**UNITED STATES OF AMERICA**

**BEFORE THE**

**FEDERAL ENERGY REGULATORY COMMISSION**

**Electricity Transmission Competition Coalition**

**Docket No. EL26-58-000**

# PREPARED TESTIMONY

**OF**

**Devin Hartman**

**On Behalf of**

**Electricity Transmission Competition Coalition**

**May 27, 2026**

**Review and Analysis of Processes Pertaining to and Governing Competitive Electric Transmission Bidding and Solicitations**

## I. INTRODUCTION

**Q. PLEASE STATE YOUR NAME, TITLE AND BUSINESS ADDRESS.**

A. Devin Hartman, President, Lighthouse Energy Institute ("LEI"), located at 6705 6th Street Northwest, Washington, D.C. 20012.

**Q. DESCRIBE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE.**

A. I have a bachelor's of science in economics and bachelor's of arts in political science and environmental studies from Iowa State University. I hold a master's of science in environmental science and master's of public affairs, with a concentration in energy systems and policy, from Indiana University.

Until May 8, 2026, I served as the Director of Energy and Environmental Policy at the R Street Institute ("RSI"). My current employer is LEI, which I co-founded with fellow energy experts Kent Chandler and Philip Rossetti. LEI is an independent, non-profit, and non-partisan think tank whose mission is to enrich lives by conducting research and education that improves the quality of energy and environmental policies and institutions. About one-quarter of LEI resources are devoted to electric transmission and interconnection. While I became familiar with RSI's ongoing and recent analyses pertaining to transmission competition while employed by RSI, neither LEI nor I are receiving compensation to provide this educational testimony. I hope this adds to the authenticity of my testimony.

Before my tenure at RSI, I was the President and Chief Executive Officer of the Electricity Consumers Resource Council ("ELCON"), where I represented the interests of large electricity consumers before the Federal Energy Regulatory Commission ("FERC") and the North American Electric Reliability Corporation ("NERC"). At the time, ELCON membership included manufacturers and one of the largest technology companies. At ELCON, I brought in consultants to speak to membership about the cost savings and risk

management benefits of transmission competition, which I believed to be large and to hold greater potential than practices permitted at the time. Previous positions I have held include Energy Industry Analyst at FERC and Senior Analyst at the Indiana Utility Regulatory Commission. Both positions involved analysis of transmission planning, costs, and regulatory practices.

Transmission policy – both planning and ratemaking – was a core focus of my personal research at RSI from January 2020 until early this month. This included organizing two convenings of national transmission consumer groups and authoring a paper that identified transmission reform priorities, of which one of four priorities was to expand and improve transmission competition.[1] I filed various technical comments before FERC that addressed transmission competition.[2] I have conducted original quantitative analysis on transmission competition and filed it before FERC.[3] I drafted the comments of the joint customers before FERC on transmission planning and cost management, which stressed better use of competitive processes as one way to impose better economic discipline.[4]

Transmission policy was also a core focus of the expert RSI team that I supervised. In 2024, my team began an analysis of in-service projects to assess the effects of transmission competition on development timelines and costs, among other considerations. Methodologically, the analysis applied a consistent framework across transmission regions, development models, and project classifications. The first results became publicly available on May 26, 2026, including those for the Southwest Power Pool, Inc. ("SPP") and

[1] Jennifer Chen and Devin Hartman, "Transmission Reform Strategy from a Customer Perspective: Optimizing Net Benefits and Procedural Vehicles," R Street Institute, May 2022. https://www.rstreet.org/research/transmission-reform-strategy-from-a-customer-perspective-optimizing-net-benefits-and-procedural-vehicles/.

[2] *See* "R Street Comments on Electric Regional Transmission Planning and Cost Allocation and Generator Interconnection before the Federal Energy Regulatory Commission," Docket No. RM21-17-000, filed on October 12, 2021. https://www.rstreet.org/outreach/r-street-comments-on-electric-regional-transmission-planning-and-cost-allocation-and-generator-interconnection-before-the-federal-energy-regulatory-commission/.

[3] *See* "Post-technical Conference Comments of the R Street Institute," Docket Nos. AD22-8-000 and AD21-15-000, filed on March 23, 2023, pp. 8-9. https://www.rstreet.org/wp-content/uploads/2023/06/RSI-20230323-5018-2.pdf.

[4] *See* "Post-technical Conference Comments of Joint Customers," Docket Nos. AD22-8-000 and AD21-15-000, filed on March 23, 2023. https://www.rstreet.org/wp-content/uploads/2023/06/ECA-20230323-5062-1.pdf.

the Midcontinent Independent System Operator, Inc. ("MISO").[5] The results are highly relevant to this Complaint.[6]

**Q. DESCRIBE YOUR FIRSTHAND EXPERIENCE WITH RESPECT TO SUPPORT FOR TRANSMISSION COMPETITION IN THE BROADER STAKEHOLDER COMMUNITY AND INDUSTRY.**

A. Presently, I work with leading artificial intelligence ("AI") and technology companies and their trade associations on their energy policy priorities, including transmission. The general sentiment of this community, including certain corporate signatories to the White House Ratepayer Protection Pledge, support transmission competition and oppose state and federal right-of-first-refusal laws while working through their trade associations on these matters. State and federal energy consumer trade associations consistently support transmission competition.[7] Leading AI and technology companies may refrain from making public comments on the subject due to their varied public policy and transactional interests.

I believe my technical background is sufficient to qualify as an expert for this proceeding. I believe my background working with electricity consumer groups, especially AI and technology companies, is highly relevant. That is because the Complaint makes repeated claims that transmission competition is harming the AI race, and yet no AI companies filed with Complainants.[8]

---

[5] *See* Kent Chandler and Olivia Manzagol, "Need for Speed: An Analysis of Speed to Market and Cost Results of Competitive Transmission," R Street Institute, May 26, 2026 ("RSI Study"). https://www.rstreet.org/commentary/need-for-speed-an-analysis-of-speed-to-market-and-cost-results-of-competitive-transmission/.

[6] *See* "International Transmission Co. et al. v. Midcontinent Independent System Operator, Inc. and Southwest Power Pool, Inc.," Docket No. EL26-58-000, filed on April 7, 2026 ("Complaint").

