

**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

**COMMENTS OF  
THE RAIL ELECTRIFICATION COUNCIL**

**I. Introduction**

The Rail Electrification Council (“REC” or “Council”) hereby submits the following comments in response to the Advance Notice of Proposed Rulemaking (“ANOPR” or “Proposal”) which was issued in this docket on July 15, 2020<sup>1</sup> by the Federal Energy Regulatory Commission (“FERC” or “Commission”).<sup>2</sup> While being historically and operationally different and planned differently as parts of separate supply chains, the actual and potential interaction of freight and passenger railroads with the electric power grid represents a major opportunity to overcome one of the enduring barriers to the planning, construction, and operation of an integrated electric grid. The Council believes that the future development of these two networks is clearly at issue in this rulemaking and wishes to ensure that this does not become a missed opportunity to anticipate the role of regulatory coordination and technological innovation in the coming expansion of the grid and electrification across our economy. This Council argues strongly that the Commission must include in its considerations the policies and measures that will encourage better utilization

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<sup>1</sup> Building for the Future Through Electric Regional Transmission Planning and Cost Allocation and Generator Interconnection, 86 Fed. Reg. 40266 (proposed 07/07/2021)(comments due Oct. 12, 2021).

<sup>2</sup> Founded in 2020, the Council is a diverse coalition of electrical manufacturers, technology companies, transportation companies, renewable energy providers, and other stakeholders that seek to enhance the strength and efficiency of two of our most critical infrastructure networks – the North American high voltage electric transmission grid and the international, national, and regional networks of North American railroads. The Council is an affiliate of the National Electrical Manufacturers Association, but its membership is open to all interested companies and institutions seeking to advance modern energy and transportation policies. The Council’s agenda addresses North American freight and passenger transportation, economic efficiency issues, mitigation of the climate impacts of the transportation and electric power industries, and our infrastructure challenges, in particular the development and integration of the high voltage transmission grid. For more information, please visit [Rail Electrification Council](#)

of existing rights-of-way like railroads and highways as among the most favorable locations for new and upgraded electric generation and delivery facilities. As we explain below, exclusion of the siting aspect of transmission policy from the Commission’s final rules would diminish the chances that its reforms will produce timely benefits for consumers and the environment.

The Commission clearly intends this proceeding to accelerate the evolution of the electric grid and update the Commission’s Federal Power Act regulation. The twin objectives of creating larger, more liquid bulk power markets and establishing pathways for development of new technologies and access to diverse resources are timely, worthy, and significant goals. The need to expand, integrate, and modernize the high-voltage grid in the United States through reform of the planning, interconnection, and cost allocation policies and procedures of regional grid management organizations will be forcefully argued by many parties in this proceeding. Indeed, the Council concurs that rapid changes in technology and public policy over the past quarter century, and the recognizable inadequacies of Order No. 1000 demand a thorough reassessment of current methods of transmission planning, cost allocation, and generator interconnection as performed in various markets and regions of the country. That said, the Council stresses that facilities siting represents the most controversial, expensive, and enduring obstacle to expansion of electric infrastructure. We therefore contend that the Commission, acting in its role as a national energy policy maker and thought leader as well as a Federal Power Act regulator, can start now to highlight and overcome the institutional and structural barriers that deter, if not prevent, consideration of the role of transportation rights-of-way (“ROWs”)<sup>3</sup> in the reforms that will come from this docket and thereby contribute greater certainty to the development of renewable resources in many regions.

The Council applauds the Commission’s ANOPR and urges the Commission to act expeditiously. The sheer scope of this “advance” proposal means that final action will be

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<sup>3</sup> The Council’s use of the term “rights-of-way” in this comment relates to lands generally adjacent to railbeds that railroad companies historically own or lease, and not to the shared use of actual trackage to which multiple transportation companies may seek access for competing mobility operations. See, Federal Railroad Administration, USDOT, Report to Congress: Shared-Use of Railroad Rights of Way, July 2019 <https://railroads.dot.gov/elibrary/shared-use-railroad-rights-way>

delayed for quite some time. Consequently, the Council strongly recommends that FERC not delay action until all subject matters have been dealt with in this docket but instead divide rulemaking into more manageable ‘packages’ of issues that can be decided beginning in 2022. In particular, the Council believes that creation of a solid record about the merits and challenges of using rail and highway ROWs can be accelerated through technical conferences and other specific enquiries. The Commission is encouraged to move quickly to put forth actionable proposals for investigating the physical and operational synergies between the energy and transportation networks.

