

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

Transmission Planning and
Cost Management

Docket Nos. AD22-8-000

Joint Federal-State Task Force
on Electric Transmission

AD21-15-000

Post-technical Conference Comments of the R Street Institute

I. Issue Summary

On Oct. 6, 2022, the Federal Energy Regulatory Commission (FERC or Commission) convened a technical conference on transmission planning and cost management.¹ On Dec. 23, 2022, the Commission issued a notice inviting post-technical conference comments, especially in five areas: local transmission planning and asset management; project implementation and variance analysis; independent transmission monitor; formula rates and prudence practices; and federal and state regulation of transmission facilities.² These issue areas have important synergies with separate reforms proposed by the Commission in the April 2022 Notice of Proposed Rulemaking (NOPR) on improving regional transmission planning, cost allocation and generator interconnection.³

The R Street Institute (RSI) submits these comments independently and will also file jointly with the Electricity Customer Alliance and Independent Transmission Monitor Coalition.

II. Transmission Policy Summary

Prudent transmission investment maximizes benefits less the cost. Core benefits include cost savings, reliability and resilience. Transmission developers have ample access to capital; they spend \$20-\$25 billion per year on domestic transmission.⁴ However, over 90 percent of this is built without economic justification, such as cost-benefit analysis.⁵ Billions of dollars are inefficiently allocated annually, eroding net benefits and suppressing the development of cleaner and lower-cost generation.⁶ The problem rests

¹ 87 Fed. Reg. 80533 (Dec. 30, 2022). <https://www.federalregister.gov/documents/2022/12/30/2022-28454/transmission-planning-and-cost-management-joint-federal-state-task-force-on-electric-transmission>.

² Ibid.

³ 87 Fed. Reg. 26504 (May 4, 2022). <https://www.federalregister.gov/documents/2022/05/04/2022-08973/building-for-the-future-through-electric-regional-transmission-planning-and-cost-allocation-and>.

⁴ See, e.g., Johannes Pfeifenberger, "21st Century Transmission Planning: Benefits Quantification and Cost Allocation," The Brattle Group, January 2022, p. 3. <https://www.brattle.com/wp-content/uploads/2022/01/21st-Century-Transmission-Planning-Benefits-Quantification-and-Cost-Allocation.pdf>.

⁵ Ibid.

⁶ See, e.g., Toshiaki Tsuchida et al., "Grid-Enhancing Technologies Shown to Double Regional Renewable Energy Capacity, According to Study by Brattle Consultants," The Brattle Group, Feb. 1, 2021. <https://www.brattle.com/insights-events/publications/grid-enhancing-technologies-shown-to-double-regional-renewable-energy-capacity-according-to-study-by-brattle-consultants>.

squarely on an outdated and structurally flawed regulatory system that exhibits a severe lack of economic discipline.⁷

Economic discipline results from either competition or cost-of-service regulation with strict prudence reviews. Kentucky Public Service Commission Chairman Kent Chandler, who testified in this proceeding, found that, “astoundingly, a large proportion of transmission development is neither subject to competitive bidding nor economic regulation.”⁸ In particular, projects between the 100-230 kilovolt (kV) range, those creatively dubbed “reliability need,” and those inside a single transmission zone, irrespective of cost allocation, are exempt from competition and economic regulation.⁹ This condition, when paired with the overcapitalization incentive of cost-of-service rates, results in incumbent utilities overspending on inefficient transmission outside the scope of economically planned regional projects, which subverts investment in efficient regional transmission.¹⁰

Many incumbent transmission utilities also own generation, namely in traditionally regulated states both in and outside regional transmission organizations (RTOs). Their incentive is to subvert regional transmission development to prevent import or export capacity that would allow competitors’ generation to displace their higher cost generation or erode their case for state regulators to approve new generation rate base. In practice, such behavior is pervasive. For example, in 2022, Entergy secured approval of a new rate-based power plant that will cost ratepayers ten times more than a planned regional transmission solution that the Midcontinent Independent System Operator (MISO) has since sought to withdraw after the power plant decision.¹¹

