

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

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

**Joint Supplemental Comments of the American Clean Power Association,
Advanced Energy Economy, and the Solar Energy Industries Association on
Generation Interconnection Queue Processing and Cost Allocation Reforms**

I. Executive Summary

Interconnection queues are overwhelmed in much of the country, but particularly in Regional Transmission Operator/ Independent System Operator (RTO/ISO) regions. As these comments lay out, generation interconnection study processes take too long, are unpredictable, and result in stalled projects. Additionally, most RTOs use an outmoded methodology for allocating the costs of network upgrades required to reliably interconnect new generation projects, which directly contributes to these issues.

The American Clean Power Association,¹ Advanced Energy Economy,² and the Solar Energy Industries Association³ (Clean Energy Coalition) submit that immediate Commission attention and meaningful improvements are needed in several important areas:

¹ ACP is a national trade association representing a broad range of entities with a common interest in encouraging the expansion and facilitation of wind, solar, energy storage, and electric transmission in the United States. The views and opinions expressed in this document do not necessarily reflect the official position of each individual member of ACP.

² AEE is a national association of businesses that are making the energy we use secure, clean, and affordable. AEE is the only industry association in the United States that represents the full range of advanced energy technologies and services, both grid-scale and distributed. Advanced energy includes energy efficiency, demand response, energy storage, wind, solar, hydro, nuclear, electric vehicles, and more

³ SEIA is the national trade association of the solar energy industry. As the voice of the industry, SEIA works to support solar as it becomes a mainstream and significant energy source by expanding markets, reducing costs, increasing reliability, removing market barriers, and providing education on the benefits of solar energy.

- Ensuring the predictable timing and certainty of upgrade costs for generator interconnection studies;
- Bringing consistency and predictable timing and certainty to affected system studies;
- Reforming interconnection queues to ensure that projects can advance based upon a clear readiness framework; and
- Ensuring a just and reasonable cost allocation methodology for required network upgrades.

Importantly, most of the queue-related reforms identified here have already been adopted in some regions of the country and have been approved by the Commission as just and reasonable. Implementing these proposals in other regions with significant queue delays would be consistent with existing Commission policy.⁴

The Commission's 2021 Advanced Notice of Proposed Rulemaking (ANOPR) in Docket No. RM21-17 posed key questions in multiple areas of transmission planning, transmission cost allocation, and generator interconnection. While these issues are all extraordinarily important, the Commission should consider the sequencing of rulemakings to implement reforms in these areas. Exploding network upgrade costs plague generator interconnection processes today, leading to project withdrawals and restudies which bog down already-delayed study processes. The root cause of these costs is short-sighted (or, in some instances, a lack of) planning for the future resource mix, but several near-term reforms would measurably improve interconnection processes while the Commission develops a comprehensive transmission rule. The Commission should not allow interconnection queue logjams to continue to grow worse, or delay remedial action pending resolution of the full range of issues presented in the ANOPR proceeding.

⁴ The signing organizations submit that the interconnection issues identified in this document are not equally problematic in all parts of the country. For example, much of the southeast region, including Georgia, Alabama, Mississippi, and Florida, does not experience significant backlogs associated with interconnection requests. Instead, the typical timeline is less than one year (albeit with a smaller volume of interconnection requests than in some other regions). Accordingly, while the Clean Energy Coalition recommends that the identified reforms should be adopted on a *pro forma* basis, Transmission Providers should also have the opportunity to demonstrate that current practices are equally as effective or superior to *pro forma* changes.

The Clean Energy Coalition recommends that the Commission take *immediate* steps to fix the acute procedural deficiencies and network upgrade funding problems plaguing the current interconnection process in many regions by initiating an accelerated, stand-alone interconnection rulemaking. As explained below, the record in the ANOPR docket reflects broad support for reform of these areas. The Clean Energy Coalition recognizes that there are several interconnection proceedings underway across the country.⁵ The reforms proposed below would not disrupt the stakeholder processes underway and could enhance the reforms currently being discussed.

The Commission should also continue to move forward with improvements to regional planning, cost allocation and the intersection of the interconnection and transmission planning process. These can and should be addressed in a transmission planning and cost allocation Notice of Proposed Rulemaking. The reforms proposed below would not disrupt the stakeholder processes underway and could enhance the reforms currently being discussed.

