UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Building for the Future Through Electric Regional Transmission Planning and Cost Allocation and Generator Interconnection	)))	Docket No. RM21-17-000

Initial Comments of the R Street Institute

I. Issue Summary

On July 27, 2021, the Federal Energy Regulatory Commission (Commission) published an Advance Notice of Proposed Rulemaking (ANOPR) on potential reforms to improve generator interconnection processes, regional transmission planning and cost allocation.[1] On April 21, 2022, the Commission published a Notice of Proposed Rulemaking (NOPR) based upon the ANOPR record.[2] The NOPR would require public utility transmission providers (TPs) to:

(1) Conduct long-term regional transmission planning on a sufficiently forward-looking basis to meet transmission needs driven by changes in the resource mix and demand;
(2) More fully consider dynamic line ratings and advanced power flow control devices in regional transmission planning processes;
(3) Seek agreement of relevant state entities within the transmission planning region regarding the cost allocation method(s) that will apply to transmission facilities;
(4) Adopt enhanced transparency and coordination requirements with the aim of identifying potential opportunities to “right-size” replacement transmission facilities;
(5) Revise their existing interregional transmission coordination procedures to reflect the long-term regional transmission planning reforms proposed in this NOPR;
(6) Not permit TPs to take advantage of the construction-work-in-progress incentive for regional transmission facilities; and
(7) Permit TPs to the exercise of federal rights of first refusal for transmission facilities selected in a regional transmission plan for purposes of cost allocation, conditioned on the incumbent TP establishing joint ownership of the transmission facilities.[3]

[1] 86 Fed. Reg. 15512 (July 27, 2021). https://www.govinfo.gov/content/pkg/FR-2021-07-27/pdf/2021-15512.pdf.
[2] 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.
[3] Ibid.

The R Street Institute (RSI) filed initial and reply comments in the ANOPR.[4] As with the ANOPR comments, RSI is also filing separately in this notice as part of the Electric Transmission Competition Coalition.

II. Summary of R Street Position

The overarching objective of transmission policy is economically efficient regional transmission planning and cost allocation. This requires all expansion to pass a cost-benefit test, including robustness tests using long-term scenarios that capture risk and uncertainty; cost allocation based on the beneficiary-pays principle; competition for transmission asset ownership; and financial transmission rights. Reliability benefits should be accounted for on an economic valuation basis in an integrated process without artificial reliability and economic classifications; all reliability projects should be economic and all economic projects reliable. The costs of a public policy project failing a cost-benefit test should be allocated to the entities requesting the project. Planning processes should be conducted by an independent transmission planner across all Order 1000 regions in a manner that is stakeholder-inclusive, transparent, independent and accountable in order to prevent undue influence, especially from incumbent asset owners.

With this in mind, the NOPR overall is a mixed bag. A new RSI study (Consumer Study) that reflects a convening of transmission consumer groups infused with independent technical and legal analysis to maximize net benefits finds that the NOPR makes major progress on transmission planning and utilizing existing transmission infrastructure, but has mixed results on governance issues and would severely harm competition.[5]

In these comments, RSI emphasizes the following for select provisions of the NOPR:

[4] "Comments of the R Street Institute on the Advanced Notice of Proposed Rulemaking: Building for the Future Through Electric Regional Transmission Planning and Cost Allocation and Generator Interconnection," Docket No. RM21-17-000, Oct. 12, 2021. https://www.rstreet.org/wp-content/uploads/2021/10/ANOPR-Initial-Comments-FINAL.docx.pdf; "Reply Comments of the R Street Institute on the Advanced Notice of Proposed Rulemaking: Building for the Future Through Electric Regional Transmission Planning and Cost Allocation and Generator Interconnection," Docket No. RM21-17-000, November 20, 2021. https://www.rstreet.org/2021/11/30/r-street-reply-comments-on-ferc-anopr-on-potential-reforms-to-improve-generator-interconnection-processes-regional-transmission-planning-and-cost-allocation.

[5] 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.

- *Regional Transmission Planning*. The NOPR's direction on regional transmission planning is enormously beneficial. The proposed planning time horizon and number of scenarios is prudent and would benefit from sensitivity analysis as well. The quality of these reforms is highly sensitive to governance quality, which places a premium on a process that is independently administered with enhanced transparency, accountability and stakeholder inclusion. The Commission should also:
    - Merge aspects of interconnection into transmission planning for transmission upgrades in order to co-optimize system planning and lower uncertainties, transactions costs, and inconsistencies between interconnection and transmission planning processes;
    - Require a minimum set of benefits for planning evaluation, including economic quantification of reliability benefits;
    - Require that all transmission projects require passage of cost-benefit analysis under the purview of an independent transmission planner and/or monitor across all Order 1000 regions;
    - Enact complementary near- and long-term planning process optimized to account for uncertainty; and
    - Host periodic forums on best practices in long-term transmission planning, especially given input and methodological complexity that the NOPR reforms will introduce.
- *Exercise of a Federal Right of First Refusal*. The Achilles' heel of the NOPR are anti-competitive right-sizing and conditional federal right of first refusal (ROFR) provisions. Based on incentive structure, a conditional ROFR would be employed unconditionally, thus signaling the death knell for transmission competition. Substantively, the justification provided would reinterpret "undue discrimination" in a manner that contradicts all precedent to promote "closed access" by institutionalizing discrimination. This is at odds with the Commission's statutory duty to combat anti-competitive behavior and promote "open access;" it would also reverse course on the basis of the entire history of the Commission's landmark rulings. Procedurally, the NOPR ignores the evidence on the record of the benefits of competition—and thus the damages federal ROFR would inflict—and seeks to use an obscure legal tool (Section 309 of the Federal Power Act) which creates massive legal risk that may not be severable from the rule. Worst of all, a federal ROFR may exacerbate the very problem the Commission seeks to address, by empowering incumbent TPs whose incentives are to pursue less efficient transmission development and stifle regional transmission development in a manner that insulates their generation. This behavior is

the historic norm from well before competition was introduced into transmission—a federal ROFR would revert the industry back to the dark ages. Based on competition's cost savings alone and the potential for trillions of dollars in future transmission expenditures, reinstating federal ROFR could easily prove to be a $100 billion mistake.[6] RSI implores the Commission to:

  - Remove federal ROFR considerations from the final rule;
  - Pursue the complementary merits of expanding competition and independent planning through separate proceedings in a proper Section 206 manner; and
  - Adopt the recommendations of the Electricity Transmission Competition Coalition (ETCC) on this manner, whose comments RSI has contributed to and formally endorses in this proceeding.