## **II. BACKGROUND**

### **A. The Rail Electrification Council**

The Council was established as a non-profit educational organization under the auspices of the National Electrical Manufacturers Association (“NEMA”) in April 2020 to address several concerns about the need to improve critical energy and transportation infrastructure, promote jobs, reduce emissions, address climate change, and prepare for an economy that will be more driven by electric power in the decades to come. Membership in the Council is open to all interested companies, organizations, and individuals. The Council advances its educational and advocacy missions nationally with state and federal policy makers, industry participants, entrepreneurs, and concerned citizens.<sup>4</sup>

### **B. CORRESPONDENCE AND COMMUNICATIONS**

In accordance with Rule 203 of the Commission’s Rules of Practice and Procedure, 18 C.F.R. § 385.203, all communications should be addressed to the following individuals:

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<sup>4</sup> For a full exposition of the Council’s vision, see Rail Electrification Council, [The Value of Rail Electrification](#). We note that the Council commented in support of rate incentives for transmission projects proposed to be located in “brownfields” rights-of-way, in the Commission’s pending Docket No. RM20-10-000, *Electric Transmission Incentives Policy Under Section 219 of the Federal Power Act*. [https://www.ferc.gov/sites/default/files/2020-05/20200320145741-RM20-10-000\\_0.pdf](https://www.ferc.gov/sites/default/files/2020-05/20200320145741-RM20-10-000_0.pdf)

### III. COMMENTS

#### A. Grid Modernization Must Overcome Institutional and Structural Barriers to Development

In the Council's view, domestic electricity policy is at an inflection point. In light of the economic and technological developments of the last three decades, the U.S. now requires a more integrated and extensive transmission grid that provides access to our nation's abundant but location-constrained energy resources, promotes more competitive and efficient regional and national wholesale power markets, enhances electric reliability, and addresses environmental concerns by supplying new, low-cost energy supplies to customers and all modes of transportation, including railroads, as soon as economics and public policy permit.<sup>5</sup> The Commission appears to acknowledge that the difficulties experienced in planning and expanding the grid, changes in the electric generation mix, the digitalization of grid operations, and the coming electrification of transportation and other sectors necessitate a new vision and basic alteration of the current Order No. 1000 processes. In the absence of timely and aggressive action, the Nation may be at a major competitive disadvantage and future purchasers of electricity may pay an unnecessary economic and environmental penalty.

The Council therefore encourages the Commission to assert its leadership in addressing the barriers that deter or delay expansion of the transmission system. Among those barriers is the lack of any coordination between energy and transportation policies and regulation. A key part of that undertaking is the recognition that, without institutional support and more coordinated action among diverse regulated industries, the efficiency, and environmental benefits of co-locating electric transmission lines and related generation and delivery facilities alongside the Nation's transportation networks will simply not materialize. The Council therefore asks the Commission to step forward in this docket to examine the

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<sup>5</sup> The Council's support for a stronger, more integrated grid is part of its clean energy agenda. Although the Commission is historically fuel-neutral in administering the Federal Power Act, modernizing transmission policy has become key to advancing low-cost, non-fossil energy technologies and the participation of energy storage in wholesale markets. The best such resources often exist far from major load centers. Paul L. Joskow, *Transmission Capacity Expansion is Needed to Decarbonize the Electricity Sector Efficiently*, 4 JOULE 1(2020); John Michael Hagerty et al., *Transmission Planning Strategies to Accommodate Renewables*, THE BRATTLE GROUP INC. (Sept. 11, 2017).

potential benefits for consumers and industry that can be derived by co-location of electric power in railroad and other ROWs.

The Council's recommendation for reforms under this ANOPR can be summed up as follows:

- The Commission should embrace its role as a change agent and address the structural and institutional barriers, identified below, that prevent consideration by utilities and other transmission providers of brownfield ROWs. Examination of these barriers is integral to the Commission's reexamination of equitable allocation of transmission costs, efficient methods of interconnection, and regional and interregional transmission planning.
- The Commission should support a more proactive transmission planning regime that anticipates how the transmission grid will serve public policy and the need for power in the future. After a decade of a modernized transmission planning regime under Order No. 1000, transmission planning remains reactive and needs to be augmented to include future-looking studies.
- The Commission should collaborate with states and Executive Branch agencies to articulate and then implement the grid of the future consistent with how good scenario planning and new technology elucidates that future. This is not "central planning" of the grid but instead a modernization of the 100-year-old patchwork electrical system that this century inherited.

