

187 FERC ¶ 61,170
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Willie L. Phillips, Chairman;
Allison Clements and Mark C. Christie.

Midcontinent Independent System Operator, Inc.	Docket Nos. EL24-80-000
PJM Interconnection, L.L.C.	EL24-81-000
Southwest Power Pool, Inc.	EL24-82-000
ISO New England, Inc.	EL24-83-000
	(not consolidated)

ORDER TO SHOW CAUSE

(Issued June 13, 2024)

1. In this order, we find that the existing open access transmission tariffs (OATT) of certain regional transmission organizations (RTO) and independent system operators (ISO), specifically Midcontinent Independent System Operator, Inc. (MISO), PJM Interconnection, L.L.C. (PJM), Southwest Power Pool, Inc. (SPP), and ISO New England, Inc. (ISO-NE) (collectively, Responding RTOs/ISOs), appear to be unjust, unreasonable, and unduly discriminatory or preferential because they include provisions for transmission owners to unilaterally elect transmission owner (TO) Initial Funding,¹ which may increase the costs of interconnection service without corresponding improvements to that service, may unjustifiably increase costs such that it results in barriers to interconnection, and may result in undue discrimination among interconnection customers. We also find that the provisions for TO Initial Funding in the existing OATTs of Responding RTOs/ISOs appear to be unjust, unreasonable, and unduly discriminatory or preferential because there may be no risks associated with owning, operating, and maintaining network upgrades for which transmission owners are not already otherwise compensated.

¹ Under TO Initial Funding, the transmission owner unilaterally elects to initially fund the network upgrade capital costs that it incurs to provide interconnection service to the interconnection customer, and the transmission owner subsequently recovers the network upgrade capital costs through charges that provide a return on and of these network upgrade capital costs from the interconnection customer. For a detailed description of the provisions concerning a transmission owner's unilateral election of TO Initial Funding, *see infra* P 11.

2. Pursuant to section 206 of the Federal Power Act (FPA),² we therefore direct each of the Responding RTOs/ISOs, within 90 days of the date of this order, either: (1) to show cause as to why its OATT remains just and reasonable and not unduly discriminatory or preferential and provide responses to the questions set forth in Appendix A; or (2) to explain what changes to its OATT it believes would remedy the identified concerns if the Commission were to determine that the OATT has in fact become unjust, unreasonable, and unduly discriminatory or preferential and, therefore, were to proceed to establish a replacement rate, and provide responses to the questions set forth in Appendix A.

I. Background

A. Order No. 2003 Pricing Policy

3. In Order No. 2003,³ the Commission maintained a previously drawn distinction between network upgrades and interconnection facilities, the two main types of facilities required to effectuate a generating facility's interconnection. Order No. 2003 defined network upgrades as those "additions, modifications, and upgrades to the Transmission Provider's Transmission System required at or beyond the point at which the Interconnection Facilities connect to the Transmission Provider's Transmission System to accommodate the interconnection of the Large Generating Facility to the Transmission Provider's Transmission System."⁴ When a transmission provider studies an interconnection request during the generator interconnection process, it identifies, among other things, the network upgrades that must be constructed on the transmission provider's transmission system in order to effectuate the interconnection, i.e., those facilities that would not be needed "but for" the interconnection. The Commission has long acknowledged that network upgrades, which are, by definition, improvements to the

² 16 U.S.C. § 824e.

³ *Standardization of Generator Interconnection Agreements & Procs.*, Order No. 2003, 104 FERC ¶ 61,103 (2003), *order on reh'g*, Order No. 2003-A, 106 FERC ¶ 61,220, *order on reh'g*, Order No. 2003-B, 109 FERC ¶ 61,287 (2004), *order on reh'g*, Order No. 2003-C, 111 FERC ¶ 61,401 (2005), *aff'd sub nom. Nat'l Ass'n of Regul. Util. Comm'rs v. FERC*, 475 F.3d 1277 (D.C. Cir. 2007).

⁴ *See, e.g.*, Order No. 2003, 104 FERC ¶ 61,103, *pro forma* Large Generator Interconnection Agreement (LGIA), § 1.

transmission system itself, produce benefits to the transmission system that extend beyond the interconnection customer associated with an interconnection request.⁵

4. Order No. 2003 also established an interconnection pricing policy pursuant to which interconnection customers pay the higher of the costs of network upgrades that would not be needed “but for” the new generating facility, *or* the rolled-in transmission rate reflecting the cost of the entire transmission network (so-called “or” pricing in the interconnection context), but not *both* (so-called “and” pricing in the interconnection context).⁶ If the costs of the network upgrades are higher than the rolled-in transmission rate, then the transmission provider would need to file a non-conforming agreement to implement the incremental rate because the *pro forma* LGIA contemplates only rolled-in pricing.⁷ Under the interconnection pricing policy, when rolled-in pricing is applied the interconnection customer initially funds the costs of network upgrades as construction costs are incurred, unless the transmission provider elects to initially fund the

⁵ See, e.g., *Pub. Serv. Co. of Colo.*, 62 FERC ¶ 61,013, at 61,061 (1993) (stating, among other things, that “even if a customer can be said to have caused the addition of a grid facility, the addition represents a *system* expansion used by and benefitting all users due to the integrated nature of the grid”) (emphasis in the original); *Entergy Servs., Inc. v. FERC*, 319 F.3d 536, 542-44 (D.C. Cir. 2003) (upholding Commission determination that short-circuit and stability network upgrades benefit all users of the transmission system); Order No. 2003, 104 FERC ¶ 61,103 at PP 21, 65 (“Most improvements to the Transmission System, including Network Upgrades, benefit all transmission customers” and “Facilities beyond the Point of Interconnection are part of the Transmission Provider’s Transmission System and benefit all users.”); Order No. 2003-A, 106 FERC ¶ 61,220 at PP 585 (stating that “the Commission has long held that the Transmission System is a cohesive, integrated network that operates as a single piece of equipment, and that network facilities are not ‘sole use’ facilities but facilities that benefit all Transmission Customers”) and 599 (stating that the Commission does “not believe that the costs of Network Upgrades required to interconnect a Generating Facility to the Transmission System of a non-independent Transmission Provider are properly allocable to the Interconnection Customer through direct assignment because upgrades to the transmission grid benefit all customers”); *NARUC v. FERC*, 475 F.3d 1277, 1285 (D.C. Cir. 2007) (upholding the Commission’s determination that network upgrades benefit the entire network, noting that the D.C. Circuit had previously endorsed the approach of assigning the costs of system-wide benefits to all customers on an integrated transmission grid) (citing *W. Mass. Elec. Co. v. FERC*, 165 F.3d 922, 927 (D.C. Cir. 1999)).

⁶ Order No. 2003, 104 FERC ¶ 61,103 at P 694 & n.111.

⁷ See *id.* P 915.

construction upfront itself.⁸ If the interconnection customer initially funds the network upgrades, the interconnection customer is then entitled to reimbursement for the cost of the network upgrades, including interest calculated in accordance with 18 C.F.R. § 35.19a(a)(2)(ii) (2023), through transmission service credits. This network upgrade funding approach is referred to herein as the Order No. 2003 crediting policy. The transmission service credits are applied on a dollar-for-dollar basis against the rolled-in rates for transmission service taken for up to 20 years from the generating facility's commercial operation date until the network upgrade costs are fully reimbursed, and subject to a balloon payment at the end of such 20 years to reimburse for any network upgrade costs that remain unreimbursed through the transmission service credits by that time.⁹ The transmission owner may include the costs of interconnection-related network upgrades in its transmission rates to the extent that it has provided credits to the interconnection customer.¹⁰ The Commission concluded that using section 35.19a(a)(2)(ii) as the basis for the interest calculation ensures that the interconnection customer is fully and fairly compensated for the time-value of its upfront payment for the network upgrades, but noted that, if the transmission provider believes it can obtain financing for the network upgrades at a more favorable rate, it always has the option to initially finance the network upgrades itself and immediately include the associated costs in rolled-in transmission rates. In so doing, the transmission provider would avoid having to provide credits to the interconnection customer.¹¹ Thus, pursuant to rolled-in pricing, network upgrade costs are included in transmission rates and paid for by all users of the transmission system that are charged transmission rates.¹² The network upgrade cost allocation approach described above, whereby the network upgrade costs are ultimately borne by transmission customers whether the interconnection customer funds them upfront or not, is referred to herein as the Order No. 2003 default pricing policy.¹³

⁸ *Id.* P 676. Article 11.3 of the Order No. 2003 *pro forma* LGIA states: “Unless the Transmission Provider or Transmission Owner elects to fund the capital for the Network Upgrades, they shall be solely funded by the Interconnection Customer.”

⁹ Order No. 2003-B, 109 FERC ¶ 61,287 at PP 3, 36.

¹⁰ Order No. 2003-A, 106 FERC ¶ 61,220 at P 657.

¹¹ *See id.* P 618.

¹² The Commission explained that its approach “looks beyond the direct usage related benefits usually associated with transmission system enhancements.” *Id.* P 584.

¹³ The Commission established the Order No. 2003 crediting policy as “a financing mechanism that is designed to facilitate the construction of the Network

5. The Commission allowed RTOs and ISOs flexibility to propose alternative interconnection pricing mechanisms in lieu of adopting the Order No. 2003 default pricing policy, subject to Commission approval.¹⁴ Specifically, as an independent transmission provider, an RTO/ISO could propose to directly assign network upgrade costs to the interconnection customer, in addition to charging the interconnection customer the rolled-in transmission rate (i.e., “and” pricing), where well-defined rights to capacity made available by such network upgrades are provided to the interconnection customer.¹⁵ This network upgrade cost allocation approach is referred to herein as participant funding. In describing its reasoning for allowing participant funding in only

Upgrades.” *Id.* P 582.

¹⁴ Order No. 2003, 104 FERC ¶ 61,103 at P 698. Under the Order No. 2003 default pricing policy as applied in non-RTO/ISO regions, the transmission owner reimburses the interconnection customer’s network upgrade costs (unless it finances the network upgrades upfront) and rolls the costs of the network upgrades into its transmission rates, but receives revenues through transmission service charges for transmitting the output of all interconnecting generators, whether the transmission service is taken by the generator owner (e.g., point-to-point transmission service taken to export the output of the generator to sell off-system) or taken by a load-serving entity that is purchasing the output of the generator (e.g., network transmission service taken by a load-serving entity to provide for delivery of the output of all the generation that the load-serving entity uses to serve its load). However, in RTO/ISO regions, with the elimination of rate pancaking and the use of license plate zonal rate design, the transmission owner does not receive the transmission service charge revenues associated with transmitting the output of generators interconnected to the transmission owner’s system unless the generators are serving load in the transmission owner’s zone. Applying the Order No. 2003 default pricing policy under these circumstances in RTOs/ISOs presents cost allocation challenges and potential inequities, where load in a transmission owner’s pricing zone ends up bearing responsibility for the entire cost of network upgrades associated with generators interconnected in the zone that are selling their output to serve loads outside of the zone. *See Midwest Indep. Transmission Sys. Operator, Inc.*, 129 FERC ¶ 61,060, at P 7 (2009), *order on reh’g, clarification, & compliance*, 154 FERC ¶ 61,073 (2016); *Interstate Power & Light Co. v. ITC Midwest, LLC*, 144 FERC ¶ 61,052, at P 40 (2013), *order on reh’g, clarification, & compliance*, 146 FERC ¶ 61,113 (2014).

¹⁵ Order No. 2003, 104 FERC ¶ 61,103 at PP 699-700. There is no requirement that such well-defined rights must provide a dollar-for-dollar reimbursement, and the interconnection customer need not receive such rights where the network upgrades make no such capacity available. *Old Dominion Elec. Coop. v. PJM Interconnection, L.L.C.*, 119 FERC ¶ 61,052, at P 18 (2007).

RTO/ISO regions, the Commission clarified that it remained “concerned that, when the Transmission Provider is not independent and has an interest in frustrating rival generators, the implementation of participant funding, including the ‘but for’ pricing approach, creates opportunities for undue discrimination.”¹⁶ The Commission further explained that “a number of aspects of the ‘but for’ approach are subjective, and a Transmission Provider that is not an independent entity has the ability and the incentive to exploit this subjectivity to its own advantage.”¹⁷

6. In this background section, we discuss interconnection-related network upgrade cost responsibility in the Responding RTO/ISOs; first, in MISO, and then, in PJM, SPP, and ISO-NE. Finally in this section, we mention related proceedings in New York Independent System Operator, Inc. (NYISO).

B. Interconnection-Related Network Upgrade Cost Responsibility in MISO¹⁸

7. In October 2009, the Commission accepted certain revisions to MISO’s Open Access Transmission, Energy and Operating Reserve Markets Tariff (MISO’s OATT) for interconnection-related network upgrade cost responsibility in MISO.¹⁹ These provisions established participant funding for (i.e., directly assigned to the interconnection customer) 90% of the cost for network upgrades with a voltage of 345 kilovolt (kV) and above and 100% of the cost for network upgrades with a voltage below 345 kV.²⁰

¹⁶ Order No. 2003, 104 FERC ¶ 61,103 at P 696.

¹⁷ *Id.* (explaining that “such a Transmission Provider has an incentive to find that a disproportionate share of the costs of expansions needed to serve its own power customers is attributable to competing Interconnection Customers.”).

¹⁸ Section I.D of this order includes the discussion of interconnection-related network upgrade cost responsibility in PJM, SPP, and ISO-NE.

¹⁹ *Midwest Indep. Transmission Sys. Operator, Inc.*, 129 FERC ¶ 61,060, at P 1 (2009).

²⁰ *Id.* P 8. MISO’s previous participant funding policy directly assigned 50% of the costs of network upgrades to the interconnection customer. *Midwest Indep. Transmission Sys. Operator, Inc.*, 114 FERC ¶ 61,106, *order on reh’g*, 117 FERC ¶ 61,241 (2006), *order on reh’g*, 118 FERC ¶ 61,208 (2007), *reh’g denied*, 118 FERC ¶ 61,208 (2015), *pet. for review denied*, *Pub. Service Comm’n of Wis. v. FERC*, 545 F.3d 1058 (2008). Prior to 2006, MISO used the Order No. 2003 default pricing policy and therefore did not use participant funding for any portion of the costs of the network upgrades.

MISO's OATT includes two financing options for participant-funded network upgrades (which are Generator Upfront Funding and TO Initial Funding, described below).²¹ MISO's OATT previously provided one other financing option for participant-funded network upgrades, namely Option 1 Funding, described below, which has been eliminated from MISO's OATT.

1. Customer Funds Option (Generator Upfront Funding)

8. Under this option, the interconnection customer posts security based on the estimated cost to construct the network upgrades, then advances funds to the transmission owner for the costs of constructing the network upgrades as those costs are incurred by the transmission owner and billed to the interconnection customer (at various milestones throughout the network upgrade construction process).²² As the interconnection customer advances these funds, the transmission owner reduces the interconnection customer's security requirement to the level of the remaining estimated cost, and the transmission owner retains the advanced funds and assesses no further charges to the interconnection customer (i.e., the interconnection customer is not charged for operation and maintenance expense (O&M), property taxes, and overhead costs associated with the network upgrades).