This incentive predates Order 1000. In 2007, FERC found in Order 890 that the incentives faced by incumbent transmission providers create barriers to regional transmission development to the extent that the Commission “cannot rely on the self-interest of transmission providers to expand the grid in a nondiscriminatory manner.”¹² Rather than address such discriminatory practices head-on, the NOPR proposes federal right-of-first-refusal (ROFR) provisions to incentivize incumbent utilities to participate in regional transmission planning, which will add billions in consumer costs.¹³ At best, a federal ROFR may modestly mitigate the magnitude of incumbent transmission owners’ disincentive to pursue efficient regional transmission, but it will not change the direction of the disincentive. By adding costs, ROFRs actually reduce the economic basis for regional transmission expansion. ROFRs at the state level drive resistance from consumers and states to support regional transmission expansion.

⁷ Jennifer Chen and Devin Hartman, “Transmission Reform Strategy from a Customer Perspective: Optimizing Net Benefits and Procedural Vehicles,” *R Street Policy Study* No. 257, May 2022. <https://www.rstreet.org/wp-content/uploads/2022/05/RSTREET257.pdf>.

⁸ Devin Hartman and Kent Chandler, “Stakeholder Soapbox: A Transmission Planning Resolution Emerges,” *RTO Insider*, Dec. 13, 2022. <https://www.rtoinsider.com/articles/31281-stakeholder-soapbox-tx-planning-resolution-emerges>.

⁹ *Ibid.*

¹⁰ Chen and Hartman. <https://www.rstreet.org/wp-content/uploads/2022/05/RSTREET257.pdf>.

¹¹ See, e.g., Beth Garza, “Texas regulators’ OK of Entergy 1.2-GW, gas plant draws mixed observer reactions,” Nov. 15, 2022. <https://www.rstreet.org/commentary/texas-regulators-ok-of-entergy-1-2-gw-gas-plant-draws-mixed-observer-reactions>.

¹² 72 Fed. Reg. 12318 (March 15, 2007). <https://www.govinfo.gov/content/pkg/FR-2007-03-15/pdf/E7-3636.pdf>.

¹³ “Comments of the Electricity Transmission Competition Coalition before the Federal Energy Regulatory Commission,” Docket No. RM21-17-000, Aug. 17, 2022, p. 14. https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20220817-5258&optimized=false.

A new analysis by RSI, which has not yet been entered into the NOPR record, provides a case study on the pernicious cost effects of state ROFRs (see Table 1).¹⁴ In particular, the ROFR requirements of North Dakota, South Dakota, Minnesota, Iowa and Michigan add an estimated \$1.25 billion to the cost of MISO’s Tranche 1 transmission expansion projects on a 40-year net present value basis.¹⁵ That is, full competition in the region would save over \$1.9 billion, but the status quo of restricted competition limits the benefits of competition to \$665 million.¹⁶

The states that allow competition—Missouri, Illinois, Indiana and Wisconsin—will pay \$100 million, \$125 million, \$205 million and \$175 million more, respectively, for Tranche 1 projects because of other states’ ROFRs.¹⁷ For example, Wisconsin would save \$268 million from full competition in the MISO footprint, but only realizes \$92 million in competition savings due to other states’ ROFRs.¹⁸ The Minnesota ROFR alone imposes \$161 million to the costs incurred by Wisconsin and \$495 million in total across MISO states.¹⁹ Altogether, this demonstration of interstate burdens and discrimination makes a more compelling argument for litigation against ROFR and for FERC to preempt state ROFRs to prevent one state from harming another.

Table 1. State Right-of-First-Refusal Cost Impacts on MISO Tranche 1 Projects²⁰

State	Project Cost		Competition Scenario	Cost Allocation	Cost Savings from Competition	
	Cost of Facilities if No Competition	Cost of Facilities if All Competition	Competition Allowed?	Allocation Percentage	No Competition vs. All Competition	No Competition vs. Status Quo Competition
MN	\$1,997	\$1,694	No	14.11%	\$272	\$94
WI	\$1,761	\$1,688	Yes	13.87%	\$268	\$92
IA	\$2,118	\$1,880	No	9.74%	\$188	\$65
MO	\$1,024	\$846	Yes	7.88%	\$152	\$52
IL	\$1,574	\$1,497	Yes	9.89%	\$191	\$66
IN	\$585	\$506	Yes	16.18%	\$312	\$108
MI	\$798	\$677	No	20.78%	\$401	\$138
ND	\$439	\$329	No	1.98%	\$38	\$13
SD	\$29	\$25	No	0.84%	\$16	\$6
KY				1.96%	\$38	\$13
MT				0.19%	\$4	\$1
Export/PJM				2.56%	\$49	\$17
Total	\$10,324	\$9,142		100.00%	\$1,929	\$665
Total NPV	\$16,847	\$14,918				