## **B. Institutional and Structural Barriers to Better Siting**

The Council identifies the following institutional and structural barriers to effective utilization of railroad ROWs:

**1. Limited Consideration of Siting Alternatives.** Historically, the Class 1 freight railroad and the regional and short line railroads have been substantial energy consumers and deliverers of fuels for the generation of electricity. But, the Nation's rail network and the network of electric transmission and distribution "wires" that support major industries, including transportation, have been planned, developed, and operated in separate "siloes." The availability of existing ROWs for transmission tends not to be a factor

in the review or planning processes of regional transmission organizations (RTO/ISOs). The merits of individual projects and their impacts on regional grid operations generally determine whether a project is included in regional plans. Transmission projects are initially just “lines on a map” until a utility or developer ultimately obtains the rights to site facilities (i.e., cables, towers, catenary systems, and appurtenant technology) in the most strategical and economical location possible. The relative impacts or benefits of siting “greenfield” projects (linear projects in undisturbed locations often extending across multiple states) versus “brownfield” projects (i.e., sites with existing uses or ground disturbances) are not considered. With rare exception, decisions about whether and where to locate transmission, as well as how to mitigate environmental impacts, remain a matter of private property or local or state regulation. Experience shows that transmission line siting cases can turn politically toxic, in part because the outcome can result in the exercise of eminent domain. Consequently, public opposition, state law, regulatory delay, including disagreements among state regulatory bodies about a project’s merits, can result in significant expense, delay, or the rejection of projects that could otherwise yield major regional or national benefits. By siting major lines along railroad and other ROWs, many of these challenges can be circumvented.

The Council acknowledges that, without a major change in the law, this situation will endure, to the detriment of grid expansion and environmental benefits in many cases. We nevertheless believe that a case can be (and has been) made that the benefits of a line or portfolio of lines provide broad benefits to consumers in a region and across markets in terms of enhanced reliability, implementation of state renewable energy requirements, and economic benefits and jobs. In fact, the MidContinent ISO has succeeded with such a “multi-value” approach. Potential co-location of transmission along railroad ROWs and the efficiency and environmental benefits of greater utilization<sup>6</sup> of these ROWs have not been factored into such planning, however.

**2. Regulatory Siloes.** The siloes in which regulated energy and transportation companies separately plan and operate extend to their regulators as well. The Council

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<sup>6</sup> <https://cdn.misoenergy.org/MTEP17%20MVP%20Triennial%20Review%20Report117065.pdf>

therefore encourages the Commission work more closely with the Federal Railroad Administration, U.S. Department of Transportation (“FRA”). The Council has been active in encouraging the Administrator of FRA and the Secretary of Energy to work with the railroad companies of all classes to raise awareness of the financial and operational opportunities associated with transmission co-location and the benefits that it could bring to national energy policy.<sup>7</sup> The expected changes in state and federal policies that govern electric generation and transmission as well as transportation should be examined by the Commission and its state counterparts so that regulatory actions are coordinated, not only vertically within each industry but across industry sectors. The Commission’s decisions in this ANOPR proceeding should reflect that kind of coordination. The new state-federal joint committee provides an excellent forum for that discussion. In addition, we therefore recommend that the Commission hold a technical conference that focuses on (a) the benefits of transmission co-location, (b) whether and how the potential of co-location can be incorporated as a factor in transmission planning, and (c) whether existing railroad ROWs might entail federal or state rights of first refusal that inhibit use of those ROWs for certain classes of transmission developers.

**3. Lack of Coordination** The recent history of relationships between railroad companies (especially Class 1 freight railroads) and electric utilities has revolved more around shipments of coal for electric generation than around joint use agreements. Because the use of railroad ROWs help the Commission’s realize its objectives in this proceeding, the Commission and the FRA can and should engage with their respective industries to reset that relationship in the public interest. The lack of interaction at both policy and regulatory levels has made it more difficult for railroad and electric power companies to accommodate their legitimate but conflicting concerns and requirements. In particular, no co-location initiative will succeed, whether inaugurated by industry or by state and federal policy makers, without a thorough understanding of the particular concerns of railroads about safety and risk mitigation and the need for uninterrupted communications. Although electric power facilities have a track record of crossing rail lines, those occurrences usually happen at

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<sup>7</sup> The Council submits as an Appendix to this Comment its letter to Secretary Buttigieg requesting actions similar to those taken by the Federal Highway Administration in directing state Departments of Transportation to explore increased use of highway ROWs for co-location of electric transmission. See Appendix.

discrete locations on a rail line and not longitudinally along the line. The Commission and its regional offices could provide a useful venue for addressing those impacts and concerns.

