

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

Building for the Future Through Electric )  
Regional Transmission Planning and Cost )  
Allocation and Generation Interconnection )

Docket No. RM21-17-000

**JOINT COMMENTS OF  
THE INDUSTRIAL CUSTOMER ORGANIZATIONS**

October 12, 2021

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The Industrial Customer Organizations welcome the opportunity to submit these Comments in response to the Federal Energy Regulatory Commission’s (“Commission” or “FERC”) request for Comments on this Advance Notice of Proposed Rulemaking (“ANOPR”) regarding its regional transmission planning, regional cost allocation, and generation interconnection processes.<sup>1</sup> The Industrial Customer Organizations support competition in transmission planning and development, and encourage the Commission to allow the principles of supply and demand to dictate market outcomes. The Commission should strictly adhere to the principle of cost-causation with known and measurable costs and benefits assessed based upon substantial evidence, and costs allocated in a manner roughly commensurate with benefits. Transmission investment should be driven by the needs of consumers and by market demand, in order to keep transmission rates just and reasonable and ensure that the newly added transmission assets are also “used and useful”. The Commission notes throughout the ANOPR that the purpose of its initiative is to prepare for future generation resources, particularly renewable resources, but the initiative appears to have insufficient emphasis on how to minimize costs for consumers resulting from future transmission expansion. The Industrial Customer Organizations note that a

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<sup>1</sup> *Building for the Future Through Electric Regional Transmission Planning and Cost Allocation and Generation Interconnection*, 175 FERC ¶ 61,035 at p. 1 (2021) (“ANOPR”).

forecasted electric load growth of less than 1% annually<sup>2</sup> does not warrant the transmission growth that some are claiming is necessary. Further, the Commission seeks to dismantle the participant funding approach for assigning costs of interconnection-related network upgrades, despite the Commission's previous findings that "participant funding in RTOs/ISOs is consistent with the policy of promoting competitive wholesale markets because it causes the interconnection customer to face the same marginal cost price signal that it would face in a competitive market."<sup>3</sup> The Industrial Customer Organizations oppose any efforts to eliminate efficient locational price signaling to new generation.

The Industrial Customer Organizations encourage the Commission not to base any rulemaking decisions on the view that generation is shifting from resources located close to population centers to resources, including renewables, located far from load centers.<sup>4</sup> Likewise, the Commission should not base any rulemaking decisions on arguments that interconnection costs for renewable energy resources are too high and should be shifted to transmission customers. While some large-scale renewable resources may locate far from load centers (just as large-scale fossil-fueled generators often located closer to fuel sources that were distant from load centers), some generators are now capable of locating closer to load than ever before. With opportunities for on-site generation, energy storage, demand response, and interruptible capabilities, the opportunity for supply-demand imbalances to be addressed at or close to load is higher than ever, and opportunities for load itself to be better managed to support reliability continue to increase. The Industrial Customer Organizations are very concerned that aspects of the ANOPR are

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<sup>2</sup> U.S. Energy Information Agency ("EIA") *Annual Energy Outlook 2021*, <https://www.eia.gov/outlooks/aeo/electricity/sub-topic-01.php>

<sup>3</sup> Order No. 2003, 104 FERC ¶ 61,103 at P 695.

<sup>4</sup> ANOPR at p. 4 ("The electricity sector is transforming as the generation fleet shifts from resources located close to population centers toward resources, including renewables, that may often be located far from load centers.").

premised on a view that renewable resources should receive special treatment in transmission planning and in the generation interconnection processes, which would be a sharp departure from the Commission's unwavering commitment to resource neutrality. The Industrial Customer Organizations urge the Commission to continue to adhere to well-established legal precedent and principles of prudent regulation in transmission planning and cost allocation based on a technology-neutral foundation.

The Industrial Customer Organizations agree with the Commission that ensuring just and reasonable rates as the resource mix changes, while maintaining grid reliability, should remain a priority in regional transmission planning, cost allocation, and generator interconnection processes. To this end, the principle of cost causation and adoption of competitive market processes should be foremost in any reform of transmission planning, cost allocation, or generator interconnection. The Commission should not seek to reform any process based merely upon anticipated future scenarios.

#### **I. DESCRIPTION OF THE INDUSTRIAL CUSTOMER ORGANIZATIONS**

The Industrial Customer Organizations include the Industrial Energy Consumers of America ("IECA"), PJM Industrial Customer Coalition ("PJMICC"), Coalition of MISO Transmission Customers ("CMTC"), the American Forest & Paper Association ("AF&PA"), the American Chemistry Council ("ACC"), and Glass Packaging Institute ("GPI"). The Industrial Customer Organizations include associations of leading manufacturing companies, large intensive energy users, coalitions of transmission customers, and others. Together, these organizations represent hundreds of billions of dollars in sales, thousands of manufacturing facilities in the United States, and millions of family-sustaining jobs in the United States. The Industrial Customer Organizations represent manufacturers and members in a diverse set of industries including

chemical, plastics, steel, iron ore, aluminum, paper, pulp, packaging, tissue and wood products, food processing, fertilizer, insulation, glass, industrial gases, pharmaceutical, building products, automotive, and cement. The Industrial Customer Organizations also include some of the leading technology companies in the United States, and large institutional consumers like universities and hospitals.

## **II. INTRODUCTION AND BACKGROUND**

The Federal Power Act (“FPA”) gives the Commission authority to regulate the transmission and the wholesale sale of electricity in interstate commerce.<sup>5</sup> The Commission has jurisdiction to regulate “the transmission of electric energy in interstate commerce” and “the sale of electric energy at wholesale in interstate commerce.”<sup>6</sup> The Commission also has authority and responsibility to prohibit and correct “unreasonable rates and undue discrimination ‘with respect to any transmission or sale subject to the jurisdiction of the Commission.’”<sup>7</sup> The Industrial Customer Organizations recognize that Commission policy must respond to the changing demands placed on the nation’s electric transmission systems, but many of the proposals contained in the ANOPR reflect a broad effort to promote certain types of generation resources at the expense of consumers. The Industrial Customer Organizations oppose special consideration to certain resources in transmission planning processes and generation interconnection.

Under the FPA, the Commission has authority and responsibility to regulate the cost of transmission service, and specifically the authority and responsibility for ensuring that “rates and charges made, demanded, or received . . . for or in connection with” transmission service are “just

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<sup>5</sup> See *New York v. FERC*, 535 U.S. 1, 6 (2002) (citing *Gulf States Util. Co. v. Fed. Power Comm’n*, 411 U.S. 747, 758 (1973)).

<sup>6</sup> 16 U.S.C. § 824(b).

<sup>7</sup> *New York v. FERC*, 535 U.S. at 7 (quoting 16 U.S.C. §§ 824d(a)-(b)).

and reasonable.”<sup>8</sup> To this end, the Commission should promote competition in all aspects of transmission planning and construction to ensure that transmission rates are just and reasonable and not unduly discriminatory or preferential. Additionally, for transmission rates to be just and reasonable, transmission costs must be properly allocated based upon the long-standing principle of cost causation, which requires that costs be allocated to those consumers that impose or benefit from the cost incurrence. To comply with this long-standing principle of cost causation, the Commission should continue to apply the “roughly commensurate benefit” standard for transmission cost allocation and rate design.<sup>9</sup>

### **III. OVERARCHING PRINCIPLES**

The Commission should ensure that any reform of regional transmission planning, regional cost allocation, or generation interconnection processes carries on the Commission’s historic goal of ensuring that rates are just and reasonable for reliable electric service at the lowest possible cost. The Commission should abide by the following guiding principles for any reform:

- A. Maintain Reliability at Lowest Cost:** The Commission must maintain reliability at the lowest cost as its foremost objective for any generation-related reforms. Whether the Commission reforms the generation interconnection queue, transmission planning, transmission cost allocation, or other Commission-jurisdictional service – the Commission must remain committed to maintaining reliability at the lowest possible cost.
- B. Promote Competition:** The Commission should allow competition to dictate outcomes for the benefit of consumers and market participants whenever possible. To

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<sup>8</sup> *Id.* at Section 824d(a).

<sup>9</sup> See Order No. 1000, 136 FERC ¶ 61,051 at P 10; *Illinois Commerce Comm’n v. FERC*, 576 F.3d 470, 476 (7<sup>th</sup> Cir. 2009).



this end, the Commission should minimize the harm of uneconomic resources and shift any risk associated with existing or future resources to willing investors and away from consumers. Commission rules around interstate wholesale power markets have been designed to properly allocate risk to the risk-causer and to encourage efficient and innovative investment from generation developers. The Commission should not upset those dynamics.