[7] For *e.g.*, *see* Industrial Energy Consumers of America and Wisconsin Industrial Energy Group.

[8] *See* Complaint at pp. 11-15.

**Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE FERC?**

A. I provided requested testimony before FERC on "Climate Change, Extreme Weather, And Electric System Reliability" as an expert witness in Docket No. AD21-13-000.[9] I have been a panelist on FERC technical conferences and workshops, including those on transmission.[10] I oversaw the development of testimony for my direct reports at RSI, including Dr. Michael Giberson's expert testimony in a consumer group-led transmission Complaint (EL25-44),[11] as well as Kent Chandler's testimony in the co-location technical conference (AD24-11).[12]

**Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?**

A. I am testifying on behalf of the Electricity Transmission Competition Coalition ("ETCC" or "Competition Coalition").

## II. OVERVIEW OF TESTIMONY

**Q. PLEASE DESCRIBE ETCC.**

A. ETCC is a diverse, broad-based, nation-wide coalition focused on electricity affordability through increasing competition in the development and ownership of America's electricity transmission infrastructure. The Competition Coalition represents companies and organizations throughout the continental United States, including manufacturing groups, retail electric consumers, state consumer advocates, public power representatives, think tanks, and non-incumbent transmission developers. The Competition Coalition members

---

[9] Devin Hartman, "Testimony to FERC: Climate Change, Extreme Weather, And Electric System Reliability," Docket No. AD21-13-000, filed on May 28, 2021. https://www.rstreet.org/outreach/testimony-to-ferc-climate-change-extreme-weather-and-electric-system-reliability/.

[10] *Ex. See* "Managing Transmission Line Ratings," Docket No. AD19-15-000, September 11, 2019. https://www.ferc.gov/sites/default/files/2020-09/Day-2-Transcript.pdf.

[11] *See* "Declaration of Michael A. Giberson of R Street Institute on Behalf of the Complainants," Docket No. EL25-24, December 18, 2024. https://www.rstreet.org/wp-content/uploads/2025/01/12.19.24_Consumer-100-kV-Complaint_FINAL-Giberson.pdf.

[12] *See* "Submitted Statement of Kent Chandler," Docket No. AD24-11-000, November 1, 2024. https://www.rstreet.org/wp-content/uploads/2024/10/Kent-Chandler-R-Street-Pre-Hearing-Statement-AD24-11-000.pdf.

represent entities and individuals that pay hundreds of billions of dollars in electricity rates each year

**Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

A. The purpose of my testimony is to independently assess the validity of the claims made by Complainants.

**Q. HOW DO YOU ASSESS THE OVERALL MERITS OF THE COMPLAINT?**

A. There is no demonstrable evidence to support the Complaint's fundamental claim that transmission competition delays the in-service date of transmission projects. Therefore, the Complaint's claim of competitive solicitations causing 16-20 month delays that result in welfare loss and added costs are unfounded.[13] Instead, the best available evidence indicates similar, if not faster in-service dates for competitive transmission lines - after accounting for the entire planning and development process - than comparable incumbent projects in all regional transmission organizations ("RTOs") with sufficient and quality data. This is applicable in the regions of interest to the Complaint: MISO and SPP.

## III. SOLICITATION DELAYS

**Q. WHAT IS THE STATE OF THE EXPERT LITERATURE ON THE EFFECTS OF TRANSMISSION COMPETITION ON TRANSMISSION DEVELOPMENT TIMELINES?**

A. The expert literature on the effects of transmission competition on transmission development timelines is much more limited than the literature pertaining to efficiencies, innovation, and cost savings attributable to competitive processes. The early academic and consulting papers, such as Joskow and Tirole (2005)[14] and a Brattle Group report in 2019,[15]

[13] *See* Complaint at p. 38.

[14] Paul Joskow and Jean Tirole, "Merchant Transmission Investment," The Journal of Industrial Economics, June 13, 2005. https://onlinelibrary.wiley.com/doi/abs/10.1111/j.0022-1821.2005.00253.x.

[15] "Cost Savings Offered by Competition in Electric Transmission," The Brattle Group, April 2019.

focused on the prospective cost savings and innovation advantages of competition. In 2019, Concentric Energy Advisors ("CEA") issued a response to the Brattle Group report, which mostly critiqued the cost savings claims.[16] CEA also noted the importance of timing in transmission development but did not assess it robustly. Rather, CEA conducted a case study of the longest solicitation of available competitive projects and gave the impression that the results were more broadly representative. The Brattle Group subsequently responded, noting that CEA's "criticisms are based on inappropriate and misleading cost comparison, a misrepresentation of the available transmission cost data and fact, and a misunderstanding of our analysis."[17]

In 2022, CEA conducted case studies on six competitive transmission projects that were either in-service or in advanced development.[18] CEA concluded that solicitations had added delays to transmission development.[19] However, they did not compare the results of competitive processes to similarly situated incumbent projects. Thus, CEA's conclusion lacked a robust counterfactual. CEA expanded upon their 2022 analysis in a 2024 paper that incorporated more competitive projects and a small group of incumbent projects, but insufficient to constitute a systematic counterfactual.[20]

In 2024, the Alliance for Innovation and Infrastructure ("Aii") released a report that found that "the competitive bidding process required by FERC Order No. 1000 did increase

---

https://etccoalition.wpengine.com/wp-content/uploads/Brattle-Report-Cost-Savings-Offered-by-Competition-in-Electric-Transmission.pdf.

[16] Emma Nicholson, Meredith Stone, and Danielle Powers, "Building New Transmission," Concentric Energy Advisors, June 2019. https://ceadvisors.com/publication/building-new-transmission-experience-to-date-does-not-support-expanding-solicitations/.

[17] Judy W. Chang, et al., "Response to Concentric Energy Advisors' Report on Competitive Transmission," The Brattle Group, August 2019. https://www.brattle.com/wp-content/uploads/2021/05/16873_response_to_concentric_energy_advisors_report_on_competitive_transmission.pdf

[18] "Competitive Transmission, Experience To-Date Shows Order No. 1000 Solicitations Fail to Show Benefits," Concentric Energy Advisors, August 2022. https://ceadvisors.com/wp-content/uploads/2024/10/Competitive-Transmission-Experience-To-Date-Shows-Order-No.-1000-Solicitations-Fail-to-Show-Benefits.pdf.