2. Customer Funds, Transmission Owner Repays Customer, and Customer Pays Network Upgrade Charge (Option 1 Funding)

9. Under this option, (known as "Option 1 Funding" based on MISO's OATT label for this option), the transmission owner could elect to require the interconnection customer to upfront fund the network upgrades, but the transmission owner would repay these costs on the generating facility's commercial operation date, without interest, and then subject the interconnection customer to a network upgrade charge that provided the transmission owner a return of and on the transmission owner's costs for the network upgrades, along with recovery of ongoing costs associated with the network upgrades. Specifically, the network upgrade charge provided for the return *of* the cost of the network upgrade (depreciation) and the transmission owner's return *on* the undepreciated balance of the network upgrade costs including an income tax allowance, as well as recovery of O&M, property taxes, and overhead costs.²³ The Commission accepted

²¹ Financing and funding are used interchangeably in this order to describe which entity is providing the upfront money for network upgrades.

²² MISO, FERC Electric Tariff, attach. X, app. 6 (98.0.0), §§ 11.5-11.6, app. B.

²³ *Midwest Indep. Transmission Sys. Operator, Inc.*, 114 FERC ¶ 61,106.

Option 1 Funding without comment as part of a larger FPA section 205²⁴ proceeding that instituted participant funding for network upgrades, as well regional cost sharing for other types of transmission facilities, in MISO.²⁵

10. In an order on a complaint filed by multiple generation developers, the Commission eliminated the availability of Option 1 Funding for generator interconnection-related agreements beginning on March 22, 2011.²⁶ The Commission held that it was unjust and unreasonable to require the interconnection customer to bear the burden of funding the network upgrades upfront but then be repaid and subjected to a monthly network upgrade charge reflecting the transmission owner's capital costs and income tax allowance, which, according to the Commission, would unreasonably increase the interconnection customer's costs solely at the transmission owner's discretion.²⁷ The Commission found that the election of Option 1 Funding by a transmission owner would increase costs that are directly assigned to the interconnection customer, without any difference in the provision of interconnection service.²⁸ In addition, the Commission concluded that the availability of Option 1 Funding created opportunities for undue discrimination by affording a transmission owner the discretion to increase the costs of interconnection service by assigning both increased capital costs, as well as non-capital costs (including O&M, property taxes, and overhead costs), to particular interconnecting generators, but not others.²⁹ In the order, the Commission also explicitly stated that Generator Upfront Funding was just and reasonable.³⁰

3. Transmission Owner Funds and Customer Pays Network Upgrade Charge (TO Initial Funding)

11. Under the TO Initial Funding option, the interconnection customer posts security on the estimated network upgrade capital costs through a letter of credit or another form

²⁴ 16 U.S.C. § 824d.

²⁵ *Midwest Indep. Transmission Sys. Operator, Inc.*, 114 FERC ¶ 61,106.

²⁶ *E.ON Climate & Renewables N. Am., LLC v. Midwest Indep. Transmission Sys. Operator, Inc.*, 137 FERC ¶ 61,076, at PP 36-43 (2011) (*E.ON*), *reh'g denied*, 142 FERC ¶ 61,048 (2013), *reh'g denied*, 151 FERC ¶ 61,264 (2015).

²⁷ *E.ON*, 137 FERC ¶ 61,076 at P 37.

²⁸ *Id.*

²⁹ *Id.* P 38.

³⁰ *Id.* P 40.

of security acceptable to the transmission owner prior to construction.³¹ Next, the transmission owner initially funds the network upgrade capital costs and subsequently recovers the network upgrade capital costs through charges that provide a return of and on these network upgrade capital costs over the expected life of the network upgrades through a monthly or annual network upgrade charge billed directly to the interconnection customer after the network upgrade enters commercial operation. The transmission owner reduces the security requirement as the transmission owner recovers the return of plant investment from the interconnection customer through the network upgrade charge in MISO's *pro forma* Facilities Service Agreement (FSA).³²

12. Article 11.3 of the MISO *pro forma* generator interconnection agreement (GIA) allows the transmission owner to unilaterally elect to provide the upfront funding for the capital cost of the network upgrades, stating that:

As required by Section 7.3.2.1 and 7.3.3.1 of Attachment X, transmission owners shall have provided the transmission provider with written notice if the transmission owner elects to fund the capital for the network upgrades and transmission owner's system protection facilities; otherwise, such facilities, if any, shall be solely funded by the interconnection customer.³³

13. In *Hoopeston*,³⁴ the Commission first evaluated a MISO GIA where a transmission owner exercised its right under Article 11.3 to initially fund network upgrades whose costs were directly assigned to the interconnection customer. In that

³¹ For the eTariff citations for unilateral TO Initial Funding in MISO's OATT, see Appendix B.

³² *Midcontinent Indep. Sys. Operator, Inc.*, 171 FERC ¶ 61,075, at P 32, *order on reh'g*, 173 FERC ¶ 61,037, at PP 20-23 (2020), *pet. for review denied*, *Am. Clean Power Ass'n v. FERC*, 2022 WL 880494 (2022). MISO's OATT contains a *pro forma* FSA, which includes standardized terms and conditions to implement the recovery of network upgrade capital costs financed through unilateral TO Initial Funding.

³³ *Midcontinent Indep. Sys. Operator, Inc.*, Docket No. ER20-2632-000 (Oct. 1, 2020) (delegated order). MISO, FERC Electric Tariff, attach. X, app. 6 (98.0.0), art. 11.3. Article 11.3 of the MISO *pro forma* GIA also includes a notice requirement that is absent from the Order No. 2003 *pro forma* LG.

³⁴ *Midcontinent Indep. Sys. Operator, Inc.*, 145 FERC ¶ 61,111 (2013) (*Hoopeston*), *order on reh'g*, 149 FERC ¶ 61,099 (2014), *order on reh'g*, 154 FERC ¶ 61,101 (2016).

proceeding, MISO, on behalf of a transmission owner, filed an unexecuted GIA where the transmission owner had proposed a network upgrade charge to recover not only the cost of capital of the network upgrades, but also O&M, property taxes, and overhead costs through the network upgrade charge. The Commission found that it was just and reasonable and not unduly discriminatory for the transmission owner to elect to initially fund the network upgrades and then recover the return of capital costs for network upgrades from the interconnection customer through a network upgrade charge.³⁵

14. However, consistent with its findings in *E.ON*, the Commission in *Hoopeston* found that it was unduly discriminatory for a transmission owner electing to initially fund network upgrades to recover from an interconnection customer costs *other than* the return of the cost of the network upgrade (depreciation) and the return on the undepreciated balance of the network upgrade costs because an interconnection customer charged under the Generator Upfront Funding option would be required to pay only for the capital costs of the network upgrades.³⁶ Therefore, the Commission in *Hoopeston* directed MISO to revise the GIA so that the network upgrade charge would *exclude* other costs, such as O&M, property taxes, and overhead costs that the transmission owner had proposed to include in the network upgrade charge.

C. Recent Case History of TO Initial Funding in MISO

1. Introduction

15. In 2014, MISO filed an unexecuted, nonconforming Facilities Construction Agreement (FCA)³⁷ between Border Winds Energy, LLC (Border Winds), as

³⁵ *Hoopeston*, 145 FERC ¶ 61,111 at P 41.

³⁶ *Id.*

³⁷ MISO has three standard agreements governing three different types of interconnections. First, the *pro forma* GIA governs network upgrades on the transmission owner's system to which the interconnection customer's generating facility "directly" connects and for which the interconnection customer is solely cost-responsible. *See, e.g., Midcontinent Indep. Sys. Operator, Inc.*, 151 FERC ¶ 61,220, at P 3 (2015) (*Otter Tail*). Second, the *pro forma* FCA governs network upgrades on "affected systems"—those network upgrades on a neighboring transmission owner's system to which the interconnection customer's generating facility is not directly connected and for which the interconnection customer is solely cost-responsible. *Id.* P 9. Third, the *pro forma* Multi-Party Facilities Construction Agreement (MPFCA) is used "when multiple interconnection requests" require "construction of common network upgrades," and for which the implicated interconnection customers share cost-responsibility. *Id.*

interconnection customer, and Otter Tail Power Company (Otter Tail), as affected system operator.³⁸ Border Winds disputed the inclusion, at Otter Tail's request, of nonconforming provisions that would have allowed Otter Tail the unilateral right to elect TO Initial Funding. The Commission rejected Otter Tail's requested nonconforming provisions, finding that Otter Tail did not assert any specific reliability concerns, novel legal issues, or other unique factors to justify the proposed non-conforming provisions in the Border Winds FCA.³⁹ In response, Otter Tail filed a complaint alleging that the *pro forma* FCA was unduly discriminatory. Otter Tail asked the Commission to revise the *pro forma* FCA to allow affected system operators to unilaterally elect TO Initial Funding for network upgrades, a right provided at that time only to directly connected transmission owners under MISO's *pro forma* GIA.⁴⁰

16. The Commission granted Otter Tail's complaint, in part, finding that the same funding options should be available to all interconnection customers. The Commission denied, however, Otter Tail's preferred remedy. Instead, the Commission found that interconnection customers—not transmission owners—should be allowed to select the financing mechanism. Thus, the Commission determined that MISO's *pro forma* GIA may be unjust, unreasonable, and unduly discriminatory because it allows transmission owners to unilaterally elect TO Initial Funding and subsequently recover a return of and on the capital costs of the network upgrades from the interconnection customer, and that allowing this unilateral election may increase costs to interconnection customers without an increase in service.⁴¹ In support, the Commission held that the unilateral election of TO Initial Funding “may deprive the interconnection customer of other options to finance the cost of the network upgrades that provide more favorable terms and rates,”⁴² and also

³⁸ An affected system operator is the entity that operates an electric transmission or distribution system, or the electric system associated with an existing generating facility or of a higher-queued generating facility, which is an electric system other than the transmission owner's transmission system that is affected by the interconnection request. See MISO, FERC Electric Tariff, attach. X, § 1.

³⁹ *Midcontinent Indep. Sys. Operator, Inc.*, 149 FERC ¶ 61,224, at P 25 (2014) (*Border Winds*).

⁴⁰ *Otter Tail*, 151 FERC ¶ 61,220 at P 28.

⁴¹ *Id.* PP 2, 47-48. The Commission also denied Otter Tail's request for rehearing of *Border Winds*, in which the Commission conditionally accepted the Border Winds agreement. *Id.* P 22. See also *Otter Tail Power Co. v. Midcontinent Indep. Sys. Operator, Inc.*, 153 FERC ¶ 61,352, at P 29 (2015) (December 2015 Rehearing Order).

⁴² *Otter Tail*, 151 FERC ¶ 61,220 at P 48.

subjects the interconnection customer to a more onerous security requirement.⁴³ Further, the Commission argued that this practice could result in discriminatory treatment by the transmission owner of different interconnection customers by, for example, showing preferential treatment to affiliated interconnection customers.⁴⁴

17. Acting under FPA section 206, and after allowing for additional briefing, the Commission directed MISO to revise its *pro forma* GIA to remove transmission owners' ability to unilaterally elect TO Initial Funding and to revise its *pro forma* GIA to permit election of TO Initial Funding only upon mutual agreement of the interconnection customer and transmission owner.⁴⁵ The Commission also required that MISO make the corresponding revision to its *pro forma* FCA and *pro forma* MPFCA.⁴⁶ In response to transmission owner concerns that this change improperly imposed costs on transmission owners, the Commission found that "to the extent there are concerns about the impact of certain costs on particular transmission owners and their customers, MISO may file a proposal under section 205 of the FPA to address such concerns."⁴⁷

2. *Ameren Services Co. v. FERC*

18. Ameren Services Co. (Ameren) and other MISO transmission owners sought judicial review of *Otter Tail* and *Border Winds* (collectively, the Interconnection Funding Orders). On January 26, 2018, the U.S. Court of Appeals for the D.C. Circuit (D.C. Circuit) vacated and remanded the Interconnection Funding Orders concerning MISO's interconnection financing procedures.⁴⁸

19. On review of the Interconnection Funding Orders, the D.C. Circuit found that the Commission did not: (1) provide adequate support for its finding that allowing transmission owners their choice of financing mechanism results in undue discrimination or unjust and unreasonable rates, or (2) respond to transmission owners' concerns that denying them the opportunity to earn a return, even where they do not pay capital costs,

⁴³ *Id.* P 49.

⁴⁴ *Id.* P 48.

⁴⁵ December 2015 Rehearing Order, 153 FERC ¶ 61,352 at PP 29-35, 55-61, 65.

⁴⁶ *Id.* P 65.

⁴⁷ *Id.* PP 57, 59.

⁴⁸ *Ameren Services Co. v. FERC*, 880 F.3d 571, 585 (2018) (*Ameren*).

leaves them with uncompensated risks and requires them to operate, at least in part, on a non-profit basis.⁴⁹

20. On the issue of undue discrimination, the D.C. Circuit agreed with the Commission that: (1) transmission owners with generation interests have an incentive to discriminate; and (2) generators have an incentive to pursue lower interconnection costs, while transmission owners do not.⁵⁰ But the D.C. Circuit stated that only one of the petitioning transmission owners, Ameren, owned generation, and the Commission's directive was not limited to Ameren.⁵¹ The D.C. Circuit thought it adequate that interconnection customers could challenge unjust and unreasonable costs before the Commission, and ultimately found that interconnection customers' incentive to find lowest cost funding solutions—a “simple economic truth”—was an inadequate reason to impose potentially uncompensated risks on transmission owners.⁵²

21. The D.C. Circuit also questioned the Commission's finding that allowing transmission owners to unilaterally select the financing mechanism could result in higher, unjust and unreasonable rates to interconnection customers. Although the Commission noted that a more onerous security requirement applied under TO Initial Funding, the Court held that it “[could not] imagine that the generator wouldn't have to provide the same kind of security” to a third-party financing source.⁵³

22. The D.C. Circuit then turned to transmission owners' claim that, under involuntary Generator Upfront Funding, “transmission owners will be forced to assume certain costs that are never compensated.”⁵⁴ The D.C. Circuit credited transmission owners' description of potential uncompensated risks, while noting that such concerns were described necessarily “in hypothetical terms.”⁵⁵ But the D.C. Circuit held that the Commission made “no real attempt to holistically assess all of the various risks and

⁴⁹ *Id.* at 573.

⁵⁰ *Id.* at 579.

⁵¹ *Id.* at 578.

⁵² *Id.* at 579.

⁵³ *Id.*

⁵⁴ *Id.* at 580.