**4. State of the Law** The Council recognizes that current federal law does not afford the Commission unlimited jurisdiction over the development of the transmission system. That in itself may challenge the Commission's ability to promote the public's interest in a viable grid. The Commission's authority over transmission rates and planning,<sup>8</sup> as well as the Commission's stature as a driver of major structural reforms in grid operations and policy over the last quarter century, are critically important and strategic, nevertheless. The fact that regulatory authority over electric transmission is dispersed between states and the federal government or that the Commission is also not an economic or safety regulator of railroad industry, should not deter it from trying to address the obstacle that siting presents or the opportunity to achieve efficiency and environmental benefits that the utilization of brownfield ROWs offers. As with the siting of any infrastructure, transmission lines are powerfully affected by state law, local concerns, and private property rights. These challenges increase exponentially with the size of the project, making the difficulties facing interregional projects and a HVDC "macrogrid" intertie between regions and interconnections almost unfathomable in some cases.

The Council believes that the Commission's ANOPR proceeding will change the face of the bulk power market and literally electrify the U.S. economy. That is its potential. In our view, the Commission must seize this opportunity to initiate collaboration with other federal agencies like the FRA and with the states to overcome the operational, cultural, and regulatory barriers between these industries that will inhibit integration of the grid through the construction of large interregional, inter-market transmission ties. The Council supports and will participate in that effort. But a new focus on this issue must come from the Commission.

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<sup>8</sup> In upholding Order No. 1000, the courts have acknowledged the breadth of the Commission's authority over planning. *South Carolina Pub. Serv. Auth. V. F.E.R. C.*, 762 F. 3d 41 (D.C. Cir. 2014).

### C. Railroads Look to The Future

The Commission can begin removing the obstacles to greater utilization of railroads and other “brownfield” ROWs by incorporating the issue into this initiative. This objective is central to the Council’s mission.<sup>9</sup> But, the process will amount to “one hand clapping” unless and until railroad companies, large and small, seize this opportunity. The immediate opportunity for electrification and more efficient expansion and upgrade of the transmission grid -- so often stymied by intractable regulatory barriers to siting and opposition to the use of private lands for even the most critical infrastructure – has gone largely unexploited. The opportunity to leverage existing railroad ROWs to circumnavigate such obstacles and to facilitate grid expansion and modernize both the grid and eventually the railroad network. Utilizing ROWs can be enormously complicated, due in no small part to the complexities in the law and agreements governing the title to, and use of, the ROWs. Dating from government land grants in the mid-Nineteenth Century, the property interests of railways may vary. In a century and on half of conveyances, separate legislation, court opinions, and interpretations of property law concepts, the ownership and dimensions of ROWs has sometimes become clouded, broken up, or in dispute and a railroad company’s ability to lease or otherwise grant a right of access may be unclear.<sup>10</sup>

That said, railroad ROWs are incredibly valuable assets, and the widespread co-location of fiber-optic communications lines has demonstrated the feasibility and value of co-location. The potential benefit in being able to utilize a longitudinal ROW under agreements with a single private landowner like a railroad is incalculable. Benefits include

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<sup>9</sup> Rail Electrification Council, “[The Value of Rail Electrification](#)” Not part of these comments is the migration of rail operations from diesel-electric to fully electric motive power and more renewable energy, especially for Class 1 freight rail. That is a long-term and ambitious undertaking that will require major investment, technological innovation, and an acknowledgement of the full costs of the fossil fuel supply chain. We contend that such innovation will be incorporated into state rail plans and are increasingly incorporated into corporate strategies. Current experiments with battery-driven electric locomotives, the exciting potential of hydrogen fuel cell technology, developments in high-speed passenger rail, and the examples set by electrification among European railroads are prime indicators that the time will come when fully electric freight and passenger operations will be a viable option. See [State of Nevada Department of Transportation, 2021 State Rail Plan](#). The Nevada Rail Plan is among the first to identify rail electrification as a potential objective for railroad companies. The Council supplied NDOT with the write-up.

<sup>10</sup> Congressional Research Service, “Federal Railroad Rights of Way,” RL32140 (2006) See also, Justin G. Cook, *How the Supreme Court Jeopardized Thousands of Miles of Abandoned Railroad Tracks with a Single Opinion [Brandt Revocable Trust v. United States, 134 S. Ct. 1257 (2014)]*, 54 Washburn LJ 227 (2014).

less public opposition on aesthetic and environmental grounds and reduced land-use disturbance, which therefore translate to less development time. The challenge for the Commission and its regulated entities, on one hand, and for the railroads and their regulators on the other, is how to begin a discussion aimed at attaining the potential mutual benefits of joint use of the ROW and the overall public good derived from a more integrated grid. The Council views this as a new kind of partnership for the Commission.