*Note: Numbers may not match NPV buildup due to rounding allocation percentage; All dollars in 2022\$ (m)

¹⁴ Josiah Neeley, “How ROFR Laws Increase Electric Transmission Costs in Midwestern States,” R Street Institute, March 7, 2023. <https://www.rstreet.org/commentary/how-rofr-laws-increase-electric-transmission-costs-in-midwestern-states>.

¹⁵ Ibid.

¹⁶ Ibid.

¹⁷ Ibid.

¹⁸ Ibid.

¹⁹ Ibid.

²⁰ Neeley. <https://www.rstreet.org/commentary/how-rofr-laws-increase-electric-transmission-costs-in-midwestern-states>.

Rather than degrade regional planning with ROFR, a final regional planning rulemaking should instead emphasize how to do regional transmission planning better. This includes strengthening the NOPR's proactive and holistic benefits accounting and endeavoring to integrate economic and reliability criteria. This would improve technical net benefits and reduce the problem of strategic utility behavior that takes advantage of loose criteria for "reliability need" projects to skirt economic regional planning.²¹ The NOPR's motive for ROFR—to avoid incumbent transmission providers from subverting regional transmission development—will not be remedied by ROFR but can be addressed by closing regulatory gaps, including those for "reliability need" projects and local projects that are the focus of this proceeding.

State regulators who participated in this proceeding have noted that competition is unworkable for legitimately local projects, yet where competition is absent the regulatory oversight gap is pervasive.²² The inconsistent oversight of local projects results in opacity and increased costs for energy customers. It also subverts efficient regional transmission development by creating a powerful incentive for incumbent utilities to pursue local projects that receive virtually no economic scrutiny from regulators. Indeed, in some regions the majority of transmission expansion is exempt from competition and lacks robust economic regulatory review.²³

In this proceeding, FERC Commissioners correctly identified a major information and regulatory gap between federal and state regulators over local transmission projects.²⁴ Practices vary by state, which alters the nature of the regulatory gap and resulting strategic utility behavior. One example is Pennsylvania, where the Pennsylvania Public Utilities Commission Chairman Gladys Brown Dutrieuille said the state only conducts reviews of greenfield projects over 100 kV, and thus utilities have pursued a "big increase" in projects that only require them to file a report or letter of notice to build without providing exact numbers.²⁵ Commissioner Sarah Freeman of the Indiana Utility Regulatory Commission and president of the Organization of MISO states, stated that Indiana has no process for reviewing transmission projects.²⁶

RSI and state commissioners have contended that such state practices, especially when paired with FERC formula rates and the presumption of prudence, is not economic regulation.²⁷ The result is that captive customers have little transparency or recourse to challenge the prudence of local projects, many of which should be foregone in favor of more efficient regional expansion. This makes the case for local transmission reform imperative to close regulatory and information gaps.

²¹ Chen and Hartman. <https://www.rstreet.org/wp-content/uploads/2022/05/RSTREET257.pdf>.

²² Hartman and Chandler. <https://www.rtoinsider.com/articles/31281-stakeholder-soapbox-tx-planning-resolution-emerges>.

²³ Ethan Howland, "FERC, state regulators consider independent monitors as way to boost transmission oversight 'gap,'" *UtilityDive*, Nov. 16, 2022. <https://www.utilitydive.com/news/ferc-naruc-task-force-independent-monitor-itm/636677>.

²⁴ Rich Heidorn Jr., "FERC Tech Conference Highlights Regulatory Gaps on Transmission Oversight," *RTOInsider*, Oct. 10, 2022. <https://www.rtoinsider.com/articles/30933-ferc-tech-conference-highlights-regulatory-gaps-tx-oversight>.