- *Consideration of dynamic line ratings (DLR) and Advanced Power Flow Control Devices*. The Commission should require incorporation, not mere consideration, of advanced transmission technologies in transmission planning processes. This should include, at minimum, topology optimization in addition to dynamic line ratings and advanced power flow control devices. The Commission should require the inclusion of commercially viable technologies generally on a rolling basis as informed by a mechanism that updates a list of qualifying technologies, such as a periodic forum with technology experts from the Department of Energy.
- *Regional Transmission Cost Allocation*. The final rule should adhere to the beneficiary-pays principle for conventional transmission cost allocation as well as for network upgrades. The NOPR's intent to drive state agreement is noble, as it could reduce disputes over cost allocation and potentially siting, however the proposal has some legal and conflict resolution concerns in practice. The Commission should insert schedule discipline and a backstop provision for circumstances where states cannot agree and recognize that state agreement would not reflect the full suite of beneficiaries charged with cost allocation. It must also be noted that states lack the jurisdiction and resources to serve an economic oversight role, and thus added state participation is not a substitute for the Commission's economic oversight or for competitive mechanisms.
- *Interregional Transmission Coordination and Cost Allocation*. The final rule should adopt the NOPR's proposed interregional transmission coordination procedures. However, this will

[6] For transmission expenditure projections, see, e.g., Eric Larson et al., "Net-Zero America: Potential Pathways, Infrastructure, and Impacts," Princeton University, December 2020, p. 106. https://netzeroamerica.princeton.edu/img/Princeton_NZA_Interim_Report_15_Dec_2020_FINAL.pdf.

accomplish little by itself, and the Commission should endeavor to address the core problems in interregional transmission planning and cost allocation, which will require a separate rulemaking that alters the requirements of Order 1000.

- *Enhancements to Proposed Reforms*. Quality governance is sorely missing from this NOPR. The Consumer Study found that quality governance is the foundation that enhances all other transmission reforms, including improved planning, optimizing the existing system and effective competition.[7] It is imperative that the Commission prioritize planning stakeholder inclusiveness, transparency, accountability and independence to achieve quality governance and maximize the potential of all productive transmission policy reforms to the extent possible in this proceeding and others.

III. Regional Transmission Planning

The NOPR's core premise for planning reform is correct; current planning is insufficiently long-term and forward-looking to incorporate changes in generation and demand. The current approach is inefficient and does not produce the most cost-effective results; rather the interconnection process drives the bulk of transmission expansion changes in an uncoordinated piecemeal fashion to adjust to the changing resource mix. The proposed requirement for TPs to participate in a regional transmission planning process that includes Long-Term Regional Transmission Planning may be the most beneficial component of the entire NOPR.

Development of Long-Term Scenarios

The general proposed NOPR requirement for TPs to incorporate scenario analysis into their existing reliability and economic regional transmission planning processes is imperative. Historically, the net benefits of transmission system planning are subject to profound long-run uncertainties in technology, policy, fuel costs, and load shape and growth. Such uncertainties necessitate planning with scenario visions of the future. Backtesting traditional planning methods reveals that they are inaccurate representations of emerging conditions that rely on overly simplistic and ad hoc methods to address system uncertainties. This problem will worsen as the resource mix becomes more heterogenous by resource type and location and as reliability conditions become more sensitive to transmission system constraints, especially those induced by severe weather.

[7] Chen and Hartman, 2022. https://www.rstreet.org/wp-content/uploads/2022/05/RSTREET257.pdf.

The NOPR's proposed 20-year planning horizon for long-term scenarios is prudent. For benchmarking purposes, 20-25 year planning horizons have been the norm and best practice for integrated resources planning (IRP) for decades.[8] Over the past decade, the prolific use of uncertainty robustness testing, especially through use of scenarios and sensitivity planning, has resulted in more "least regrets" resource identification in IRP processes that addresses the risks of under- or over-building power system facilities.[9] It also helps cultivate broader stakeholder buy-in, especially when paired with the expansion of processes that include stakeholders in the early planning stage.[10] This becomes increasingly important as the complexity of planning grows. Such experiences contribute learning value for the Commission and its stakeholders to identify best practices in risk and uncertainty management in long-term power system planning.

The NOPR's proposed four long-term scenarios should strike a balance of capturing uncertainty while limiting the complexity of the planning process. Whether scenario planning sufficiently captures information on the resource mix and demand depends more on the quality of inputs and scenario construction elements than the total number of scenarios. Generally in power system planning, the use of sensitivity analysis can greatly enhance scenario analysis by reflecting the breadth of risk and uncertainty in data inputs and assumptions.[11] It can also permit use of more sophisticated methodology, such as Value-at-Risk techniques. As such, requiring TPs to develop sensitivities would add considerable value, especially by ensuring cleared projects pass a higher robustness bar.

The NOPR also seeks comment on whether proposed categories of factors adequately capture factors driving changes in the resource mix and demand. The proposed categories are sufficient to accomplish this end. However, the determinant of whether the objective is met comes down to process quality because pervasive judgement is required.

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[8] For e.g., see National Association of Regulatory Utility Commissioners, "Topic 15: Utility Best Practices for Integrated Planning," last accessed July 31, 2022. https://www.naruc.org/taskforce/topic-15-utility-best-practices-for-integrated-planning.

[9] Devin Hartman, "IRP in Era of Transformation," NMSU Current Issues 2019, April 8, 2019. https://elcon.org/integrated-resource-planning-in-an-era-of-transformation-devin-c-hartman-current-issues-2019-conference-center-for-public-utilities-advisory-council.