The Council therefore recommends that the Commission set forth policies that encourage the use of “brownfield” rights of way (ROWs) like those owned by Class 1 freight railroad companies and, in many cases, the regional and short lines by systematically addressing the barriers to siting transmission line on railroad ROWs either above- or beneath ground. Such co-location must always be consistent with the operational, communications, and safety requirements of railroad operations.<sup>11</sup> Because railroad ROWs are generally privately-owned, transmission developers, utilities, and their customers will be required to support such co-location financially and for the length of time that the ROWs are occupied. This is an area that requires investigation of the legal, economic, and “small-p” political feasibility of co-location. The Commission should initiate an immediate inquiry into the barriers to siting transmission that the Council has identified here, as part of the ANOPR proceeding.

#### **D. Improving Transmission Planning**

We conclude by offering some basic observations about possible improvements to Order No. 1000. Among the greatest needs is for new procedures and principles to guide interregional and national expansion and modernization of the transmission system. The benefits of liquid bulk power transactions across regional markets and among the three interconnections are very likely to outweigh the cost, especially over the life of transmission

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<sup>11</sup> FERC Staff, *Report on Barriers and Opportunities for High Voltage Transmission: A Report to The Committees on Appropriations of Both Houses of Congress Pursuant to the 2020 Further Consolidated Appropriations Act*, (June 2020) <https://www.congress.gov/116/meeting/house/111020/documents/HHRG-116-II06-20200922-SD003.pdf>. Staff’s broad analysis of the challenges of transmission planning focuses in part on the opportunities and possible prohibitions and restrictions related to transmission co-location in transportation corridors, pp. 30 et seq. See, e.g., Cisco, R., *The Effect of Transmission Lines on Railroads*, T&D World (Oct. 2018), <https://www.tdworld.com/overhead-distribution/article/20971744/the-effect-oftransmission-lines-on-railroads>

investments.<sup>12</sup> The Council's believes there is a post-Order No 888 consensus among industry participants and policy makers that a strong, integrated transmission grid will be, until the day that distributed energy resources become more powerful and ubiquitous, the most efficient platform upon which electric power can be 24/7 reliable, resource and technology competition can play out, and large regional and interregional wholesale power markets can deliver electric power efficiently, inexpensively, and reliably.<sup>13</sup>

How then should the Commission reform transmission planning to accelerate the development of an integrated Twenty-First Century grid consistent with the “just and reasonable” mandate of the Federal Power Act and the demands of evolving markets and public policies?

## 1. Proactive Approach

Because the Council supports cost-effective critical infrastructure investment, it urges the Commission to adopt and promote a proactive approach to transmission expansion. In other words, the Commission should reaffirm and articulate a commitment to the electric grid of the future which, as the numerous studies over the past two decades have demonstrated,<sup>14</sup> will be driven by new resources and more decentralized, diverse, and

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<sup>12</sup> Aaron Bloom, *Interconnection Seam Study*, NREL (Aug. 2018), <https://www.nrel.gov/analysis/seams.html>; Judy W. Chang et al., *The Benefits of Transmission: Identifying and Analyzing the Value of Investment*, THE BRATTLE GROUP, INC. (2013); U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-08-374R, TRANSMISSION LINES ISSUES ASSOCIATED WITH HIGH-VOLTAGE DIRECT-CURRENT TRANSMISSION LINES ALONG TRANSPORTATION RIGHTS OF WAY (2013); Johannes P. Pfeifenberger et al., *Cost Savings Offered by Competition in Electric Transmission: Experience To Date and Additional Potential Customer Value*, THE BRATTLE GROUP INC. (2019); Johannes P. Pfeifenberger et al., *Well-planned Electric Transmission Saves Customers Costs: Improved Transmission is Key to the Transition to a Carbon-Constrained Future*, THE BRATTLE GROUP INC. (June 2016).

<sup>13</sup> Johannes P. Pfeifenberger et al., *Toward More Effective Transmission Planning: Addressing the Costs and Risks of an Insufficiently Flexible Electricity Grid*, THE BRATTLE GROUP INC. (Apr. 2015); Julia Frayer et al., *The Truth About the Need for Electric Transmission: Sixteen Myths Debunked*, (LONDON ECONOMICS Sept. 2017); Rob Gramlich and Jay Caspary, *Planning for the Future: FERC's Opportunity To Spur More Cost-Effective Transmission Infrastructure*, (Grid Strategies, Jan. 2021); also, Bloom, Id.

