2024), Accession No. 20240911-5209; Answer to Order to Show Cause of the PJM Transmission Owners, Docket No. EL24-81 (Sept. 11, 2024), Accession No. 20240911-5157 (hereinafter "PJM TOs' Response); Response to the 06/13/2024 Order to Show Cause of ISO New England, Inc., Docket No. EL24-83 (Sept. 11, 2024), Accession No. 20240911-5198 (including response by a subset of the Transmission Owners in the ISO-NE region as Attachment 1).

It is well documented that the electric grid is currently facing an interconnection crisis: as old and expensive coal and gas generators retire, grid operators, including Regional Transmission Organizations ("RTOs"), are struggling to bring online sufficient replacement generation to maintain system reliability.[2] One of the biggest barriers to bringing new clean generation and storage resources online is the significant interconnection costs that those resources (the "Interconnection Customers") are being asked to shoulder.[3] These costs are largely driven by the cost of financing new transmission facilities to accommodate the additional capacity—and they are made more prohibitive when, in addition to paying for the actual costs of these transmission upgrades, Interconnection Customers are also required to pay a premium on those costs. This premium essentially acts as a surcharge, further discouraging the deployment of new, clean energy resources.

This is exactly what occurs when the Transmission Owner ("TO" or "TOs"), which owns and operates the transmission grid in the Interconnection Customer's region, pays for the line upon which it collects its typical return and separately receives a return on its investment. The inevitable consequence of increasing the interconnection costs faced by Interconnection Customers is a reduction in the addition of new resources to the grid. This slowdown will in turn lead to higher energy and capacity costs, which are passed on to ratepayers. The Commission has correctly identified this problem, and has correctly observed that tariff provisions that allow Transmission Owners to unilaterally take on both the cost and responsibility of building necessary transmission upgrades while collecting a return on those costs and charging everything

[2] *See*, *e.g*., NRDC, "Breaking Through the PJM Interconnection Queue Crisis," (May 18, 2023), https://www.nrdc.org/bio/dana-ammann/breaking-through-pjm-interconnection-queue-crisis (noting that about 1,300 gigawatts (GW) of new resources—primarily renewables and storage—are waiting to connect to power grids across the country).

[3] *See* Lawrence Berkeley National Laboratory, "Generator Interconnection Costs to the Transmission System," (2024), https://emp.lbl.gov/interconnection_costs (analyzing studies demonstrating that interconnection costs for most transmission planning regions have grown substantially over time).

back on Interconnection Customers "increase the costs of interconnection service without corresponding improvements to that service."[4] As PIOs explain below, these provisions are clearly unjust and unreasonable, and Transmission Owners' and other entities' arguments to the contrary rely on a misreading of the relevant caselaw.

A. Allowing Transmission Owners to Require Interconnection Customers to Pay a Markup on Their Interconnection Costs is Unjust and Unreasonable

The fundamental problem with TOs self-electing to construct transmission necessitated by interconnection customers is that it needlessly increases costs to ratepayers across the system by introducing a risk-based premium to an undertaking that is essentially risk-free. Giving TOs unilateral authority to impose added costs to the electric grid and thereby benefit, by "opting in" to low-risk transmission investments and collecting guaranteed rates of return on those investments, creates a power imbalance where TOs have both the ability and incentive to impose unnecessary costs on interconnection customers. Further, it removes the incentive for TOs to engage in proactive, effective transmission planning, which as discussed below should reduce the need to build large network upgrades.

In turn, this provision increases costs to ratepayers by artificially inflating the cost of adding new generation to the grid. Importantly, these provisions do not offer any corresponding benefit to Interconnection Customers (and by extension ratepayers) that might offset the unavoidable costs that are imposed when interconnection becomes more expensive. Unilateral self-funding is therefore neither a just nor reasonable market structure.[5]

Fundamentally, no tariff provision that gives Transmission Owners independent authority to increase interconnection costs by any amount, without corresponding benefits, should ever be

[4] *Midcontinent Independent System Operator, Inc., et al.,* Order to Show Cause, 187 FERC ¶ 61,170 at P 1 (2024).
[5] 16 U.S.C. § 824d(a).

considered just or reasonable. But the problematic nature of the tariff provisions here is compounded by the significant impact of TO self-funding on costs: recent estimates demonstrate that the premiums paid by Interconnection Customers for TO-funded transmission projects can exceed 30 percent on a net present value basis.[6] A 30 percent increase in interconnection costs can be crippling for small generation or storage projects that are already burdened with high initial costs. If they are allowed to continue, these premiums could significantly dampen investor interest in new generation projects, as the higher financial barriers make such projects less attractive and thus less feasible.