II. Key Problems and Recommendations

1. Generation Interconnection Studies

Problem: Generation interconnection studies have become a significant roadblock to the development of new generation throughout the country, and in RTO/ISO regions in particular. With study timeframes approaching four to five years in some cases,⁶ generation developers are forced to play a long waiting game with millions of dollars in security, in which the rules of the game are completely uncertain with respect to costs and schedule. The high volume of new interconnection requests also contributes to the delays in the study process shown in the Order No. 845 metric reports.⁷ With the number of projects in queues large (and ever-increasing), it is

⁵ See Southwest Power Pool, Inc., Revisions to Modify Generator Interconnection Procedures to Mitigate Backlog, Docket No. ER22-253 (Oct. 29, 2021); see PJM Interconnection, L.L.C., Interconnection Process Reform Task Force, <https://www.pjm.com/committees-and-groups/task-forces/iprtf>; see Midcontinent Indep. Sys. Op., Inc., Interconnection Process Working Group, <https://www.misoenergy.org/stakeholder-engagement/committees/interconnection-process-working-group/>.

⁶ PJM Interconnection, L.L.C., Order Nos. 845 and 845A Interconnection Study Performance Metrics Informational Report, Docket No. ER19-1958 (Aug. 16, 2021).

⁷ See PJM Interconnection, L.L.C., Order Nos. 845 and 845A Interconnection Study Performance Metrics Informational Report at 6, Docket No. ER19-1958 (Aug. 16, 2021); see also Southwest Power Pool, Revisions to Modify Generator Interconnection Procedures to Mitigate Backlog, at 7, Docket No. ER22-253 (Oct. 29, 2021).

inevitable that many withdraw, resulting in time-consuming restudies, which in turn lead to further cascading withdrawals.⁸

Inadequate regional transmission expansion as well as inconsistent system dispatch assumptions also contribute to uncertain interconnection queue timelines and costs. As interconnection queue volumes increase, the amount of available transmission capacity is decreasing. The lack of transmission system capacity manifests in outsized network upgrade costs, which are often born entirely by the interconnection customer(s).⁹ SPP's recently published 2017-002 study cycle has network upgrade costs of over \$8 billion for approximately 22,500 MW of installed generation capacity.¹⁰ The uncertainty and size of the network upgrade costs can affect the economics of an entire project.¹¹ A failure to plan transmission systems, along with the perverse incentives to over-rely on participant funded network upgrades, creates a cycle that leads to project withdrawals.

Generation developers also suffer from information asymmetry with respect to project siting. Project developers do not know how costly networks upgrades will be until they are far along in the interconnection process—so to obtain this information, projects need to enter the interconnection queue.¹² Generation developers have no choice but to go through the interconnection study process to obtain the cost and schedule for interconnecting new generation, but the process should not take as long as it presently does. Improving certainty on the costs of network upgrades will reduce the need for exploratory interconnection requests.

Interconnection studies also often use an extraordinarily low threshold for determining whether an interconnection customer is responsible for new network upgrades. Because of this low

⁸ PJM Interconnection, L.L.C., Order Nos. 845 and 845A Interconnection Study Performance Metrics Informational Report at 6, Docket No. ER19-1958 (Aug. 16, 2021); *see also* Southwest Power Pool, Revisions to Modify Generator Interconnection Procedures to Mitigate Backlog, at 7, Docket No. ER22-253 (Oct. 29, 2021); Midcontinent Independent System Operator, Inc., Informational Report Regarding Interconnection Study Delays during the fourth quarter of 2021, Docket No. ER19-1960 (Feb. 11, 2022).

⁹ State Agencies Initial Comments at 38; *see also* Tenaska Initial Comments at 7 (discussing how the Tenaska Clear Creek Project were subject to approximately \$66 million in network upgrade costs, despite evidence that the facilities at issue were already overloaded in the base case scenarios), SEIA Reply Comments at 11.

¹⁰ *See* Southwest Power Pool, DISIS-2017-002 Phase 1 Power Flow Final Results (reposted Feb. 4, 2022), https://opsportal.spp.org/documents/studies/files/2017_Generation_Studies/DISIS_Results_Workbook_DIS1702P1-PowerFlow_Final_v1.2.xlsx.