<sup>14</sup> U.S. DEPT OF ENERGY, *WIND VISION: A NEW ERA FOR WIND POWER IN THE UNITED STATES* (Mar. 2015); Paul L. Joskow, *Transmission Capacity Expansion is Needed to Decarbonize the Electricity Sector Efficiently*, 4 *JOULE* 1(2020); John Michael Hagerty et al., *Transmission Planning Strategies to Accommodate Renewables*, THE BRATTLE GROUP INC. (Sept. 11, 2017); Avi Zevin et al., *Building A New Grid Without New Legislation: A Path to Revitalizing Federal Transmission Authorities*, COLUMBIA UNIVERSITY – CENTER ON GLOBAL ENERGY POLICY (Dec. 2020).

potentially less polluting electric generation. That kind of energy future necessarily necessitates more vibrant transmission infrastructure that extends across state, local, and market boundaries. More importantly, providing guidance so that planners can anticipate that future is essential groundwork for the grid to be a plausible platform for change.

We therefore anticipate that this proceeding will yield appropriate rules of the road for the grid planners, operators, and industry and that those rules will move the Nation closer to having a fully integrated electric system while respecting the differences among regional patterns of demand and supply, resources mixes, the capabilities and merits of individual technologies and projects, and public policy preferences. Like the interstate highway system or the railroad network, the ability of the grid to deliver power reliably anywhere requires the grid to be prepared to perform everywhere.

## **2. The Two I's – Interregional and Integration**

The Council contends that a transmission grid that supports an interregional or national power market will positively impact our economic security as a Nation, allow for climate change mitigation, accommodate the changing profiles of electric generation and new technologies, and help advance public policies that drive new economic and environmental outcomes, while maintaining high levels of reliability. Its central contention here, however, is that, even though interregional transmission projects may amp up the complexities of assigning cost responsibility, regulatory and policy coordination, and grid planning and operations, there is a correspondingly greater need to identify the most efficient and cost-effective ways to site the larger transmission lines that will be the critical links between regional power markets. That is doubly the case for the visionary efforts like the Macrogrid<sup>15</sup> and other HVDC transmission overlays capable of delivering gigawatts of power great distances to provide flexible services to the grid.

The potential benefits of transmission-rail co-location include less public opposition from adjacent landowners, more benign land disturbances, and reduced development time for meritorious transmission line proposals by minimizing or obviating duplicative regulatory approvals. On the other side of the ledger are the additional revenues that “host” railroads

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<sup>15</sup> [ACORE Macro Grid Initiative](#)

could gain.<sup>16</sup> These benefits will clearly vary among projects, companies, and regions. That said, the Council believes the Commission’s policy voice and planning authority can help provide a blueprint for what we anticipate the record in this proceeding will justify – an interregional and regional AC and DC high voltage grid network that, as appropriate, takes advantage of the responsible land use options available with other network industries like railroads and highways. Better land use options will likely help create more benefits from transmission projects overall. Greater utilization of brownfield ROWs like railroads will shorten the development cycle for transmission lines.

### **3. “Probabilistic” Planning Leads to Certainty and Reduced Costs**

In response to the Commission’s questions about how planning should be structured to consider a longer-term outlook, especially if planning is to be more probabilistic and less deterministic, more a reflection of the country’s long-term public interest,<sup>17</sup> the Commission must insist on use of the best available data and forecasting of the most plausible future economic and operational scenarios. In particular, the Commission can conduct, request, or rely on studies that elucidate future generation and loads, known information about utility resource planning, prospects for electrification of the transportation and other sectors, patterns of probable generation retirements, and the location, quantity, and types of future generation. The arc of technology development and changing patterns of demand are relevant components of any forward-looking plan. A substantial amount of information about the changes emerging in the generation mix and the grid’s ability to accommodate those changes has been developed in the past decade but not always employed in planning processes because they revolve around more immediate system impacts and not future needs. The paucity of interregional planning successes and project development due to a lack in load growth suggests a major a major opportunity for reforms and consideration of transmission benefits across multiple markets or interconnections without the need to jettison entrenched criteria and practices.

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<sup>16</sup> [SOO Green HVDC Link Project](#)

<sup>17</sup> ANOPR, PP 48 and 49.

In response to questions about how the Commission could expand or improve any incentives to develop regional transmission facilities,<sup>18</sup> the Council recommends a contemporaneous and comprehensive consideration of all potential benefits of a proposed project. All benefits provided by a transmission line or portfolio of lines are relevant, whether from enhanced reliability and resilience, from advancement of public policies, or from the economic and job-creation outcomes of a more robust grid. In fact, the beneficial characteristics of transmission should not be treated as mutually exclusive in the planning process for purposes of calculating total or net benefits. Moreover, the availability or proposed use of railroad ROWs that would reduce public opposition, environmental disturbances, and legal complications associated with the exercise of state eminent domain authority should be counted as a benefit. The Commission can and should encourage railroad companies and state and federal regulators to initiate a positive assessment of the potential benefits of transmission co-location within existing railroad ROWs. Again, elimination of barriers to the use of railroad ROWs and the consequential availability of these pathways for development will produce benefits that should be counted in the planning process.