[19] Ibid.

[20] "An Updated Examination of FEC Order No. 1000 Projects: Expanded Review Shows That Benefits of Competition Remain Elusive," Concentric Energy Advisors, April 16, 2024. https://ceadvisors.com/wp-content/uploads/2024/10/An-Updated-Examination-of-FERC-Order-1000-Projects.pdf.

the time between need identification and in-service dates, as the competitive processes often takes a significant amount of time and cost to administer."[21] Kent Chandler and I wrote a response to this, noting that it had severe selection bias in its empirical analysis, which created an unrepresentative sample of projects.[22] Aii also cherry-picked findings in their report's literature review.[23] It used the time between need identification and bid selection as a measure of the competitive solicitation timeline, which is inaccurate because RTOs typically take months after need identification to diagnose solutions and select projects before the onset of solicitations. The study also ignored that RTOs plan transmission for a distant need date, thus accommodating extra months in the planning process for competitive solicitations without altering the targeted in-service date. Chandler and I ultimately concluded that the Aii study was "structurally biased and unfit to guide policymaking. It overstates solicitation timeliness, ignores countervailing effects, and provides no credible evidence that competition causes a significant net delay in transmission development. It puts more weight on discredited studies than ones that have withstood scrutiny."[24]

A group of utilities formed the Developers Advocating Transmission Advancement ("DATA") Coalition that produced multiple analyses of Order 1000[25] projects. This includes a 2025 paper that argues that problems with competitive processes cause cost overruns and project terminations.[26] It provided qualitative observations to conclude that

---

[21] "Building New Critical Infrastructure: No Time to Waste," Alliance for Innovation and Infrastructure, July 2024, p.22. https://www.aii.org/wp-content/uploads/2024/07/Building-New-Critical-Infrastructure.-No-Time-to-Waste.pdf.

[22] Devin Hartman and Kent Chandler, "R Street Responds: Aii Report Does Not Rebuke the Merits of Electric Transmission Competition," August 26, 2024. https://www.rstreet.org/commentary/r-street-responds-aii-report-does-not-rebuke-the-merits-of-electric-transmission-competition/.

[23] Ibid.

[24] Ibid.

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

[26] "Recent Experience with Competitive Transmission Projects and Solicitations," Developers Advocating Transmission Advancements, February 2025. https://www.modernizethegrid.com/wp-content/uploads/2025/02/DATA-Whitepaper-2024_2-5-25_vF_edit.pdf.

Order 1000 created impediments to regional transmission development. My colleague Kent Chandler wrote a response analysis, which found profound methodological flaws in the DATA study that included no stated criteria for their case studies and one-sided sample selection and no evidence of the counterfactual to competition.[27] Chandler concluded that "DATA's whitepaper is not a serious endeavor to provide regulators and legislators with objective information to inform their decision-making. Instead, its methodology, cherry-picking of evidence, and biased information-sharing makes clear that the effort merely intends to confirm DATA's preexisting, self-interested bias."[28]

Therefore, the literature can be characterized as lacking quality assessments of the effects of transmission competition on development timelines. Ideally, the effect would be measured with final project data across a sample size large enough to produce statistically robust results. The number of in-service competitive projects remains low, but the last two years have seen a substantial number come online. This presented an opportunity for a study of the effects of transmission competition, across all relevant regions, that uses final project data and employs an appropriate counterfactual analysis. This gave rise to the research project that my RSI team embarked on in 2024.

**Q. CAN YOU ELABORATE ON THE RSI TRANSMISSION COMPETITION STUDY?**

A. The RSI transmission competition study ("RSI Study") is a five-part project that was under my oversight and led by Kent Chandler and Dr. Olivia Manzagol of RSI.[29] We recruited Dr. Paul Joskow of the Massachusetts Institute of Technology to assist. The objective was to determine the efficacy of FERC Order 1000's removal of utilities' federal ROFR to develop transmission.[30] Specifically, the RSI Study evaluates the cost, risk, and

[27] Kent Chandler, "R Street Responds: DATA Whitepaper Unhelpful in Discerning Causes of Transmission Development Delays," R Street Institute, March 28, 2025. https://www.rstreet.org/commentary/r-street-responds-data-whitepaper-unhelpful-in-discerning-causes-of-transmission-development-delays/.
[28] Ibid.
[29] *See* RSI Study.
[30] Ibid.

timing effects of competitive transmission development relative to incumbent utility development. Relative to the flawed previous assessments of in-service competitive projects, the RSI study uses an appropriate counterfactual: comparable incumbent transmission projects.[31] It is important to be precise, transparent, and clear regarding the methodology used, the assumptions used, and the data available when assessing the timelines associated with the completion of large-scale transmission projects.

Unlike the selective approach used by the Complainants, the RSI Study is methodologically sound and its analysis uses empirical data from both in-service and ongoing projects. The analysis compared the time to plan and build competitive and comparable incumbent projects. It also examines the source of delays across both project ownership categories throughout most planning regions. Although Order 1000 is roughly 15 years old, most transmission planning regions have only a handful of competitive projects now in-service. The small sample size limited the analysis methodology to case studies.[32]

The RSI Study uses an appropriate methodology to assess the effect of transmission competition on transmission in-service delays.[33] Specifically, the study uses case studies to analyze regional competitive projects and incumbent transmission projects on a comparable basis to assess whether the time to plan and develop transmission is affected by competitive transmission processes. The quantitative analysis had two considerations.[34] First, how long it takes to plan and develop transmission after identifying the need for the project. Second, assessing when a project was placed into service, relative to the in-service date that was expected when a need or project was identified.

---

[31] *See* Kent Chandler and Olivia Manzagol, "Need for Speed: An Analysis of Speed to Market and Cost Results of Competitive Transmission: Part 1," R Street Institute, May 26, 2026 ("RSI Study, Part I"). https://www.rstreet.org/commentary/need-for-speed-an-analysis-of-speed-to-market-and-cost-results-of-competitive-transmission-part-1-introduction/.

[32] *See* RSI Study.

[33] *See* RSI Study, Part I.

[34] *See* RSI Study.