⁵⁵ *Id.* at 580 n.14.

benefits caused by the addition of the upgrade facilities.”⁵⁶ Moreover, the D.C. Circuit rejected the Commission’s suggestion that transmission owners could file for recovery of any uncompensated risk—with adequate evidentiary support—in a future rate filing pursuant to FPA section 205, reasoning that the Commission would necessarily reject such a filing.⁵⁷ The D.C. Circuit instructed the Commission to explain on remand “whether all risks are truly ‘baked in’” to the transmission owners’ existing compensation structure.⁵⁸

23. Further, the D.C. Circuit stated that the Commission inadequately responded to transmission owners’ concerns that the Commission’s “orders require them to act, at least in part, as a non-profit business.”⁵⁹ It stated that, although the Commission “stresse[d] that capital costs are ultimately borne by the generator,” this analysis did not satisfy *FPC v. Hope Natural Gas Co.*⁶⁰ According to the D.C. Circuit, *Hope* required greater attention to the forward-looking capital attraction standard,⁶¹ including whether adverse impacts on the profitability of one part of a utility’s business adversely impacted the “entire enterprise.”⁶²

24. The D.C. Circuit took the additional step of vacating the Commission’s orders because the Court believed it was “at least uncertain that [the Commission could] reach the same result after addressing the deficiencies identified in th[e] opinion,” noting that the potential-discrimination justification for the orders seemed “especially weak.”⁶³ The Court also explained that vacatur was appropriate to avoid the situation of projects commencing in the interim “under a tariff of questionable legality.”⁶⁴

⁵⁶ *Id.* at 580.

⁵⁷ *Id.* at 582-83.

⁵⁸ *Id.* at 582.

⁵⁹ *Id.* at 581.

⁶⁰ 320 U.S. 591 (1944) (*Hope*).

⁶¹ *Ameren*, 880 F.3d at 582.

⁶² *Id.*; see also *id.* at 581-82 (expressing concern that the Commission’s position could allow the nonprofit aspect of a utility’s business to grow unchecked).

⁶³ *Id.* at 585.

⁶⁴ *Id.*

3. Orders on Remand

a. 2018 Remand Order

25. In response to *Ameren*, the Commission declined requests by parties to establish a paper hearing to conduct further fact finding and instead reversed the Commission's earlier findings that: (1) Article 11.3 of MISO's *pro forma* GIA was unjust, unreasonable, and unduly discriminatory or preferential in light of the opportunities for undue discrimination and for increasing costs where there was no increase in service; and (2) it was potentially unjust, unreasonable and unduly discriminatory to deprive the interconnection customer of the ability to provide its own capital funding.⁶⁵ The Commission concluded that it erred when it failed to: (1) adequately address transmission owners' contention that the Commission's vacated orders would force them to construct and operate network upgrades financed through Generator Upfront Funding (Generator Upfront Funded network upgrades) on a non-profit basis; (2) adequately address transmission owners' concerns that their investors would be forced to accept risk-bearing additions to their network with zero return; (3) offer sufficient evidence or economic theory to support the Commission's finding of discrimination by transmission owners among their customers; and (4) address the effect of the Commission's orders on the ability of transmission businesses to attract future capital. The Commission found that "there is not enough evidence in the record to overcome the transmission owners' arguments that: (1) they have at least some uncompensated risks associated with Generator Upfront Funded [network] upgrades; and (2) transmission owners should not be required to accept the potential increased reliability and litigation risk that Generator Upfront Funded network upgrades may pose to their systems with no return."⁶⁶ The Commission also found that its earlier orders did not "provide an adequate explanation in dismissing transmission owners' arguments that the Commission's orders required them to act in part as non-profit businesses by modifying their entire enterprises, thereby creating a risk that future capital investment [would] be deterred."⁶⁷

26. The Commission directed MISO to file tariff sheets to be effective from the date of the order that: (1) restored the right of the transmission owner to unilaterally elect the TO Initial Funding option for the capital cost of the network upgrades under Article 11.3 of the *pro forma* GIA; and (2) allowed affected system operators under the *pro forma* FCA and affected system operators or transmission owners under the *pro forma* MPFCA

⁶⁵ *Midcontinent Indep. Sys. Operator, Inc.*, 164 FERC ¶ 61,158, at P 28 (2018) (2018 Remand Order).

⁶⁶ *Id.* P 31.

⁶⁷ *Id.* P 32.

to unilaterally elect the TO Initial Funding option for the capital cost of network upgrades.⁶⁸

b. 2019 Remand Order and 2020 Rehearing Order

27. On December 20, 2019, the Commission denied American Wind Energy Association's request for rehearing of the 2018 Remand Order and accepted MISO's 2018 Remand Order compliance filing.⁶⁹ On rehearing and compliance, the Commission affirmed its prior determinations.⁷⁰

4. American Clean Power Ass'n v. FERC

28. The American Clean Power Association petitioned the D.C. Circuit for review of the 2018 Remand Order, the 2019 Remand Order, and the 2020 Rehearing Order, arguing that the Commission failed to follow *Ameren*'s directive to "develop a record" and arbitrarily and capriciously permitted transmission owners to have the unilateral authority to fund network upgrades.⁷¹

29. On December 2, 2022, the D.C. Circuit found that, while the Commission did "develop a record" by considering the transmission owners' enterprise-risk argument on remand, it did not adequately explain its decision to require "universal, unilateral transmission owner funding authority in the MISO region."⁷² The D.C. Circuit further stated that the Commission "gave short shrift to the Petitioner's concern that transmission owners might discriminate in favor of generators they own."⁷³ The D.C. Circuit went on to say that, in the appealed orders, the Commission conceded that many MISO transmission owners have affiliated generation but still concluded that generators'

⁶⁸ *Id.* PP 33-34.

⁶⁹ *Midcontinent Indep. Sys. Operator, Inc.*, 169 FERC ¶ 61,233 (2019) (2019 Remand Order).

⁷⁰ *Midcontinent Indep. Sys. Operator, Inc.*, 172 FERC ¶ 61,248 (2020) (2020 Rehearing Order).

⁷¹ *Am. Clean Power Ass'n v. FERC*, 54 F.4th 722, 725 (2022) (*American Clean Power*). Petitioners also argued that the Commission incorrectly made its decision retroactive, but the Court determined that it did not have jurisdiction to consider this argument because Petitioners failed to raise the issue on rehearing. *Id.*

⁷² *Id.* at 725-28.

⁷³ *Id.* at 726.

concerns about potential discrimination in favor of transmission owners' affiliates did not outweigh the transmission owners' enterprise-risk concerns, given that generators have the ability to challenge costs before the Commission.⁷⁴ The D.C. Circuit determined that the Commission failed to provide "an assessment of the risk of discrimination and an explanation of why individualized proceedings provide generators with sufficient protection against that risk."⁷⁵

30. The D.C. Circuit further stated that "*Ameren* emphasized that 'if transmission owners still owned integrated generation facilities, that would present a competitive motive' to discriminate in favor of their own facilities[,]" and that the petitioner presented evidence to the Commission that, contrary to the facts before the *Ameren* Court, a majority of MISO transmission owners own generators, and putting those pieces together, the petitioner showed that many transmission owners have an incentive to discriminate in favor of their own generators.⁷⁶ The D.C. Circuit held that the petitioner's evidence, coupled with *Ameren*'s observation about the potential for discrimination, showed that restoring and extending unilateral TO Initial Funding posed a discrimination risk, and the Commission was obligated to respond to that evidence.⁷⁷

31. Additionally, the D.C. Circuit pointed to a claim made at oral argument by intervenors supporting the Commission that:

any concerns about discrimination are largely alleviated by the regulatory regime in place since 1996. That regime uses transparency to reduce the risk that transmission owners will provide preferential treatment to the generators they own. For example, transmission owners use publicly available pro forma contracts to build power-line upgrades with generators,

⁷⁴ *Id.* at 727.

⁷⁵ *Id.*

⁷⁶ *Id.* at 728 (citing *Ameren*, 880 F.3d at 578).

⁷⁷ *Id.* The Court added that, although the two types of transmission owners at issue in the proceeding (direct transmission owners and indirect transmission owners (i.e., affected system operators)) are similarly situated whereby applying the unilateral funding rate to both types of owners may arguably avoid disparate treatment, such an argument does not cure the Commission's lack of explanation. The Court stated that by "deciding that the rates could not be applied to just one set of transmission owners, [the Commission] took action which required explanation" and that the Commission "was required to reconcile this decision with the substantial evidence showing that unilateral funding was potentially discriminatory" *Id.*

and they charge rates of return regulated by FERC.⁷⁸

The D.C. Circuit stated that, while this claim may explain the lack of evidence of discrimination when *Ameren* was decided, the Commission's appealed orders did not include this reasoning.⁷⁹ Consequently, the D.C. Circuit remanded the appealed decisions to give the Commission an opportunity to explain its decision.⁸⁰ The *American Clean Power* remand proceeding is pending before the Commission.

5. MISO Proposal to Expand TO Initial Funding

32. On April 29, 2022, the Commission rejected a proposal from MISO to allow transmission owners to use TO Initial Funding for network upgrades, necessary upgrades, and transmission owner system protection facilities identified through MISO's merchant high voltage direct current (MHVDC) connection procedures.⁸¹ Although recognizing that MISO's OATT already allowed for the use of TO Initial Funding for certain MHVDC-related *network* upgrades, the Commission found that MISO failed to demonstrate that its proposal to extend TO Initial Funding to *necessary* upgrades was just and reasonable and not unduly discriminatory or preferential, finding deficiencies in MISO's argument that network upgrades and necessary upgrades were functionally identical.⁸² The Commission also found that MISO failed to provide evidence of uncompensated risks and costs to justify the TO Initial Funding, which would be

⁷⁸ *Id.* at 727.

⁷⁹ *Id.*

⁸⁰ *Id.* at 728-29.

⁸¹ *Midcontinent Indep. Sys. Operator, Inc.*, 179 FERC ¶ 61,074, *order on reh'g*, 181 FERC ¶ 61,218 (2022). Under MISO's OATT, MHVDC-related network upgrades are defined as the additions, modifications, and upgrades to the transmission system required at or beyond the point at which the connection facilities connect to the transmission system to accommodate the interconnection of the MHVDC transmission line to the transmission system and to provide any injection rights. In comparison, MHVDC-related necessary upgrades are defined as the additions, modifications, and upgrades to the facilities owned by transmission owner required at or beyond the point at which the connection facilities connect to the transmission system to accommodate the interconnection of the MHVDC transmission line to the transmission system. MISO, FERC Electric Tariff, attach. GGG § 1.

⁸² *Midcontinent Indep. Sys. Operator, Inc.*, 179 FERC ¶ 61,074 at PP 97-101, 106.

necessary to support MISO's proposal.⁸³ The Commission's orders are on appeal at the D.C. Circuit.⁸⁴ The proceeding continues to be held in abeyance at the request of the petitioners, pending the outcome of the *American Clean Power* remand, discussed above.

D. Interconnection-Related Network Upgrade Cost Responsibility in PJM, SPP, and ISO-NE

33. As discussed below, similar to MISO's OATT, PJM, SPP, and ISO-NE's OATTs include participant funding and two options for financing participant-funded network upgrades, which are Generator Upfront Funding and TO Initial Funding.

1. PJM

34. On June 30, 2021, under FPA section 205, PJM filed, on behalf of PJM Transmission Owners (PJM TO), revisions to the PJM Open Access Transmission Tariff (PJM's OATT) to establish TO Initial Funding rights through which PJM TOs may unilaterally elect to fund and earn a return of and on the capital cost of network upgrades required for a generator interconnection, in lieu of Generator Upfront Funding.⁸⁵ PJM TOs' filing included: (1) a new section 217.8 to PJM's OATT; and (2) a *pro forma* Network Upgrade Funding Agreement.⁸⁶ To protect transmission owners from non-payment by interconnection customers, PJM TOs also proposed that the interconnection customer provide security to PJM or to the interconnected transmission owner within the timeframe set forth in a Network Upgrade Funding Agreement, which by default was 20 years unless otherwise agreed to by the parties.⁸⁷

35. PJM TOs explained that a recent and significant increase in generator interconnection requests would increase PJM TOs' risks to own and operate these

⁸³ *Id.* PP 103-104.

⁸⁴ *MISO Transmission Owners v. FERC*, No. 22-1223, et al. (D.C. Cir. filed Aug. 26, 2022).

⁸⁵ *PPL Elec. Utils. Corp.*, 177 FERC ¶ 61,123, at P 1 (2021) (PJM Paper Hearing). For the eTariff citations for unilateral TO Initial Funding in PJM's OATT, *see* Appendix B.

⁸⁶ Therefore, PJM's OATT includes provisions and a *pro forma* agreement with standardized terms and conditions to implement the recovery of network upgrade capital costs financed through TO Initial Funding.

⁸⁷ PJM TOs Transmittal, Docket No. ER21-2282-000, at attach. A, proposed *pro forma* Network Upgrade Funding Agreement, §§ 2, 4.3.

network upgrades, rendering the existing participant funding model unsustainable.⁸⁸ PJM TOs argued that barring a utility from earning a rate of return on part of its assets violated *Hope* and *Bluefield* regulatory principles that a utility must be able to earn a return that is sufficient to attract capital and ensures the utility's financial integrity.⁸⁹ PJM TOs argued that *Ameren* determined that the Commission's removal of the unilateral right of a transmission owner to elect MISO's TO Initial Funding option required transmission owners to accept "incremental exposure to loss with no corresponding benefit" and found that the Commission could not force a transmission owner to operate a portion of its business on a non-profit basis.⁹⁰

36. In its comments, PJM stated that TO Initial Funding raised the potential for undue discrimination or preference among interconnection customers.⁹¹ PJM also stated that any advantages associated with PJM TOs' lower cost of capital in financing network upgrades could be lost if the interconnection customer is required to maintain a letter of credit for the full cost of the project post construction.⁹² Other protestors challenged several aspects of the filing, alleging that: (1) PJM TOs did not provide sufficient evidence that there were uncompensated risks to owning, operating, and maintaining network upgrades; (2) PJM TOs may already be compensated for any such risks through the return on equity (ROE) in their transmission rates; (3) TO Initial Funding would increase overall costs to interconnection customers, and consumers would be at an increased risk for costs of defaulting interconnection customers; (4) TO Initial Funding would allow PJM TOs to unilaterally increase the interconnection cost of a competitor's generation; (5) the *Hope* and *Bluefield* decisions neither specified how much capital a utility must be able to attract nor mandated the ability of a utility to collect a return on every single piece of equipment; and (6) neither *Ameren* nor any subsequent Commission order required TO Initial Funding in regions where the RTO/ISO had adopted some form of participant funding.⁹³

⁸⁸ PJM TOs Transmittal, Docket No. ER21-2282-000, at 3 (filed June 30, 2021).

⁸⁹ *Id.* at 3, 16 (citing *Hope*, 320 U.S. 591; *Bluefield Waterworks & Improvement Co. v. Pub. Serv. Comm'n of W. Va.*, 262 U.S. 679 (1923) (*Bluefield*)).

⁹⁰ *Id.* at 3 (citing *Ameren*, 880 F.3d 571 at 580-82).

⁹¹ PJM Comments, Docket No. ER21-2282-000, at 3-5 (filed July 28, 2021).

⁹² *Id.* at 8-9.