[10] Ibid.

[11] Ibid.

Governance mechanisms that drive objective accuracy into the selection of data sets, methods and assumptions behind these factors is imperative. Without this, the biases of the most influential stakeholders will win out and result in parochial interests exerting undue influence on the core inputs and methods in a manner that undermines the quality and accuracy of transmission expansion planning. The quality concern speaks to the reservations of independent market monitors—including Potomac Economics and Monitoring Analytics—in the ANOPR on requiring long-term planning. The independent monitor of the Southwest Power Pool this year referenced the pervasiveness of incumbent TP influence on existing transmission planning inputs.[12] Extending this to long-term assumptions could create a major problem. The Consumer Study addresses these concerns by stressing the important of governance processes that are independently administered, transparent, accountable and inclusive of a broad set of stakeholders' input.[13]

The NOPR seeks input on whether the proposed definition of best available data inputs will allow for TPs to identify more efficient or cost-effective solutions, should be expanded to include historical accuracy of the data source on trends affecting the resource mix and demand, and whether there is value in identifying or standardizing inputs. Identifying and standardizing consensus data sources may help streamline and reduce excess contention in aspects of the planning process. For example, assumptions about future climatic change should be incorporated, as they materially affect load growth and generation patterns. The best available information on this subject may prove contentious and inefficient to revisit every planning cycle unless standardized.

Intraregional standardization could help internal consistency, transparency and focus scarce stakeholder capital. The last element could improve the overall quality of inputs by bolstering the depth of stakeholder involvement in a consolidated process, rather than diluting stakeholder involvement through fragmented endeavors. The consistency of inputs brought by standardization within a region will help simplify and augment the alignment of inputs for interregional planning.

Coordination of Regional Transmission Planning and Generator Interconnection Processes

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[12] Ethan Howland, "FERC should loosen incumbent transmission owners' grip on planning, R Street panelists say," *Utility Dive*, Jan. 28, 2022. https://www.utilitydive.com/news/r-street-transmission-reforms-ferc/617928.
[13] Chen and Hartman, 2022. https://www.rstreet.org/wp-content/uploads/2022/05/RSTREET257.pdf.

The NOPR correctly identifies many problems in generator interconnection and that improved regional planning could result in better coordination for identifying network upgrade needs in both generation interconnection and regional transmission planning. Studying transmission upgrades in separate processes is redundant, inefficient, creates process inconsistencies and increases total costs markedly. It is a vestige of open access rules designed for the vertically integrated utility era. These do not age well with the evolving resource mix because the value of network upgrades has become increasingly dispersed, and benefits exceed those of the interconnecting participant who bear all the upgrade costs voluntarily under the current participant funding model.[14]

Merging aspects of interconnection into transmission planning for transmission upgrades can co-optimize system planning and lower uncertainties, transactions costs, and inconsistencies between interconnection and transmission planning processes. Such holistic transmission planning could improve economic efficiencies and save billions of dollars, resulting in wholesale rates that are just and reasonable. For example, MISO's 2022 long-range transmission plan results include $10 billion in transmission projects that support interconnection of 53,000 megawatts of new renewable generation and reduces other costs by $37-$68 billion.[15] PJM similarly identified $3 billion in transmission upgrades that would save billions compared to the current practice of incremental upgrades through the interconnection process.[16]

Transmission network upgrades could conceivably shift entirely to regional transmission. Future generation assumptions could be informed by generator requests. Cost allocation could still follow the beneficiary pays principle. One way to calculate benefits for generators is by expected increases in wholesale market revenues, whereas corresponding wholesale rate reductions and the value of avoided lost load could constitute consumer benefits.

[14] "Comments of the R Street Institute on the Advanced Notice of Proposed Rulemaking: Building for the Future Through Electric Regional Transmission Planning and Cost Allocation and Generator Interconnection," Docket No. RM21-17-000, Oct. 12, 2021. https://www.rstreet.org/wp-content/uploads/2021/10/ANOPR-Initial-Comments-FINAL.docx.pdf.

[15] Johannes Pfeifenberger, "Planning for Generation Interconnection," Brattle Group, May 31, 2022, p. 5. https://www.esig.energy/event/special-topic-webinar-interconnection-study-criteria.

[16] Ibid.

The NOPR takes a more modest step. The more the final rule reduces duplication and shifts network upgrade assessments to the purview of better-suited regional processes, the greater the process efficiency and economic efficiency of the outcome.

Benefits Evaluation of Regional Transmission Facilities

The NOPR seeks input on each benefit discussed in the NOPR, how to ensure distinct benefits list to avoid double counting, whether to require TPs to use some or all benefits, the application of long-term regional transmission benefits in non-RTO/ISO regions and whether TPs should be required to use some or all benefits. TPs should be required to use a minimum set of benefits because they lack the incentive to account for all system-wide benefits if left to their own devices. Since the NOPR only proposes a benefits list for TPs to consider it effectively proposes the status quo. The Commission should expect little to no changes to transmission planning without a requirement. The key challenge is how Commission defines and operationalizes these benefits using an appropriate level of prescription.

Categorically, the NOPR's proposed list of benefits is sound. It does not fully capture some comprehensive lists of discrete benefits, such as insurance and risk mitigation benefits, but the discrepancies do not pertain to the core benefits drivers and raise some risk of double-counting.[17]
To clarify, the reduced loss of load probability should be refined to the avoided value of lost load (VOLL) so it is compatible with an economic assessment. VOLL estimates should be consistent in all aspects of cost-benefit assessment.