**C. Properly Allocate Costs:** The Commission must continue to ensure that costs are allocated to cost-causers and beneficiaries in a way that is roughly commensurate with benefits. Costs must “be allocated to those who cause the costs to be incurred and reap the resulting benefits.”<sup>10</sup> Courts “evaluate compliance with this [principle of cost causation] by comparing the costs assessed against a party to the burdens imposed or benefits drawn by that party.”<sup>11</sup> Accordingly, the Commission must require that “all approved rates reflect to some degree the costs actually caused by the customer who must pay them.”<sup>12</sup>

**D. Remain Resource-Neutral and Technology-Neutral:** The Commission should maintain a technology-neutral and resource-neutral approach to any reforms of transmission planning, cost allocation, or generation interconnection processes. The ANOPR, and Commissioner statements issued contemporaneously with the ANOPR, identify renewable resources as one of the driving forces for the Commission’s desire to reform transmission planning, cost allocation, and generation interconnection processes. Many states have already implemented programs, such as state Renewable

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<sup>10</sup> *S.C. Pub. Serv. Auth. v. FERC*, 762 F.3d 41, 87 (D.C. Cir. 2014) (quoting *NARUC v. FERC*, 475, F.3d at 1285).

<sup>11</sup> *Midwest ISO Transmission Owners v. FERC*, 373 F.3d 1361, 1368 (D.C. Cir. 2004).

<sup>12</sup> *KN Energy, Inc. v. FERC*, 968 F.2d 1295, 1300 (D.C. Cir. 1992).

Portfolio Standards (“RPS”) programs, that are purposefully designed to subsidize renewable generation so that it is cost-competitive with traditional generation technologies. These RPS programs are intended to allow traditional cost-based generation planning methods to continue to work. Additional rulings and programs that further support or subsidize renewable generation technologies over other competing technologies will alter the supply-demand relationships that drive best-cost solutions. The Commission should remain technology-neutral and resource-neutral to avoid “doubling up” on the subsidization and to comply with its directive under the FPA to prohibit unduly discriminatory or preferential rates or regulatory treatment.

**E. Reduce The Ability To Exercise Monopoly Power Over New Transmission:** The Commission should move forward aggressively to eliminate the absolute power held by incumbent public utilities to prevent competition in the development of new transmission through rights-of-first-refusal or other anti-competitive measures that prevent competition for new transmission development.

**F. Ensure Long-Term Stability and Certainty:** The Commission must advance long-term stability and certainty in regional transmission planning, cost allocation, and generation interconnection processes.

Many of these principles are foundational and have been codified into Commission precedent. However, numerous stakeholders and interests are likely to appear before the Commission in this proceeding and in the coming years asking the Commission for special treatment or for the Commission to deviate from its long-held principles. If the Commission can continue adhering to the guiding principles outlined above – maintain reliability at lowest cost, promote competition, properly allocate costs, remain technology-neutral and resource-neutral,

reduce the ability to exercise monopoly power over new transmission, and ensure long-term stability and certainty – the Commission will remain within the interpretive bounds established in judicial precedent and meet its statutory objective to keep rates just, reasonable, and not unduly discriminatory.

**IV. THE INDUSTRIAL CUSTOMER ORGANIZATIONS ADOPT BY REFERENCE  
THE INITIAL COMMENTS SUBMITTED BY THE ELECTRICITY  
TRANSMISSION COMPETITION COALITION**

The Industrial Customer Organizations agree with the Electricity Transmission Competition Coalition (“ETCC”) that the absolute best way for the Commission to ensure just and reasonable transmission rates is through increased competition in transmission planning and development. Accordingly, the Industrial Customer Organization adopt by reference, in their entirety, the Comments submitted to the Commission contemporaneously by the ETCC. The Commission should promote competition in all aspects of transmission planning and development in all regions of the country.

The Industrial Customer Organizations support the arguments in the ETCC comments that the Commission should preempt states’ enactment of Right of First Refusal (“ROFR”) laws that act as barriers to competition. The Industrial Customer Organizations encourage the Commission to stand firmly against any state ROFR laws and against any proposal for reinstatement of a federal ROFR. ROFR laws and rules increase rates for consumers by awarding contracts without any consideration of minimizing costs. Further, ROFR laws and rules are not necessary to ensure reliability, but instead stymie transmission competition to the detriment of consumers. Order No. 1000 abolished anticompetitive and protectionist ROFR provisions in RTO/ISO FERC-jurisdictional tariffs but failed to discourage or preempt states from passing their own anticompetitive and protectionist ROFR laws. The Commission should build upon the foundation it laid in Order No. 1000 and discourage states from passing anti-competitive ROFR laws that are

contrary to the Commission’s statutory obligation to ensure that rates are not unjust or unreasonable, or unduly discriminatory or preferential. Competition in transmission planning and construction produces clear consumer benefits and helps ensure that transmission rates are just, reasonable, and not unduly discriminatory or preferential.

**V. THE COMMISSION SHOULD SUPPORT COMPETITION IN ALL ASPECTS OF TRANSMISSION PLANNING AND DEVELOPMENT**

The Commission indicates in the ANOPR that it is considering whether reforms may be necessary to ensure that transmission rates remain just and reasonable and not unduly discriminatory or preferential as a result of the changing resource mix.<sup>13</sup> While the generation resource mix may be changing, and some new generators may be geographically locating distant from load as many prior generators have, consumer demand for additional generation and additional transmission capacity has been essentially flat in recent years and is not projected to grow at historical levels going forward. The growth in renewable generation is replacing fossil-fueled generation, but the overall levels of generation capacity are not growing at historical levels. Competition in transmission planning for new and replacement transmission facilities will be essential to minimizing costs for all consumers while properly building out the transmission system to meet known and measurable new demand on the transmission system. In some instances, RTO/ISOs have been working to implement competition in transmission planning. For example, MISO has developed a “Competitive Developer Selection Process,” under which MISO evaluates developers on principles including “Cost, Certainty, Specificity and Risk.”<sup>14</sup> Of note, MISO does

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<sup>13</sup> ANOPR at P 8, 26.

<sup>14</sup> See Midcontinent Independent System Operator, Inc., *Competitive Transmission Administration*, last accessed Oct. 8, 2021, <https://www.misoenergy.org/planning/competitive-transmission-administration/#t=10&amp%3Bp=0&amp%3Bs=FileName&amp%3Bsd=asc&p=0&s=FileName&sd=asc>

not merely award new projects to the lowest bidder, but instead evaluates the developers on these principles.

Competition can reduce costs to consumers while ensuring reliability at or above levels provided by incumbent transmission owners. The Commission was supportive of competition in transmission planning when it issued Order No. 1000, yet only approximately 3 percent of total transmission investment between 2013 and 2017 has been subject to competition.<sup>15</sup> While competition has been clearly demonstrated to provide substantial cost savings, as discussed further below, dynamic competition has been woefully absent in transmission planning and construction, resulting in incumbent transmission owners maintaining a stranglehold on the development of new transmission facilities, while transmission investment costs routinely exceed projected costs. Transmission planning and construction without competition is unjust, unreasonable, and is unduly preferential toward incumbent transmission owners. Section 206 of the FPA authorizes the Commission to adopt rules implementing competition in all jurisdictional areas, requiring the Commission to remedy “any . . . practice” that “affect[s]” a rate for interstate electricity transmission services “demanded” or “charged” by “any public utility” if such practice “is unjust, unreasonable, unduly discriminatory or preferential.”<sup>16</sup>

Competition in the transmission planning process can spur innovative solutions to transmission needs, lower bids for the same project, cap costs to protect consumers from cost overruns, produce cost control measures, and foster innovative financial structuring to protect consumers. Winning competitive bids for new transmission construction average 33 percent or

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<sup>15</sup> “Cost Savings Offered by Competition in Electric Transmission – Experience to Date and the Potential for Additional Customer Value,” The Brattle Group, April 2019, pages 1, 5, [https://www.brattle.com/wp-content/uploads/2021/05/16726\\_cost\\_savings\\_offered\\_by\\_competition\\_in\\_electric\\_transmission.pdf](https://www.brattle.com/wp-content/uploads/2021/05/16726_cost_savings_offered_by_competition_in_electric_transmission.pdf)

<sup>16</sup> 16 U.S.C. § 824e(a).

more below initial non-competitive cost estimates, while non-competitive projects are completed on average at 34 percent above their initial estimates, resulting in doubly beneficial cost savings (i.e., lower up-front cost estimates coupled with minimal or no cost over-runs) to consumers when competition exists.<sup>17</sup> Even if long-term savings are only half of the reduction currently seen in competitive solicitations, expansion of transmission competition from 3 percent to just 33 percent of total transmission investment would generate consumer benefits in excess of \$8 billion over just five years.<sup>18</sup> Competition should be integrated into all aspects of transmission planning and development whenever and wherever feasible, as the ETCC Comments indicate.

**VI. THE COMMISSION SHOULD REQUIRE THAT TRANSMISSION PLANNING CONSIDER RELIABILITY AND ECONOMIC FACTORS, AND ANY STATE REQUESTS FOR NEW TRANSMISSION THAT ARE BACKED WITH STATE COMMITMENTS TO PAY FOR THAT NEW TRANSMISSION.**

The Commission should require that transmission planning consider reliability and economic factors. For purposes of transmission planning, the Commission should seek to avoid duplication of facilities, prevent market power or market manipulation, and ensure benefits to consumers of reliable power at the lowest cost. Often, state public policy decisions to reduce emissions or encourage renewable resource development already assume that reliability will be maintained and markets will be economically efficient. State public policy decisions are made in addition to, not in lieu of, expectations of reliability and economic efficiency. For this reason, the Commission must maintain reliability and economic efficiency as the primary drivers in transmission planning, with state or federal public policy decisions to support new transmission accommodated within the confines of the Commission's statutory responsibility under the FPA to maintain reliability and just and reasonable rates.