¹¹ R Street Initial Comments at 12; SEIA Reply Comments at 11.

¹² PJM Interconnection, L.L.C., Answer at 8-9, Docket No. EL21-95 (Aug. 30, 2021).

threshold, Transmission Providers can often identify and assign network upgrades to Interconnection Customers that are hundreds of miles (and in some cases, over 1,000 miles) away, even when these Interconnection Customers bear negligible responsibility for the upgrade by any reasonable measure. Assigning network upgrades in this way leads to interdependency between projects, due to more Interconnection Customers being responsible for a single upgrade. This creates a paradigm where one project's actions, such as dropping out of the queue, can have drastic impacts to multiple other projects. Because of this interdependency, Transmission Providers constantly must perform restudies, which significantly lengthens the entire interconnection process and can lead to surprise upgrade costs to generators.

Solutions: With standardization and automation, the interconnection studies could be completed in months instead of years. Additionally, the solutions that come out of the studies do not have to be custom-designed each time a study is done, but instead can be populated based on standardized unit pricing, planning and construction criteria in a designated region, especially Facilities Studies that currently rely on the Transmission Owner design criteria and often take a significant amount of time to complete (over two years in some cases). Both RTOs and non-RTOs have shown the ability to improve study timing and cost certainty, including Midcontinent Independent System Operator, Inc. (MISO), Southern Company, and Public Service of Colorado (PSCo). Commission action requiring *all* Transmission Providers to use practices comparable to the Transmission Providers that have *already* implemented the reforms identified in these comments will both increase consistency across the country and promote the adoption of effective practices that have already been found to be just and reasonable. The Clean Energy Coalition recommends that the Commission adopt a nationwide rule and require all jurisdictional utilities that believe their current practices are equivalent to or superior to that rule—and, importantly, are meeting the key results of timely and predictable Generator Interconnection Processes—to demonstrate attainment of these goals in a compliance filing.

Making the interconnection process more efficient and predictable will not only allow interconnection requests to be processed in a timely manner but will also help with RTO employee turnover (and the associated onboarding efforts for new employees). This should also reduce the number of exploratory projects that are entering the queue, since many of those projects are attempting to navigate the significant study delays.

To that end, the Clean Energy Coalition recommends the Commission adopt the following reforms for improving overall interconnection study processing:

Near-Term:

- Simplify the generation interconnection request and study process and make the process electronic and more accessible.¹³
- Encourage improved computational processes to boost the speed or efficiency of the conduct of system impact studies and increased staffing dedicated to performing interconnection studies.¹⁴
- Require Transmission Providers to use the same modeling assumptions in their generation interconnection process as they do within their regional transmission planning process.¹⁵
- Ensure that local transmission planning can be fully integrated with regional transmission planning and generator interconnections, so that any planned upgrades can be coordinated to maximize net benefits to all system users.¹⁶
- Identify and standardize unit pricing for interconnection facility and network upgrade costs (in particular, where commodity prices can be used), and apply them consistently throughout the interconnection study process.
- Establish clearly defined standards for conducting restudies, with each interconnection request held to the same study methodology and assumptions throughout the study process.
- Identify and standardize interconnection milestone requirements for receiving, maintaining, or suspending a queue position.
- Identify and standardize interconnection study deposits, readiness demonstrations, and withdrawal penalties.

¹³ National Association of Regulatory Utility Commissions (NARUC) Initial Comments at 37-38.

¹⁴ *Id.* at 40.

¹⁵ *Id.* at 38.

¹⁶ *See* SEIA Initial Comments at 3 (noting that consideration of distribution level systems is limited to a reliability analysis involving queued generation and projected loads).