⁹³ See EPSA Comments, Docket No. ER21-2282-000, at 4 (filed Aug. 12, 2021); Invenergy Renewables LLC Protest, Docket No. ER21-2282-000, at 7-9, 14-16 (filed July 28, 2021); J-POWER USA Development Co., Ltd. Protest, Docket No. ER21-2282-

37. On November 19, 2021, the Commission issued an order accepting and suspending the filing for five months, to become effective February 1, 2022, subject to refund and the outcome of paper hearing procedures.⁹⁴ The Commission established paper hearing procedures to develop a further record concerning the following issues: (1) risks posed by network upgrades; (2) proper compensation for those risks and whether those risks are already compensated through the Commission-approved ROE in transmission rates; (3) PJM TOs' ability to attract capital; (4) undue discrimination among interconnection customers; (5) unjust increases to rate base using network upgrade capital costs; and (6) security requirements (PJM Paper Hearing).⁹⁵ The PJM Paper Hearing proceeding is pending before the Commission.

000, at 3-4, 7 (filed July 28, 2021); Joint Protestors Protest, Docket No. ER21-2282-000, at 1, 12-15, 19-28, 30-39 (filed July 28, 2021); Joint Consumer Advocates Protest, Docket No. ER21-2282-000, at 3-6 (filed July 28, 2021); Market Monitor Protest, Docket No. ER21-2282-000, at 3-5 (filed July 28, 2021); Office of the Ohio Consumers' Counsel Letter, Docket No. ER21-2282-000, at 2-3 (filed Aug. 18, 2021); OPSI Protest, Docket No. ER21-2282-000, at 5-14 (filed July 28, 2021); PJM Industrial Customer Coalition Comments, Docket No. ER21-2282-000, at 6-7, (filed July 28, 2021); Public Citizen, Inc. Protest, Docket No. ER21-2282-000, at 2 (filed July 28, 2021); Savion, LLC Comments, Docket No. ER21-2282-000, at 8-14 (filed July 28, 2021); SEIA Comments, Docket No. ER21-2282-000, at 9-17 (filed July 28, 2021); Shell Energy North America (US), L.P. Comments, Docket No. ER21-2282-000 at 3-6 (filed July 28, 2021). *See* Appendix C of this order for the abbreviated and full names of commenters and protestors cited in this order.

⁹⁴ PJM Paper Hearing, 177 FERC ¶ 61,123 at PP 2, 24, 57. Also, on December 20, 2022, the Commission accepted and suspended certain ministerial conforming tariff revisions related to those being considered in the PJM Paper Hearing procedures, to become effective January 3, 2023 and December 31, 9998, as requested, subject to refund and the outcome of the PJM Paper Hearing procedures, and consolidated that proceeding with the ongoing PJM Paper Hearing procedures. *PPL Elec. Util. Corp.*, 181 FERC ¶ 61,245 (2022). On April 4, 2024, the Commission accepted and suspended additional ministerial conforming tariff revisions changing the December 31, 9998 effective date to October 5, 2023, subject to refund and the outcome of the PJM Paper Hearing procedures, and consolidated that proceeding with the ongoing PJM Paper Hearing procedures. *PPL Elec. Util. Corp.*, 187 FERC ¶ 61,010 (2024).

⁹⁵ PJM Paper Hearing, 177 FERC ¶ 61,123 at PP 57, 59.

2. SPP

38. SPP's Open Access Transmission Tariff (SPP's OATT) includes participant funding for 100% of the costs of network upgrades needed to accommodate an interconnection customer's interconnection request and, in Article 11.4 in SPP's *pro forma* GIA, provides two options for financing the costs of network upgrades for generator interconnection: Generator Upfront Funding⁹⁶ or TO Initial Funding.⁹⁷

39. On April 14, 2023, the Commission rejected a proposal by SPP to add a *pro forma* FSA and associated OATT revisions to implement the rates, terms, and conditions when a transmission owner elects TO Initial Funding.⁹⁸ The Commission found that SPP had not demonstrated that the requirements that a transmission owner include a non-binding indication of whether it intends to elect the TO Initial Funding at the end of the first phase of SPP's three-phase interconnection study process, and that SPP post on its Open Access Same-time Information System (OASIS) that a transmission owner had made a non-binding election of TO Initial Funding, was just and reasonable and not unduly discriminatory or preferential and would accomplish the purposes of Order No. 2003.⁹⁹ The Commission noted that Order No. 2003 established standard interconnection procedures to, among other things, limit opportunities for transmission providers to favor their own generation and facilitate market entry for generation competitors by reducing interconnection costs and time. The Commission noted that SPP's proposal could lead to greater uncertainty for an interconnection customer because it required only a non-binding indication of whether a transmission owner intends to elect TO Initial Funding at the beginning of the interconnection study process, and, then, gave the transmission owner the ability reverse course about whether to elect TO Initial Funding at the end of

⁹⁶ SPP, Open Access Transmission Tariff, attach. V, app. 6 (21.2.0), art. 11.4.

⁹⁷ SPP, Open Access Transmission Tariff, attach. V, app. 6, art. 11.4 ("The Distribution Upgrades and Network Upgrades described in Appendix A shall be solely funded by Interconnection Customer unless Transmission Owner elects to fund the capital for the Distribution Upgrades or Network Upgrades."). The Commission accepted this language in 2009. *Sw. Power Pool, Inc.*, 128 FERC ¶ 61,114 (2009). For the eTariff citations for unilateral TO Initial Funding in SPP's OATT, see Appendix B.

⁹⁸ *Sw. Power Pool, Inc.*, 183 FERC ¶ 61,015, at P 105 (2023) (SPP). Therefore, SPP's OATT does not have provisions or a *pro forma* agreement with standardized terms and conditions to implement the recovery of network upgrade capital costs financed through TO Initial Funding.

⁹⁹ *Id.* P 106.

the interconnection study process.¹⁰⁰ The Commission explained that, at the end of the interconnection study process, an interconnection customer would likely have received estimates of its network upgrade costs through three separate studies, and thus a transmission owner's election of TO Initial Funding at that late point could invalidate earlier cost estimates and increase uncertainty for interconnection customers.¹⁰¹

40. To date, few transmission owners have elected TO Initial Funding in SPP. In 2021, the Commission accepted the first FSA in which an SPP transmission owner elected the TO Initial Funding option.¹⁰² In 2022, the Commission accepted two unexecuted GIAs where the transmission owner elected TO Initial Funding; the Commission found that the transmission owner could recover a return on and of the capital costs for network upgrades pursuant to its election of the TO Initial Funding option.¹⁰³ In 2023, the Commission accepted three standalone FSAs to implement transmission owners' election of TO Initial Funding.¹⁰⁴ Notably, similar to MISO's *pro forma* FSA, the stand alone FSAs accepted in SPP contained a security requirement pursuant to which the interconnection customers would reimburse the transmission owners for the capital costs of the network upgrades over a 20-year term.

3. ISO-NE

41. ISO-NE's Transmission, Markets and Services Tariff (ISO-NE's OATT) includes participant funding for 100% of the costs of network upgrades needed to accommodate an interconnection customer's interconnection request and allows a transmission owner to unilaterally elect TO Initial Funding. Specifically, Article 11.3 of ISO-NE's *pro forma* LGIA¹⁰⁵ and Article 5.2 of ISO-NE's *pro forma* Small Generator Interconnection

¹⁰⁰ *Id.* PP 107-108.

¹⁰¹ *Id.* P 108.

¹⁰² *Sw. Power Pool, Inc.*, 177 FERC ¶ 61,053, at P 18 (2021).

¹⁰³ *Sw. Power Pool, Inc.*, 180 FERC ¶ 61,139, at PP 23-24 (2022); *Sw. Power Pool, Inc.*, 181 FERC ¶ 61,096, at PP 27-28 (2022).

¹⁰⁴ *Sw. Power Pool, Inc.*, 183 FERC ¶ 61,026 (2023); *Sw. Power Pool, Inc.*, 183 FERC ¶ 61,092 (2023); *Sw. Power Pool, Inc.*, Docket No. ER24-157-000 (Dec. 12, 2023) (delegated order).

¹⁰⁵ ISO-NE's OATT, Schedule 22, app. 6, art. 11.3 ("Unless the Interconnecting Transmission Owner elects to fund the capital for the Network Upgrades, they shall be solely funded by the Interconnection Customer."). For the eTariff citation for unilateral TO Initial Funding in ISO-NE's OATT, see Appendix B. See also *New England Power Pool*, 109 FERC ¶ 61,155 (2004) (accepting in part and rejecting in part New England

Agreement¹⁰⁶ contain language permitting TO Initial Funding for network upgrades for generating facilities, and Article 11.3 of ISO-NE's *pro forma* Elective Transmission Upgrade Interconnection Agreement contains language permitting TO Initial Funding for network upgrades for merchant transmission facilities.¹⁰⁷ To date, it appears that no transmission owners have elected TO Initial Funding in the ISO-NE region.¹⁰⁸

E. New York Transmission Owners (NYTOs) Proceeding

42. NYISO's Open Access Transmission Tariff (NYISO's OATT) includes participant funding for 100% of the costs of network upgrades needed to accommodate an interconnection customer's interconnection request and does not include an option for transmission owners to unilaterally elect TO Initial Funding. On April 9, 2021, the NYTOs filed an FPA section 206 complaint against NYISO alleging that the funding mechanism for system upgrade facilities and system deliverability upgrades (collectively, System Upgrades) in NYISO's OATT was unjust, unreasonable, and contrary to judicial and Commission precedent because it did not compensate the NYTOs for the risks and costs associated with owning, operating, and maintaining System Upgrades.¹⁰⁹

Power Pool's Order No. 2003 compliance filing).

¹⁰⁶ ISO-NE's OATT, Schedule 23, ex. 1, art. 5.2 ("Unless the Interconnecting Transmission Owner elects to pay for Network Upgrades, the actual cost of the Network Upgrades, including overheads, shall be borne by the Interconnection Customer."). For the eTariff citation for unilateral TO Initial Funding in ISO-NE's OATT, *see* Appendix B.

¹⁰⁷ ISO-NE's OATT, Schedule 25, app. 6, art. 11.3 ("Unless the Interconnecting Transmission Owner elects to fund the capital for the Network Upgrades, they shall be solely funded by the Interconnection Customer."). For the eTariff citation for art. 11.3 for unilateral TO Initial Funding in ISO-NE's OATT, *see* Appendix B. *ISO New England Inc.*, 151 FERC ¶ 61,024 (2015) (accepting ISO-NE's proposed interconnection process for Elective Transmission Upgrades).

¹⁰⁸ Like SPP, ISO-NE's OATT does not have provisions or a *pro forma* agreement with standardized terms and conditions to implement the recovery of network upgrade capital costs financed through TO Initial Funding.

¹⁰⁹ *Central Hudson Gas & Elec. Corp. v. N.Y. Indep. Sys. Operator, Inc.*, 176 FERC ¶ 61,149 (NYTO Complaint Order), *order on reh'g*, 178 FERC ¶ 61,194 (2022) (NYTO Rehearing Order). Additionally, on April 9, 2021, the NYTOs filed under FPA section 205 to amend NYISO's OATT to revise the funding methodology for System Upgrades to include TO Initial Funding. However, the Commission rejected the filing on the procedural grounds that the NYTOs did not have FPA section 205 filing

Accordingly, the NYTOs sought to amend both NYISO's OATT and Market Administration and Control Area Services Tariff to allow the NYTOs to establish TO Initial Funding for the capital costs of System Upgrades caused by generator interconnections and to assess charges on the interconnection customer to recover a return on and of the System Upgrade capital cost.¹¹⁰

43. In the NYTO Complaint Order, the Commission denied the complaint on the basis that the NYTOs failed to meet their burden to demonstrate that the current NYISO funding mechanism for System Upgrades was unjust and unreasonable. The Commission found that the NYTOs did not show that the funding mechanism exposed them to uncompensated risks associated with the System Upgrades or that it impeded their ability to attract capital.¹¹¹ The Commission reasoned that the NYTO's complaint did not establish that transmission owner's rates of return, calculated for the enterprise as a whole, did not consider enterprise-wide risks, including System Upgrades.¹¹² The Commission stated that it "calculates a utility's return on equity based on the risk profile of the enterprise as a whole."¹¹³ The Commission further stated that "[w]hen setting a just and reasonable return on equity for a utility, the Commission will typically construct a proxy group of utilities that were given similar credit risk ratings by a rating agency as the utility being reviewed. . . . As a result, if a utility has its risk profile downgraded then its proxy group will change accordingly and so will the return on equity zone of reasonableness."¹¹⁴ On rehearing, the Commission clarified that "[t]he base ROE in a utility's transmission rate is designed to account for risks faced by an enterprise and is subject to potential adjustment if those enterprise-wide risks change."¹¹⁵ The

rights in that instance. *N.Y. Indep. Sys. Operator, Inc.*, 176 FERC ¶ 61,143 (2021) (NYTO Section 205 Order), *order on reh'g*, NYTO Rehearing Order, 178 FERC ¶ 61,194 (2022) (addressing both the NYTO Section 205 Order and the NYTO Compliant Order).

¹¹⁰ NYTO Complaint Order, 176 FERC ¶ 61,149.

¹¹¹ *Id.* PP 58-59.

¹¹² *Id.* P 60.

¹¹³ *Id.* PP 59 n.127, 60.

¹¹⁴ *Id.* P 59 n.127 (citing *Coakley v. Bangor Hydro-Elec. Co.*, 165 FERC ¶ 61,030, at PP 25, 49-54 (2018)).

¹¹⁵ NYTO Rehearing Order, 178 FERC ¶ 61,194 at P 67. The NYTO Section 205 Order, NYTO Complaint Order, and NYTO Rehearing Order have been appealed to the D.C. Circuit. *Cent. Hudson Gas & Elec. v. FERC*, D.C. Cir. No. 21-1256, et al.

Commission disagreed with PJM TOs' arguments in that proceeding that the NYTO Complaint Order established a new enterprise-wide risk ratemaking standard, arguing that the Commission's statements were consistent with *Hope* that "returns 'should be commensurate with returns on investments in other enterprises having corresponding risks' and 'sufficient to assure confidence in the financial integrity of the enterprise.'"¹¹⁶ The Commission also stated that it "has never required ROE to be applied to all new plant additions to the transmission systems in all circumstances" for a rate to be just and reasonable, and stated that the Commission accepts contribution in aid of construction agreements for transmission facilities that do not include a rate of return.¹¹⁷

II. Discussion

44. Upon consideration of the D.C. Circuit's questions and concerns in *American Clean Power* about TO Initial Funding, and because of our interest in addressing TO Initial Funding consistently and comprehensively in the RTOs/ISOs that have TO Initial Funding, we initiate FPA section 206 show cause proceedings here to make preliminary determinations and develop a further record on these issues. Specifically, as discussed below, we find that the existing OATTs of Responding RTOs/ISOs appear to be unjust, unreasonable, and unduly discriminatory or preferential because they include provisions for transmission owners to unilaterally elect TO Initial Funding, which may increase the costs of interconnection service without corresponding improvements to that service, may unjustifiably increase costs such that it results in barriers to interconnection, and may result in undue discrimination among interconnection customers. Also, as discussed below, we find that the provisions for TO Initial Funding in the existing OATTs of Responding RTOs/ISOs appear to be unjust, unreasonable, and unduly discriminatory or preferential because there may be no risks associated with owning, operating, and maintaining network upgrades for which transmission owners are not already otherwise compensated.