The RSI Study evaluated project timelines using measurable and relevant dates in the transmission planning and development process, including identification of need, award or approval date, initial estimated in-service date, and in-service date. By comparing planning stage expectations with actual or updated project durations, the RSI Study identified patterns in delays, schedule extensions, and delivery performance. The study used region-specific controls. The sample used includes all greenfield incumbent projects that are primarily greater than $50 million with in-service dates from January 2018 through the third quarter of 2025 (May 2026 for MISO and SPP).[35] This isolates greenfield transmission projects from the broader population of large incumbent investments, which supports a consistent comparison across projects of comparable complexity and scale. Competitive projects assessed were largely greenfield projects developed through regional competitive processes and entering service through the third quarter of 2025 (May 2026 for SPP).[36]

RSI found poor transparency and accounting of cost and timing data for comparable incumbent projects.[37] The small sample size and data quality limitations constrained the RSI Study from reaching definitive conclusions. However, the results of the RSI Study are instructive and constitute the best available evidence to-date on the cost, risk, and timeline effects of domestic transmission competition.

Generally, the RSI Study found no evidence that Order 1000 transmission competition led to transmission development delays, including in SPP and MISO.[38] Competitive solicitations take time – typically months and sometimes over a year – but the evidence indicates that the time solicitations take are not causing in-service delays.[39] Even accounting for competitive solicitation processes, competitive projects are generally placed into service faster after the need for transmission is identified, relative to comparable

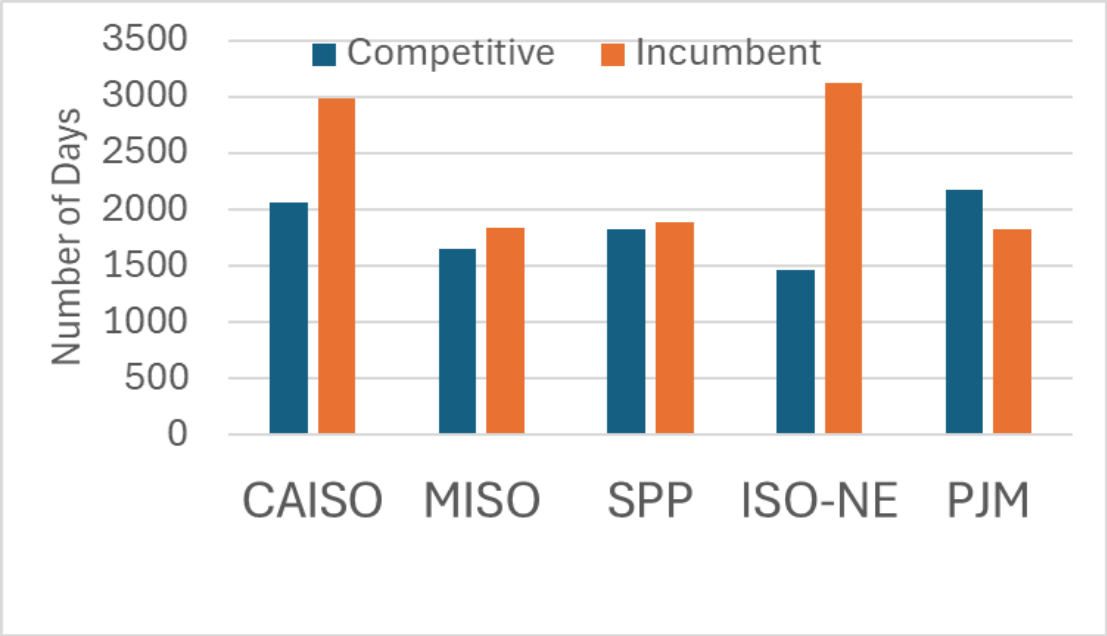
[35] *See* RSI Study, Part I.
[36] Ibid.
[37] *See* RSI Study.
[38] *See* Kent Chandler and Olivia Manzagol, "Need for Speed: An Analysis of Speed to Market and Cost Results of Competitive Transmission: Part 2 – Timing," R Street Institute, May 26, 2026 ("RSI Study, Part II"). https://www.rstreet.org/commentary/need-for-speed-an-analysis-of-speed-to-market-and-cost-results-of-competitive-transmission/.
[39] *See* RSI Study, Part II.

incumbent projects. Further, competitive project performance is generally better or similar to comparable incumbent projects as it relates to meeting initial in-service deadlines. The evidence indicates that the time for solicitation processes do not cause a development delay themselves; competitive and incumbent project timelines are comparable.

Specifically, the RSI Study found that in-service competitive transmission lines were developed faster than comparable incumbent projects in MISO, SPP, the California Independent System Operator ("CAISO"), and ISO New England, Inc. ("ISO-NE"), as depicted in Figure 1.[40] The exception was the PJM Interconnection, Inc. ("PJM"), which had data fidelity problems, while the New York Independent System Operator ("NYISO") provided insufficient incumbent data to develop a counterfactual. The average greenfield competitive projects in MISO, ISO-NE, NYISO and PJM delivered ahead of initial schedule estimates. The RSI Study observed some competitive projects holding distinct timing advantages in contractual agreements, such as in-service commitments with financial penalties for being late.[41] The RSI Study authors and I caution about interpreting results from such a small sample size of completed competitive projects: six in PJM, four in SPP, three each in NYISO and CAISO, and one each in MISO and ISO-NE. Noting the aforementioned data limitations, especially the small sample size of competitive projects, the RSI Study finds more evidence for competition accelerating in-service dates than delaying them.[42]

Figure 1. Median In-Service Time for Transmission Projects

[40] Ibid.
[41] Ibid.
[42] *See* RSI Study, Part II.




Source: data derived from RSI Study, Part II.[43] Qualifying projects are those that are completed and with sufficiently comparable timing data.

NYISO is excluded from this comparison because of data limitations for incumbent projects. NYISO did not previously require public reporting and tracking of past large incumbent transmission projects. The RSI study evaluated the three NYISO in-service competitive projects, for which data was available, which entered service an average of 58 days before the initial estimate.[44]

PJM was the only footprint where the data indicated that competitive lines took longer to be planned and placed into service than comparable incumbent projects. However, the RSI Study team questions what PJM conclusions can be drawn because of profound data quality concerns. PJM has the least-standardized data across the FERC-jurisdictional RTOs in the RSI Study. PJM data reporting on scope changes, the vintage of cost figure updates, and the source of data was unclear for many projects. If expected in-service dates change for a project, the transmission owner can replace the initial estimates in the tracker, and the

[43] Ibid.
[44] Ibid.

original in-service estimate disappears without record. Updating these in-service expectations would make a project appear on schedule when it is actually delayed. In fact, the RSI Study authors found inconsistencies in final project cost reporting, which is self-reported by transmission owners.[45] Overall, the fidelity of the PJM data is low.