²⁵ Howland. <https://www.utilitydive.com/news/ferc-naruc-task-force-independent-monitor-itm/636677>.

²⁶ Heidorn Jr. <https://www.rtoinsider.com/articles/30933-ferc-tech-conference-highlights-regulatory-gaps-tx-oversight>.

²⁷ Hartman and Chandler. <https://www.rtoinsider.com/articles/31281-stakeholder-soapbox-tx-planning-resolution-emerges>.

III. Positions on Specific Topics in this Proceeding

Vague jurisdictional coverage, insufficient information and flawed prudence mechanisms are the source of the local transmission regulatory problem. This proceeding seeks extensive input on all these elements. RSI supports general improvements in the following areas:

- *Local transmission planning, asset management, project implementation and variance analysis.* Order 890 does not provide sufficient transparency and information regarding local transmission planning criteria. There is no process to clarify if a local transmission project is coordinated with or subverts regional transmission planning. As such, the identification of need to gauge project prudence is unavailable. Better information in RTO footprints on the interplay between regional and local planning would inform stricter oversight of local transmission reviews. For example, information should be available on how economies of scale in regional planning obfuscate the need for less efficient local projects to meet congestion management requirements. Much more is needed outside RTOs, where transmission planning opacity is the norm. An independent source of information on transmission need is vital and no such institution exists outside RTOs. RSI and state commissioners have suggested equalizing treatment of Order Nos. 890 and 1000 across RTO and non-RTO regions, especially regarding independent regional transmission planning, as a major step forward.²⁸
- *Formula rates and prudence practices.* To instill economic discipline, transmission projects exempt from competition must face robust economic prudence scrutiny from regulators. This warrants reexamining the Commission's policy of unconditional formula rate treatment under a presumption of prudence. This policy lacks fundamental prudence and cost containment safeguards, and undeniably results in unjust and unreasonable rates under the Federal Power Act. RSI supports the recommendation of dozens of consumer groups that the Commission impose on transmission owners an affirmative burden to demonstrate transmission facility prudence.²⁹ This will require considerable Commission resources to implement, which underscores why the implementation advantage of competition should be utilized as the preferred cost disciplinarian to the maximum extent possible. Even with true economic oversight for projects exempt from competition, consumers and regulators lack sufficient information to determine whether transmission provider expenditures are prudent per the ability to challenge under the "serious doubt" standard that requires reliable, probative and substantial evidence.³⁰ This makes robust transparency criteria an imperative precondition for a utility to receive formula rate treatment.
- *Federal and state regulation of transmission facilities.* There is an undeniable gap between federal and state economic regulatory oversight. The extent of this varies by the criteria and mechanism of state prudence review, such as voltage thresholds. Closing the regulatory gap requires a clear definition of "local" projects. RSI and state regulators note that transmission facilities between 100 and 230 kV should not be considered "local" projects because they are typically built to serve regional load.³¹ One solution is to set an unambiguous jurisdictional

²⁸ Ibid.

²⁹ "Comments of the Electricity Transmission Competition Coalition before the Federal Energy Regulatory Commission," Docket No. RM21-17-000, Oct. 12, 2021, p. 36.

<http://electricitytransmissioncompetitioncoalition.org/wp-content/uploads/ETCC-ANOPR-Comments-Filed1.pdf>.

³⁰ 87 Fed. Reg. 80536 (Dec. 30, 2022). <https://www.federalregister.gov/documents/2022/12/30/2022-28454/transmission-planning-and-cost-management-joint-federal-state-task-force-on-electric-transmission>.

³¹ Hartman and Chandler. <https://www.rtoinsider.com/articles/31281-stakeholder-soapbox-tx-planning-resolution-emerges>.

voltage threshold. RSI and some state commissioners support lowering the voltage exemption threshold to 100 kV, which is consistent with the standard definition of the bulk power system.³² This would provide jurisdictional clarity to absolve the question of regulatory responsibility that drives the regulatory gap. To coordinate federal and state prudence mechanisms, the Commission could reject the presumption of prudence for formula rates for any local transmission project not subject to sufficient economic scrutiny from state regulators. The Commission could require the transmission provider to demonstrate that the relevant state utility commission(s) first certified the local project for robust prudence criteria that includes a clear determination that a project is needed, cost effective and the best option among technology and scale alternatives, including regional scale projects that have economies of scale advantages.