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<sup>17</sup> "Transmission Competition Under FERC Order No. 1000: What we Know About Cost Savings to Date," The Brattle Group, October 25, 2018, [http://files.brattle.com/files/14786\\_brattle\\_competitive\\_transmission\\_wires\\_10-25-18.pdf](http://files.brattle.com/files/14786_brattle_competitive_transmission_wires_10-25-18.pdf)

<sup>18</sup> *Id.*

The Commission should not put an emphasis on promoting public policy over reliability and economic considerations. To this end, the Commission has sought comment on “whether the regional transmission planning and cost allocation processes’ consideration of transmission needs driven by reliability, economic considerations, and Public Policy Requirements are inappropriately siloed from one another, and, if so, whether this influences the consideration of potential benefits of a regional transmission facility (and the associated beneficiaries for purposes of allocating the costs of such a facility).”<sup>19</sup> Transmission planners should not be required to consider uncertain factors when modeling future transmission needs - such as general federal, state, and local climate and clean energy goals or initiatives, utility and corporate climate goals, or trends in technology costs. Transmission planning should be driven by known and measurable reliability and economic drivers, and by specific requests from states (and federal entities, as appropriate) for specific transmission projects that are backed by financial commitments to fund those projects.

Transmission investment is driven by modeled future scenarios to ensure that there are sufficient long-term and comprehensive forecasts of future transmission needs, including consideration not of “anticipated future generation” but of new generation that is known and measurable. Generally, transmission planners include in baseline reliability models only those generators that have completed a facilities study and are thus far enough along in the interconnection queue so as to have a sufficiently high commercial probability and be modeled as an expected future generator. For example, in PJM, once a generation project has completed the facilities study, it becomes more likely than not that the project will be completed, as shown in the chart below.

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<sup>19</sup> ANOPR at P 6-7.

Queue Stage	Commercial Probability	MW Capacity	Expected In-Service MW Capacity
<b>Feasibility</b>	3%	41,174	1,180
<b>Impact</b>	9%	26,099	2,414
<b>Facilities</b>	58%	45,906	26,485
<b>ISA</b>	78%	22,409	17,373
<b>Total</b>	<b>35%</b>	<b>135,588</b>	<b>47,452</b>

Currently, generation queues across the country are filled with renewable resource projects that are progressing toward becoming “known and measurable.” By taking into account renewable generation projects pending at certain advanced stages of the interconnection queue, transmission planners can properly plan for future renewable energy deployment, and deployment of other types of generation, that is known and measurable, without the need for such transmission planners to consider speculative or uncertain factors about potential or anticipated future generation scenarios or potential changes to federal or state policy that could result in the development and construction of new, long-lived transmission facilities that become unnecessary. Transmission planning should focus firmly on maintaining reliability at lowest cost, without including speculative public policy objectives or generalized corporate goals.

To be sure, there is room for improvement in transmission planning, development, and cost allocation, and the Industrial Customer Organizations support the Commission’s consideration of reforms in order to lower costs to consumers while maintaining reliability. As one straightforward example, the Commission notes that transmission providers may be able to better identify transmission facilities that could facilitate both the interconnection of new generation as well as address other identified transmission system needs – such as mitigate a reliability violation or



reduce congestion - at a lower total cost than pursuing two separate transmission projects.<sup>20</sup> Integrated planning in this respect can (and should) result in lower overall costs to consumers without lowering the existing reliability or exposing the system to increased risks.

**A. To Ensure That Transmission Planners Consider The Appropriate Factors For Transmission Planning And Cost Allocation, And To Promote Competition, The Commission Should Establish And Maintain The Independence Of Any Independent Transmission Monitor.**

Industrial Customer Organizations support a Commission requirement that Independent Market Monitors actively monitor transmission providers' (including RTOs'/ISOs') compliance with tariff obligations in transmission planning, transmission service, and new service interconnections.<sup>21</sup> Much like Independent Market Monitors in RTO/ISO regions currently independently monitor the market activities of RTO/ISOs, so too should any Independent Transmission Monitor be independent. It would be unreasonable for an RTO/ISO itself to be appointed as the Independent Transmission Monitor. The RTOs/ISOs are responsible for planning and operating the transmission system; they cannot reasonably be expected to monitor their own activities on an impartial basis. Any independent entity appointed to monitor the planning and cost of transmission facilities should be just that – independent.

Further, consistent with these Comments, the Commission should ensure that any reforms do not result in shifting of costs to transmission customers, and an Independent Transmission Monitor would provide an added layer of consumer protection against the potential for unjust and unreasonable cost shifting. An Independent Transmission Monitor should also be authorized to review whether transmission planners are planning based upon known and measurable factors, not on speculative or uncertain factors that may lead to unnecessary investment.

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<sup>20</sup> ANOPR at P 28.

<sup>21</sup> See ANOPR at P 110.

In RTO/ISO regions, the existing Independent Market Monitors can and should serve as the Independent Transmission Monitors. Arguably, some of existing market monitors have that authority already, as the scope of their responsibilities includes all aspects of RTO/ISO tariffs, though the Commission should make this responsibility explicit. In regions where an RTO/ISO does not yet exist, the Commission should establish the Independent Transmission Monitor and apply principles to ensure its independence. To that end, the Commission should require structures that ensure complete financial and decision-making independence from transmission providers and all market participants.

**B. The Commission Should Require Transmission Owners To Demonstrate The Reasonableness Of All Transmission Investments.**

The requirement in Section 205 of the Federal Power Act that “all rates, charges, terms and conditions be just and reasonable and not unduly discriminatory or preferential” is a directive that all investments must be “prudently incurred.”<sup>22</sup> The Commission should ensure that transmission investment is prudent and complies with the directives of federal and state law. As the Commission has previously stated:

The Supreme Court of the United States early recognized that early recognized that the determination of what is just compensation for a public utility involves consideration of the utility’s conduct in incurring its costs . . . [W]e reiterate that managers of a utility have broad discretion in conducting their business affairs and in incurring costs necessary to provide services to their customers. In performing our duty to determine the prudence of specific costs, the appropriate test to be used is whether they are costs which a reasonable utility management (or that of another jurisdictional entity) would have made, in good faith, under the same circumstances, and at the relevant point in time. We note that while in hindsight it may be clear that a management decision was wrong, our task is to review the prudence of the utility’s actions and the costs resulting therefrom based on the particular circumstances existing either at the time

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<sup>22</sup> See, e.g., *Public Utilities Comm’n of the State of California v. FERC*, 24 F.3d 275 (D.C. Cir. 1994); *Cities of Batavia, et al. v. FERC*, 672 F.2d 64 (D.C. Cir. 1982).

the challenged costs were actually incurred, or at the time the utility became committed to incur those expenses.<sup>23</sup>

Compliance with the directive that only investment that is prudent gets built and becomes eligible for cost-recovery from consumers is a cornerstone of consumer protection from unjust and unreasonable rates.

Indeed, “protecting customers is one of the Commission’s primary responsibilities.”<sup>24</sup> The very purpose of the FPA is “to protect customers against excessive prices.”<sup>25</sup> The Commission has consistently sought, and must continue to consistently seek, to protect consumers against the effects of unjust and unreasonable rates, consistent with its statutory obligation.<sup>26</sup> However, under the Commission’s current rules, transmission owners are not required to demonstrate the reasonableness of all transmission investments when they have on file with the Commission a transmission formula rate. The adoption of transmission formula rates has, arguably, contributed directly to increases in transmission rates that far exceed improvements in reliability and have outpaced growth in transmission load.

The Commission should reform formula transmission rates and the process for approving such rates by taking at least the following three actions. *First*, the Commission should be clear that all transmission formula rate protocols maintain on transmission owners the statutory obligation to demonstrate the reasonableness of their transmission investments and all other costs that flow through a transmission formula rate. Transmission owners have been resistant to what

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<sup>23</sup> *New England Power Company, Opinion 231*, 31 FERC ¶ 61,047 at 61,081-61,084 (1985).

<sup>24</sup> *NAACP v. FERC*, 425 U.S. 662, 666-667 (1976); *Public Utilities Comm'n of the State of Ca. v. Sellers of Long-Term Contracts to the Cal. Dep't of Water Resources et al.*, 155 FERC ¶63,004 at P 353 (2016) (“CPUC”) (quoting *Am. Electric Power Serv. Corp.*, 153 FERC ¶61,167 at P 17 (2015) (“AEP”).

<sup>25</sup> *Pa. Water & Power Co. v. FPC*, 343 U.S. 414, 418 (1952); accord *FERC v. Elec. Power Supply Ass'n, U.S.*, 136 S.Ct. 760, 781 (2016); see also *Pub. Sys. v. FERC*, 606 F.2d 973, 979 (D.C. Cir. 1979) (“[T]he Federal Power Act aim[s] to protect consumers from exorbitant prices and unfair business practices.”).