45. Accordingly, as set forth below, we direct each of the Responding RTOs/ISOs either: (1) to show cause as to why its OATT remains just and reasonable and not unduly discriminatory or preferential and provide responses to the questions set forth in Appendix A,¹¹⁸ which address these issues; or (2) to explain what changes to its OATT it

¹¹⁶ NYTO Rehearing Order, 178 FERC ¶ 61,194 at P 70 (citing NYTO Complaint Order, 176 FERC ¶ 61,149 at P 60; *Hope*, 320 U.S. at 603; *Bluefield Water Works & Improvement Co. v. Pub. Serv. Comm'n*, 262 U.S. 679, 692-693 (1923) (*Bluefield*)).

¹¹⁷ *Id.* P 70 n.210.

¹¹⁸ We note that a number of the questions in Appendix A are similar to questions that the Commission asked the PJM TOs in the PJM Paper Hearing proceeding. PJM TOs may resubmit their responses to the questions and include any new evidence in

believes would remedy the identified concerns if the Commission were to determine that the OATT has in fact become unjust, unreasonable, and unduly discriminatory or preferential and, therefore, were to proceed to establish a replacement rate, and provide responses to the questions set forth in Appendix A.

A. Increased Costs

46. We are concerned that the transmission owners' ability to unilaterally elect TO Initial Funding may increase the costs of interconnection service compared with Generator Upfront Funding without corresponding improvements to that service and may unjustifiably increase costs such that it results in barriers to interconnection. The Commission has raised this issue in the PJM Paper Hearing procedures. We note that this issue was not before the D.C. Circuit in *American Clean Power* with respect to MISO.¹¹⁹ Nonetheless, we believe that this issue should be addressed by all of the Responding RTOs/ISOs. Therefore, we ask questions in Appendix A to develop a record on this issue for each of the Responding RTOs/ISOs.

47. As described below, parties to the PJM Paper Hearing proceeding¹²⁰ and to the *SPP* proceeding¹²¹ provided evidence in support of their claims that TO Initial Funding increases interconnection customers' costs by: (1) charging interconnection customers a rate of return (i.e., the TO's ROE) that is higher than what they would otherwise incur to finance the network upgrade costs; and (2) requiring interconnection customers to post security on the undepreciated balance of the network upgrade plant.

48. In the PJM Paper Hearing proceeding, the Commission asked whether interconnection customers could obtain financing at lower or similar rates than PJM TOs. In response, protestors asserted that interconnection customers are able to access capital at a rate lower than the hypothetical debt/equity calculations proffered by the PJM TOs. For example, protestors cited a National Renewable Energy Laboratory (NREL) study, which provided weighted average cost of capital estimates of approximately 5% for

response to the questions to the extent that the PJM TOs wish to have that evidence considered in the show cause proceeding for PJM.

¹¹⁹ Rather, *American Clean Power* addressed the risk of undue discrimination by transmission owners to elect TO Initial Funding only for non-affiliated generators to increase the costs of non-affiliated generators as compared to the transmission owners' own generation or generation affiliates. *American Clean Power*, 54 F.4th at 726-728.

¹²⁰ PJM Paper Hearing, 177 FERC ¶ 61,123.

¹²¹ *SPP*, 183 FERC ¶ 61,015.

utility-scale solar,¹²² to argue that utility-scale solar generators would have to forego a lower cost of capital under TO Initial Funding.¹²³ Protestors also cite examples from interconnection customers, including RWE Renewables, NextEra Energy Resources, LLC (NextEra), and EDF Renewables (EDF), who claim that their costs double or increase exponentially under TO Initial Funding¹²⁴ and cite evidence from Apex Clean Energy Management, LLC (Apex Clean Energy) that certain projects' costs increased 39.3% after MISO transmission owners elected the TO Initial Funding option for network upgrades.¹²⁵

49. Similarly, in the *SPP* proceeding, protestors argued that TO Initial Funding would increase costs to interconnection customers without corresponding benefits. EDF provided evidence that the use of TO Initial Funding in MISO has impaired the development of new generating facilities in MISO and SPP.¹²⁶ EDF stated that the

¹²² SEIA Initial Brief, Docket No. ER21-2282-002, at 24 (filed Jan. 13, 2022) (citing "Current and Future Costs of Renewable Energy Project Finance Across Technologies," NREL and Lawrence Berkley National Lab (July 2020), <https://www.nrel.gov/docs/fy20osti/76881.pdf>).

¹²³ *Id.* at 24-25.

¹²⁴ Joint Protestors Initial Brief, Docket No. ER21-2282-002, at 20 (filed Jan. 13, 2022) (citing Joint Protestors Protest, Docket No. ER21-2282-000 (filed July 28, 2021), attach. C at ¶ 9; *id.*, attach. D at ¶ 4; NextEra Protest, Docket Nos. EL21-66 and ER21-1647 (filed May 7, 2021), Pawlowski Declaration at 7).

¹²⁵ Joint Protestors Initial Brief, Docket No. ER21-2282-002, at 21 (filed Jan. 13, 2022) (citing Apex Clean Energy Motion to Intervene Out-of-Time and Rehearing Request, Docket No. EL15-68 et al., at attach. I (filed Oct. 1, 2018)). Apex Clean Energy submitted testimony in its rehearing request on the 2018 Remand Order that demonstrated cost increases due to the currently effective MISO transmission owner ROE that used an 8.14% cost of capital compared to Apex Clean Energy's financing rate of 6%.

¹²⁶ Clean Energy Advocates Protest, Docket No. ER22-2968-000, at 13-14 (filed Oct. 21, 2022). EDF included two affidavits with the Clean Energy Advocates Protest to explain its experience with TO Initial Funding in MISO and SPP. Attachment A to the Clean Energy Advocates Protest included testimony regarding EDF's experience with TO Initial Funding in MISO and SPP. Attachment B to the Clean Energy Advocates Protest included testimony regarding EDF's experience regarding the election of TO Initial Funding in SPP for the network upgrades associated with its Plum Nellie generating facility.

majority of larger transmission owners in MISO elect TO Initial Funding, and thus the effective cost of all anticipated network upgrades allocated to interconnection customers has increased significantly.¹²⁷ Specifically, EDF stated that in its experience in MISO, total payments over a 20-year FSA term exceed twice the “sticker price” of the network upgrades, with an impact of over 30% on a net present value basis, which can result in the cancellation of the project.¹²⁸ EDF also argued that certain aspects of the implementation of TO Initial Funding increase costs and uncertainty for interconnection customers, specifically: (1) the variable rate under MISO’s *pro forma* FSA creates uncertainty, and EDF has had to weigh whether to increase the price of a power purchase agreement and by how much, which could harm the economic viability of a project in a market-based regime; and (2) the requirement to post security over the 20-year term of payments results in additional costs in the form of an annual fee for a letter of credit, which is then tied up for 20 years, directly impacting a developer’s ability to pursue other projects.¹²⁹ EDF claimed that these impacts are compounded when an interconnection customer has multiple projects for which transmission owners have elected TO Initial Funding.¹³⁰

50. Therefore, we are concerned that unilateral TO Initial Funding may increase costs that interconnection customers may otherwise incur under Generator Upfront Funding without corresponding improvements to that service. First, unilateral TO Initial Funding may increase costs by requiring the interconnection customer to pay a higher financing rate than the interconnection customer would otherwise receive through a lender when using Generator Upfront Funding. As detailed above, commenters have submitted evidence indicating that interconnection customers are able to obtain financing at lower rates than those provided by transmission owners under TO Initial Funding. Second, unilateral TO Initial Funding may increase costs through a security requirement that represents an additional cost to the interconnection customer to maintain over the TO

¹²⁷ Clean Energy Advocates Protest, Docket No. ER22-2968-000, attach. A at 2 (filed Oct. 2022).

¹²⁸ *Id.* at 1-3.

¹²⁹ Clean Energy Advocates Protest, Docket No. ER22-2968-000, attach. A at 2-3 (filed Oct. 21, 2022). EDF stated that if the security is \$20 million, then the fee will be \$1 to 2 million dollars over the 20-year term of an FSA. *Id.* at 3.

¹³⁰ *Id.* at 3-4. *See also* Joint Protestors Initial Brief, Docket No. ER21-2282-002, at 19 (filed Jan. 13, 2022) (arguing that the 20-year term for a letter of credit or other means of security is an additional cost that is expensive to maintain and limits the ability of the interconnection customer or parent company to finance other generation development).

Initial Funding pay-back period (e.g., 20 years) that an interconnection customer would not otherwise have to incur under Generator Upfront Funding.¹³¹ Third, protestors raise the concern that TO Initial Funding incentivizes a transmission owner to find higher-cost vendors in order to inflate the rate base on which it earns a rate of return, i.e., “gold plating,” which would further increase costs for the interconnection customer.¹³² Fourth, unilateral TO Initial Funding can increase cost uncertainty for an interconnection customer that it would otherwise not have under Generator Upfront Funding through the ability of the transmission owner to wait until late in the interconnection process to elect TO Initial Funding for identified network upgrades and through the lack of a *pro forma* fixed rate option¹³³ for TO Initial Funding. It appears that these increased costs do not provide any additional benefits to the interconnection customer than it would otherwise receive through Generator Upfront Funding. We also are concerned that in some cases, an unjustified increase in costs may be significant enough to result in a barrier to interconnection because the costs are so high that projects that would otherwise be commercially viable cannot proceed. For the foregoing reasons, we find that the OATTs of Responding RTOs/ISOs appear to be unjust and unreasonable because TO Initial Funding may increase the costs of interconnection service without corresponding improvements to that service, and the unjustifiably increased costs may be significant enough to result in a barrier to interconnection.

B. Undue Discrimination

51. We also are concerned that TO Initial Funding may be implemented in an unduly discriminatory or preferential manner among interconnection customers. We ask questions in Appendix A to develop a further record on the potential for undue discrimination and to gather any evidence of actual undue discrimination.

52. An undue discrimination concern arises because a vertically integrated transmission owner or a transmission owner that is affiliated with a company that owns generation may decide to elect TO Initial Funding only for network upgrades assigned to

¹³¹ The interconnection customer must post security during the construction phase of network upgrades under both TO Initial Funding and Generator Upfront Funding.

¹³² Joint Protestors Initial Brief, Docket No. ER21-2282-002, at 16 (filed Jan. 13, 2022).

¹³³ Currently, the *pro forma* FSA and *pro forma* NUFA levelized network upgrade charge rates are updated annually based on updates to the relevant transmission owner’s transmission formula rate, and as such, will change from year to year. A fixed rate option would be established upfront and would not change from year to year during the pay-back period.

non-affiliate interconnection customers to raise interconnection costs to competitors. The D.C. Circuit in *American Clean Power* expressed concern about this possibility and recognized that the TO Initial Funding option “posed a discrimination risk.”¹³⁴ Furthermore, in *Ameren*, the D.C. Circuit explained that undue discrimination concerns exist where transmission owners also own generation (i.e., in RTOs/ISOs with vertically integrated utilities) or where transmission owners are affiliated with a company that also owns generation.¹³⁵ For instance, on remand following *Ameren*, Xcel Energy Services, Inc. (Xcel), in MISO, initially requested that the Commission permit Xcel to reopen only GIAs, FCAs, and MPFCAs with non-affiliates to unilaterally elect TO Initial Funding.¹³⁶ The Commission rejected Xcel’s request that the Commission confirm that transmission owners be allowed to apply the retroactive unilateral election of TO Initial Funding to network upgrade costs assigned to non-affiliate interconnection customers and not to network upgrade costs assigned to affiliate interconnection customers.¹³⁷ The Commission stated that Xcel’s request would require the Commission to predetermine the outcome of a future filing without a record, and that if a transmission owner desires to treat funding of network upgrade costs differently for certain interconnection customers, it must make a showing that such treatment is done on a not unduly discriminatory basis in the future filing(s) that the Commission directed within that order. We are concerned that transmission owners could use the unilateral TO Initial Funding option to unduly discriminate against non-affiliated generators by raising interconnection costs for non-affiliated generators who are competitors. Undue discrimination concerns would apply to MISO, PJM, SPP, and ISO-NE, which have both vertically integrated transmission owners and transmission owners that are affiliated with a company that owns generation.

53. We are concerned that if the TO Initial Funding option can result in higher costs to the interconnection customer through, for example, higher financing costs, a transmission owner could strategically increase costs for interconnection customers by selecting TO Initial Funding for network upgrades assigned to non-affiliate interconnection customers,

¹³⁴ *American Clean Power*, 54 F.4th at 728.

¹³⁵ See *Ameren*, 880 F.3d at 578 (responding to an argument that TO Initial Funding gives transmission owners the power to discriminate against interconnecting generators by conceding that “if the transmission owners still owned integrated generation facilities, that would present a competitive motive”).

¹³⁶ See 2019 Remand Order, 169 FERC ¶ 61,233 at P 54. On compliance, Xcel instead requested to reopen agreements with both affiliate and non-affiliate interconnection customers.

¹³⁷ *Id.* P 131.

potentially causing them to withdraw from the queue. We are also concerned that, even if the non-affiliate interconnection customer does not withdraw from the interconnection queue due to economic impacts from TO Initial Funding, the increase in interconnection costs from TO Initial Funding may serve to reduce the relative competitiveness of the project in selling its energy and capacity to the benefit of a transmission owner's affiliated generators. In the PJM Paper Hearing proceeding, protestors also raised the concern that a transmission owner could provide a preferential advantage to its own generation (or that of affiliates) by offering these parties a shorter term for security, as opposed to the standard 20-year term under the Network Upgrade Funding Agreement.¹³⁸ A transmission owner might adopt these strategies, or other similar strategies, to benefit affiliated interconnection customers to ensure that they face lower costs and improve their competitive stance, a strategy that, if implemented, would be unduly discriminatory and preferential. Protestors suggest a number of strategic reasons that would drive a transmission owner to target a project for elimination through strategic use of TO Initial Funding, including competition for land rights or competition to serve new wholesale load customers.¹³⁹

54. In the PJM Paper Hearing proceeding, protestors raised concerns over undue discrimination.¹⁴⁰ While the ratio of transmission owners with affiliated generation to transmission owners without affiliated generation in PJM is lower than in MISO, protestors argued that several large PJM TOs still directly own generation assets, and many PJM TOs have unregulated affiliates that compete in the market.¹⁴¹ Protestors argued that, because these PJM TOs are large, the significant generation capacity owned

¹³⁸ SEIA Initial Brief, Docket No. ER21-2282-002, at 21 (filed Jan. 13, 2022). *See* PJM Interconnection, L.L.C., Intra-PJM Tariffs, OATT, pt. VII.I 338 (Initial Funding of Network Upgrades) (0.0.0), § 2 (“This NUFA shall continue until two hundred forty (240) months of payments for each Network Upgrade governed by this NUFA have been collected by the Transmission Provider and paid to the Transmission Owner, unless the Parties mutually agree on a different term for this NUFA . . .”).

¹³⁹ SEIA Initial Brief, Docket No. ER21-2282-002, at 15 (filed Jan. 13, 2022).