- *Independent Transmission Monitor (ITM)*. The information gap identified undermines federal and state prudence reviews. RSI research shows that an ITM could evaluate whether projects planned on a broader scale could provide greater net benefits or eliminate the need for proposed local projects.³³ This warrants the development of an ITM, which state regulators say could furnish information to address the regulatory gap with local transmission projects.³⁴ Beyond the local projects scope of this proceeding, an ITM may provide various functions with different federal and, perhaps, state filing authority. Distinguishing an ITM's role in and outside of regional transmission organization (RTO) regions will be important. Namely, RTOs conduct independent regional planning and have an independent market monitor, whose role could be clarified or extended commensurate with an ITM without creating a new body. RTOs already have superior transmission operation and planning transparency and information, thus the role of an ITM can be more targeted to address residual gaps. Outside of RTOs, the lack of independent transmission planning is a major deficiency requiring reforms in its own right.³⁵ These areas also lack an independent market monitor, and thus an ITM would require the development of a new institution with additional functions that would need to address a much larger information gap than what exists in RTO footprints.³⁶ This information is vital to prudence assessments on the basis of upfront need and cost, whether at state or federal levels, and thus would provide for more cost efficient wholesale rates. To equalize treatment across RTO and non-RTO footprints, the Commission could specify a set of minimum functions for ITMs in all regions and let regional planners demonstrate how to meet them. Functions may include improving transparency; running alternative scenarios; investigating alternative solutions, such as grid-enhancing technologies and advanced conductors; and evaluating transmission plans as well as supplemental and local upgrades. FERC may need to require metrics and provide examples to illustrate sufficiency in terms of transparency, independence and accountability.³⁷

³² See, e.g., "Bulk Electric System Definition Reference Document," North American Electric Reliability Corporation, August 2018, p. iii.

https://www.nerc.com/pa/Stand/2018%20Bulk%20Electric%20System%20Definition%20Reference/BES_Reference_Doc_08_08_2018_Clean_for_Posting.pdf.

³³ Chen and Hartman. <https://www.rstreet.org/wp-content/uploads/2022/05/RSTREET257.pdf>.

³⁴ Howland. <https://www.utilitydive.com/news/ferc-naruc-task-force-independent-monitor-itm/636677>.

³⁵ See, e.g., "The Benefits of New Regional Transmission Planning Entities in the U.S. West and Southeast Regions," Clean Energy Buyers Institute and Grid Strategies, February 2023. <https://cebi.org/wp-content/uploads/2023/02/CEBI-The-Benefits-of-New-Regional-Transmission-Planning-Entities-in-The-U.S.-West-And-Southeast-Regions.pdf>.

³⁶ Chen and Hartman. <https://www.rstreet.org/wp-content/uploads/2022/05/RSTREET257.pdf>.

³⁷ Ibid.

RSI supports the general direction of the ITM Coalition led by the Electricity Consumers Resource Council.

The Commission has a variety of procedural options at its disposal. The synergies between issues in this proceeding may warrant a notice of inquiry or subsequent technical conference(s) to achieve greater depth on the record. The Commission may opt to pursue separate proceedings where the record is sufficiently mature, such as developing an ITM. If so, parallel proceedings should be pursued to reformulate Order 890 criteria and revise formula rates and prudence practices. The Commission may also wish to synchronize next steps in this docket with other pending proceedings, namely remedying the local transmission information and regulatory gaps identified in this proceeding in conjunction with regional transmission reforms in the NOPR.

IV. Conclusion

RSI respectfully requests that the Commission consider the comments herein.

Respectfully submitted,

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APPENDIX 1.