<sup>26</sup> See e.g., *CUPC*, at P 355; *AEP* at P 17; *Policy Statement on Hold Harmless Commitments*, 155 FERC ¶61,189 (2016) (“Hold Harmless Policy Statement”).

should be a fundamental principle, claiming that Commission acceptance of the formula itself, as the “rate”, terminates the transmission owner’s obligation to demonstrate that the actual charges to transmission customers are just, reasonable, and not unduly discriminatory. A Commission determination that transmission owners bear the burden of demonstrating that actual charges are compliant with the statute would provide important footing for consumers to keep a check on transmission rates. *Second*, the Commission should require the FERC Office of Administrative Litigation (“OAL”) to participate directly and fully in all aspects of a docket when formula transmission rates are established, rather than if and when such rates are set for evidentiary hearing. OAL involvement at the protest stage of an initial formula rate filing will ensure that the scope of issues set for evidentiary hearing is properly inclusive. *Third*, the Commission should require OAL to engage in annual informational updates of transmission formula rates and ensure that OAL has the technical resources and funding to fulfill the mission. OAL has played an active and important role in the settlement and hearing phases of the initial establishment of transmission formula rates, but OAL has not participated in the actual annual setting of transmission rates. OAL’s depth and expertise can and should be brought to bear on the routine updating of the formula rate inputs, as well as in the discovery, informal challenges, and formal challenges associated with formula rate updates. These three measures would provide much-needed additional protection to consumers from unreasonable transmission investments and costs that can lead (and arguably have led) to unjust and unreasonable rates.

**VII. THE COMMISSION MUST CONTINUE TO ADHERE TO THE “ROUGHLY COMMENSURATE BENEFIT” STANDARD FOR TRANSMISSION COST ALLOCATION AND RATE DESIGN.**

The Commission should continue to adhere to the “roughly commensurate benefit” standard for transmission cost allocation and rate design. Consistent with the long-standing court precedent, in Order No. 1000, the Commission maintained that the costs of transmission

infrastructure must be allocated to its beneficiaries in a manner that is at least roughly commensurate with the benefits that they draw from those facilities.<sup>27</sup> However, in the ANOPR, the Commission states that it “seek[s] to better understand whether the current approach to allocating the costs of transmission infrastructure, including transmission facilities developed through the regional transmission planning and cost allocation processes and interconnection-related network upgrades planned through the generator interconnection process, continues to appropriately allocate the costs of those transmission facilities to the entities that ultimately benefit from them.”<sup>28</sup> The Commission must continue to abide by this roughly commensurate benefits standard, even as the Commission considers whether current regional transmission planning processes may fail to meet such standard.

The Commission has described its “long standing policy” on utility cost allocation in this manner: “Properly designed rates should produce revenues from each class of customers which match, as closely as practicable, the cost to serve each class or individual customer.”<sup>29</sup> The “roughly commensurate benefit” standard was established as part of the cost causation analysis emphasized by the Seventh Circuit in *Illinois Commerce Commission v. FERC*.<sup>30</sup> In that case, the Court reversed a FERC decision approving PJM’s proposed pricing mechanism for new transmission facilities with a capacity of 500 kV or higher, in part because the Commission had not adequately followed the principle of cost causation. The Seventh Circuit noted:

We do not suggest that the Commission has to calculate benefits to the last penny, or for that matter to the last million or ten million or perhaps hundred million dollars . . . If it cannot quantify the benefits to the Midwestern utility from new 500 kV lines in the East . . . , but it has an articulable and plausible

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<sup>27</sup> Order No. 1000, 136 FERC ¶ 61,051 at P 10.

<sup>28</sup> ANOPR at P 30.

<sup>29</sup> *New Dominion Energy Cooperative*, 122 FERC ¶ 61,174, P 41 (2008), citing *Alabama Electric Cooperative, inc. v. FERC*, 684 F.2d 20, 27 (D.C. Cir. 1982).

<sup>30</sup> *Illinois Commerce Comm’n v. FERC*, 576 F.3d 470, 476 (7<sup>th</sup> Cir. 2009).

*reason to believe that the benefits are at least roughly commensurate* with those utilities' share of total electricity sales in PJM's region, then fine; the Commission can approve PJM's proposed pricing scheme on that basis.<sup>31</sup>

While the standard of “roughly commensurate benefit” did not start with the Seventh Circuit’s opinion, the Seventh Circuit did establish that for benefits that cannot be quantified there must be an “articulable and plausible” reason to believe that such benefits are roughly commensurate.

The long-held principle of cost causation is well established in both court and Commission precedent. The long line of “cost causation” cases can be traced back to *Colorado Interstate Gas Co. v. Federal Power Commission* issued in 1945 by the Supreme Court which stated that “[t]he problem [to be addressed in a rate case] is to allocate to each class of the business its fair share of the costs.”<sup>32</sup> And thus, the principle of cost causation, long a principle of common equity, was applied in the context of utility regulation. The Colorado Interstate Gas principles were subsequently affirmed in a number of D.C. Circuit cases, including *Algonquin Gas Transmission Co. v. FERC*<sup>33</sup>, *Complex Consolidated Edison Co. of New York v. FERC*<sup>34</sup>, and *Transcontinental Gas Pipe Line Corp. v. FERC*<sup>35</sup>. Each of these cases involved allocating the costs of new facilities, with the D.C. Circuit addressing whether the costs of the new or expanded facilities should be allocated to beneficiaries (“incremental pricing”) or to all customers (“rolled-in pricing”). And, in each case, the court required the Commission to “outline[ ] with reasonable particularity the system-wide benefits which each new facility produces” to justify rolled-in pricing.<sup>36</sup> These cases

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<sup>31</sup> *Id.* at 477 (emphasis added).

<sup>32</sup> *Colorado Interstate Gas Co. v. Federal Power Commission*, 324 U.S. 581, 588 (1945).

<sup>33</sup> *Algonquin Gas Transmission Co. v. FERC*, 948 F.2d 1305 (D.C. Cir. 1991).

<sup>34</sup> *Complex Consolidated Edison Co. of New York v. FERC*, 165 F.3d 992 9 (D.C. Cir. 1999).

<sup>35</sup> *Transcontinental Gas Pipe Line Corp. v. FERC*, 518 F.3d 916 (D.C. Cir. 2008).

<sup>36</sup> *Algonquin*, 948 F.3d at 1313, 1315 (this is not a theoretical exercise, but a question of fact dependent on “the impact the order would actually have on ultimate consumers”). *See also*, *Complex Consol.*, 165 F.3d at 998, 1006 (affirming FERC’s holding that rolled in rates were not just and reasonable based on FERC’s conclusion that “the alleged system benefits postulated by JMC Power [were] insubstantial”); *Transcontinental*, 518 F.3d at 920

require that there must be substantial and specific benefits to the system as a whole in order for the costs of the new facilities to be widely spread; otherwise, those ratepayers that do not benefit will subsidize those that do.<sup>37</sup>

**VIII. THE COMMISSION SHOULD AUTHORIZE TRANSMISSION PLANNERS TO MODEL AND CONSIDER FACTORS THAT ARE KNOWN AND MEASURABLE TO PROPERLY MODEL FUTURE TRANSMISSION NEEDS, BUT SHOULD NOT CONSIDER SPECULATIVE AND UNCERTAIN FUTURE POLICIES OR INDUSTRY TRENDS.**

In the ANOPR, the Commission requests comment on “whether the existing regional transmission planning and cost allocation processes appropriately consider the transmission needs of anticipated future generation to drive study assumption, or instead relies on less comprehensive information, such as existing interconnection requests with completed facilities studies, and whether such current planning criteria are appropriate or should be revised.”<sup>38</sup> The Commission elaborates and requests comment on (1) whether transmission providers in each transmission planning region should amend the regional transmission planning and cost allocation processes to plan for the transmission needs of anticipated future generation to meet a changing resource mix, including generation that is not yet in the interconnection queue, (2) whether the existing regional transmission planning and cost allocation processes fail to adequately account for anticipated future generation, (3) whether the possible failure to account for anticipated future generation results in inefficient investment in transmission infrastructure and causes customers to pay unjust

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(affirming FERC’s order adopting incremental rates where “FERC . . . correctly concluded that existing customers would have . . . subsidized the Cherokee shippers if [the gas company] had been allowed to roll in rates”).

<sup>37</sup> See, e.g., *Transcontinental*, 518 F.3d at 921 (“Rolling in the power costs of the Cherokee compressors forced existing Transco customers to subsidize the power costs of compressors they had no need for . . .”), *Algonquin*, 948 F.2d at 1313 (“What we do require, however, is that the Commission, before ordering a roll-in . . . offer more than a conclusionary statement that the existence of system-wide benefits renders it unjust to allocate facilities costs incrementally.”); *Complex Consol.*, 165 F.3d at 997 (“[T]he weight of the evidence favored the conclusion that the [new] facilities provided neither operational benefits nor additional reliability to Tennessee’s system customers.”).