Economic quantification of reliability benefits is paramount and, ideally, would form the basis of a consolidated cost-benefit framework, rather than the present artificial categories for reliability and economic projects. Reliability projects tend to ignore cost-benefit analysis and ignore considerations of alternatives in determining transmission solutions. In the absence of such economic regulatory oversight, TPs have utilized these reliability designations to pursue solutions with higher capital costs. All projects have economic and reliability effects and should not be separated; reliability is an economic concept often disguised in engineering terms. Reliability upgrades reduce the probability of a cascading

[17] Johannes Pfeifenberger, "Transmission Planning and Benefit-Cost Analyses," Brattle Group, April 29, 2021, p. 6. https://www.brattle.com/wp-content/uploads/2021/07/Transmission-Planning-and-Benefit-Cost-Analyses.pdf.

blackout or forced curtailments, which carry economic benefits that have been quantified. It is far more efficient to analyze reliability and economically efficient projects concurrently as economic projects.

Some benefits are not yet at a sufficient conceptual or empirical stage to integrate into a holistic economic benefits framework. This does not discount that they have value and should be included in minimum benefits requirements. For example, tremendous value could stem from the incorporation of resilience benefits, however no such economic framework exists today.[18] The Commission should separately develop an economic framework for resilience, which can be imported into the benefits framework of transmission expansion planning.

Selection of Regional Transmission Facilities

The status quo selection process undermines the NOPR's objective of advancing efficient and cost-effective transmission expansion. Many projects, especially reliability projects, are not subjected to economic scrutiny. The Commission should require that all transmission projects require passage of cost-benefit analysis under the purview of an independent transmission planner and/or monitor across all Order 1000 regions.

Implementation of Long-Term Regional Transmission Planning

The NOPR correctly identifies challenges in harmonizing near-term and long-term regional transmission planning. The NOPR seeks comment on the need to coordinate the initial timing sequences between long-term regional transmission planning and the existing near-term regional transmission planning process.

The two processes would ideally be split into different time frame and assumption sets with timing optimized to account for uncertainty. Near-term planning should be conducted annually with a horizon of up to five years and include generators that are existing, under construction or have interconnection agreements only. Longer-term planning should be conducted biannually or triennially on the 20-year horizon the NOPR proposes and include representative generation development expectations and

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[18] Devin Hartman, "Reply Comments of the R Street Institute on Grid Resilience in Regional Transmission Organizations and Independent System Operators," Docket No. AD18-7-000, May 9, 2017. https://2o9ub0417chl2lg6m43em6psi2i-wpengine.netdna-ssl.com/wp-content/uploads/2018/05/Resilience-Reply-comments-May-2018-FINAL.pdf.

longer-term load growth. The long-term process then feeds into the near-term process. Projects failing a cost-benefit test in one cycle can roll over to the next in-kind cycle.

The NOPR also seeks comment on whether the Commission should host periodic forums to share best practices in implementing long-term regional transmission planning (e.g, covering best available data, scenario development, benefits evaluation techniques), specially on its benefits and preferred structure and frequency. The short answer is a resounding "yes." The proposed changes in this NOPR would greatly increase the complexity of transmission planning with best practices constantly evolving. This calls for a mechanism that drives continuous learning and identification and adoption of best practices.

Consideration of DLR and Advanced Power Flow Control Devices

The NOPR seeks comment on the proposal to require TPs to consider the incorporation of DLR and advanced power flow control devices, whether other transmission technologies should be considered and whether non-RTO/ISO regions should be required to update their energy management systems or make similar changes. Considering the huge cost advantages of advanced technologies and the fact that they reduce rate base prospect for TPs, the Commission should require incorporation of specific technologies not mere consideration, otherwise TPs will treat this as a box-checking exercise. One challenge is that driving adoption of many economical advanced transmission technologies is done through operating process reform, not planning process reform. Nevertheless, inclusion of advanced technologies in planning processes can help inform the net benefits (e.g., identify production cost savings) of operating process reforms, while also informing a key variable in regional transmission planning scenarios: future technology status.

Dynamic line ratings and advanced power flow control devices are commercially mature and prudent to include in transmission planning. At minimum, an additional grid-enhancing technology that warrants inclusion is topology optimization, which already has case studies and successful pilots underway.[19] Various additional advanced transmission technologies are commercially mature, and the Commission should solicit a list by technology experts to inform this designation, such as those at the national laboratories.

[19] See, e.g., Pablo Ruiz and Johannes Pfeifenberger, "Congestion Mitigation and Topology Optimization," Brattle Group, June 1, 2021. https://www.brattle.com/wp-content/uploads/2021/08/Congestion-Mitigation-with-Topology-Optimization-Case-Studies-and-a-Path-Toward-Implementation.pdf.

The Commission should require commercially viable technologies to be incorporated into all regional transmission planning practices. Since the status of technologies constantly evolves, updates to a list of commercially viable could be proposed periodically through periodic forums on best practices hosted by the Commission. For example, technology experts from the Department of Energy could discuss the status of various technologies, which could inform the designation of commercial viability as well as planning scenario assumptions on future technology advancements. The Commission would then need to approve the updated commercially viable technologies list to make it binding.

IV. Regional Transmission Cost Allocation

Adhering to the beneficiary-pays principle is paramount for conventional transmission cost allocation as well as for network upgrades. The NOPR's intent to drive state agreement is noble, as it could reduce disputes over cost allocation and potentially siting; however, the proposal has some legal and conflict resolution concerns in practice. It must also be noted that states lack the jurisdiction and resources to serve an economic oversight role, and thus added state participation is not a substitute for the Commission's economic oversight or for competitive mechanisms.

The NOPR seeks comment on the definition of relevant state entities and the proposal to afford state entities the flexibility to define agreement or for the Commission to adopt a specific definition. The Commission must appreciate that states do not represent the full suite of beneficiaries charged with cost allocation. This could make a cost allocation method predicated on state agreement unjust and unreasonable. However, a state advisory or partially approval mechanism could be structured to ensure state agreement is a pivotal influencer of allocation decisions.

Effective conflict resolution in infrastructure includes schedule discipline and a backstop mechanism.[20] The Commission should insert a backstop provision for circumstances where states cannot agree. This could include an accelerated Commission-led arbitration process or simply leave it to Commission judgment discretion based on preestablished criteria. This not only will break impasses but compel

[20] Devin Hartman and Tom Russo, "Ebbing the Flow of Hydropower Red Tape," *R Street Policy Study* No. 105, August 2017. https://www.rstreet.org/wp-content/uploads/2018/04/105-1.pdf.

productive participation, whereas stakeholder processes without a backstop mechanism and schedule discipline are vulnerable to “spoilers” who prevent progress.