- Enhance Interconnection queue transparency by clearly identifying dependencies between queue positions to clearly identify delays in study commencement or restudy risks.
- Provide Interconnection Customers the option of using third-party consultants to produce required studies in accordance to the standards and criteria established within a region.
- Establish minimum standards for interconnection study timeliness and accuracy with enforceable non-recoverable financial penalties for underperformance and provide Interconnection Customers the option of using third-party consultants to produce required studies. This will incentivize Transmission Providers and owners to devote sufficient resources and staffing to completing accurate studies on time.¹⁷
- Require Transmission Providers to establish clear material modification guidance that would allow for conversion of stand-alone resources to hybrid or co-located resources later in the process and require that guidance to be applied consistently across regions.¹⁸
- Require Transmission Providers to provide earlier processing of surplus interconnection requests prior to an Interconnection Customer obtaining an effective Generation Interconnection Agreement (GIA), like the MISO practice the Commission recently approved in Docket No. ER22-298.¹⁹
- Require Transmission Providers, upon receiving an Interconnection Customer request, to evaluate Grid Enhancing Technologies (GETs) in addition to, or in lieu of, implementing a traditional Network Upgrade by (a) studying the efficacy of deploying such technology in consultation with the Interconnection Customer and Transmission Owner, if different, and (b) implementing a framework for deploying GETs in circumstances where the study indicates that such measures would increase benefits (to the system) or reduce costs and installation time relative to traditional Network Upgrades. This will promote lower-cost

¹⁷ AEE Initial Comments at 21-22.

¹⁸ In Order No. 845, the Commission required transmission providers to adopt a technological change procedure to study whether proposed technological advancements can be incorporated into interconnection requests without triggering the Material Modification provisions of their tariffs. Order No. 845 at P 518. Consistent with this precedent, transmission providers should establish clear guidelines on what technological advancements are considered “permissible” with respect to adding storage. *See* Comments of Hybrid Resource Coalition at 15, Docket No. AD20-9 (Sept. 20, 2021).

¹⁹ *See* Midcontinent Independent System Operator, Inc., Report on Hybrid Resources at 11, Docket No. AD20-9 (July 19, 2021).

and faster solutions to address congestion on the grid by materially reducing or eliminating specific constraints, thereby encouraging Interconnection Customers to commit to fund upgrades more readily rather than dropping from interconnection queues. This commitment will cause fewer restudies to be required, resulting in a more streamlined study process and improved certainty for market participants.

- Interconnection Customers should only be responsible for network upgrades “local” to their project where direct cost causation can be shown. Transfer Distribution Factor (TDF), which measures the percentage of the electricity produced by a generator which travels on a given transmission facility, is an appropriate metric for determining electrical distance from a generation facility and what constitutes “local”. Transmission Providers commonly use the TDF metric in interconnection processes today, but regional upgrades are often assigned using low TDF thresholds and thresholds based on group impacts. This creates a large degree of interdependency between projects.²⁰

Long-Term:

- Require Transmission Providers to coordinate their generation interconnection queue and long-term planning forecasts and other key activities such as state procurement requirements to help evaluate project viability.²¹ As projects enter the queue, necessary transmission upgrades should be fully incorporated into transmission planning to identify synergies between multiple transmission drivers (for example, a facility identified as a network upgrade could potentially incorporate a necessary replacement or resilience-improving upgrade at the same time). Similarly, as new transmission is planned, information on transfer capability and points of interconnection should be made available to all market participants to incent efficient interconnection decisions.
- Require adoption of state-of-the-art study processing methods featuring:
 - Automated, web-based portals for rapid information exchange,
 - Centralized, searchable databases for commonly asked questions and lessons learned; and standardized data collection and entry.

²⁰ Enel North America’s proposal in RM21-17-000 recommends FERC set a standard TDF threshold of 20% for all Transmission Providers to assign network upgrades to Interconnection Customers.

²¹ AEE Initial Comments at 41; SEIA Initial Comments at 5-6.

- Require Interconnection Customers to receive a cap on total network upgrade costs by the time a GIA is executed. The total network upgrade cost cap should also include any Affected Systems upgrade triggered by the projects.
- Require Transmission Providers to develop queue priority metrics to reflect the studies' status, which could help reduce uncertainty across neighboring Affected Systems—for instance, by utilizing the start of the system impact studies rather than queue entry dates.²²
- Provide guidance for equitably transitioning to new interconnection processes without adversely impacting generation interconnection applications that have been submitted and are in process at the time of the transition to a new process.²³
- Require Transmission Providers to provide more information to generation developers on points of interconnection with the lowest likely interconnection costs, which would help unlog interconnection queues by lessening the need for some developers to submit multiple exploratory interconnection requests to obtain information about lower-cost interconnection locations.²⁴

2. Affected System Studies

Problem: As evidenced by the growing number of complaints at the Commission,²⁵ Affected System study issues are a key contributing cause of the ballooning interconnection queues and timelines and uncertainty across the country. The affected system study process in most regions lacks transparency, consistency, coordination, and accountability, and is replete with resulting study errors and delays. For many Transmission Providers, delayed Affected System results have

²² EDF Initial Comments at 15.