<sup>38</sup> ANOPR at P 6.

and unreasonable rates for transmission service, and (4) whether, and, if so, how the Commission could structure and implement a framework for considering the transmission needs of anticipated future generation in the regional transmission planning and cost allocation processes.<sup>39</sup> The Commission provides examples of the factors shaping the generation mix that may be appropriate to use for transmission planning purposes, including existing clean energy laws and regulations, proposed clean energy laws and regulations, utility and corporate clean energy goals, trends in technology costs, and resource retirements.

Transmission planners should not be required to consider speculative and uncertain factors when modeling future transmission needs, such as federal, state, and local climate and clean energy goals or initiatives. One of the hallmarks of technological advancement and progress is unpredictability - we do not know today what technology will exist in the future. For this reason, transmission planners should not assume that certain technology outcomes or generation types will dominate new generation development in the coming years. There is currently no reason to believe, and the ANOPR provides no concrete evidence, that transmission planners are in a position to predict future supply-side technologies, electricity storage, and demand-side measures (such as demand response and distributed generation) with sufficient accuracy to justify the expenditure of hundreds of millions or billions in new transmission investment. The concept of “anticipated future generation” has not been a factor in transmission planning, and it should not be added now. Transmission planning should be based on known and measurable factors – e.g., known and measurable reliability violations, known and measurable non-economic and unhedgeable congestion, and known state requests to build and commitments to pay for new

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<sup>39</sup> ANOPR at P 34.



transmission. Transmission planning should not be based on speculative factors, like prognostications that generation *may* locate in certain areas.

Transmission investment is and should continue to be driven by reliability and economic metrics that signal the need for new or upgraded transmission, including generation that is known and measurable. Generally, transmission planners include in baseline reliability models only those generators that have completed a facilities study and are thus far enough along in the interconnection queue that there is sufficient commercial probability for them to modeled as an expected future generator. Not until a facility conducts a facilities study does it become more-likely-than-not that it will be placed in service. The Commission should ensure that transmission planners model and consider only factors that are known and measurable to properly model future transmission needs.

The Commission should not encourage renewable resources or shift costs away from generators to spur additional renewable investment at the expense of transmission customers. Competition, market principles of supply and demand, and state clean energy laws are already driving a rapid increase in renewable resources, with a commensurate decrease in emissions. In their Joint Statement issued with the ANOPR, Chairman Glick and Commissioner Clements state that “Due to a myriad of factors – including improving economics, customer and corporate demand for clean energy, public utility commitments and integrated resource plans, as well as federal, state, and local public policies – renewable resources in particular are coming online at an unprecedented rate.” They correctly note that renewable resources *are already coming online* at an unprecedented rate. The National Renewable Energy Laboratory (“NREL”) states that total renewable generation capacity nearly doubled from 2009 to 2018, increasing from 11.7% of total generation capacity to

20.5%.<sup>40</sup> Solar generation capacity has increased at a disproportionate rate, increasing roughly 5,000% from 1,054 MW to 51,899 MW nationwide, and wind generation capacity more than tripled from 31,155 MW to 96,442 MW.<sup>41</sup> And, nearly 700 of the total 750 GW of generation in interconnection queues is for renewable resources. Further, beyond renewable resources in existing queues – federal, state, and local policymakers continue to seek out and adopt public policies to drive additional adoption of renewable energy resources. While the Commission should be mindful of the potentially rapid deployment of renewable resources, no additional incentives are necessary for renewable generation, and the Commission should not shift interconnection costs, network upgrade costs, or interconnection costs away from new generators to transmission customers.<sup>42</sup>

**IX. THE COMMISSION SHOULD REFORM THE GENERATION INTERCONNECTION QUEUE TO STREAMLINE THE PROCESS AND ACCELERATE THE TIMING OF THE NECESSARY STUDIES.**

Competitive markets, driven by price signals and the principles of supply and demand, should drive the identification, size, and location of new generation. The Commission should streamline the interconnection process while ensuring that interconnection costs are not unjustly and unreasonably shifted to customers of load-serving entities because of generator interconnection reforms. Reforms to the generator interconnection process should be directed at streamlining the process and accelerating the timing for generators to complete interconnection, as well as limiting opportunities for gamesmanship, prohibiting generators from holding multiple speculative queue positions, and spreading the interconnection costs borne by first-in-line projects

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<sup>40</sup> 2018 Renewable Energy Data Book at 26, NREL, <https://www.nrel.gov/docs/fy20osti/75284.pdf>.

<sup>41</sup> *Id.*

<sup>42</sup> See Joseph Rand, *Queued Up: Characteristics of Power Plants Seeking Transmission Interconnection as of the End of 2020*, Lawrence Berkeley National Laboratory, May 2021, [https://eta-publications.lbl.gov/sites/default/files/queued\\_up\\_may\\_2021.pdf](https://eta-publications.lbl.gov/sites/default/files/queued_up_may_2021.pdf).

to other subsequent generation projects that benefit from the network upgrades. But with any reform, the Commission must ensure that generator interconnection costs remain with the generators. In the ANOPR, the Commission requests comments on “[1] whether and which reforms are necessary to the generator interconnection process to ensure a more purposeful integration with the regional transmission planning and cost allocation processes, [2] a more efficient queuing process, and [3] a more efficient and cost-effective allocation of interconnection costs.”<sup>43</sup> Each of these questions is addressed in detail below, but the Commission must be mindful that reforms to lower generator interconnection costs must be focused on lowering the overall costs and not just lowering the costs to new generators.

In Order No. 2003, the Commission found that “relatively unencumbered entry into the market is necessary for competitive markets.”<sup>44</sup> Further, the Commission held that the objectives of Order No. 2003 were to “limit opportunities for Transmission Providers to favor their own generation” and to “facilitate market entry for generation competitors by reducing interconnection costs and time.”<sup>45</sup> These are noble objectives that should remain true for the Commission, but any goal of facilitating market entry by lowering the cost and time of interconnection must be focused on lowering the costs to all customers and avoid shifting costs from interconnection customers to transmission customers.

**A. Improved Coordination Between The Generator Interconnection Process And Regional Transmission Planning Processes.**

While reform may be necessary for better coordination between generator interconnection processes and regional transmission planning processes, the Commission should not integrate such

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<sup>43</sup> ANOPR at P 8.

<sup>44</sup> Order No. 2003, 104 FERC ¶ 61,102 at P 11.

<sup>45</sup> *Id.* at P 12.

processes in a manner that shifts costs that should be properly paid by generators away from those generators to transmission customers. The Commission asks “which reforms are necessary to the generator interconnection process to ensure a more purposeful integration with the regional transmission planning and cost allocation processes.”<sup>46</sup> To this end, no reform should integrate interconnection and transmission planning processes, but should instead focus on coordination such that transmission planning is conducted based upon reliable data regarding the interconnection status of new generators. The Commission’s existing “beneficiary pays” model is intended to place the costs of large network upgrades on the interconnection customer that benefits from the upgrade. If such benefits are regional or exist for other future interconnecting generators, then the Commission should consider a better way to allocate such costs among the generators. However, the Commission should reject the notion that costs should be shifted in the first instance away from generators to transmission customers. To prevent this cost shifting, the Commission should focus on improved coordination between generator interconnection and transmission planning so that transmission planners have more reliable data on the number of generators that are reasonably certain to complete the interconnection process. However, generator interconnection and transmission planning are separate functions with costs that should not be integrated.

While transmission expansion planning for generator interconnections based on generator-by-generator assessments may not be optimal, it does result in generator costs being properly allocated to generators. Some areas have moved to studying clusters of generators simultaneously. The Commission should further consider and pursue considering generator interconnection requests in clusters or groups so as to lower costs to generators for interconnection while keeping

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<sup>46</sup> ANOPR at P 8.

costs from being shifted to transmission customers. The cluster or group studies allows similarly-situated generator interconnection customers to pay a prorated share of the costs of required network upgrades, resulting in generation interconnection costs properly remaining with the generators.

**B. A More Efficient Interconnection Queuing Process.**

The Commission should eliminate the speculation that currently exists in the generation queue process, ensure that developers do not hold multiple positions in the queue for the same project, and ensure that only viable projects remain in the queue. The Commission needs to reform the queuing process to ensure that only generation projects with a realistic probability of being built remain in the queue. The existing process of allocating interconnection costs based upon next-in-line projects results in speculative generation projects disrupting the queues so as to benefit from another generator paying the interconnection cost. Occasionally, one generation project will be assigned a high cost to make the network upgrade while projects further down the line in the queue benefit from the already-paid network upgrades. Further, when a generation project drops out of the queue, costs can be shifted to other projects, resulting in cascading project cancellations. The Commission should require each RTO, ISO, and other transmission providers to propose specific reforms to its generation interconnection processes to end the project speculation that currently exists in many generator interconnection queues.