The Council contends that grid integration and interregional transmission expansion are likely to yield larger and more efficient power markets and spur the development of economically beneficial location-constrained generation resources that can yield more consumer benefits when delivered via new transmission facilities. In that regard, we suggest that railroad ROWs, which are often ubiquitous in resource-rich regions, can help to mitigate the cost impacts of major interconnections.

## **CONCLUSION.**

The Council respectfully requests that the Commission adopt a Final Rule that facilitates the planning of interregional transmission projects and grid integration. Transmission expansions that provide multiple values and public benefits, utilize the best available ROWs to reduce the environmental and private landowner impacts of development, and that are predicated on the future needs of a dynamic and changing energy economy are in the national interest.

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<sup>18</sup> ANOPR, P 61.

The Council respectfully requests an immediate enquiry into the structural and institutional barriers that exist to utilization of existing railroad ROWs as an important missing piece in addressing the complex planning of transmission in pursuit of the goals of Order Nos. 890 and 1000. We contend that transmission siting and the alternative uses of railroad ROWs are timely topics for consideration by the FERC and the FRA. The Commission is congratulated for initiating a rulemaking about developing the grid of the future at this time and with this breadth.

Respectfully submitted,



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# APPENDIX



July 26, 2021

**The Honorable Pete Buttigieg**  
**Secretary**  
**U.S. Department of Transportation**  
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Sent via email: [dotexecsec@dot.gov](mailto:dotexecsec@dot.gov)

CC: Hon. Martin J. Oberman, Chairman, Surface Transportation Board  
Hon. Amit Bose, Deputy Administrator, Federal Railroad Administration

Dear Secretary Buttigieg:

The [Rail Electrification Council](#) (REC or Council) was created to develop programs and activities to advance investment in the transportation and energy industries consistent with the ongoing transformation of the North American economies as they respond to the challenges of emissions reduction, decarbonization of modern transportation, job-creation, and lowering the cost of energy for consumers and businesses.

The Council is a non-profit, Member-driven affiliate of the [National Electrical Manufacturers Association](#) (NEMA) dedicated to bridging the policy and planning gaps between two great network industries. Our Members include major manufacturers, public utilities, electric transmission developers, and producers of clean energy and new technologies. The nearly 325 NEMA Member companies provide a range of products used in buildings, industrial facilities and by utilities, transportation departments and hospitals. Collectively our membership provides some 370,000 American manufacturing jobs in more than 6,100 facilities, with worldwide industry sales exceeding \$140 billion.<sup>19</sup> We believe that strengthening and decarbonizing the energy delivery and transportation industries is a matter of both domestic security and international competitiveness.

## **Our Request**

This letter offers our assistance in advancing mutual goals and requests that you and FRA Administrator Bose provide guidance to the railroad industry about use of its rights-of-way (ROW) to co-locate energy delivery facilities in the context of the restructuring of the electric industry and the long-term potential electrification of railroad motive power. As we explain in our white paper on

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<sup>19</sup> For more information, please visit: <https://www.nema.org/>.

[The Value of Rail Electrification](#), the railroad and energy industries should work together to strengthen North American economies for the twenty-first century. The need for innovation is becoming more apparent as the demand for renewable energy drives interest in development of interregional transmission lines which would link all the nation's power markets together.

We recommend that you take a meaningful strategic step by providing to the railroad industry such guidance as you deem necessary and helpful with respect to the use of railroad ROWs for co-location of energy infrastructure, consistent with railroad needs and purposes. Expanding high-voltage electric transmission facilities within these rail pathways could prove instrumental in bringing greater amounts of remote renewable resources to market. Railroads can thereby contribute to the expansion and integration of the nation's electric grid and the exploitation of its vast clean energy resources, without negatively affecting safety, operations, or other appropriate uses of the real estate.

### **Precedent.**

The Council cites three precedents for its request.

First, on April 27, 2021, the Acting Administrator of the Federal Highway Administration issued "State DOT's Leveraging Alternative Uses of the Highway Rights-of-Way Guidance." That Guidance will advance "pressing public needs relating to emission reduction, equitable communications access, and energy reliability" specifically through use of highway rights-of-way (ROW) for "renewable energy generation, electrical transmission and distributed projects, . . . [and] alternative fueling facilities."