V. Exercise of a Federal Right of First Refusal

The NOPR correctly diagnoses a concern—expansion of inefficient transmission and suppression of efficient transmission expansion—but misdiagnoses the causes and remedy in reinstating a conditional ROFR. Any “problem” with competition is that it has been used too little because incumbent TPs took advantage of competitive carve-outs in Order 1000 and the dearth of oversight over local projects. Rather than close these loopholes, the NOPR proposes to exacerbate them.

It is unclear if the Commission’s intent is to eliminate competition but the NOPR would eliminate competition in practice. A conditional ROFR will be used unconditionally, especially if incumbent TPs are permitted to thwart third parties except for their neighboring incumbent TPs.

FERC has a statutory duty to combat anticompetitive behavior, which is at fundamental odds with a federal ROFR. Reintroducing a ROFR contradicts the essence of landmark FERC transmission orders, including Order Nos. 888, 2000 and 1000. ROFR would mark a shift in FERC policy towards “closed access” that promotes discrimination by cartelizing transmission development, which undermines the core of legacy transmission policy to-date in promoting “open access.” Open access is fundamentally about leveling the playing field for all TPs—incumbent and non-incumbent alike—and ensuring incumbent TPs do not undermine transmission development in a manner to advantage their own generation assets. Reinstating a federal ROFR would mark a radical shift in Commission policy toward appeasing incumbents after decades of progress making them more accountable, transparent and subjected to competitive discipline.

The legal and policy mechanisms used to pursue ROFR are deeply problematic. Using Section 309 of the Federal Power Act in this manner carries major legal risk that may not be severable from the rest of the final rule, which makes ROFR the Achilles’ heel of the NOPR. The proposed policy mechanism, joint ownership, was a concept promoted by some transmission consumers in a context where there are no competitive options (i.e., local projects), not regional projects where consumers want competition. This effectively takes a consumer concept and weaponizes it against them.

Need for Reform: Incentive Alignment

The NOPR claims that incumbent TPs may have perverse investment incentives that do not adequately encourage them to "develop and advocate" for transmission facilities that benefit more than their local retail distribution service area, which the Commission uses as a basis to revisit the policy of eliminating the federal ROFR.[21] This assessment ignores the full suite of perverse incentives facing incumbent TPs, misdiagnoses the root cause of incumbents' behavior to avoid efficient regional transmission expansion and mischaracterizes the implications of reintroducing a federal ROFR. The fact that the Commission feels compelled to cater to the concerns of what transmission projects incumbents "advocate" illuminates the root cause of the problem; dependence of regional transmission planning on incumbent TPs. ROFR will only worsen this dependence and exacerbate the myriad perverse incentives of incumbent TPs that exist irrespective of competition.

The Commission must proceed with the complete picture of what causes under-investment in efficient regional projects and over-investment in inefficient projects, specifically those outside of RTO scrutiny. A 2021 study by the Brattle Group and Grid Strategies identifies seven such causes: 1) small utility planning areas; 2) differing TO incentives between local and regional plans; 3) economies of scale; 4) economies of scope; 5) network externalities; 6) horizontal market power; and 7) vertical market power.[22] The only one relevant to the NOPR's justification of ROFR is differing TO incentives between local and regional plans, which the paper attributes to differing regulatory treatment between local and regional transmission.[23] A 2019 Brattle study recommends addressing this regulatory asymmetry by expanding the scope of competition, noting that this would facilitate a more robust transmission infrastructure by using competitive forces to increase opportunities for transmission developers.[24]

The perverse incentives of incumbent TPs are not only to evade competitive process, but also to overcapitalize transmission investments to maximize rate base and protect their own generation assets

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[21] 87 Fed. Reg. 26564 (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.

[22] Johannes Pfeifenberger et al., "Transmission Planning for the 21st Century: Proven Practices that Increase Value and Reduce Costs," The Brattle Group, October 2021, pp. 19-23. https://www.brattle.com/wp-content/uploads/2021/10/Transmission-Planning-for-the-21st-Century-Proven-Practices-that-Increase-Value-and-Reduce-Costs.pdf.

[23] Ibid, p. 20.

[24] Johannes Pfeifenberger et al., "Cost Savings Offered by Competition in Electric Transmission," The Brattle Group, April 2019, pp. 2, 20. https://www.brattle.com/wp-content/uploads/2021/05/16726_cost_savings_offered_by_competition_in_electric_transmission.pdf.

by deterring and precluding competition from other transmission companies. Removing competitive discipline will encourage cartel behavior, not efficient regional transmission development. The expected horizontal and vertical market power abuses by incumbent TPs should a federal ROFR be reinstated has already caused multiple parties in this proceeding to engage with the U.S. Department of Justice, which has a track record of opposing ROFR on anti-trust grounds.

Perhaps the best sign that the NOPR misdiagnoses the problem is that the problem has existed since before transmission competition was introduced. In 2007, the Commission found in Order 890 that the incentives inherent to incumbent TPs erect barriers to regional transmission development.[25] Same as the Commission's current problem statement, the Commission then found that in an era of increasing congestion and a need for new transmission investment that:

> We cannot rely on the self-interest of transmission providers to expand the grid in a nondiscriminatory manner. Although many transmission providers have an incentive to expand the grid to meet their State-imposed obligations to serve, they can have a disincentive to remedy transmission congestion when doing so reduces the value of their generation or otherwise stimulates new entry or greater competition in their area. For example, a transmission provider does not have an incentive to relieve local congestion that restricts the output of a competing merchant generator if doing so will make the transmission provider's own generation less competitive. A transmission provider also does not have an incentive to increase the import or export capacity of its transmission system if doing so would allow cheaper power to displace its higher cost generation or otherwise make new entry more profitable by facilitating exports.[26]