²³ AEE Initial Comments at 22.

²⁴ Vistra Reply Comments at 6-7, SEIA Reply Comments at 11.

²⁵ See e.g. *Tenaska Clear Creek Wind LLC v. Southwest Power Pool*, 177 FERC ¶ 61,200 (2021); *Midcontinent Indep. Sys. Operator, Inc.*, 171 FERC ¶ 61,278 (2020), *on reh'g Midcontinent Independent System Operator, Inc., PJM Interconnection, L.L.C.*, 173 FERC ¶ 61,035 (2020); Complaint of the Carolina Clean Energy Business Association to Fix the Affected System Coordination Process, Docket No. EL21-92 (July 30, 2021) (outlining the repeated failures of DEP and PJM to plan for affected system upgrades). The Complaint was withdrawn to allow the parties to consider the issues raised in the complaint through settlement and to file any resulting amendments to PJM and DEP's joint operating agreement. See Notice of Withdrawal re Carolinas Clean Energy Business Association v. PJM Interconnection, L.L.C., Docket No. EL21-92 (Sept. 3, 2021).

become the norm. In many cases, Transmission Providers are challenged in meeting their own tariff timelines for interconnection requests on their own systems due to the rising volume of requests and need for multiple restudies to reach a stable study group. This problem is particularly acute in, but not exclusive to, RTO/ISO regions. Ultimately, these issues are principally caused by inadequate Commission interconnection rules, which at present do not require Affected Systems to coordinate and process studies accurately or on-time.

The problem of Affected System logjams is further exacerbated by the typically misaligned timelines between the Affected System study process and the native system interconnection process. This can unreasonably force Interconnection Customers to make decisions on whether to proceed with projects, and put significant capital at risk, without knowing the cost of upgrades that may later be identified and assigned to them by an Affected System operator due to study delays and restudies—even *after* a project becomes operational. As a result, customers with executed interconnection agreements are commonly being saddled with significant additional upgrade costs based on Affected System study results that render an otherwise viable project uneconomic. Meanwhile, in most RTO/ISO regions, the Affected System operators are perversely incentivized to identify disproportionate network upgrades in Affected System studies, because these upgrades are fully funded by one or more Interconnection Customers and are not subject to reimbursement under the Commission’s current participant funding policy. Likewise, transmission customers within the Affected System’s control area are shielded from any cost impact, while at the same time benefiting from the upgrades—which in many cases are high-voltage “backbone” facilities. The lack of uniformity in study approaches among neighboring Transmission Providers further compounds the lack of coordinated study timelines.

Solution: To address these issues, the Clean Energy Coalition recommends that the Commission adopt the following reforms:

- Mandate a *joint* study process in the event an Affected System is identified early in the interconnection request process, which will ensure all study assumptions are agreed-upon early in the study process and will avoid diverging study results between transmission providers.
- Ensure that the cost for alleviating an existing system condition does not rest with a new resource interconnecting on an adjacent system that did not create the problem.

Preexisting reliability issues should instead be identified and solved through the transmission planning processes.

- Ensure that study methodologies and inputs are clear. Similarly, Affected Systems should be expected to discover their own errors with an appropriate level of due diligence.
- Recognizing that flows between Transmission Providers are monitored constantly in real time, ensure that the impact of cross-border interconnection requests are handled through coordination and redispatch as much as possible, as opposed to network upgrades.
- Ensure that Affected Systems only study projects in adjacent systems utilizing an ERIS standard or even a less stringent standard.
- Ensure that Affected System studies are completed in a timely manner to provide Interconnection Customers cost certainty. To get neighboring Transmission Providers aligned on the same timetable, the Commission should establish minimum performance standards with financial penalties and/or alternative recourse remedies for Interconnection Customers in the event of Transmission Provider underperformance.
 - Capping Affected System upgrade costs within some reasonable range at the time an interconnection agreement is executed.
 - Barring Affected system upgrades from including costly “backbone” transmission facilities between Transmission Providers seams or “backbone” transmission facilities within the transmission providers systems. These “backbone” facilities should be included instead as part of coordinated expansion plans between Transmission Providers that also consider information from the interconnection processes.
 - Requiring Affected Systems to complete studies in accordance with the host transmission system’s stated schedule.
 - Tightening Reasonable Efforts and Good Utility Practice study process requirements to produce timely and accurate study results.
 - Providing Interconnection Customers with the option of using third-party consultants to produce required studies, particularly if the Transmission Provider repeatedly fails to act on time (or indicates that it won’t be able to).