B. The Commission's Preliminary Determination—That the Utility Tariff Provisions Allowing for Unilateral Transmission Owner Funding Are Unlawful—Does Not Violate the Fifth Amendment of the United States Constitution

Responding Parties claim that the current policies are necessary to avoid an unconstitutional taking, especially when these policies require TOs to invest shareholder funds in the maintenance of transmission facilities that they did not initially construct. This argument is a distortion of the law. The Takings Clause of the Fifth Amendment provides that the government shall not take property for public use without just compensation.[7] However, there is no danger of that occurring here, because the policies in question do not involve the government seizing property or depriving TOs of their investments without compensation.

The main thrust of Responding Parties' arguments here is that, under *FPC v. Hope Natural Gas Co*,[8] just compensation requires more than a mere reimbursement of costs: it

[6] Protest of the American Clean Power Association, et al., Docket Nos. EL21-66-000 and ER21-1647-000 (May 7, 2021), Accession No. 20210507-5188, Attach. B, Declaration of Stephane Desdunes at P 4.
[7] U.S. Const. Amend. V. ("[N]or shall private property be taken for public use, without just compensation"). In the context of the Commission's regulations, the "property" is the shareholder investment that is used by the utility, and a "taking" occurs when a utility spends shareholder funds to carry out its obligation to serve. The revenue produced by the rates authorized by the regulator is the "compensation".
[8] 320 U.S. 591 (1944) (hereinafter "*Hope*").

requires a return or profit on *each* of the assets that they own, operate, and maintain. However, requiring a return or profit on a suite of investments is fundamentally different from requiring a return or profit on every individual investment of time, labor, or capital, and the Responding Parties' all-or-nothing approach is inconsistent with *Hope*, which provides that the Commission is not bound by a "single formula" when determining just compensation.[9] In fact, *Hope* establishes that the constitutional requirement for just compensation is achieved when the combined impact of the rate authorized by the Commission ensures that: 1) the utility has sufficient revenue to cover operating expense and capital costs; 2) the utility's return on equity is consistent with returns seen in other enterprises with similar risk profiles; and 3) the return is sufficient to maintain the enterprise's financial integrity so that it preserves its credit and can continue attracting capital.[10] As *Hope* makes clear, "[r]ates which enable [a] company to operate successfully, to maintain its financial integrity, to attract capital, and to compensate its investors for the risks assumed certainly cannot be condemned as invalid, even though they might produce only a meager return on . . . rate base."[11] As discussed below, the Responding Parties have not adequately demonstrated that, in the absence of a unilateral self-funding option, their rates for Commission-regulated services will fail to enable them to operate successfully and attract capital by offering profits commensurate with their overall operational risks.

C. Neither the Federal Power Act Nor the United States Constitution Guarantees That Transmission Owners Will Earn Profits at the Same Rate as Unregulated For-Profit Businesses

Responding Parties' arguments are further undermined by a close examination of another case they cite extensively in their responses: *Bluefield Waterworks & Improvement Co. v. Public*

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[9] *Id.*
[10] *Id.* at 603–605.
[11] *Id.* at 605.

Service Commission of West Virginia.[12] In *Bluefield*, the U.S. Supreme Court found that a utility is entitled to a fair return on its investments, one that reflects what investors in other businesses with similar risks would expect. Importantly, *Bluefield* held that this return should be reasonable and not guaranteed to secure excessive profits or insulate the utility from financial risks. As the Supreme Court clearly stated, a utility "has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises."[13] This point is particularly relevant here, where the investments Responding Parties believe TOs should receive a guaranteed rate of return on are, in fact, particularly low-risk investments because they are immediately reimbursed by Interconnection Customers. Unlike other infrastructure investments where TOs may face financial risks due to delays or market fluctuations, these investments are essentially fronted by TOs but quickly recouped, thus minimizing the financial risk typically associated with large capital expenditures.