¹⁴⁰ Joint Protestors Initial Brief, Docket No. ER21-2282-002, at 22-27 (filed Jan. 13, 2022); SEIA Initial Brief, Docket No. ER21-2282-002, at 13-25 (filed Jan. 13, 2022).

¹⁴¹ Joint Protestors Initial Brief, Docket No. ER21-2282-002, at 24 (filed Jan. 13, 2022).

by PJM TOs that own generation could still create significant undue discrimination concerns.¹⁴²

55. We note that PJM TOs proposed certain transparency requirements in its TO Initial Funding option aimed at mitigating potential undue discrimination. For example, the PJM TO Initial Funding option requires PJM to maintain on its website each transmission owner's general non-binding indication as to whether it intends to elect TO Initial Funding and to maintain a list of the network upgrades that the transmission owner elects to initially fund.¹⁴³ Additionally, although it is not in PJM's OATT, PJM TOs committed to posting an accompanying statement indicating whether the interconnection customer is an affiliate.¹⁴⁴ Along with information that is currently provided in PJM's public database, such as voltage levels, costs, and project in-service dates,¹⁴⁵ this information may demonstrate patterns in how PJM TOs apply the TO Initial Funding option among affiliate and non-affiliate interconnection customers and thereby provide evidence of undue discrimination. Using this information, an interconnection customer may be able to determine if PJM TOs are electing to fund the network upgrades for non-

¹⁴² Protestors in the PJM Paper Hearing proceeding cited Duke Energy, East Kentucky Power Cooperative, Inc., and Public Service Electric & Gas Company as examples of large PJM TOs that directly own generation assets. Joint Protestors Initial Brief, Docket No. ER21-2282-002, at 24 n.68 (filed Jan. 13, 2022). Protestors also noted that other PJM TOs, including American Electric Power Corporation, PPL Corp., Consolidated Edison, Inc., American Municipal Power, Inc., NextEra Energy, Inc., General Electric, and Dominion Energy, Inc., have unregulated generation affiliates that compete in the market. Joint Protestors Initial Brief, Docket No. ER21-2282-002, at 24 n.69 (filed Jan. 13, 2022).

¹⁴³ PJM Interconnection, L.L.C., Intra-PJM Tariffs, OATT, pt. VII.I 338 (Initial Funding of Network Upgrades) (0.0.0), (b) ("Transmission Provider will maintain on its website a Transmission Owner's general non-binding indication as to whether the Transmission Owner intends to elect to fund the capital costs (self-fund) for Network Upgrades. Transmission Provider will also maintain on its website a list of the projects for which a Transmission Owner has elected to self-fund Network Upgrades."); *id.*, pt. VIII.I 436 (Initial Funding of Network Upgrades) (0.1.0), (b) (same).

¹⁴⁴ See PJM TOs Transmittal, Docket No. ER21-2282-000, at 30 (filed June 30, 2021) ("[E]ach PJM Transmission Owner will arrange to post on the PJM website a list of the Network Upgrades it elects to fund with an accompanying statement of whether the Interconnection Customer is an affiliate as an added measure of transparency.")

¹⁴⁵ See PJM, *Project Status & Cost Allocation*, <https://pjm.com/planning/project-construction> (showing PJM's public project data).

affiliate interconnection customers but not affiliated interconnection customers and file a FPA section 206 complaint or file the Network Upgrade Funding Agreement unexecuted with the Commission.

56. However, even in PJM, we are concerned that it may still be difficult for an interconnection customer to determine whether other similarly situated projects receive preferential treatment because the PJM TOs are not required to publicly post a list of the network upgrades that the PJM TO does not elect to initially fund. Even if the PJM TOs listed all network upgrades and which funding was selected, the interconnection customers would likely have to wait several years for sufficient available data to support an FPA section 206 complaint. Moreover, if such data materialized, it would still be difficult to prove discrimination without additional detail on how each PJM TO makes its funding decision. For example, a PJM TO could change its TO Initial Funding decision based on a combination of variables and processes not included in PJM's OATT, and it would be difficult to differentiate between decisions that were made to favor an affiliate generator and decisions made for non-discriminatory reasons. Furthermore, even if sufficient evidence were available to identify unduly discriminatory behavior, protestors assert that PJM's transparency measures fail to prevent discriminatory or preferential outcomes in the first instance.¹⁴⁶ Some protestors suggest that a requirement for each PJM TO to abide by a uniform set of objective and binding criteria for how it will select TO Initial Funding, with the resultant decisions subject to oversight, could address the concern.¹⁴⁷

57. SPP is similar to MISO in that most SPP transmission owners are vertically integrated investor-owned utilities.¹⁴⁸ In the *SPP* proceeding, protestors argued that, because of this fact, the same undue discrimination concerns identified in *American Clean Power* are present in SPP and that the proposed OATT revisions did not include a mechanism to prevent vertically integrated transmission owners electing TO Initial

¹⁴⁶ Joint Protestors Initial Brief, Docket No. ER21-2282-002, at 15-16, 27 (filed Jan. 13, 2022).

¹⁴⁷ SEIA Reply Comments, Docket No. ER21-2282-002, at 11 (filed Feb. 28, 2022). *See also* PJM Comments, Docket No. ER21-2282-000, at 4-5 (filed July 13, 2021).

¹⁴⁸ SPP, *2021 State of the Market Report* 45 (2022), <https://www.spp.org/documents/67104/2021%20annual%20state%20of%20the%20market%20report.pdf>.

Funding from disadvantaging competitors.¹⁴⁹ Protestors also argued that a requirement that SPP transmission owners post non-binding election of TO Initial Funding on SPP's OASIS is inadequate to prevent the election of TO Initial Funding in an anticompetitive, discriminatory, and preferential manner. Protestors further argued that, even if this requirement yielded enough information after several years to support a complaint, such a development would be insufficient because it would not restore unaffiliated interconnection customers to the position they were in before the discriminatory actions occurred.¹⁵⁰

58. Therefore, we are concerned that a vertically integrated transmission owner or a transmission owner that is affiliated with a company that owns generation may decide to elect TO Initial Funding for network upgrades assigned to non-affiliate interconnection customers to raise interconnection costs to competitors and cause withdrawals from the interconnection queue that would otherwise not occur if Generator Upfront Funding were used. Specifically, we are concerned that transmission owners may use unilateral TO Initial Funding to benefit affiliated interconnection customers to ensure that they face lower costs and to improve their competitive stance, a strategy that, if implemented, would be unduly discriminatory and preferential. As raised by commenters in the record of the PJM Paper Hearing proceeding and *SPP* proceeding, there does not appear to be adequate transparency or other protections to prevent transmission owners from unilaterally electing TO Initial Funding for only unaffiliated generators to raise their costs. Furthermore, as noted above, at least one transmission owner has considered electing unilateral TO Initial Funding only for non-affiliate generation under specific circumstances.¹⁵¹ Additionally, while the existence of *pro forma* interconnection agreements and related *pro forma* network upgrade charge agreements (e.g., *pro forma* FSA and Network Upgrade Funding Agreement) provide standard terms, conditions, and rates for unilateral TO Initial Funding, such *pro forma* agreements do not dictate how transmission owners make unilateral TO Initial Funding elections for network upgrades, and, as such, do not address our undue discrimination concerns. We also are concerned that the lack of transparency in publicly reporting a transmission owner's election of TO Initial Funding may allow the transmission owner to engage in unduly discriminatory behavior towards non-affiliated interconnection customers. For the foregoing reasons, we find that the OATTs of Responding RTOs/ISOs appear to be unduly discriminatory or

¹⁴⁹ Clean Energy Advocates Protest of Deficiency Response, Docket No. ER22-2968-001, at 7-8 (filed Mar. 7, 2023).

¹⁵⁰ *Id.*

¹⁵¹ *See supra* P 52.

preferential because TO Initial Funding may result in undue discrimination among interconnection customers.

C. Uncompensated Risks

59. We also are concerned that transmission owners may not face risks associated with owning, operating, and maintaining network upgrades for which transmission owners are not already otherwise compensated, because the compensation for such risks is “baked-in” to the transmission owners’ embedded cost of service transmission rate. We ask questions in Appendix A to develop a further record as to whether transmission owners have uncompensated risks associated with owning, operating, and maintaining network upgrades financed through TO Initial Funding.

60. Commenters have argued that transmission owners have never provided evidence of actual uncompensated risks that necessitate TO Initial Funding.¹⁵² In the PJM Paper Hearing, protestors also raised arguments that the risks PJM TOs describe are speculative.¹⁵³

61. In *Ameren*, the D.C. Circuit expressed concern that denying transmission owners an opportunity to fund and earn a return on network upgrades leaves them with uncompensated risks (e.g., incremental operational risks of new facilities, compliance with reliability standards, liability for insurance deductibles, and litigation stemming from personal injury, environmental, and reliability claims), and requires them to operate,

¹⁵² SOO Green HVDC Link ProjectCo, LLC Protest, Docket No. ER22-477-000, at 15-16 (filed Dec. 20, 2021); American Clean Power Association and Clean Grid Alliance Protest, Docket No. ER22-477-000, at 3-5 (filed Dec. 20, 2021); American Wind Energy Association Comments, Docket No. EL15-68-000, et al., at 12-13 (filed Sept. 30, 2015); Consumer Stakeholders Protest, Docket Nos. EL21-66-000 and ER21-1647-000, at 15 (filed May 7, 2021); NY Interconnection Customers Protest, Docket Nos. EL21-66-000 and ER21-1647-000, at 19 (filed May 7, 2021); State Entities Protest, Docket Nos. EL21-66-000 and ER21-1647-000, at 5-7 (filed May 7, 2021); UIU Protest, Docket Nos. EL21-66-000 and ER21-1647-000, at 4 (filed May 7, 2021); Joint Consumer Advocates Reply Comments, Docket No. ER21-2282-002, at 5-20 (filed Feb. 28, 2022); Joint Protestors Initial Brief, Docket No. ER21-2282-002, at 2-8 (filed Jan. 13, 2022); SEIA Initial Brief, Docket No. ER21-2282-002, at 11-13 (filed Jan. 13, 2022); SEIA Reply Comments, Docket No. ER21-2282-002, at 6-10 (filed Feb. 28, 2022).

¹⁵³ See Joint Protestors Initial Brief, Docket No. ER21-2282-002, at 7-8 (filed Jan. 13, 2022); Market Monitor Reply Comments, Docket No. ER21-2282-002, at 3 (filed Mar. 1, 2022); OPSI Protest, Docket No. ER21-2282-000, at 14-15 (filed July 28, 2021); SEIA Initial Brief, Docket No. ER21-2282-002, at 11-13 (filed Jan. 13, 2022).

at least in part, on a non-profit basis, which the petitioning MISO transmission owners argued modified their business model, creating risk that new capital investment would be deterred.¹⁵⁴ The D.C. Circuit also expressed concern about the future capital attraction standard described in *Hope* and *Bluefield*.¹⁵⁵ It went on to state that, if transmission owners lacked the ability to earn a return on incremental network upgrades, a transmission owner might be unable to attract new capital in the future because investors would not be willing to invest in a company that has to accept risk-bearing additions to its transmission system without compensating investors appropriately for those risks.¹⁵⁶

62. With respect to uncompensated risk concerns raised in *Ameren*, protestors in the PJM Paper Hearing proceeding contended that the Commission adequately considered PJM TOs' overall investment risk when selecting comparable risk proxy groups by which to measure the ROE, and any relevant obligation that PJM TOs had regarding network upgrades would be considered as an off-balance sheet, financial contractual obligation that would be part of PJM TOs' total credit standing and financial risk assessment reflected in their bond ratings.¹⁵⁷ Protestors argue that to the extent network upgrades cause "financial distress" for the utility, then the utility would respond by mitigating these financial risk increases, including through seeking increases in the common equity ratio used for ratemaking purposes to reduce on-balance sheet risks or increases in the authorized ROE based on increased financial risk.¹⁵⁸ Protestors argue that the *Bluefield* holding is premised on the basic assumption that the utility recovering the rates had investments to recover, but that there are no such investments to recover for the network

¹⁵⁴ *Ameren*, 880 F.3d at 580-582.

¹⁵⁵ *Id.* at 582.

¹⁵⁶ *Id.*

¹⁵⁷ Joint Consumer Advocates Reply Comments, Docket No. ER21-2282-002, at 5-20 (filed Feb. 28, 2022); Joint Protestors Initial Brief, Docket No. ER21-2282-002, at 2-4, 8 (filed Jan. 13, 2022); OPSI Protest, Docket No. ER21-2282-000, at 11-13 (filed July 28, 2021); SEIA Initial Brief, Docket No. ER21-2282-002, at 13 (filed Jan. 13, 2022).

¹⁵⁸ Joint Consumer Advocates Reply Comments, Docket No. ER21-2282-002, at 13 (filed Feb. 28, 2022). *See also* Joint Protestors Initial Brief, Docket No. ER21-2282-002, at 9 (filed Jan. 13, 2022) ("[T]he Existing Funding Approach allows for appropriate adjustments to ROE that fully account for any demonstrable or likely risks to transmission-owning utilities, and allows them to maintain their financial integrity by continuing to attract capital.").

upgrades in PJM.¹⁵⁹ Protestors contend that, if the PJM TOs do not have any capital at risk, then the existing ROEs should be providing the PJM TOs with compensation for the risk associated with owning, operating, and maintaining its network transmission facilities, particularly because the existing ROEs include a 50-basis point adder for membership within PJM.¹⁶⁰ In response to examples of uncompensated risks cited by the PJM TOs, including risks related to North American Electric Reliability Corporation (NERC) penalties or environmental risks, protestors argued that upgrades to avoid NERC reliability standard violations that are needed to avoid penalties can be rate-based, and environmental risks are already recoverable from the interconnection customer under the terms of the PJM *pro forma* Interconnection Construction Service Agreement, which requires interconnection customers to indemnify the PJM TO for such risks.¹⁶¹

63. In the NYTO Complaint Order, the Commission addressed the NYTO's assertion of uncompensated risk for network upgrades, stating that it "calculates a utility's return on equity based on the risk profile of the enterprise as a whole."¹⁶² The Commission further stated that:

when setting a just and reasonable return on equity for a utility, the Commission will typically construct a proxy group of utilities that were given similar credit risk ratings by a rating agency as the utility being reviewed... [a]s a result, if a utility has its risk profile downgraded then its proxy group will change accordingly and so will the return on equity zone of reasonableness.¹⁶³

On rehearing, the Commission clarified that "[t]he base ROE in a utility's transmission rate is designed to account for risks faced by an enterprise and is subject to potential

¹⁵⁹ SEIA Initial Brief, Docket No. ER21-2282-002, at 13 (filed Jan. 13, 2022). *See also* Joint Consumer Advocates Reply Comments, Docket No. ER21-2282-002, at 12 (filed Feb. 28, 2022) ("Because the TOs contribute no capital to the Network Upgrade, the TO's investors assume no risk with respect to that Network Upgrade. Thus, they are not entitled to a return on capital that was not invested.").