As contemplated in Order No. 2003, to initiate generator interconnection, the interconnection customer (i.e. the generator) submits an interconnection request associated with its proposed generating facility that includes preliminary site documentation, certain technical information about the proposed generating facility, and the expected in-service date along with a

deposit.<sup>47</sup> The transmission provider uses this information to determine the interconnection facilities and interconnection-related network upgrades necessary to accommodate the interconnection request and their associated costs.<sup>48</sup> After the transmission provider determines that the interconnection request is complete, the interconnection request will enter the interconnection queue with other pending requests, and the transmission provider assigns the request a queue position based on the date and time of receipt. This queue position then determines the order in which the transmission provider performs the (1) feasibility study, (2) system impact study, and (3) facilities study. Each of these studies is necessary to determine the interconnection facilities and interconnection-related network upgrades needed to accommodate the interconnection request and the interconnection customer's cost responsibility for these facilities.<sup>49</sup> Thereafter, the process continues – the transmission provider then issues a report that includes the “best estimate of the costs to effect the requested interconnection,” and provides a draft generator interconnection agreement to the interconnection customer. If the interconnection customer wants to proceed, then, after negotiations, the interconnection customer enters into a generator interconnection agreement with the transmission provider or requests that the transmission provider file the agreement with the Commission unexecuted. This is not an efficient process.

Because the studies, and therefore costs, are determined based upon queue position, interconnection customers may submit multiple speculative interconnection requests in an effort to receive a favorable queue position and reduce interconnection-related network upgrade costs. This practice results in excess “traffic” within the queues and potentially results in improper planning and consideration of network upgrades. Interconnection queues that are backlogged or

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<sup>47</sup> Order No. 2003, 104 FERC ¶ 61,103 at P 35.

<sup>48</sup> Pro Forma LGIP Section 3.1

<sup>49</sup> Order No. 2003, 104 FERC ¶ 61,103 at PP 35-36. The interconnection customer is responsible for the costs of the interconnection studies and any necessary restudies.

filled with generation projects that are no-viable can result in unreasonable costs to consumers because purely speculative generation projects never achieve operation and legitimate generation projects that are unduly delayed by the speculative project also drops out of consideration. Further, when a project drops out of the queue, the withdrawal can necessitate costly restudies for generators remaining in the queue. The interconnection queue is currently too exposed to project speculation, and the cascading consequences of projects dropping in and out of the queue.

**C. A More Efficient And Cost-Effective Allocation Of Interconnection Costs.**

In addition to ensuring greater project viability, the Commission should further consider generator interconnection requests in clusters or groups so as to lower costs to generators for interconnection while keeping costs from being shifted to transmission customers. The cluster or group studies allow similarly situated generator interconnection customers to pay a prorated share of the costs of required network upgrades, resulting in reduced costs to the first-in-line interconnection project while ensuring that generation interconnection costs properly remain with the generators. Further, any subsequent generation projects that benefit from the network upgrades and complete interconnection should share in the costs of the network upgrades from which they benefit, if they interconnect within a reasonable period of time after the network upgrade is completed.

**X. GENERATION INTERCONNECTION COST ALLOCATION MUST CONTINUE TO PROVIDE THE RIGHT INCENTIVES FOR LOCATION OF NEW GENERATION.**

In the ANOPR, the Commission states that “[p]articipant funding may result in costly interconnection-related network upgrades being allocated entirely to interconnection customers while failing to account for the significant benefits that these interconnection-related network upgrades may provide to other anticipated future generators seeking to interconnect and/or existing or future transmission customers.” Likewise, the Commission asserts that “participant funding

may allocate the costs of extensive interconnection-related network upgrades entirely to interconnection customers without accounting for the significant benefits that these interconnection-related network upgrades may provide to transmission customers.” The Commission is mistaken – participant funding properly results in interconnection-related costs being imposed on the interconnection cost-causer, even if such costs may be extensive.

In Order No. 2003, the Commission explained that one of the main reasons for switching from a rolled-in credit approach to a participant funded approach was to provide price signals to direct developers to better locate their projects.<sup>50</sup> At the time, the Commission asserted that the participant funding model would send more efficient price signals, more equally allocate costs, and provide the framework necessary to allow transmission owners to build out the transmission system.<sup>51</sup> The Commission should continue to pursue these objectives of sending efficient price signals and properly allocating costs to cost-causers, while also encouraging transmission build-out necessary for reliability.

Price signals should encourage generators to locate close to load when feasible, and encourage projects located closest to load to be built first. In the ANOPR, the commission seeks comment on whether the Commission should require transmission providers to identify geographic zones that have the potential for the development of large amounts of renewable generation and plan transmission to facilitate the integration of renewable resources in those zones. As examples, the Commission identifies the Competitive Renewable Energy Zones (“CREZ”) in Texas, Multi-Value Projects (“MVP”) in MISO, as well as the California mechanism to facilitate financing and

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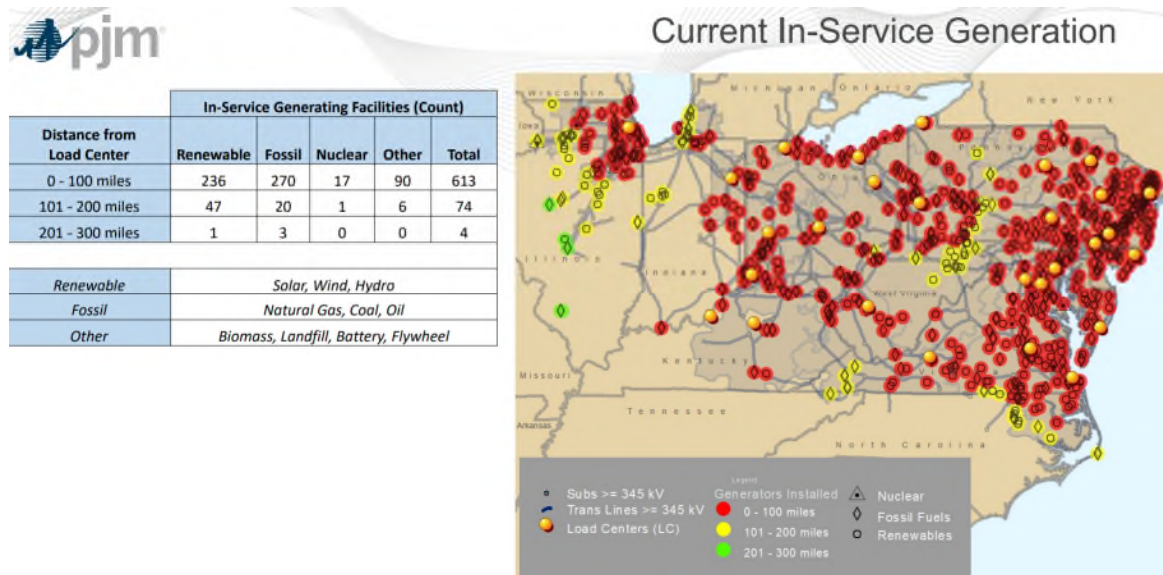
<sup>50</sup> *Standardization of Generator Interconnection Agreements and Procedures*, Order No. 2003, 104 FERC ¶ 61,102 at P 678, July 24, 2003.

<sup>51</sup> *Id.*



development of transmission facilities to interconnect multiple resources that meet certain CAISO eligibility requirements.<sup>52</sup>

In PJM, generation has historically located close to load, and PJM projects (based on current queue status) that future generation will continue to locate close to load. The first figure below demonstrates current in-service generation in PJM, while the bottom figure demonstrates future projects in PJM.<sup>53</sup>



<sup>52</sup> ANOPR at P 41-42.

<sup>53</sup> “Data Analysis,” Dave Souder, Exec. Dir., System Planning, Interconnection Policy Workshop – Session 4, August 27, 2021, <https://pjm.com/-/media/committees-groups/committees/pc/2021/20210827-workshop-4/20210827-item-04-data-analysis-presentation.ashx>