- Prohibit the costs of Affected System upgrades that provide benefit to Affected System customers from being directly assigned to Interconnecting Customers without reimbursement.

3. Queue Management

Problem: Several core issues have led to clogged interconnection queues, where new requests appear faster than existing ones can be processed. First, although many regions have moved towards (or plan to move towards) a “cluster” approach that considers multiple interconnection requests jointly, many areas continue to use the serial first-come, first-served interconnection approach outlined in Order No. 2003. While (as noted above) some regions have maintained workable serial processes—often in circumstances where the number of interconnection requests is smaller—the Clean Energy Coalition submits that the default serial process is no longer just and reasonable and should be updated to reflect industry best practices that have been adopted since the *pro forma* study mechanism was first promulgated. Additionally, not all queue processes include readiness criteria (although some regions have adopted them). This allows projects to proceed past earlier-queued positions if the later project can demonstrate through criteria such as site control and increasingly stringent security requirements that it is ready to proceed.

Solution: To properly accelerate the interconnection study process, the Clean Energy Coalition recommends that the Commission look to move the industry further away from the first-come first-served approach and adopt clustering as the new default *pro forma* study mechanism.²⁶ Ideally, a balanced and durable set of queue reforms should be adopted, which would not sacrifice fairness and open access principles in the name of queue manageability.

To that end, the Commission should pursue standardizing the various alternative queue management approaches being used successfully in select RTO/ISO markets and non-RTO/ISO systems that have been previously found to be superior to the *pro forma* tariff practices. The

²⁶ See e.g. *Building for the Future Through Electric Regional Transmission Planning and Cost Allocation and Generator Interconnection*, 176 FERC ¶ 61,024 at P 157 (2021). As noted above, Transmission Providers that believe their current practices are consistent with or superior to those in a proposed rule should be able to submit a compliance filing demonstrating this.

Clean Energy Coalition recommends that the Commission adopt the following queue management “best practices” as new *pro forma* interconnection procedures:

- Cluster study processes, such as those used by MISO, PSCo., and PacifiCorp. Conducting a single study for a batch of project requests reduces the time and resources that would otherwise be spent by all parties involved in performing and reviewing sequential, project-by-project studies. Besides allowing studies to be completed more efficiently, this approach also reduces the impacts of a single project dropping out of the cluster, triggering restudies, and delaying other projects; this helps to avoid the chronic problems in serial queue processes where projects with questionable commercial viability clog and stall the queue for numerous other projects.²⁷ However, such a transition should be a part of a holistic reform package that reforms the participant funding mechanism. Failure to align the incentives and price signals between the transmission planning process and interconnection queues will just obfuscate the true costs of a project and the system.²⁸
- Standardizing a milestone-based “first-ready, first-served” processes, such as those in place in MISO and SPP. Requiring Interconnection Customers to demonstrate project “readiness” earlier in the study process by meeting certain development milestones improves the speed and quality of studies by reducing the number of exploratory projects entering the queue while promoting continued competition within the market by allowing projects that can demonstrate maturity and progress to proceed. These milestones also act to discourage late-stage withdrawals of interconnection requests that often lead to restudies and delays²⁹ and may include a blend of firm and optional requirements such as:
 - Firm site control queue entry requirements.
 - Demonstration of permitting progress or financing milestones (executed power purchase agreement).
 - Assumption of additional financial risk (through progressively non-refundable study deposits); and

²⁷ AEE Reply Comments at 20-22, NARUC Initial Comments at 39-40.

²⁸ SEIA Reply Comments at 19-20.

²⁹ Initial Comments of American Electric Power Corporation, at 36-37; Initial Comments of EDF Renewables (EDFR), at 15.