Further, PJM uses a distinct solicitation model that makes counterfactual analysis difficult. PJM uses a sponsorship, or solution-based competitive process, which attracts a diversity of technological approaches to satisfy a transmission need. This practice is beneficial for identifying timely and cost-effective solutions. However, it is difficult to track cost estimates for competitive bids from submission to project completion. Nevertheless, PJM consistently selects hybrid solutions of multiple competitively bid projects, which is evidence of the competitive process better satisfying performance criteria. For example, stakeholders have documented cases where competitively-bid projects selected by PJM have in-service dates years ahead of conventional transmission expansion options that are preferred in the absence of competition.[46]

In contrast to PJM, SPP and MISO collect and maintain competitive project data in a consistent manner. SPP and MISO also bid out specific projects, which provides a more straightforward measure of the time for solicitations and comparison across projects. SPP tracks non-competitive transmission projects in a consistent and accurate manner. This provides researchers, regulators, and other stakeholders insight into the time and cost data of all transmission projects. The RSI Study authors recommend that FERC use its authority under Section 304 of the Federal Power Act to issue an informational report on transmission planning and development in a manner similar to how SPP tracks data.[47]

---

[45] It is unclear if PJM requires transmission owners to update data fields upon project completion, which calls the validity of data into question. When the cost data is updated, there is typically no record of original vintage data. PJM only published updated cost estimates for incumbent projects, while initial cost estimates were only available in Transmission Expansion Advisory Committee (TEAC) meeting materials. There were cases where the TEAC cost data field did not align with the cost estimate reported with the associated TEAC date from meeting documents.

[46] *See* Steve Huntoon, "Say It Ain't So, Joe!," RTOInsider, July 5, 2022. https://energy-counsel.com/wp-content/uploads/2022/07/Say-It-Ain-t-So-Joe.pdf.

[47] *See* RSI Study, Part II.

While SPP data is superior for analysis, the RSI Study authors identified sufficient data to provide a meaningful case study in every region assessed, including MISO and SPP.

**Q. WHAT ARE THE DETAILED FINDINGS OF THE RSI STUDY OF THE EFFECTS OF COMPETITIVE SOLICITATIONS ON TRANSMISSION DEVELOPMENT TIMELINES IN SPP AND MISO?**

A. The RSI Study calculated simple averages and median timelines. Both are measures of central tendency. In statistics, median is a better measure for data with skewed distributions (e.g., outliers) such as this data set. Therefore, the RSI Study emphasized the use of median in its analysis.

SPP has four in-service competitive projects: Wolf Creek-Blackberry, Sooner-Wekiwa, Minco-Pleasant Valley-Draper, and Crossroads-Hobbs-Roadrunner Transmission Project. All of these projects entered service in 2025 and 2026. As a group, these projects had in-service date delays of 80 days using a simple average with a median of 98 days.[48]

Two of the SPP projects experienced in-service delays, which warrant greater scrutiny. Those were the Wolf Creek-Blackberry line and Minco-Pleasant Valley-Draper project. Notably, both had an in-service guarantee alongside a 1.5 return on equity ("ROE") basis point per month penalty for delay.[49] This is uncommon in transmission development and indicates a financial incentive for project timeliness that was only observed in competitive processes. SPP had to re-issue the request for proposal ("RFP") that supported the Wolf Creek-Blackberry project. This was caused by the realization that SPP's Notification to Construct ("NTC") date resulted in an RFP deadline that would not permit adequate time for regulatory approval by the Kansas Corporation Commission.[50] The reissued RFP

[48] Ibid.
[49] *See* RSI Study, Part II; *Also see* "Board of Directors/Members Committee," Southwest Power Pool, February 3, 2026. https://www.spp.org/documents/75821/2026-02-03%20board%20members%20committee%20agenda%20&%20materials.pdf.
[50] *See* "Board of Directors/Members Committee Meeting," Southwest Power Pool, December 7, 2020, p. 23. https://www.spp.org/documents/63501/bod%20mc%20materials%2020201207%20v2.pdf.

allowed for a more realistic regulatory approval timeline.[51] This caused the original anticipated NTC date of October 26, 2021 to be moved back less than two months to December 3, 2021.[52] The project in-service date of July 15, 2025 was 195 days after the initial estimate, however it was completed before the needed in-service date of January 1, 2026.[53] The Minco-Pleasant Valley-Draper line entered service on January 29, 2025, which was 210 days after the initial expected in-service date and 28 days after the needed in-service date of January 1, 2025.[54]

The incumbent SPP sample includes 13 facilities. These are in-service and primarily or exclusively transmission lines, rather than substations, and otherwise satisfy the sample criteria mentioned earlier in this affidavit. The SPP incumbent projects sample was on average 129 days delayed, with a median 6 day delay.[55] This compares to the four competitive projects with an 80 day average delay and median delay of 98 days.[56]

MISO has one competitive project in-service to-date: the Duff-Coleman line. Duff-Coleman's expected in-service date was January 1, 2021 and it entered service June 11, 2020. This placed the total time of the project, from identification of need to in-service, at 1645 days as compared to the expected time period of 1849 days.[57] Thus, the project was delivered 204 days ahead of schedule.

The MISO incumbent sample was 38 projects meeting the aforementioned criteria. MISO does not have a measure of "need" and "award" date like SPP. The RSI Study used timeline calculations that begin when a project is board approved. The incumbent MISO sample was on average 215 days delayed with a median delay of 108 days.[58] Thus, while a considerable

[51] Ibid.
[52] Ibid; *Also see* "SPP Notification to Construct," Southwest Power Pool, December 3, 2021. https://www.spp.org/documents/66135/ntc%20210626%20neet.pdf.
[53] *See* RSI Study, Part II.
[54] Ibid.
[55] Ibid.
[56] Ibid.
[57] Ibid.
[58] Ibid.

sample of completed MISO incumbent projects experienced delay overall, the only completed competitive project in MISO delivered substantially ahead of schedule.