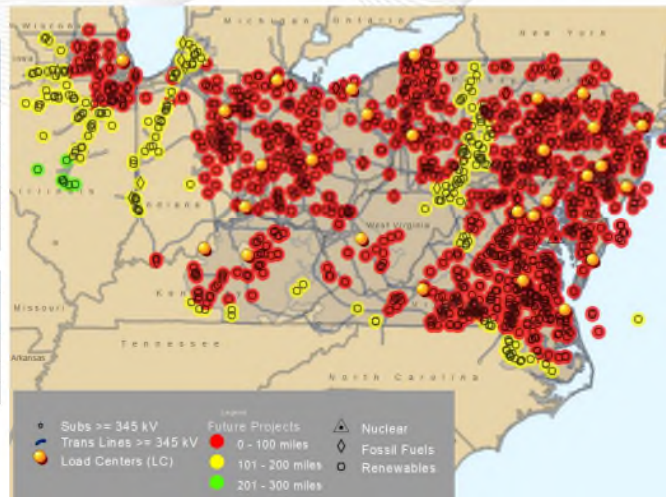


## Future Projects

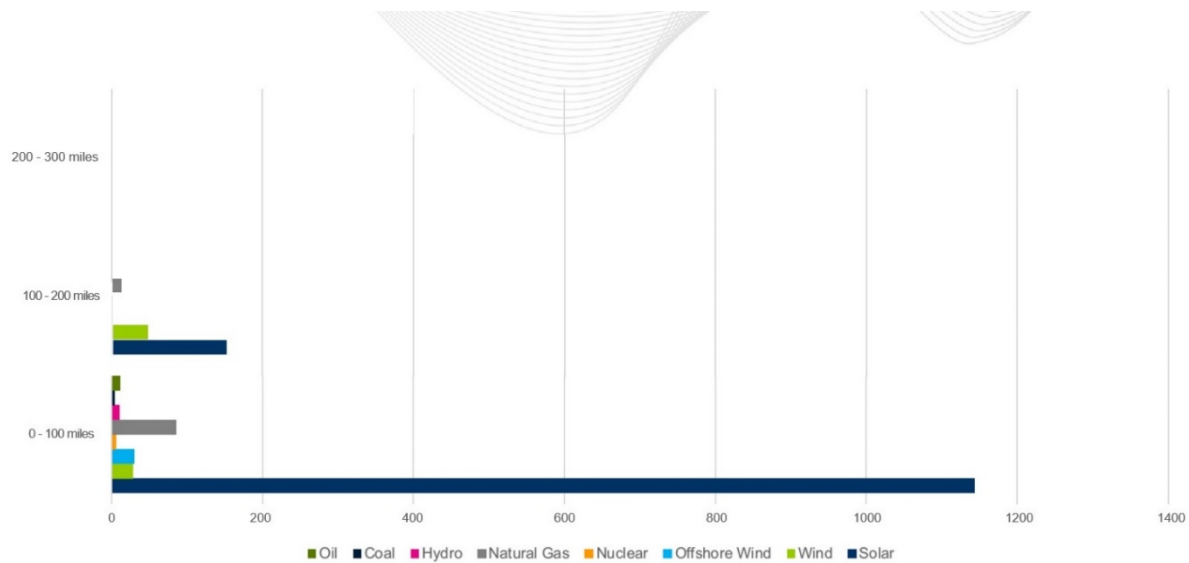
Distance from Load Center	Future Projects (Count)				
	Renewable	Fossil	Nuclear	Other	Total
0 - 100 miles	1,212	98	6	244	1,560
101 - 200 miles	200	13	0	41	254
201 - 300 miles	8	0	0	4	12

Renewable	Solar, Wind, Hydro
Fossil	Natural Gas, Coal, Oil
Other	Biomass, Landfill, Battery, Flywheel

Distance from Load Center	Future Projects (MW)				
	Renewable	Fossil	Nuclear	Other	Total
0 - 100 miles	108,435.2	17,552.2	189.5	19,055.1	145,232.0
101 - 200 miles	27,784.2	4,588.1	0.0	3,364.8	35,737.1
201 - 300 miles	1,008.1	0.0	0.0	185.6	1,193.7



Further, while these figures demonstrate that generation is currently locating close to load, the following figure provides even greater clarity on the distance from load centers of future projects in PJM.<sup>54</sup>



The problem with creating ever more zones and regions is that they come with seams and the risk of discriminatory or preferential treatment. Further, if the Commission creates renewable

<sup>54</sup> “Data Analysis,” Dave Souder, Exec. Dir., System Planning, Interconnection Policy Workshop – Session 4, August 27, 2021, <https://pjm.com/-/media/committees-groups/committees/pc/2021/20210827-workshop-4/20210827-item-04-data-analysis-presentation.ashx>

energy zones for purposes of cost allocation, then it may inadvertently encourage generation to locate further away from load, as opposed to encouraging generation to locate closer to load in order to keep transmission costs down. The consequence of such a perverse incentive would be the construction of new transmission that would otherwise be wholly unnecessary, at significant uneconomic cost to consumers. Instead, the Commission should require ISOs/RTOs and other independent transmission planners to continue applying the “but for” test and other participant funding mechanisms to new generation, to establish proper pricing signals for generation to efficiently locate close to load.

**XI. THE COMMISSION SHOULD UPHOLD THE “AT OR BEYOND” RULE FOR ALLOCATING INTERCONNECTION COSTS FOR NEW GENERATORS.**

In Order No. 2003, the Commission established the “at or beyond” rule for consideration of two types of new construction necessary to connect new generation sources to the grid: (1) interconnection facilities that lie between the generation source and the point of interconnection that are the sole responsibility of the incoming generator, and (2) network upgrades, which are those additional facilities and equipment needed beyond the point of interconnection and on the transmission grid itself necessary to accommodate the transfers of additional power from the point of interconnection to load.

**A. Transmission Customers Should Not Be Responsible For Any Of The Costs Of, Or Bear Any Of The Risk For, Network Upgrades That Are Necessary To Accommodate New Generation.**

The cost and commensurate risk resulting from Network Upgrades should remain with the Interconnection Customer and Transmission Owner. In so much as the Transmission Owners may assert they bear some of the risk resulting from Network Upgrades and have a right to a return on and of the rate base from those Network Upgrades, the Commission should prohibit the Transmission Owners and Interconnection Customers from shifting the risk and costs to other

transmission customers.<sup>55</sup> The Commission explained in Order No. 845-B that “the adoption of participant funding, in and of itself, does not preclude the recovery of a return of and on, the costs of facilities” and “*Ameren* stands for the principle that the Commission cannot prohibit a transmission owner from earning a return of and return on, the cost of its [N]etwork [U]pgrades.”<sup>56</sup> The question, then, becomes who should pay for the return of and on the cost of the Network Upgrades. The answer is the interconnection customer, which is the entity that most benefits from the network upgrade and but for which such network upgrade may be altogether unnecessary.

There are few, if any, documented reliability benefits to customers of Network Upgrades for which transmission customers should be required to pay for such network upgrades. In instances where network upgrades may be necessary for reliability, those projects are not network upgrades but rather transmission assets identified as necessary for reliability through regional transmission planning processes.

When the Commission adopted Order Nos. 2003 and 2003-A, it explained that the options for funding a Network Upgrade “provides the Transmission Provider with a cost recovery mechanism that ensure that native load and other transmission customers will not subsidize service to the Interconnection Customer.”<sup>57</sup> The Commission must remain steadfast to ensure that other transmission customers do not subsidize service to Interconnection Customers. Pursuant to Sections 205 and 206 of the FPA, the Commission must ensure that the rates, terms, and conditions for transmission of electricity in interstate commerce are just, reasonable, and not unduly

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<sup>55</sup> See, e.g., PJM Interconnection, Docket No. ER21-2282-000.

<sup>56</sup> See Order No. 845-B at PP 27-28, 35; see also Order No. 845-A at P 20 (stating that “the Commission’s Order No. 845 option to build revisions, which do not alter the Order No. 2003 crediting policy, do not conflict with the *Ameren* decision because they do not deprive transmission owners of the ability to earn a return on, and of, standalone network upgrade costs.”)

<sup>57</sup> Order No. 2003-A, 106 FERC ¶ 61,220 at P 613.

discriminatory or preferential.<sup>58</sup> This means that regardless of whether the Interconnection Customer or Transmission Owner is required to pay interconnection costs, such costs should not be paid by or allocated to customers. In the ANOPR, the Commission stated that “[i]n consideration of generator interconnection process reforms, we remain mindful of the need to ensure that interconnection costs are not unjustly and unreasonably shifted to customers of load-serving entities.”<sup>59</sup> The Commission must remain mindful of this concept as it pertains to Network Upgrades.

**B. The Costs Of Interconnection Facilities Should Properly Be Allocated To Interconnection Customers.**

Under the “at or beyond” rule adopted by the Commission Order No. 2003, the costs of interconnection facilities are the sole responsibility of the incoming generator.<sup>60</sup> Interconnection facilities are those facilities and equipment that lie between the proposed new generator and the point of interconnection with the transmission network. The Commission must continue to uphold the “at or beyond” rule and maintain generators as the sole party responsible for the costs of interconnection facilities. Further, continuing to hold generators responsible for the costs of interconnection facilities is consistent with principles of cost-causation and the “roughly commensurate benefits” test because generators are the primary, potentially only, beneficiary of interconnection costs to connect the generator to the transmission system.

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<sup>58</sup> 16 U.S.C. 824d, 824e.

<sup>59</sup> ANOPR at P 32.

<sup>60</sup> Order No. 2003, 104 FERC ¶ 61,102.

**XII. THE COMMISSION SHOULD REQUIRE TRANSMISSION OWNERS TO DEPLOY GRID-ENHANCING TECHNOLOGIES TO OPTIMIZE FLOWS ON THE EXISTING TRANSMISSION SYSTEM.**

In the ANOPR, the Commission asks “whether and how Grid-Enhancing Technologies should be accounted for in determining what transmission is needed” under longer-term scenarios for planning purposes.<sup>61</sup> The Commission then notes that Grid-Enhancing Technologies increase the capacity, efficiency, or reliability of transmission facilities, and include, but are not limited to, (1) power flow control and transmission switching equipment, (2) storage technologies, and (3) advanced line rating management technologies.<sup>62</sup> The Industrial Customer Organizations support the required usage of certain Grid-Enhancing Technologies, including, but not limited to, Ambient-Adjusted Ratings (“AAR”) and dynamic line ratings (“DLR”), for transmission owners in all RTO/ISO regions and for all Commission-jurisdictional public utilities. Requiring AARs and DLRs, where cost-effective for consumers, would be a positive step toward enabling grid operators to measure and make transparent the optimal physical capacity of electric transmission circuits so that grid operators, market participants, and other stakeholders may make informed decisions about planning and system operations. The Commission should adopt rules requiring the implementation of DLRs unless transmission owners can establish that the cost of implementing DLRs would exceed DLR-related benefits to consumers (via lower transmission rates and energy, capacity, and ancillary services prices). In nearly every case, the cost of installing DLRs will be nominal in comparison to the benefits of reduced congestion, lower energy and capacity costs, and reduced need for investment in new transmission system capability.