- Requiring additional demonstration of site control (or additional in-lieu-of payments), such as those used by MISO and SPP.³⁰

4. Participant Funding

Problem: The existing network upgrade funding practices in most RTO/ISOs, which numerous commenters in the ANOPR proceeding have identified as unjust and unreasonable,³¹ warrant immediate reform as part of the stand-alone interconnection rulemaking recommended herein. The status quo in participant funding regions—in which generators typically pay for 100% of upgrade costs, without reimbursement—is not legally durable, because those upgrades are integrated with the regional transmission system and benefit all system users.³² While Interconnection Customers are one beneficiary of network upgrades, judicial precedent requires the Commission to allocate costs in a manner roughly commensurate with benefits;³³ a 100% cost allocation formula cannot satisfy this requirement.

Solution: The record before the Commission includes several creative participant funding reform proposals³⁴ which would re-balance cost responsibility between generators and load, including clear delineation of which upgrades an interconnection customer could be responsible for, and creative cost-sharing that both incentivizes economical siting decisions and acknowledges the broader system benefits of transmission facilities. Importantly, applicable precedent clearly allows the Commission to use evidence-based presumptions (potentially using voltage level or electrical location of upgrades, among other factors) in determining cost

³⁰ AEP Initial Comments at 37.

³¹ See, e.g. ACP Initial Comments, NextEra Initial Comments, SEIA Initial Comments.

³² See *Old Dominion Electric Cooperative v. FERC*, 898 F.3d 1254, 1263 (D.C. Cir. 2018)(finding that the Commission’s “categorical refusal to permit any regional cost sharing for an important category of projects conceded to produce significant regional benefits” [was] irreconcilable with the cost causation principle”, warranting remand.) (emphasis added). The *Old Dominion* court found that one utility being assigned 100% of the costs of transmission upgrades while receiving less than 50% of the benefits did not satisfy the “roughly commensurate” standard of cost allocation.

³³ See e.g. *Ill. Commerce Comm’n v. FERC*, 576 F.3d at 476-77 (7th Cir. 2009)

³⁴ If FERC declines to eliminate participant funding outright, EDF’s cost sharing reform proposal in RM21-17-000 (80% participant funding for upgrades <200 kV/20% participant funding for upgrades >200 kV) is a workable, legally-durable approach that could be adopted in isolation, or paired with NextEra’s geographic ex ante reform proposal in RM21-17-000 of restricting reimbursement through the crediting policy to Downstream Network Upgrades while applying participant funding to network upgrades within the interconnection substation. CAISO’s “participant financing” is also a workable approach.

allocation; the Commission can therefore implement these proposals *without* requiring a time-intensive and costly process of individualized benefit-cost analysis for each high-voltage upgrade.³⁵

III. Conclusion

The interconnection queue management and cost allocation improvements detailed herein are long overdue for Commission attention and are fast becoming a substantial barrier to entry to new renewable energy development in certain regions. Rather than allow the problem to continue to grow worse or delay remedial action until complementary, but longer-term reforms contemplated in the ANOPR proceeding in Docket No. RM21-17-000 are implemented, the Commission should make interconnection reform a top priority and take *immediate* steps to initiate a single, accelerated interconnection rulemaking specifically aimed at requiring Transmission Providers to adopt the set of reforms proposed here. Taken together, these suggested rule changes would provide much-needed queue efficiency and certainty. They would also strike the appropriate balance in avoiding imposing unduly discriminatory or preferential interconnection practices, and simultaneously ensuring a just and reasonable cost allocation methodology for required network upgrades. At the same time, considering the various RTO-specific initiatives currently underway to make their queue processes more manageable, the Commission should encourage these reform efforts to continue and not take any broader actions that would slow down these stakeholder discussions.

ACP, AEE, and SEIA appreciate the Commission's consideration, and look forward to further engagement on the critical issues identified in these supplemental comments.

³⁵ See ACP Initial Comments at 35-36; Docket No. RM21-17-000 (“[T]he Commission can apply of reasonable presumptions regarding which upgrades provide broader benefits, so long as it has “an articulable and plausible reason to believe that benefits are at least roughly commensurate” with costs assigned.”), *quoting Ill. Comm. Comm’n*, 576 F.3d at 477.

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