Of the five completed competitive projects in MISO and SPP, one experienced no in-service delay, two were ahead of schedule, and two experienced delays. The two delayed projects exhibited financial terms that incent on-time delivery and are a unique product of the competitive process. Only one competitive project missed its need date, and it did so by less than one month. The median total time for transmission projects was 1645 days for competitive projects in MISO versus 1835 days for comparable incumbent projects.[59] The median total time in SPP was 1825 days for competitive projects and 1884 days for comparable incumbent projects.[60]

SPP warrants clarification because of the differing outcomes of two measures. Competitive projects in SPP had a higher number of median delay days but a lower number of median days for total project development, relative to comparable incumbent projects. The total time measure looks at actual start and in-service dates, whereas delays are measured as the difference between initially expected and actual in-service dates. The competitive project in MISO was faster than the incumbent counterfactual by both measures.

Definitive conclusions cannot be reached from this limited dataset. But it is the best evidence available on the effects of transmission competition on project timelines. No causal effect can be identified in SPP and MISO, but there is indicative evidence that competition may accelerate total development in-service dates.

Interestingly, the timeliness advantage of competitive projects was more pronounced in CAISO and ISO-NE than in MISO and SPP.[61] The external validity of CAISO and ISO-NE for SPP and MISO has limitations, but the fundamental theory remains the same. The RSI Study reveals that in-service competitive projects have shorter median total timelines than

[59] Ibid.
[60] Ibid.
[61] Ibid.

comparable incumbent projects in every region with sufficient quality data. Notably, this effect was observed even with accounting for the duration of the solicitation process. This excludes PJM given data fidelity concerns and excludes NYISO, given insufficient incumbent data.

Overall, the RSI Study findings portend favorably for the timeliness of transmission competition in all regions where data was sufficient and trustworthy, including MISO and SPP. While the sample size is too small to draw definitive conclusions, it provides the best available indicative evidence, finding that transmission competition in SPP and MISO has not delayed transmission in-service dates and may have accelerated completion timelines through stronger performance incentives. These incentives include in-service guarantees with ROE reductions for delays that competitive developers voluntarily offered to make their bids more competitive.

**Q. IS THERE VALIDITY TO THE COMPLAINT'S CLAIM OF A 16-20 MONTH DELAY FROM COMPETITIVE TRANSMISSION SOLICITATIONS IN SPP AND MISO?**

A. No. The Complaint's claim of competition causing a 16-20 month delay[62] is unsubstantiated. The claim is based on imprecise process references - not sound methodology - plus it generally refers to projects under development with unknown final timelines. The claim contradicts the findings of the RSI Study, which is methodologically sound and examines the definitive timelines of in-service projects.

There are several defects in the methods used to support the 16-20 month delay claim. First, the claim exaggerates the time to conduct competitive solicitations. Second, it does not correctly assess how competitive solicitations affect in-service dates.

The Complainants reference five cases to support the claim that solicitors cause 16-20 month delays: Minnesota data center customer, MARS Project, Wisconsin Southeast

[62] *See* Complaint at p. 38.

Project ("WISE"), Big Cedar Industrial Center (Iowa), and Crawfish Draw - Woodward & Potter - Woodward 765 kV Projects ("Crawfish Draw").[63] The evidence presented for these projects does not support the 16-20 months delay claim for several reasons:

1. These transmission projects in these cases are not in-service, and thus the ultimate effect of competition on their project timelines is inherently inconclusive.
2. The Complaint incorrectly assesses solicitation timelines for these projects. The Complaint considers the time between approval from the Board of Directors and agreement execution to be the competitive delay period. For example, the Complaint claims that MARS took over 22 months based on the assumption that the developer could have started the project the month the project was approved.[64] However, roughly half of this time period was RTO scheduling independent of the solicitation process. If RTO scheduling takes too long, it is not an indictment of the competitive process. RTO scheduling deferrals are often used to confirm the need before putting out for bid, which is done with sufficient time to meet the in-service date without delay. This is a consumer protection measure because sometimes projects are cancelled when need evaporates. The Complaint mistakenly treats this as an uneconomic flaw within the competitive process, when it is often a sound economic practice separate from the competitive process.
3. The Complaint incorrectly characterizes how competitive solicitations affect in-service dates. The Complaint presumes that the time of competitive processes corresponds to a commensurate delay in in-service dates. This is incorrect because RTOs, including SPP and MISO, conduct long-term transmission plans to meet distant need dates. The time for competitive processes is built into transmission planning processes proactively, such that it does not alter the target in-service date. For example, MISO's Long-Range Transmission Plan ("LRTP") Tranche 1 identified a need date,[65] such that all bidders' announcements committed to an in-

[63] *See* Complaint at pp. 38-45.
[64] *See* Complaint p. 43.
[65] *Ex. See* "MTEP21," Midcontinent Independent System Operator, 2022, p. 2. https://cdn.misoenergy.org/MTEP21%20Addendum-

service date that aligned with the need date. The complaint claims that two Tranche 1 transmission lines (Morgan Valley and Beverly Sub 92) supporting the Big Cedar Industrial Center would have been delayed at least 18 months if not for being exempt from competition because of Iowa's ROFR.[66] Yet according to MISO's Tranche 1 dashboard, both transmission lines have the same in-service target date as what MISO Transmission Expansion Plan ("MTEP") approved (2028), which is the same in-service date a competitive developer would have otherwise faced.[67] MISO similarly approached LRTP Tranche 2.1, and again competition did not alter the original in-service date. The WISE, MARS Project, and projects pertaining to the Minnesota data center customer were subject to LRTP Tranche 2.1. The Complaint claims that Minnesota's ROFR will enable the Minnesota data center customer projects to "reach commercial operations sooner",[68] however the MISO Tranche 2.1 dashboard does not show any projects - competitive or incumbent/competition exempt alike - with estimated in-service dates that deviate from the MTEP approved date (2032-2034 depending on project).[69]

4. The Complaint largely ignores that projects with tight need timelines are exempt from competition. MISO has an Immediate Need Reliability Projects designation to meet needs identified within 36 months, which are directly assigned to the applicable incumbent transmission owner to develop, own, and operate.[70] Similarly, SPP has a Short-Term Reliability Projects ("STRP") designation to meet needs within three years, which are directly assigned to an incumbent. This ensures immediate transmission needs are met without delay. If the criteria for immediate need projects is inaccurate, it can be fixed to prevent unwarranted delays in meeting

LRTP%20Tranche%201%20Report%20with%20Executive%20Summary625790.pdf/

[66] *See* Complaint at p. 45.