Core assumptions in MISO Long Range Transmission Planning (LRTP) Tranche 1 ROFR analysis:

- Only greenfield projects are eligible for competition (list below). Approximately \$4.7 billion of the \$10 billion Tranche 1 projects are greenfield.
- 25 percent cost savings from competition. This comports with the general literature finding of 20-30 percent cost savings from domestic transmission competition.³⁸ An independent analysis of MISO found 22-42 percent of cost savings attributable to competition.³⁹
- 40-year net present value (NPV) basis used. NPV conversion factor of 1.63 based on 6.9 percent discount rate. These are consistent with MISO LRTP Tranche 1 planning assumptions.⁴⁰

	Total Miles	Percent Greenfield Miles (competition eligible)	State	Approx. Mileage per State (Percent)	LRTP Estimate, 2022\$ (M)	Initial Cost Estimate per State x Mileage, 2022\$ (M)	Initial Estimate x Percent Eligible for Competition	25 percent Initial Estimate Eligible for Competition
Jamestown – Ellendale	95	100	ND	100	\$439	\$439	\$439	\$110
Big Stone South – Alexandria – Cassie’s Crossing	239	54	MN	95	\$574	\$545	\$295	\$74
			SD	5		\$29	\$16	\$4
Iron Range – Benton County – Cassie’s Crossing	202.4	77	MN	100	\$970	\$970	\$748	\$187
Wilmarth – North Rochester – Tremval	199	35	MN	70	\$689	\$482	\$170	\$42
			WI	30		\$207	\$73	\$18
Tremval – Eau Claire – Jump River	98	0	WI	100	\$505	\$505	\$0	\$0
Tremval – Rocky Run – Columbia	225	21	WI	100	\$1,050	\$1,050	\$219	\$55
Webster – Franklin – Marshalltown – Morgan Valley	177	40	IA	100	\$755	\$755	\$299	\$75
Beverly – Sub 92	58	52	IA	100	\$231	\$231	\$119	\$30
Orient – Denny - Fairport	104	92	IA	50	\$390	\$195	\$180	\$45
			MO	50		\$195	\$180	\$45
Denny – Zachary – Thomas Hill – Maywood	283	69	MO	100	\$769	\$769	\$530	\$132
Maywood – Meredosia	64.5	4	IL	80	\$301	\$241	\$9	\$2
			MO	20		\$60	\$2	\$1
Madison – Ottumwa – Skunk River	158	35	IA	100	\$673	\$673	\$234	\$59
Skunk River – Ipava	124	100	IL	56	\$594	\$331	\$147	\$37
			IA	44		\$264	\$117	\$29
Ipava – Maple Ridge – Tazewell – Brokaw – Paxton East	146.5	24	IL	100	\$572	\$572	\$135	\$34
	92	5	IL	95	\$454	\$431	\$21	\$5

³⁸ Johannes Pfeifenberger et al., “Cost Savings Offered by Competition in Electric Transmission,” The Brattle Group, April 2019, p. 1. <https://www.brattle.com/insights-events/publications/report-by-brattle-economists-discusses-the-benefits-of-competitive-transmission>.

³⁹ “Draft Impact Assessment,” Office of Gas and Electricity Markets, last accessed March 31, 2022, p. 27. <https://www.ofgem.gov.uk/sites/default/files/2022-03/Transmission%20Early%20Competition%20IA.pdf>.

⁴⁰ “MISO Transmission Expansion Plan: MTEP21 Addendum – LRTP Tranche 1 Report Overview,” Planning Advisory Committee, April 13, 2022, p. 10. <https://cdn.misoenergy.org/20220413%20PAC%20Item%2002%20MTEP21%20LRTP%20Tranche%201%20Overview623967.pdf>.

Sidney – Paxson East – Gilman South – Morrison Ditch			IN	5		\$23	\$1	\$0
Morrison Ditch – Reynolds – Burr Oak – Leesburg – Hiple	144	5	IN	100	\$261	\$261	\$13	\$3
Hiple – Duck Lake	127	100	IN	43	\$696	\$302	\$302	\$75
			MI	57		\$395	\$395	\$99
Oneida – Nelson Rd.	177	22	MI	100	\$403	\$403	\$88	\$22
Total	2713	45	--	--	\$10,324	\$10,324	\$4,729	\$1,182

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