Two examples of the benefits of DLRs are instructive to their benefits. In January 2020, PPL Electric Utilities (“PPL”) presented at a number of PJM stakeholder meetings about placing

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<sup>61</sup> ANOPR at P 38.

<sup>62</sup> FERC, *Grid Enhancing Technologies*, Notice of Workshop, Docket No. AD19-9-000 (Sept. 9, 2009).

DLRs in service on two 230 kV transmission lines: the Susquehanna-Harwood and Juniata-Cumberland lines.<sup>63</sup> The Susquehanna-Harwood and Juniata-Cumberland lines were in the 2020 Top 10 Congested Facilities in PJM (#8 and #10, respectively) and together were responsible for approximately \$30 million in congestion costs.<sup>64</sup> As a result of implementing DLRs on the lines, PPL expects an average increase of almost 30% in the capacity of the lines.<sup>65</sup> This results in real and realized savings to consumers.

**A. Grid-Enhancing Technologies Can Reduce The Cost Of Interconnection-Related Network Upgrades.**

The Commission seeks “comment on whether there is the potential for Grid-Enhancing Technologies not only to increase the capacity, efficiency, and reliability of transmission facilities, but, in doing so, also [] reduce the cost of interconnection-related network upgrades” and whether transmission providers should be required to consider Grid-Enhancing Technologies in interconnection studies.<sup>66</sup> The answer to the Commission is - *Yes* - Grid-Enhancing Technologies can reduce the cost of interconnection-related network upgrades. The Commission should require Grid-Enhancing Technologies and identify instances when and where a Grid-Enhancing Technology is a best practice. Further, the Commission should not incentivize Grid-Enhancing Technologies, but instead require their usage in certain instances and establish them as a best-practice in others. For new transmission lines and facilities, if Grid-Enhancing Technologies are

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<sup>63</sup> See “Dynamic Line Ratings – Impacts to PJM”, PJM, Slide 4, available at 20201113-item-03c-dlr-impacts.ashx (pjm.com) (last accessed Sept. 22, 2021).

<sup>64</sup> See “Dynamic Line Ratings Strategy,” PPL Electric Utilities, available at 20210113-item-12-ppl-dynamic-line-ratings.ashx (pjm.com) (last accessed Sept. 22, 2021).

<sup>65</sup> 2020 Top 10 Congested Facilities – PJM Presentation: Markets Report, Slide 52, PJM Members Committee Webinar, January 2021, available at 20210125-item-07a-markets-report.ashx (pjm.com) (last accessed Sept. 22, 2021). The \$30 million is an approximate amount based on the chart on Slide 52.

<sup>66</sup> ANOPR at P 107.

not used or considered, then the Commission should apply a higher standard of review for those lines and facilities.

**B. Grid-Enhancing Technologies Should Be Considered By Transmission Planners.**

The Commission seeks comment on whether transmission providers should be required to consider Grid-Enhancing Technologies in interconnection studies.<sup>67</sup> As noted previously in these Comments, the Commission should require that transmission providers consider Grid-Enhancing Technologies in interconnection studies to assess whether their deployment can more cost-effectively facilitate interconnections. However, transmission planners should not limit their review to whether Grid-Enhancing Technologies can more cost-effectively facilitate interconnections, but also to consider Grid-Enhancing Technologies in all broader regional transmission expansion plans as a non-wires alternative to new transmission capital investment.

**C. Transmission Owners That Do Not Consider Grid-Enhancing Technologies In Lieu of New Transmission Facility Investment Should Be Required To Demonstrate The Prudence Of Such Investment And Overcome A Rebuttable Presumption That Such Investment Is Not Prudent.**

Not only should transmission providers be *required* to consider Grid-Enhancing Technologies in interconnection studies, but any given project where a transmission owner does not consider Grid-Enhancing Technologies as an alternative should be subject to a rebuttable presumption that the investment is not prudent.<sup>68</sup> Under such rules, transmission providers would have two options – consider Grid-Enhancing Technologies as a transmission solution or overcome the rebuttable presumption that the transmission investment is prudent. To overcome the rebuttable presumption, the transmission should be required to file either a Section 205 filing or a petition for declaratory order, and obtain the associated Commission approval, before seeking to

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<sup>67</sup> *Id.*

<sup>68</sup> ANOPR at P 107.



pass through the costs in its transmission formula rate. Consumers should not bear the burden of “finding the imprudent costs” when reviewing annual updates to each transmission owners’ transmission formula rate.

**XIII. REFORMS TO INTERREGIONAL TRANSMISSION PLANNING AND COST ALLOCATION SHOULD INCLUDE COMMISSION ENGAGEMENT AND COORDINATION WITH THE TENNESSEE VALLEY AUTHORITY, BONNEVILLE POWER ADMINISTRATION, AND OTHER NON-JURISDICTIONAL TRANSMISSION SYSTEM OPERATORS.**

To reform transmission planning and cost allocation to better prepare for resources geographically located away from load centers, the Commission must engage and coordinate with non-jurisdictional utilities and transmission operators, including federal government-owned providers such as the Tennessee Valley Authority (“TVA”) and Bonneville Power Administration (“BPA”). This ANOPR and the subsequent Commission actions likely to proceed from it constitute the appropriate time for the Commission to consider how to properly coordinate with non-jurisdictional transmission planners and system operators to maintain just and reasonable rates for jurisdictional ratepayers. The Commission cannot meet its goal of establishing a process for transmission planning and cost allocation that allows the transmission system to better connect generators in rural areas with load in urban areas of long-distance transmission projects must avoid the black hole of an eight-state non-jurisdictional region right in the center of the eastern United States.

These regions have already made some moves to a more interregional market, though such moves do not include interregional transmission planning and cost allocation. For example, on February 21, 2021, members of the proposed Southeast Energy Exchange Market (“Southeast EEM”) filed an Application for Commission acceptance under Section 205(c) of the FPA and Part 35 of the Commission’s regulations to establish a southeast energy exchange market. Such market, as proposed, would involve both Commission jurisdictional and non-jurisdictional utilities.

Concurrent with the request for acceptance of the Southeast EEM, each of the Commission-jurisdictional Southeast EEM Members filed a Certificate of Concurrence in their respective docket.<sup>69</sup> Further, each Southeast EEM Member that is a transmission service provider with an open access transmission tariff on file with the Commission filed amendments to its transmission tariff to offer zero-charge transmission service for the Southeast EEM transactions.<sup>70</sup> This Southeast EEM may be an indicator that non-jurisdictional regions recognize the benefits of competition, and could indicate a greater willingness to coordinate on matters of transmission planning and cost allocation. Likewise, BPA announced that it will join the Western Energy Imbalance Market in March 2022, indicating further interest by non-jurisdictional entities interested in the benefits of competition. The Commission’s responsibility is “to break down regulatory and economic barriers that hinder a free market in wholesale electricity.”<sup>71</sup> To this end, the Commission should engage with non-jurisdictional utilities to promote the benefits of competition.

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<sup>69</sup> Application at 3; the FERC-jurisdictional utilities that filed Certificates of Concurrence are Georgia Power, Mississippi Power, Dominion Energy SC, Duke Energy Carolinas, Duke Energy Progress, Kentucky Utilities, and LG&E.

<sup>70</sup> Application at 3; the transmission service providers with open access transmission tariffs that filed amendments to offer zero-charge transmission service for Southeast EEM transactions are the Southern Companies, Dominion Energy SC, Duke Energy Carolinas, and LG&E.

<sup>71</sup> *EPSA*, 136 S. Ct. at 768 (quoting *Morgan Stanley Capital Grp.*, 554 U.S. at 536).

**XIV. CONCLUSION**

**WHEREFORE**, the Industrial Customer Organizations respectfully request that the Commission afford due consideration to these Comments.

Respectfully submitted,

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By: /s/ Robert A. Weishaar, Jr.

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Counsel to the Industrial Energy Consumers of America, the American Forest & Paper Association, the PJM Industrial Customer Coalition, and the Coalition of MISO Transmission Customers, and on behalf of the Industrial Customer Organizations

Dated: October 12, 2021

**CERTIFICATE OF SERVICE**

I hereby certify that I have this day served, via first-class mail, electronic transmission, or hand-delivery the foregoing upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Washington, DC this 12<sup>th</sup> day of October, 2021.

*/s/ Robert A. Weishaar, Jr.*

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