Several case studies have emerged since the implementation of Order 1000 that reveal how incumbents stifle efficient regional transmission expansion even in the absence of competition. For example, incumbent utilities in the southern part of the Midcontinent Independent System Operator (MISO) obstructed plans to build regional transmission facilities that would enable lower-cost energy imports for the region while boosting resilience from storms like Hurricane Ida.[27] In 2018, a third party won a competitive bid from MISO to build the lines, but utilities urged state lawmakers to pass a ROFR despite objections from the Justice Department that the action would stifle competition and increase rates. Entergy, the primarily incumbent utility, has altered its generation plans to kill MISO's economic

[25] 72 Fed. Reg. 12266 (March 15, 2007). https://www.govinfo.gov/content/pkg/FR-2007-03-15/pdf/E7-3636.pdf.
[26] 72 Fed. Reg. 12318 (March 15, 2007). https://www.govinfo.gov/content/pkg/FR-2007-03-15/pdf/E7-3636.pdf.
[27] Jon Schuppe, "Hurricane Ida power grid failure forces a reckoning over Entergy's monopoly in the South," NBC News, Sep. 24, 2021. https://www.nbcnews.com/news/amp/ncna1279971.

justification for the $130 million Hartburg-Sabine Junction transmission project so that it can rate base a far costlier amount of new generation.[28] MISO took the transmission project off the table even though Entergy's generation proposal has not been approved by state regulators. This move has been met with resistance from MISO transmission customers and proponents of importing clean, lower-cost energy to the region.[29]

This incumbent TP tactic of altering generation plans and other transmission planning inputs to thwart regional transmission development is pervasive. For example, the independent market monitor of the Southwest Power Pool (SPP) observed that RTO transmission planning inputs are significantly influenced by incumbent TPs that departs from their actual value and changes planning outcomes.[30] The monitor continues that the structure of the SPP transmission planning process favors TPs, that transmission planning should be opened up to more stakeholders and that competitive projects have achieved large cost savings.[31] Altogether, this reveals what happens when incumbent TPs are left to manipulate the inputs of regional transmission planning, underscoring that the problem is a lack of independent planning as originally envisioned in Order 2000.

Per Order 2000, one of the core four characteristics of an RTO is independence from market participants and one of seven core RTO functions is regional transmission planning and expansion.[32] Clearly, independent regional transmission planning has not been fully realized, and incumbent TP dependence is the root cause of the problem the Commission needs to fix. This is corroborated by several pieces of recent scholarly research.

A 2021 study by Ari Peskoe finds that the syndicate of incumbent utilities is "the heart of the problem."[33] Peskoe notes that the Commission should reclaim its transmission agenda and, rather than

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[28] Amanda Durish Cook, "MISO on Verge of Cancelling Hartburg-Sabine Tx Project," *RTOInsider*, July 21, 2022. https://www.rtoinsider.com/articles/30505-miso-verge-cancelling-hartburg-sabine-tx-project.
[29] Ibid.
[30] Ethan Howland, "FERC should loosen incumbent transmission owners' grip on planning, R Street panelists say," *Utility Dive*, Jan. 28, 2022. https://www.utilitydive.com/news/r-street-transmission-reforms-ferc/617928.
[31] Ibid.
[32] Federal Energy Regulatory Commission, *Regional Transmission Organizations,* Final Rule, Docket No. RM99-2-000, Dec. 20, 1999. https://www.ferc.gov/sites/default/files/2020-06/RM99-2-00K_1.pdf.
[33] Ari Peskoe, "Is the Utility Transmission Syndicate Forever?" *Energy Law Journal* 42:1 (May 5, 2021), p. 2. https://www.eba-net.org/assets/1/6/5_-_%5bPeskoe%5d%5b1-66%5d.pdf.

intervene directly in utility-controlled planning, the Commission can use its Section 206 authority to remedy anti-competitive behavior to induce third-party controlled planning.[34]

Similarly, the Consumer Study finds that transmission planning dependence on incumbent utilities is at the core of why inefficient transmission gets built and efficient transmission does not.[35] It notes that an independent transmission monitor could provide oversight and work with stakeholders on technical screens to evaluate supplemental and local upgrades, while checking whether broader planning would provide greater net benefits or eliminate the need for local projects.[36] The Consumer Study stresses the imperative of having an independent transmission planner (ITP) in all Order 1000 planning regions, which would eliminate the concern over incumbent TPs would leave RTOs altogether given their voluntary membership.[37]

The ANOPR record already reflects comments by dozens of consumer interests—including those in the ETCC—who want to see the right transmission projects get built at the lowest reasonable costs.[38] The ETCC recommended an ITP in all Order 1000 regions and minimizing exemptions from competitive processes to accomplish this.[39] The NOPR has failed to acknowledge not only the benefits of competition submitted by such parties on the ANOPR record, which ignores the economic damages ROFR would impose, but it ignores the solution set these parties presented to get to the root cause of the problem.

Accounting for the cost decreases of competition in regional planning processes should be a boon to regional transmission development. Specifically, RTOs use cost-benefit analyses to screen potential transmission projects, where projects that failed a test would have passed with cost reductions in the 20-40 percent range of what competition typically provides.[40] If the Commission moves forward with

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[34] Ibid, p. 3.
[35] Chen and Hartman, 2022. https://www.rstreet.org/wp-content/uploads/2022/05/RSTREET257.pdf.
[36] Ibid.
[37] Ibid.
[38] "Comments of the Electricity Transmission Competition Coalition in Building for the Future Through Electric Regional Transmission planning and Cost Allocation and Generation Interconnection," Docket No. RM21-17-000, Oct. 12, 2021. http://electricitytransmissioncompetitioncoalition.org/wp-content/uploads/ETCC-ANOPR-Comments-Filed1.pdf.
[39] Ibid.
[40] For e.g., see Johannes Pfeifenberger et al., "Transmission Planning for the 21st Century: Proven Practices that Increase Value and Reduce Costs," The Brattle Group, October 2021. https://www.brattle.com/wp-content/uploads/2021/10/Transmission-Planning-for-the-21st-Century-Proven-Practices-that-Increase-Value-and-Reduce-Costs.pdf.

elements of this NOPR advancing more accurate cost inputs and broader use of scenarios and sensitivities, then accounting for the cost advantage of competition would materially improve benefit-cost ratios for point estimates and robustness tests and result in more economical regional transmission development at the margin.