The Responding Parties argue that, if they are unable to earn a return on all network upgrades on their systems, they will essentially be operating in part as non-profit entities. They assert further that they are entitled to the same level of profits as any other corporation; [14] but they have failed to provide any concrete evidence showing that TOs face any significant financial risk when they choose to self-fund upgrades, especially since they are reimbursed quickly. Therefore, their argument for guaranteed returns on all network upgrades, as though these were typical, high-risk investments, is unsubstantiated and fails to demonstrate any legitimate financial exposure.

[12] 262 U.S. 679 (1923) (hereinafter "*Bluefield*").
[13] *Id*. at 692.
[14] MISO TOs' Response, *supra* note 1, at 15–16; PJM TOs' Response, *supra* note 1, at 4–5, 29–30.

PJM's claim that "no private business would choose to operate without a profit"[15] is a perfect demonstration of the fundamental misunderstanding Responding Parties have of the constitutional protections provided to public utilities.[16] The U.S. Constitution does not guarantee profits on every transaction or investment a utility makes, but instead ensures that rates allow a utility to cover its operational costs, attract capital, and maintain financial integrity. PJM also overlooks[17] the fundamental fact that even when a generator pays the initial capital costs for network upgrades, the TO still earns revenue through transmission charges for using the system. Thus, the TOs are not left operating without compensation; they still benefit financially from the system, regardless of how the upgrades are funded.

D. Consistent with *Hope*, the Commission's Decision to Minimize the Cost of Network Upgrades Strikes a Reasonable Balance Between Investor and Consumer Interests

The Responding Parties also overlook a key aspect of the Commission's mandate: ensuring that rates remain affordable for consumers. FERC is tasked with balancing the need for just and reasonable rates, which not only provide adequate returns to transmission owners but also protect consumers from excessive costs. While Responding Parties focus on securing profits for TOs for all network upgrades, they ignore FERC's broader responsibility to ensure that rates remain fair, equitable, and do not impose undue financial burdens on consumers. This affordability mandate is a crucial aspect of the Commission's role in regulating utility rates and ensuring that the public interest is prioritized.

The changing energy mix will spur substantial development of a variety of energy infrastructure assets. To mitigate potential rate shocks on consumers, especially for low-income

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[15] PJM TOs' Response, *supra* note 1, at 23; *see also id*., Attach. 1, Prepared Testimony of Ellen Lapson, CFA, at 2 (PDF 109) (hereinafter "Ellen Lapson Testimony").
[16] *See* MISO TOs' Response, *supra* note 1, at 75–78.
[17] Ellen Lapson Testimony, *supra* note 15, at 10 (PDF 117); PJM TOs' Response, *supra* note 1, at 22.

and vulnerable communities, the Commission must prioritize implementing policies that streamline the construction and upgrade of utility infrastructure. The Department of Energy ("DOE") has highlighted the challenges felt by vulnerable communities through its investigation of "energy burden", which is defined as the percentage of a household's gross income that is spent on energy costs. Communities with high energy burdens, particularly low-income households, tend to spend a disproportionately high percentage of their income on electricity and heating. This creates significant challenges, as energy burdens of 6 percent or more can make it difficult for families to afford other essentials such as food, healthcare, and housing.[18] In the approximately 43 percent of U.S. households that are identified as low income,[19] the average energy burden is over 15 percent;[20] this is more than seven times the 2 percent average energy burden in non-low income households.[21] This also means that any policy that raises energy costs will disproportionately impact communities already struggling with higher energy burdens.

The Commission cannot simply adopt a passive stance based on the financial capabilities of independent developers; it must actively consider how its policies will affect affordability and ensure that vulnerable consumers are not disproportionately impacted by rising energy costs. Prioritizing affordability and equitable access to energy is fundamental to fulfilling the Commission's mandate.

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[18] Department of Energy, "Low-Income Energy Affordability Data (LEAD) Tool: Learn More About LEAD Tool Data, Energy Burden," (2024), https://www.energy.gov/scep/low-income-energy-affordability-data-lead-tool#:~:text=Energy%20burden%20is%20defined%20as,income%20spent%20on%20energy%20costs (hereinafter "DOE LEAD Tool").

[19] *Id.*

[20] American Council for an Energy-Efficient Economy, "Energy Burden Research," (Sept. 11, 2024), https://www.aceee.org/energy-burden#:~:text=The%202020%20report%20found%20that,their%20income%20on%20energy%20costs.