¹⁶⁰ SEIA Initial Brief, Docket No. ER21-2282-002, at 13 (filed Jan. 13, 2022).

¹⁶¹ *Id.* at 11-13; Joint Protestors Initial Brief, Docket No. ER21-2282-002, at 2-6 (filed Jan. 13, 2022); Joint Consumer Advocates Reply Brief, Docket No. ER21-2282-002, at 7-12 (filed Feb. 28, 2022).

¹⁶² NYTO Complaint Order, 176 FERC ¶ 61,149 at PP 59 n.127, 60.

¹⁶³ *Id.* P 59 n.127 (citing *Coakley v. Bangor Hydro-Elec. Co.*, 165 FERC ¶ 61,030 at PP 25, 49-54).

adjustment if those enterprise-wide risks change.”¹⁶⁴ The Commission disagreed with PJM TOs’ arguments in that proceeding that the NYTO Complaint Order established a new enterprise-wide risk ratemaking standard, arguing that the Commission’s statements were consistent with *Hope* that “returns ‘should be commensurate with returns on investments in other enterprises having corresponding risks’ and ‘sufficient to assure confidence in the financial integrity of the enterprise.’”¹⁶⁵ The Commission also stated that it “has never required ROE to be applied to all new plant additions to the transmission systems in all circumstances” for a rate to be just and reasonable, and stated that the Commission accepts contribution in aid of construction agreements for transmission facilities that do not include a rate of return.¹⁶⁶

64. In addition, protestors in the *SPP* proceeding argued that the SPP transmission owners’ own securities filings show that, despite the Court’s statement in *Ameren*, there is no material risk that transmission owners are forced to operate “non-profit appendages.”¹⁶⁷ In particular, these protestors analyzed multiple publicly-owned SPP transmission owners’ 10-K filings with the U.S. Securities & Exchange Commission (SEC), which made no mention of either a lack of a rate of return on interconnection-related network upgrades or a statement that default on the repayment of the capital costs poses a material risk to any SPP transmission owner that might affect its financial viability.¹⁶⁸ Commenters in the PJM Paper Hearing proceeding and NYTO proceedings made similar arguments about filings to the SEC.¹⁶⁹ Therefore, we rely on additional information included in the records in the PJM Paper Hearing proceeding and NYTO proceedings to support the contention that transmission owners are not exposed to uncompensated risks when adding network upgrades to their transmission systems. For example, NY Interconnection Customers stated that the NYTOs’ SEC filings show that

¹⁶⁴ NYTO Rehearing Order, 178 FERC ¶ 61,194 at P 67.

¹⁶⁵ *Id.* P 70 (citing NYTO Complaint Order, 176 FERC ¶ 61,149 at P 60; *Hope*, 320 U.S. at 603; *Bluefield*, 262 U.S. at 692-693).

¹⁶⁶ *Id.* P 70 n.210.

¹⁶⁷ Clean Energy Advocates Protest, Docket No. ER22-2968-000, at 3 (filed Oct. 21, 2022) (citing SPP Transmittal at 9; *Ameren*, 880 F.3d at 579).

¹⁶⁸ *Id.* at 20-21.

¹⁶⁹ NY Interconnection Customers Protest, Docket No. EL21-66-000, attach. A, Affidavit of Michael S. Goggin at 2 (Goggin Aff.) (filed May 7, 2021); Joint Protestors Initial Brief, Docket No. ER21-2282-002, at 2-6 (filed Jan. 13, 2022); Joint Consumer Advocates Reply Brief, Docket No. ER21-2282-002, at 7-12 (filed Feb. 28, 2022).

the very factors that transmission owners identify as “risks” before this Commission are framed as revenue opportunities elsewhere, and these companies’ securities filings and credit ratings show healthy enterprises with an ongoing ability to attract capital.¹⁷⁰

65. Finally, commenters have argued that if current returns for transmission owners are not high enough to compensate for the risk of owning, operating, and maintaining their transmission systems, including owning, operating, and maintaining Generator Upfront Funded network upgrades, then the credit rating agencies would reflect this through lower bond ratings, which would, in turn, inform the Commission’s ROE methodology and eventually lead to higher relative ROEs.¹⁷¹ They argue that as a result of this process, the risks of owning, operating, and maintaining Generator Upfront Funded network upgrades would be “baked-in” to the transmission owner’s ROE, and there would be no uncompensated risks associated with Generator Upfront Funded network upgrades.

66. Therefore, we are concerned that transmission owners may not face risks associated with owning, operating, and maintaining interconnection-related network upgrades for which transmission owners are not already otherwise compensated. First, commenters have presented evidence that transmission owners are not subject to uncompensated risks without unilateral TO Initial Funding. Second, transmission owners have not indicated in 10-K filings to the SEC that the lack of a rate of return on interconnection-related network upgrades poses a material risk to transmission owners’ businesses. Furthermore, in some cases, the very factors that transmission owners identify before the Commission as “risks” associated with owning, operating, and maintaining interconnection-related network upgrades are framed as revenue opportunities to investors in SEC filings. Third, based on the record discussed above, there is no indication that transmission owners are unable to attract capital without unilateral TO Initial Funding. Fourth, with respect to whether risks of owning, operating, and maintaining interconnection-related network upgrades are baked into transmission owners’ return on equity, the Commission has stated that it “calculates a utility’s return on equity based on the risk profile of the enterprise as a whole.”¹⁷² The Commission clarified that “[t]he base ROE in a utility’s transmission rate is designed to account for risks faced by an enterprise and is subject to potential adjustment if those enterprise-wide

¹⁷⁰ NY Interconnection Customers Protest, Docket No. EL21-66-000, at 17 (filed May 7, 2021).

¹⁷¹ See Joint Consumer Advocates Reply Comments, Docket No. ER21-2282-002, at 14-18 (filed Feb. 28, 2022).

¹⁷² NYTO Complaint Order, 176 FERC ¶ 61,149 at PP 59 n.127, 60.

risks change.”¹⁷³ Fifth, protestors in the PJM Paper Hearing proceeding argued that any relevant obligation that transmission owners have regarding network upgrades would be considered as an off-balance sheet, financial contractual obligation that would be part of a transmission owner’s total credit standing and financial risk assessment reflected in their bond ratings, which inform their ROEs. Finally, we are concerned that the evidence suggests that certain risks cited by transmission owners are not uncompensated risks. For example, the risks related to NERC penalties appear to be risks of NERC reliability standard violations and the avoidance of the related NERC penalties that can be recovered through rate base, and the cited environmental risks may already be indemnified through other requirements in the OATT, as described by commenters in the PJM Paper Hearing proceeding.¹⁷⁴ For the foregoing reasons, we find that the provisions for TO Initial Funding in the existing OATTs of Responding RTOs/ISOs appear to be unjust, unreasonable, and unduly discriminatory or preferential because there may be no risks associated with owning, operating, and maintaining network upgrades for which transmission owners are not already otherwise compensated.

D. Replacement Rates

67. If the Commission finds that provisions for unilateral TO Initial Funding are unjust, unreasonable, and unduly discriminatory or preferential, and that transmission owners do not have uncompensated risks associated with owning, operating, and maintaining interconnection-related network upgrades, the Commission could direct Responding RTOs/ISOs to remove the unilateral right to elect TO Initial Funding from their respective OATTs without providing for any further compensation to transmission owners.

68. However, if, the Commission finds that provisions for unilateral TO Initial Funding are unjust, unreasonable, and unduly discriminatory or preferential, but also finds that transmission owners have uncompensated risks associated with owning, operating, and maintaining interconnection-related network upgrades, the Commission could direct Responding RTOs/ISOs to remove the unilateral right to elect TO Initial Funding from their respective OATTs, but replace it with a mechanism for transmission owners to be compensated for those risks, i.e., a replacement rate. Accordingly, we include questions concerning potential replacement rates in Appendix A of this show cause order to consider what a just and reasonable replacement rate would be if the

¹⁷³ NYTO Rehearing Order, 178 FERC ¶ 61,194 at P 67.

¹⁷⁴ SEIA Initial Brief, Docket No. ER21-2282-002, at 11-13 (filed Jan. 13, 2022); Joint Protestors Initial Brief, Docket No. ER21-2282-002, at 2-6 (filed Jan. 13, 2022); Joint Consumer Advocates Reply Brief, Docket No. ER21-2282-002, at 7-12 (filed Feb. 28, 2022).

Commission determines that transmission owners have uncompensated risks associated with owning, operating, and maintaining interconnection-related network upgrades.

E. Section 206 Investigation

69. As discussed above, we find that the existing OATTs of Responding RTOs/ISOs appear to be unjust, unreasonable, and unduly discriminatory or preferential because they include provisions for transmission owners to unilaterally elect TO Initial Funding, which may increase the costs of interconnection service without corresponding improvements to that service, may unjustifiably increase costs such that it results in barriers to interconnection, and may result in undue discrimination among interconnection customers. As discussed above, we also find that the provisions for TO Initial Funding in the existing OATTs of Responding RTOs/ISOs appear to be unjust, unreasonable, and unduly discriminatory or preferential because there may be no risks associated with owning, operating, and maintaining network upgrades for which transmission owners are not already otherwise compensated.

70. Based on the foregoing, pursuant to FPA section 206, we direct each of the Responding RTOs/ISOs, within 90 days of the date of this order either: (1) to show cause as to why its OATT remains just and reasonable and not unduly discriminatory or preferential and provide responses to the questions set forth in Appendix A; or (2) to explain what changes to its OATT it believes would remedy the identified concerns if the Commission were to determine that the OATT has in fact become unjust, unreasonable, and unduly discriminatory or preferential and, therefore, were to proceed to establish a replacement rate, and provide responses to the questions set forth in Appendix A.

71. If any of the Responding RTOs/ISOs prefers to propose revisions to its OATT on the subject of this order, then it may do so pursuant to its applicable FPA section 205 filing rights. In such a filing, the Responding RTO/ISO should state explicitly that it is submitting its proposal under FPA section 205. If the Responding RTO/ISO wishes to have the Commission hold the proceeding instituted herein in abeyance pending the Commission's consideration of any such FPA section 205 filing, the Responding RTO/ISO should submit an appropriate motion in the relevant docket explaining the basis for the abeyance.

72. Interested entities may respond within 30 days of the date of the relevant Responding RTO's/ISO's filing, addressing either or both of: (1) whether the relevant Responding RTO's/ISO's OATT remains just and reasonable and not unduly discriminatory or preferential; and (2) if not, what changes to the relevant Responding RTO's/ISO's OATT should be implemented as a replacement rate. Interested entities also may respond, within 30 days of the relevant Responding RTO's/ISO's filing, to any of the questions in Appendix A of this order.

73. In cases where, as here, the Commission institutes a proceeding on its own motion under FPA section 206, section 206(b) requires that the Commission establish a refund effective date that is no earlier than the date of the publication by the Commission of notice of its intention to initiate such proceeding nor later than five months after the publication date. Section 206(b) permits the Commission to order refunds for a 15-month period following the refund effective date. Consistent with our general policy of providing maximum protection to customers,¹⁷⁵ we will set the refund effective date at the earliest possible date possible in each of these dockets, i.e., the date of publication by the Commission of notice of its intention to initiate such proceeding in the *Federal Register*.

74. Section 206(b) also requires that, if no final decision is rendered by the conclusion of the 180-day period commencing upon initiation of a proceeding pursuant to section 206, the Commission shall state the reasons why it has failed to do so and shall state its best estimate as to when it reasonably expects to make such decision. Assuming that the relevant Responding RTO/ISO submits OATT revisions under FPA section 206, which the Responding RTO/ISO believes would remedy the identified concerns if the Commission were to determine that the OATT has in fact become unjust, unreasonable, and unduly discriminatory or preferential and, therefore, were to proceed to establish a replacement rate, we estimate that we would be able to issue our decision within approximately three months of the filing of OATT revisions.

The Commission orders:

(A) Pursuant to the authority contained in and subject to the jurisdiction conferred upon the Commission by section 402(a) of the Department of Energy Organization Act and by the FPA, particularly section 206 thereof, and pursuant to the Commission's Rules of Practice and Procedure and the regulations under the FPA (18 C.F.R. Chapter I), the Commission hereby institutes proceedings in each of Docket Nos. EL24-80-000, EL24-81-000, EL24-82-000, and EL24-83-000, as discussed in the body of this order.

(B) Pursuant to section 206 of the FPA, each Responding RTO/ISO is hereby directed to submit a filing, within 90 days of the date of this order, either: (1) to show cause as to why its OATT remains just and reasonable and not unduly discriminatory or preferential and provide responses to the questions set forth in Appendix A; or (2) to explain what changes to its OATT it believes would remedy the identified concerns if the Commission were to determine that the OATT has in fact become unjust, unreasonable,

¹⁷⁵ See, e.g., *Seminole Elec. Coop., Inc. v. Fla. Power & Light Co.*, 65 FERC ¶ 61,413, at 63,139 (1993); *Canal Elec. Co.*, 46 FERC ¶ 61,153, at 61,539, *reh'g denied*, 47 FERC ¶ 61,275 (1989).

and unduly discriminatory or preferential and, therefore, were to proceed to establish a replacement rate, and provide responses to the questions set forth in Appendix A.

(C) Any entity desiring to participate in one or more of the proceedings instituted herein must file a notice of intervention or motion to intervene, as appropriate, in accordance with Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214, within 21 days of the date of this order.

(D) The refund effective date established pursuant to FPA section 206(b) will be the date of publication in the *Federal Register* of the notice discussed in Ordering Paragraph (F) below.

(E) Interested entities may respond within 30 days of the date of the relevant Responding RTO's/ISO's filing, addressing either or both of: (1) whether the relevant Responding RTO's/ISO's OATT remains just and reasonable and not unduly discriminatory or preferential; and (2) if not, what changes to the relevant Responding RTO's/ISO's OATT should be implemented as a replacement rate. Interested entities also may respond, within 30 days of the relevant Responding RTO's/ISO's filing, to any of the questions in Appendix A of this order.

(F) The Secretary shall promptly publish in the *Federal Register* a notice of the Commission's initiation of these FPA section 206 proceedings in Docket Nos. EL24-80-000, EL24-81-000, EL24-82-000, and EL24-83-000.

By the Commission.

(S E A L)

Debbie-Anne A. Reese,
Acting Secretary.