Altogether, the combination of independent planning and removing competitive carve-outs embedded in Order 1000 would eliminate most of the strategic behavior by incumbent TPs that the NOPR seeks to avoid. It should be noted that this includes lowering the voltage level for competitive exemptions, as many "local" projects today are actually regional in nature. There are several remedies to prevent the overbuilding of legitimate local projects below this voltage threshold that are not subjected to competition, including removing the presumption of prudency for non-competitive projects, the independent transmission monitor function described in the Consumer Study and requiring that RTO zonal cost allocation practices treat all network facilities alike irrespective of whether they are owned by incumbents or new entrants.[41]

Order 1000 Alignment

The Commission seeks comment on how its proposal aligns or advances the goals of Order 1000 or otherwise ensures just and reasonable rates and limits opportunities for undue discrimination. In short, the proposal fundamentally contradicts the goals of Order 1000 as well as preceding landmark transmission Orders, including Order Nos. 888, 890 and 2000. The NOPR reverses the bedrock interpretation of "undue discrimination" and, with it, completely undermines a pillar of "open access" transmission policy upon which Order 1000 and other decisions have been built.

The Commission specifically referred to remedying anti-competitive utility conduct as the basis of these reforms to prevent "undue discrimination," yet the NOPR routinely uses the phrase without definition in a manner that often enables discriminatory practices by incumbent utilities. In Order 1000, the Commission put transmission competition on the table to as a means to prevent undue discrimination. Specifically, the rationale in Order 1000 for invalidating federal ROFR was that it unduly discriminated against non-incumbents.

[41] Devin Hartman, "Enabling New Transmission Entrants: Unleashing a Bottom-up Clean Energy Transition," The R Street Institute, March 3, 2021. https://www.rstreet.org/2021/03/03/enabling-new-transmission-entrants-unleashing-a-bottom-up-clean-energy-transition.

Liability of Section 309

Conventional legal practice is for the Commission to make a determination based on a robust record under Section 206 of the Federal Power Act (FPA). For example, Order 1000 was a lengthy determination made by the Commission under Section 206 of the FPA. However, the NOPR proposes to employ a rarely-used provision of the FPA, Section 309, to amend Order 1000 findings and requirements by advancing the conditional ROFR concept, presumably because it lacks the evidence to make the requisite 206 finding.

Although the Commission correctly notes that the language of Section 309 is broadly worded to allow the Commission to amend and rescind such orders, rules and regulations as the Commission may find necessary or appropriate, the case law demonstrates that Section 309 does not permit the Commission to simply “amend” a finding under Section 206. That case law dates back to the 1970s and states that Section 309 merely augments existing powers; it does not “confer independent authority.”[42] In this regard, the use of Section 309 must be “read in harmony with Section 206 and the filed-rate doctrine.”[43]

Altogether, Section 309 would allow FERC to “remedy its errors and correct unjust situations” but cannot “supersede specific statutory strictures.”[44] The NOPR does identify an error, or an unjust situation. Section 309 provides no authority to amend Section 206 findings without meeting the same Section 206 proof standard under which the Commission made the original findings.

As such, there are elevated odds of successful litigation against conditional ROFR via Section 309. Further, there is a significant limitation on the severability of this provision, meaning the entire final rule would be made vulnerable. Merits aside, the Commission must recognize that federal ROFR is a legal liability that jeopardizes all the productive reforms that will come in a final rule.

Joint Ownership Mechanisms

The NOPR proposes to utilize “joint ownership” as the mechanism for a conditional ROFR. However, this application is incompatible with the intellectual context that originated the concept. The concept of

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[42] New England Power Co. v. Federal Power Commission, 467 F.2d 425, 430 (D.C. Cir. 1972).
[43] Verso Corporation v. FERC, 898 F.3d 1 (D.C. Cir. 2018).
[44] TNA Merchant Projects, Inc. v. FERC, 857 F.3d 354 (D.C. Cir. 2017).

joint ownership was developed by transmission-dependent utilities (TDUs) to counteract the perverse incentives of incumbent TPs in the absence of open competition, not as an alternative to competition. It applies to *local* projects that enable TDUs to contract with *third party TPs*, whereas the NOPR proposes it in a *regional* context in a manner the entrenches *incumbent TPs*.

The problem motivating the "joint ownership" concept was that incumbent TPs were building local transmission, which is not subject to regional competitive requirements, in an inefficient and discriminatory manner to favor the loads they serve while building around TDUs.[45] This resulted in a "swiss cheese" problem, as reliability "holes" emerged from the strategic behavior of incumbent TPs.[46] This resulted in substandard transmission service quality, often referred to as "dead zones," to some loads but forced all loads to pay for transmission equally.[47] As such, the NOPR misconstrues a transmission consumer concept and proposes to use it in a manner against consumer interests.

Joint ownership for local projects and competition at the regional level are mutually reinforcing. Both help to reduce the regulatory asymmetry facing incumbent TPs, which is the source of the incumbent TP incentive problem cited in the NOPR. The Consumer Study highlights that joint ownership can play a complementary role at the local level to reforms that reduce competitive carve-outs at the regional level.[48]

The NOPR seeks comment on administrability and implementation challenges of a joint-ownership conditional ROFR. The only form of joint ownership that may not extinguish competition is if exclusive non-incumbent TPs are allowed to partner. For example, TAPS envisioned this as an opportunity for transmission-dependent utilities to partner with non-incumbent TPs, because the incumbent TPs do not have a financial incentive that aligns with efficient transmission development. Regardless of how this concept could be implemented it is an administrative quagmire in the making. There is no "diet" version

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[45] For e.g., see Transmission Access Policy Study Group, "Inclusive Joint Transmission Ownership Arrangements: An Effective Means to Site and Build Transmission Needed to Support our Changing Resource Mix," September 2021. https://www.tapsgroup.org/wp-content/uploads/2021/09/TAPS-Inclusive-Joint-Ownership-White-Paper.pdf.