[67] *See* "Multi-Value Project Dashboard: Tranche 1 Portfolio," Midcontinent Independent System Operator, March 31, 2026. https://cdn.misoenergy.org/Tranche%201%20Dashboard732077.pdf?v=20251215143928.

[68] *See* Complaint at p. 42.

[69] *See* "Multi-Value Project Dashboard: Tranche 2.1 Portfolio," Midcontinent Independent System Operator, March 31, 2026. https://cdn.misoenergy.org/Tranche%202.1%20Dashboard732078.pdf?v=20251215144025.

[70] *See* "Immediate Need Reliability Projects," Midcontinent Independent System Operator, January 27, 2021. https://cdn.misoenergy.org/Immediate%20Need%20Reliabilty%20Project514798.pdf.

timely needs. However, the evidence, and positions of consumer groups broadly, has been that these "immediate need" exemptions are used too broadly.[71] For example, transmission-dependent utilities expressed concern over "circumventing the Order 1000 process" in 2025 when SPP assigned STRPs in lieu of using a competitive process, while other transmission consumers and generators expressed concern that doing so would make the projects "not be subject to the cost controls and schedule guarantees that competitive projects face, leading to a risk of delays."[72] Crawfish Draw had been an STRP project since transferred to becoming competition eligible.[73] The Complaint claims that making the project subject to competition will cause a 16 month delay in serving customers but provides no concrete evidence, just the assertion of a witness who works for an SPP incumbent transmission owner.[74]

5. The Complainants ignore offsetting effects of competition on project delivery timelines. As the RSI Study demonstrates, incentives matter. The competitive processes in SPP and MISO create superior performance incentives to deliver on-time. Examples include the aforementioned ROE reductions for project delays.

[71] *See* "Post-technical Conference Comments of Joint Customers," Docket Nos. AD22-8-000 and AD21-15-000, filed on March 23, 2023. https://www.rstreet.org/wp-content/uploads/2023/06/ECA-20230323-5062-1.pdf.

[72] *See* Tom Kleckner, "Short-Term Reliability Projects," RTOInsider, February 6, 2025. https://www.rtoinsider.com/97602-spp-short-term-projects-765-kv/.

[73] *See* "Missouri PSC Public Meeting with SPP RTO Status Update," Southwest Power Pool, December 17, 2025. https://psc.mo.gov/CMSInternetData/Agenda%20Presentations/2025%20Presentations/12-17-2025%20SPP%20RTO%20Status%20Update.pdf.

[74] *See* Complaint at p. 41.

**Q. IS THERE VALIDITY TO THE COMPLAINT'S CLAIM THAT "MISO's AND SPP's SOLICITATION REQUIREMENTS FRUSTRATE THE ABILITY TO SERVE LARGE LOAD CUSTOMERS"?[75]**

A. I cannot speak for all large load customers, but in my experience the opposite is true. Again, it is notable that the Complainants are utilities, not large load customers, whom I used to represent and currently work with regularly. The frustration of large load customers has been with anti-competitive transmission laws, especially state ROFR laws in the MISO and SPP footprints, as well as this very Complaint. Take Wisconsin, which is home to WISE, where the head of the Wisconsin Industrial Energy Group, Todd Stuart, last month referred to this Complaint as "another effort by the utilities to defeat competition… When they lose in state legislatures and then lose out on competitive bids… they go back to FERC."[76] I periodically speak with Mr. Stuart and other large load customer groups, as well as individual AI and technology companies about their transmission policy preferences in MISO and SPP. They consistently request more analysis of the economic benefits of competition and request help in protecting and expanding competition. For this reason, it is telling that the leading transmission consumer groups in MISO and SPP are coalition members of ETCC, including the Coalition of MISO Transmission Customers, Wisconsin Industrial Energy Group, Consumers Council of Missouri, Chemical Industry Council of Illinois, Illinois Industrial Energy Consumers, Indiana Industrial Energy Consumers, Iowa Business Energy Coalition, Iowa Industrial Energy Group, Inc., Kansas Chamber of Commerce, Kansas Manufacturing Council, Minnesota Large Industrial Group, and Oklahoma Industrial Energy Consumers, among others.[77]

[75] *See* Complaint at p. 38.

[76] *See* "Utilities seek federal pause on grid bidding amid AI-driven power demand," PBS Wisconsin, April 17, 2026. https://pbswisconsin.org/news-item/utilities-seek-federal-pause-on-grid-bidding-amid-ai-driven-power-demand/

[77] *See* https://electricitytransmissioncompetitioncoalition.org/who-we-are/ (last accessed May 25, 2026).

## III. COST SAVINGS AND IMPACTS

**Q. WHAT INFERENCES CAN BE DRAWN BY THE FACT THAT THE ACTUAL COSTS OF COMPETITIVE PROJECTS EXCEED THEIR WINNING BIDS?**

A. Much of the Complaint's argument that doubts cost savings from competition centers on the faulty literature I described earlier in the testimony. That is, comparing the final costs of competitive projects to initial estimates or winning bids, while failing to do so for comparable incumbent projects. Exogenous factors have driven cost escalations in transmission development regardless of business model or procurement method. To determine the effect of competition on costs requires an accurate counterfactual.

The Complaint states that "even putting aside that no study evaluating actual costs has found savings, there certainly is no evidence of those hypothetical savings in MISO and SPP—much less savings that could exceed the demonstrated costs of delay in those regions."[78] As noted in my review of the literature, no multiregional study had accurately examined actual costs across competitive and incumbent projects alike by the time of the Complaint. This was not possible for anyone to do until recently, when the first round of competitive projects reached completion. The RSI Study is the first broad attempt to assess the cost savings of competition using actual, in-service projects and an appropriate counterfactual: comparable incumbent projects.