Despite being significantly regulated, our nation's railroads and their physical land assets are privately owned and not subject to state and federal law in the same way as the highway system. This difference should not diminish the importance of the opportunity now available to the FRA and the railroads to help fulfill many of the same economic and public policy goals that the Acting Administrator cited as flowing from highway ROWs:

- To leverage and realize the full value and productivity of railroad ROWs
- Reduce emissions from all forms of electric generation and improve access to cleaner generation
- Promote energy security by diversifying energy generation and delivery methods
- Foster creation of local green job market that enhances the viability of the nation in renewable energy industry
- Enable states to meet clean energy goals
- Provide railroad companies with the financial benefits arising from monetizing access to their historical ROWs and a basis for the electrification of rail transportation

In 2020, the Council pursued these very goals by petitioning electric transmission's principal rate regulator, the Federal Energy Regulatory Commission (FERC), to provide monetary incentives for transmission lines planned for and built on existing ROW or "brownfields." We stated that "railroad companies can be encouraged to consider monetizing access to their ROWs and to participate in advancing the public's interest in a strong grid, a role no less important now than when railroads

drove the integration of the U.S. economy in the Nineteenth and Twentieth Centuries.”<sup>20</sup> DOT and FRA should also help ensure that railroads support both stronger energy infrastructure investment and wise land management.

Second, the Council cites the 2020 Rail Plan published by the State of Nevada Department of Transportation pursuant to the FRA planning regulations. For virtually the first time, a state Department of Transportation (DOT) has highlighted the importance of thinking strategically about the potential electrification of rail and the use of railroad ROW for co-location of electric transmission. In pertinent part, the Rail Plan states that:

Utilization of railroad real estate assets (especially trackside rights-of-way) as sites for longitudinal electric transmission or renewable energy facilities will potentially generate fresh revenues for the railroads that could offset the expense of electrification. In sum, privately-owned rail transportation companies should be supported in pursuing electrification as feasible, strategically smart, and in their long-term economic self-interest. The public’s interest will be served by a more modern, competitive, flexible freight rail system, a reduction in its environmental impact, and a contribution to the delivery of clean energy in the West.

Third, in its 2020 Appropriations Act, Congress directed FERC to report on “the barriers and opportunities for high voltage transmission, including over the nation’s transportation corridors.” The report shall examine the reliability and resilience benefits, permitting barriers, and any barriers in state or federal policy or markets.” Issued in June 2020, the staff *Report On Barriers and Opportunities for High Voltage Transmission* highlighted the importance of finding alternatives to siting electric transmission lines across “greenfield” locations, with the significant delays in transmission development or even abandonment of viable projects that result. Railroad ROWs were discussed as one such important option.

### **Action Items**

The Council asks that DOT, FRA, and the Surface Transportation Board if appropriate, provide clear guidance to state DOTs and regulated railroads like that provided through the Federal Highway Administration (FHWA) regarding the need to explore the utilization of available ROWs in service to a cleaner energy and transportation economy. We recognize the FRA likely has neither a formal “Clean Energy and Connectivity” project program nor a utility accommodation policy like those the FHWA administers. Accordingly, DOT and FRA should pursue the same goals and measures that apply to highway ROWs, while fully acknowledging that worker and system safety or rail operations and controls cannot be compromised. Such guidance could encourage states and rail companies to promote non-transportation uses of their real estate assets, especially where the rail network represents a major network pathway between large amounts of low-cost renewable energy resources and major electricity markets. Moreover, DOT and FRA are encouraged to participate with the Secretary of Energy and FERC in exploring whether railroad ROW may be designated as “national interest electric transmission corridors” under Section 216 of the Federal Power Act, 16 U.S.C. § 824p.

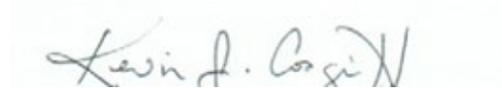
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<sup>20</sup> (Docket No. RM20-10-000)

The Council looks forward to working with you and FRA to advance deployment of connected and electrified transportation infrastructure across the United States. To that end, we request a meeting with you and FRA at the earliest time, so that we may engage in a vigorous discussion of this major opportunity.

If you have questions about the Council or its goals, please contact me or have your staff contact Steve Griffith, NEMA Industry Director, at [Steve.Griffith@NEMA.org](mailto:Steve.Griffith@NEMA.org).

Sincerely,

A handwritten signature in blue ink that reads "Kevin J. Cosgriff". The signature is written in a cursive style and is positioned above a horizontal line.

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