[46] Devin Hartman and Beth Garza, "Plenty of low-hanging fruit: How FERC can catalyze transmission infrastructure," *Utility Dive*, April 9, 2021. https://www.utilitydive.com/news/plenty-of-low-hanging-fruit-how-ferc-can-catalyze-transmission-infrastruct/598088.

[47] Devin Hartman, "Enabling New Transmission Entrants: Unleashing Bottom-up Grid Reliability improvements," The R Street Institute, March 3, 2021. https://www.rstreet.org/2021/03/03/enabling-new-transmission-entrants-unleashing-bottom-up-grid-reliability-improvements.

[48] Chen and Hartman, 2022, p. 3. https://www.rstreet.org/wp-content/uploads/2022/05/RSTREET257.pdf.

of having a federal regulatory with a statutory charge of preventing anti-competitive conduct reverse course and reintroduce discriminatory practices. Eligibility for joint ownership status could become a never-ending rent-seeking exercise with incumbent TPs in the driver's seat.

The NOPR also seeks comment on whether additional requirements are needed to "prevent the exertion of undue influence over the transmission development process" or otherwise protect customer interests.[49] Since a conditional ROFR would institutionalize discriminatory practices, it is frankly impossible to see how any implementation scheme would not exacerbate undue influence.

Broader Reform

The Commission seeks comment as to whether it should pursue broader reform to rules and regulations governing federal ROFR, including fully restoring federal ROFR that was eliminated in Order 1000. In short, the case against federal ROFR is stronger now than it was when Order 1000 was issued. To suggest it should be reinstated contradicts the evidence, introduces legal risk and would thrust billions in additional unjust and unreasonable costs upon consumers.

The case for expanding—not eliminating—competition is overwhelming for ensuring just and reasonable rates. However, the Commission is highly unlikely to pursue any action in the final rule that it did not mention in the ANOPR. As such, the Commission should remove federal ROFR considerations from the final rule and pursue the merits of competition and independent planning through separate proceedings in a proper Section 206 manner.

VI. Interregional Transmission Coordination and Cost Allocation

RSI supports the NOPR proposal to require TPs to revise their existing interregional transmission coordination procedures in a manner that reflects the long-term regional transmission planning reforms in this NOPR. This is appropriate but only addresses procedural change in compliance with Order 1000. It does not address the core problems in interregional transmission planning and cost allocation, which will require a separate rulemaking that alters the requirements of Order 1000.

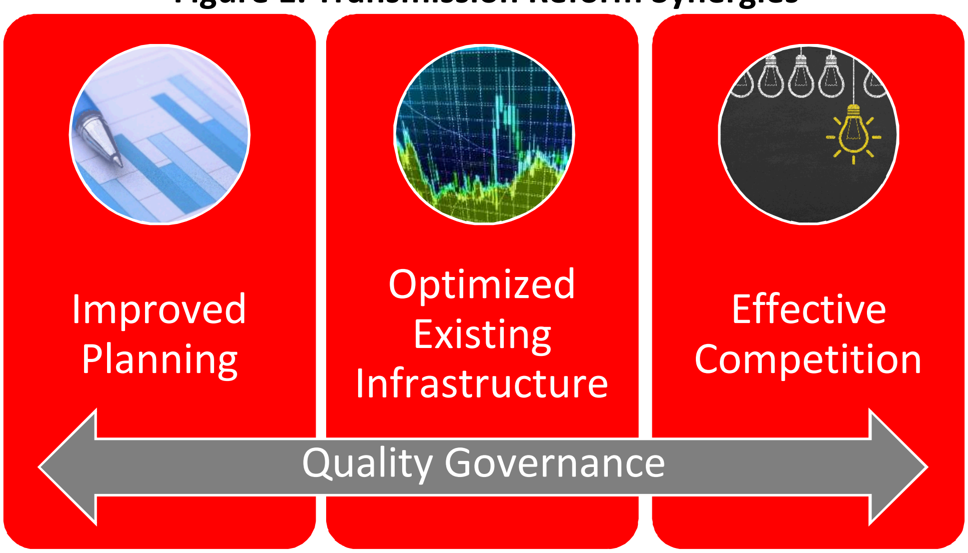
[49] 87 Fed. Reg. 26569 (May 4, 2022). https://www.federalregister.gov/documents/2022/05/04/2022-08973/building-for-the-future-through-electric-regional-transmission-planning-and-cost-allocation-and.

VII. Enhancements to Proposed Reforms

The Commission also seeks comment on enhancements to the proposed reforms that could "support development of more efficient or cost-effective transmission facilities" than is the case under existing regional planning and cost allocation requirements.[50] There are two keys to accomplish this: quality governance and requiring TPs to adopt economically efficient practices, especially longer planning horizons. The NOPR categorically addresses the latter well, but there are too many required "considerations" rather than required practices. Given the perverse incentives of TPs, this makes for the difference in whether TPs comply via box-checking exercises or whether reforms induce meaningful behavioral change.

Quality governance is sorely missing from this NOPR. The Consumer Study found that quality governance is the foundation that enhances all other transmission reforms, including improved planning, optimizing the existing system and effective competition.[51] It is imperative that that Commission prioritize stakeholder inclusiveness, transparency, accountability and independence to achieve quality governance and maximize the potential of all productive transmission policy reforms to the extent possible in this proceeding and others.

Figure 1. Transmission Reform Synergies



Source: Graphic based on Chatham House discussion hosted by RSI.[52]

[50] 87 Fed. Reg. 26507 (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.
[51] Chen and Hartman, 2022. https://www.rstreet.org/wp-content/uploads/2022/05/RSTREET257.pdf.
[52] Ibid.

VIII. Conclusion

RSI respectfully requests the Commission consider the comments contained herein.

Respectfully submitted,

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August 17, 2022

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