**Q. WHAT DID THE RSI STUDY FIND REGARDING THE COST SAVINGS OF COMPETITION?**

A. Although the full cost section – Part 3 of the RSI Study – is not yet available, the research is complete and the final product is under production with a release expected in June 2026. Therefore, I will limit my response here to the high-level cost takeaways, which have been publicly released.[79] In one month, stakeholders should have public access to the detailed cost study.

[78] *See* Complaint at p. 38.
[79] *See* RSI Study.

Overall, the RSI Study finds that cost savings from transmission competition are in the 30 percent range as compared to incumbent projects.[80] This accounts for the fact that final project costs came in far higher than bid levels and sometimes higher than initial estimates. Critically, the cost increases during development affected competitive and incumbent projects alike. This suggests exogenous industry-wide factors were the core driver rather than differences in developer models. The RSI study also observed that competitive projects had additional qualitative components that would be expected to improve the economic performance of the projects.[81] These include binding revenue requirement caps, capital cost caps, capital structure commitments, ROE caps, and in-service date commitment with financial penalties for being late. Reporting requirements are also more robust for competitive than incumbent projects, and such transparency encourages better risk management and timely project development.

Considering that the RSI Study is the first multiregional study of actual costs for final competitive projects that uses an appropriate counterfactual – comparable incumbent projects – I believe this study is a breakthrough finding that validates the competition thesis in Order 1000. While this is the best available evidence, I caution again that the sample size is small. Further analysis once additional projects are completed will provide more robust evidence of the full effects of transmission competition on economic outcomes. But at this stage, the results indicate that competition drives innovation and major cost savings.

[80] *See* RSI Study.
[81] Ibid.

**Q. IF COMPETITIVE PROJECTS ARE NOT MORE PRONE TO COST OVERRUNS, DOES THAT MAKE THE OUTCOMES OF BIDDING PROCESSES USEFUL FOR ESTIMATING THE TRAJECTORY OF COMPETITION'S COST SAVINGS?**

A. Yes. The main concerns with drawing conclusions from bidding outcomes are strategic underbidding and how project cost trajectories differ once under development. If competitive projects are far more prone to cost overruns than incumbent projects would be in the absence of competition, then the bidding outcomes would not necessarily be a strong indicator of expected economic performance. If competitive projects are not more prone to cost overruns, then our observations of robust cost savings potential from competitive bidding outcomes are far more likely to be realized.

The RSI Study found that incumbent and competitive projects both experienced consistent cost increases from planning to in-service, suggesting "industry-wide factors rather than developer-specific drivers."[82] This indicates that the initial cost savings expected from competitive bidding outcomes alone are largely maintained, relative to incumbents, upon completion of the project.[83] This is useful because there are far more bidding outcomes than completed projects at this point in time, thus bidding outcomes are a larger data set for us to assess the anticipated cost effect of transmission competition. For example, only one competitive project was completed in MISO and thus eligible for the RSI Study, whereas eight projects have been competitively determined in MISO from 2021-2025 with an average of 38% below the RTO cost estimate.[84] Seven of those eight winning bids had a cost containment offer.[85] Over the same timeframe in SPP, the six

[82] *See* RSI Study.
[83] Ibid.
[84] *See* "FERC Order 1000 Competitively Bid Transmission Projects 2021 – 2025: Cost Overrun Protections & Schedule Guarantees Common," Electricity Transmission Competition Coalition. https://electricitytransmissioncompetitioncoalition.org/wp-content/uploads/FERC-Order-1000-Competitively-Bid-Transmission-Projects-2021-2025.pdf.
[85] Ibid.

winning competitively bid projects averaged 21% below the RTO cost estimate and all had cost containment offers.[86]

The bidding outcomes of transmission solicitations in SPP, MISO, and elsewhere have been indicative of large economic advantages. Based on the experience with completed projects, we would expect the vast majority of economic advantages evident in the bidding stage to be ultimately realized. Moving forward, the key to more economical transmission expansion is to expand and enhance competitive bidding. This sentiment was shared by the SPP Order 1000 Strategic Review Task Force, which found that the "bid-based approach has shown that competitive bid proposals have created substantial cost savings and provide stronger cost guarantees to alleviate downside rate risk to end customers."[87]

**Q. GIVEN THE SMALL NUMBER OF COMPLETED DOMESTIC COMPETITIVE TRANSMISSION PROJECTS, ARE THERE INSIGHTS FROM THE INTERNATIONAL EXPERIENCE WITH TRANSMISSION COMPETITION?**

A. Yes. The generalizability of other countries' practices to domestic circumstances has limitations, but it provides a far larger project sample size. A future volume of the RSI Study will highlight the international experience with transmission competition. Generally, the evidence suggests that competitive transmission procurement is a common global best practice. This is underscored by a 2026 World Bank report that found that competitive bidding contributed to effective transmission cost management.[88]

**Q. DOES THIS CONCLUDE YOUR TESTIMONY AT THIS TIME?**

---

[86] Ibid.

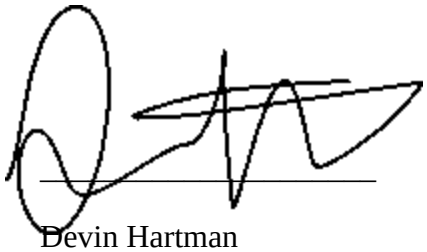
[87] *See* "Recommended Improvements for SPP's Order 1000 Transmission Owner Selection Process," Southwest Power Pool, January 2026, p. 6. https://www.spp.org/documents/75587/o1000srtf%20final%20report%20draft%20-%20122325.pdf.

[88] *See* "Understanding the Cost of Transmission Infrastructure: Insights from World Bank Group-Financed Transmission Projects," World Bank Group and Energy Sector Management Assistance Program, 2026. https://documents1.worldbank.org/curated/en/099040926152055780/pdf/:Volumes:Books-Drive:BOOKS:01.%20WorldBank:Heba%20Hamed%20Refaay:2044%20-%20357500%20-%20ESMAP%20Rpt%20Cost%20of%20Transmission%20Infrastructure:06.%20Application%20Files:XXXESMAP%20RPT_Cost%20of%20Transmission%20Infrastructure.pdf.

A. Yes.

**VERIFICATION**

I, Devin Hartman, under penalty of perjury, declare that the foregoing testimony is true and correct to the best of my knowledge and belief.



Devin Hartman

Executed on May 27, 2026