[21] DOE LEAD Tool, *supra* note 18.

E. The Responding Parties Fail to Demonstrate They Will Be Subject to Imminent Financial Harm If They Do Not Earn a Return on All Network Upgrades

Responding Parties assert that their financial integrity and ability to attract capital will be compromised because the anticipated rise in maintenance costs for network upgrades, on which they do not earn profits, will eventually overshadow the revenue-generating investments that drive their profitability. While utilities are generally compensated for operational, business, and safety risks through transmission rates, Responding Parties express concern that, as these maintenance costs escalate, the balance between their cost recovery and profit-generating activities will shift, potentially undermining their long-term financial integrity and their ability to attract capital.[22] However, this argument is premature because TOs are nowhere close to this threshold, and it is unlikely to materialize even over the long term.

PJM's network upgrade costs for 2019 were $1.176 billion, a small fraction of its TOs' anticipated transmission asset rate base of $98 billion.[23] The network upgrade costs for most transmission owners in ISO New England's territory are between 0 to 2 percent of their total transmission assets.[24] MISO's total interconnection-related upgrade costs for its transmission owners through 2024 is $2.66 billion,[25] a mere 4 percent of their total "gross plant," which is $67 billion,[26] and 6 percent of their rate base.[27] MISO claims this number will grow by $7.5 billion,[28] but it is also on track to implement another $21.8 billion worth of approved or pending regional transmission projects that, subject to competition in the states that allow it, would be built by

[22] MISO TOs' Response, *supra* note 1, at 75–78.
[23] PJM TOs' Response, *supra* note 1, at 5, 76.
[24] ISO New England Response, *supra* note 1, Attach. 1, at 94.
[25] This amount includes the costs of network upgrades for projects that are not yet in service. MISO TOs' Response, *supra* note 1, at 74.
[26] *Id.*
[27] *Id.* at 75.
[28] *Id.* at 76.

incumbent utilities.[29] These projects have the potential to not only mitigate the expansion of network upgrades but also reduce their necessity or scale. Further, as transmission planning regions implement Order No. 1920, and the Commission issues further interconnection reforms to better align transmission planning with the generator interconnection process,[30] the demand for, or the scale of, network upgrades is expected to diminish over time.

The Commission's proposed reforms align with the recommendations in DOE's 2024 Transmission Interconnection Roadmap, which identifies several solutions to relieve the interconnection queue backlog including to "[e]xplore and evaluate potential options for delinking the interconnection process and network upgrade investments to increase up-front interconnection cost certainty."[31] Nevertheless, consistent with *Hope*, the Commission retains the ability to make "pragmatic adjustments"[32] to its regulations if the concerns raised by Responding Parties become significant or imminent to ensure that rates stay just and reasonable without becoming unduly discriminatory or preferential. But in the meantime, the Responding Parties have not presented any compelling reasons for the Commission to refrain from taking action now to save Interconnection Customers and ratepayers from facing artificially inflated interconnection costs.

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[29] Michelle Wilson, "Transforming the Grid: MISO's $21.8 Billion LRTP Tranche 2.1 Portfolio," (Sept. 25, 2024), https://www.misoenergy.org/meet-miso/media-center/miso-matters/transforming-the-grid-misos-$21.8-billion-tranche-2.1-transmission-portfolio.

[30] *See, e.g.*, *Innovations and Efficiencies in Generator Interconnection Workshop,* Panel 1 – Integrated Transmission Planning and Generator Interconnection, Docket No. AD24-9-000 (more information available at https://www.ferc.gov/news-events/events/innovations-and-efficiencies-generator-interconnection-workshop-day-1-2-09102024).

[31] U.S. Department of Energy, "Transmission Interconnection Roadmap: Transforming Bulk Transmission Interconnection by 2035: Solution 3.3," (Apr. 2024), https://www.energy.gov/eere/i2x/doe-transmission-interconnection-roadmap-transforming-bulk-transmission-interconnection.

[32] *Hope*, 320 U.S. at 602.

F. Conclusion

For the foregoing reasons, PIOs respectfully request that the Commission affirm the preliminary findings in its Show Cause Order that the provisions allowing Transmission Owners to unilaterally elect initial funding of interconnection network upgrades are unjust, unreasonable, and unduly discriminatory or preferential.

Respectfully Submitted,

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Dated: October 25, 2024