Appendix A – Questions

Please provide any evidence or analysis in support of your answer to each of the following questions:

Increased Costs

1. Please explain whether the Responding RTO's/ISO's OATT provisions for transmission owners to unilaterally elect TO Initial Funding increase costs of interconnection service without corresponding improvements to that service.
2. Please detail any protections the Responding RTO's/ISO's OATT provides against the potential for the transmission owner in the Responding RTO/ISO to unjustly seek to increase the need for and/or size of network upgrades financed through unilateral TO Initial Funding in order to increase the transmission owner's rate base.
3. Please identify and describe all security provisions applicable to the interconnection customer in the Responding RTO's/ISO's OATT concerning costs for network upgrades financed by unilateral TO Initial Funding.
 - a. Please explain if the Responding RTO's/ISO's OATT or if individual agreements that contain the rates, terms, and conditions of unilateral TO Initial Funding require the interconnection customer, regardless of affiliation, to post security on the estimated network upgrade costs or actual network upgrade costs once construction is complete. As part of your explanation, please describe the form of security, the basis upon which the security is applied (e.g., estimated network upgrade costs), when security is required to be posted, and the period over which such security is required to be maintained, as well as how the security amount is adjusted during the period the transmission owner recovers its cost of capital. Please also explain whether security is posted on the cost of the network upgrade during the construction of the network upgrade and/or post construction, which is after the network upgrade goes into service.
 - b. Please explain whether the Responding RTO's/ISO's OATT provides for transmission owners to apply the same ROE to network upgrades financed through unilateral TO Initial Funding that they are authorized by the Commission to earn on other transmission facilities. Please explain whether the Responding RTO's/ISO's OATT requires the same level of security on transmission facilities that are not interconnection-related network upgrades, and if the security level is different, what the security requirements are.

- c. Please explain whether the security requirement for unilateral TO Initial Funding lowers the risk that the transmission owner will not recover its initial investment in the network upgrades. As part of your response, please explain, if there are different security requirements for transmission facilities that are not interconnection-related network upgrades and the same ROE is applied to network upgrades financed through unilateral TO Initial Funding to other transmission facilities with different security requirements, why it is just and reasonable to apply the same ROE to network upgrade costs that have a security requirement post construction.
 - d. Given that security provisions are intended to protect against potential non-payment by interconnection customers, please explain whether network upgrades financed through unilateral TO Initial Funding could be considered to have less risk, the same level of risk, or more risk than other transmission facilities that do not have similar security requirements.
 - e. Please explain whether the amount and duration of these security requirements could result in increased costs to interconnection customers for network upgrades financed through unilateral TO Initial Funding relative to what transmission customers would pay for recovery of investment in transmission facilities through the transmission rate. Please explain why or why not. Also, please explain, if the security requirements do result in increased costs, how is recovery of those costs just and reasonable and not unduly discriminatory or preferential.
4. Please explain whether interconnection customers are able to obtain financing for network upgrades at lower or similar rates as compared to the effective financing rates applied to interconnection customers by the transmission owners that unilaterally elect TO Initial Funding.¹⁷⁶
5. If interconnection customers can obtain financing at lower or similar rates as compared to transmission owners, please explain whether unilateral TO Initial Funding could result in an unjust and unreasonable increase in costs to interconnection customers interconnecting to the transmission owner's transmission system relative to the costs of interconnection customers who upfront fund network upgrades.
6. Please explain whether the financing that interconnection customers obtain to upfront fund network upgrades includes a requirement to post security. If so, please indicate whether the security requirement impacts the interest rate applied to the loan. If

¹⁷⁶ To the extent any information submitted should be treated as privileged, please submit such information consistent with 18 C.F.R. § 388.112 (2023).

so, please indicate if the security requirements are similar to those imposed by transmission owners who unilaterally elect TO Initial Funding.

Undue Discrimination

7. In the Responding RTO/ISO, please explain whether transmission owners have an economic incentive to engage in undue discrimination or preferential treatment by unilaterally electing TO Initial Funding for non-affiliated interconnection customers and by allowing Generator Upfront Funding for affiliated interconnection customers. Please explain the economic theory and logic behind your response.

8. Please indicate whether concerns about the risk of undue discrimination or preferential treatment by transmission owners in their unilateral election of TO Initial Funding are largely alleviated by, partially alleviated by, or not alleviated by the Commission's open access transmission regulatory regime. Under that regime, transmission owners use publicly available *pro forma* interconnection-related agreements to build network upgrades for interconnection customers, transmission providers report the executed interconnection-related agreements in the Electric Quarterly Reports, and the transmission owner who unilaterally elects TO Initial Funding charges a rate regulated by the Commission to recover a return of and on the network upgrade capital costs. Please explain your response.

9. Please explain whether the interconnection customers' ability to challenge network upgrade costs, including the rate of return of and on network upgrade costs, in an FPA section 206 complaint before the Commission, provides sufficient protection to interconnection customers against the risk of undue discrimination or preferential treatment by transmission owners in their unilateral election of TO Initial Funding. Please explain your response.

10. Please explain whether the interconnection customers' ability to challenge network upgrade costs, including the rate of return of and on network upgrade costs, by requesting that the transmission provider file its interconnection agreement (or other interconnection-related agreement, as applicable) unexecuted provides sufficient protection to interconnection customers against the risk of undue discrimination or preferential treatment by transmission owners in their unilateral election of TO Initial Funding. Please explain your response.

11. In the Responding RTO/ISO, please indicate whether transmission owners have engaged in undue discrimination or preferential treatment by electing unilateral TO Initial Funding for non-affiliated interconnection customers and by allowing Generator Upfront Funding for affiliated interconnection customers. Please provide detail.

12. Please identify the transmission owners that own generation and/or have affiliates that own generation, the nameplate capacity (MW amount) of the transmission owners'

owned generation and affiliated generation, and the percentage of generation in the Responding RTO's/ISO's footprint consisting of the transmission owners' owned generation and affiliated generation.

13. Please detail the protections the Responding RTO's/ISO's OATT provides against the potential for undue discrimination or preferential treatment by transmission owners in their election of which network upgrades the transmission owners will fund (i.e., TO Initial Funding). Explain whether these protections are adequate to prevent undue discrimination or preferential treatment by transmission owners.

- a. Please describe any information that the Responding RTO's/ISO's OATT requires transmission owners to post on the Responding RTO's/ISO's website on network upgrades financed through TO Initial Funding and network upgrades financed through Generator Upfront Funding, including, but not limited to, the cost of the network upgrade and whether the interconnection customer is an affiliate of the transmission owner.
- b. Please describe any criteria in the Responding RTO's/ISO's OATT that is used by transmission owners for determining how they will choose to elect TO Initial Funding for network upgrades.
- c. Please explain whether the Responding RTO's/ISO's OATT requires posting of the financing option for all network upgrades so interested parties can determine which network upgrades that transmission owners elected, and did not elect, to fund through TO Initial Funding.
- d. Please explain if there are any other protections in the Responding RTO's/ISO's OATT against the exercise of undue discrimination outside of transparency measures and/or criteria for electing to use TO Initial Funding to finance certain network upgrades.
- e. Please explain how the Commission or an interested party, i.e., an interconnection customer, could use the information, which is required to be publicly disclosed by the Responding RTO's/ISO's OATT, to:
(1) determine the facts and circumstances as to why a transmission owner exercised the option for TO Initial Funding of network upgrades; and (2) determine whether a transmission owner is exercising the option for TO Initial Funding of network upgrades in an unduly discriminatory or preferential manner among interconnection customers.

14. Please explain if undue discrimination is mitigated where transmission owners have divested their generation assets in the Responding RTO/ISO.

- a. Please explain what percentage of interconnection requests in the interconnection queue of the Responding RTO/ISO have been submitted by transmission owners or their affiliates that are building generation interconnecting to the transmission owners' own transmission facilities.

Uncompensated Risks

15. Please explain whether the risks associated with owning, operating, and maintaining network upgrades are already incorporated into, i.e., “baked into,” the transmission owner’s Commission-approved ROEs, such that transmission owners are already compensated for these alleged risks through applying the Commission-approved ROE to the net plant value of transmission assets that do not include Generator Upfront Funded network upgrades. Please explain why or why not.

16. Addressing a similar dispute regarding the funding of network upgrades in the NYISO region, the Commission explained that “the Commission calculates a utility’s return on equity based on the risk profile of the enterprise as a whole.”¹⁷⁷ Please explain whether the inability of the transmission owners to include network upgrades in their rate base impacts the transmission owners’ credit ratings due to increased enterprise-wide risk, which could affect the composition of the transmission owners’ proxy groups that are used to determine ROEs. In addition, please explain if there are any features of the mix of transmission owners in the Responding RTO/ISO or other factors that would prevent the proxy groups chosen via the existing ROE methodology from reflecting enterprise-wide risks.

17. In the Responding RTO/ISO, please estimate the percentage of the costs of interconnection-related network upgrades in relation to transmission owners’ *current* aggregate rate base for the transmission system, including all underlying assumptions and calculations. If the costs of interconnection-related network upgrades represent an increasing portion of the transmission owners’ overall transmission systems, please provide a similar estimate for the percentage of the costs of interconnection-related

¹⁷⁷ NYTO Complaint Order, 176 FERC ¶ 61,149, at PP 59 n.127, 60 (2021) (“When setting a just and reasonable return on equity for a utility, the Commission will typically construct a proxy group of utilities that were given similar credit risk ratings by a rating agency as the utility being reviewed. The proxy group utilities are then used to create an upper and lower limit on the zone of reasonableness for the return on equity that may be approved for the utility under review. As a result, if a utility has its risk profile downgraded then its proxy group will change accordingly and so will the return on equity zone of reasonableness.”).

network upgrades in relation to the transmission owner's *projected* aggregate rate base for the transmission system, including all underlying assumptions and calculations.

18. Please identify any risks the transmission owner has associated with owning, operating, and maintaining network upgrades. Please explain those risks. Also, please explain whether any such risks are development financing risks or are in addition to, or independent of, development financing risks.

19. Please explain whether it is possible to value in monetary terms the increase in risk that a transmission owner could be exposed to when adding network upgrades to its system. Please provide that monetary value and explain and justify the method used to calculate the value.

20. The TO Initial Funding provisions in the Responding RTO's/ISO's OATT provide for transmission owners to earn a return of and on the capital costs of network upgrades financed through TO Initial Funding, which transmission owners claim will result in proper compensation for the risks associated with owning, operating, and maintaining those facilities consistent with the manner in which they are compensated for owning, operating, and maintaining other transmission facilities on their systems.

- a. Assuming for the purposes of this question that the alleged risks are not already incorporated into the transmission owners' Commission-approved ROEs that are applied to transmission facilities in rate base that do not include network upgrades, explain why incorporating the capital costs of the network upgrades that transmission owners own, operate, and maintain into transmission owners' rate base, such that transmission owners' Commission-approved ROEs are applied to those network upgrade capital costs while security is also posted on such network upgrade capital costs, would result in appropriate compensation for these alleged risks.
- b. Explain whether there are costs associated with these alleged risks that are appropriate to include in the recovery of the transmission owners' Commission-approved ROEs instead of including such costs in rates charged to interconnection customers or transmission customers.
- c. If there are costs associated with these alleged risks associated with network upgrades, explain whether transmission owners already recover those costs through O&M or other charges to interconnection customers or transmission customers.
- d. If there are uncompensated risks, explain whether transmission owners can buy additional insurance to offset any or all of these risks and recover the costs for those insurance premiums from interconnection customers as a

means of receiving reasonable compensation for owning, operating, and maintaining the network upgrades financed through TO Initial Funding, instead of earning a return of and on the capital costs of the network upgrades.

- e. Explain whether the interconnection customer's security requirement lowers the risk of a loss to the transmission owner and, if so, if it is appropriate to consider that reduced risk of loss in the ROE that is applied by the transmission owner to earn a return of and on the capital costs of network upgrades financed through TO Initial Funding.

21. Certain transmission owners point to the increasing number of network upgrades needed on their transmission systems to support the argument that TO Initial Funding is necessary to ensure that transmission owners can attract new capital that supports the financial integrity of their companies.

- a. To the extent that a transmission owner's Commission-approved ROE for its rate base may be adjusted upward if a transmission owner takes on materially more enterprise-wide risk associated with network upgrades that transmission owners do not fund and earn a rate of return on, please explain why the upward adjustment in the ROE does or does not enable the transmission owner to continue to attract capital in a manner consistent with *Hope* and *Bluefield*.
- b. Explain whether, and if so, to what extent, the inability of transmission owners to earn a return of and on the capital costs of network upgrades that they currently own and operate has impacted their ability to attract new capital.
- c. Explain whether, and if so, to what extent and on what basis, transmission owners expect their inability to earn a return of and on the capital costs of network upgrades that they own, operate, and maintain will impact their ability to attract new capital in the future.

Replacement Rates

22. Assuming, for the purposes of this question, that the Commission finds that provisions for transmission owners to unilaterally elect TO Initial Funding, which allow the transmission owner to recover a return on and of the capital costs of network upgrades, imposes unjust and unreasonable costs on interconnection customers, and the Commission also finds that transmission owners have uncompensated risks associated with owning, operating, and maintaining interconnection-related network upgrades,

explain whether there is a replacement rate that would allow transmission owners to be compensated for those risks.

- a. Please explain how your proposed replacement rate would be calculated.
 - b. Please explain whether, and if so how, your proposed replacement rate would compensate transmission owners for the risks of owning, operating, and maintaining network upgrades.
 - c. Please explain whether, and if so how, your proposed replacement rate would address the concerns raised by the *Ameren* Court that denying transmission owners an opportunity to earn a return on the capital costs of network upgrades leaves them with uncompensated risks (e.g., incremental operational risks of new facilities, compliance with reliability standards, liability for insurance deductibles, litigation stemming from personal injury, environmental, and reliability claims), and requires them to operate, at least in part, on a non-profit basis (i.e., modifying the transmission owners' business model creates risk that new capital investment will be deterred).¹⁷⁸
 - d. Please explain whether, and if so how, your proposed replacement rate ensures that transmission owners are able to attract new capital investment pursuant to *Hope* and *Bluefield*.
 - e. Please explain whether your proposed replacement rate includes a requirement for the interconnection customer to post security on the undepreciated plant value of assigned network upgrades. If so, please explain whether or not the security requirement lowers the risk of a loss to the transmission owner and, if it does lower such risk, how that reduced risk is accounted for in your proposed replacement rate. If your proposed replacement rate does not account for reduced risk due to the security requirement, please explain why there is no need to account for the security requirement impacts on the risk of non-recovery.
 - f. Please explain whether the proposed replacement rate would impact costs for interconnection customers as compared to the unilateral election of TO Initial Funding.
23. Assuming, for the purposes of this question, that the Commission finds that provisions for the unilateral election of TO Initial Funding imposes unjust and unreasonable costs on interconnection customers, and the Commission also finds that

¹⁷⁸ *Ameren*, 880 F.3d at 580-582.

transmission owners have uncompensated risks associated with owning, operating, and maintaining interconnection-related network upgrades, please explain whether a management fee for the network upgrades would allow transmission owners to be compensated for those risks. If it would allow for compensation of such risks, please answer the following:

- a. Please explain how such a management fee could be calculated.
- b. Please explain how such a management fee would compensate transmission owners for the risks of owning, operating, and maintaining network upgrades.
- c. Please explain how such a management fee would address the concerns raised by the *Ameren* Court that denying transmission owners an opportunity to earn a return on the capital costs of network upgrades leaves them with uncompensated risks (e.g., incremental operational risks of new facilities, compliance with reliability standards, liability for insurance deductibles, litigation stemming from personal injury, environmental, and reliability claims), and requires them to operate, at least in part, on a non-profit basis (i.e., modifying the transmission owners' business model creates risk that new capital investment will be deterred).¹⁷⁹
- d. Please explain how such a management fee ensures that transmission owners are able to attract new capital investment pursuant to *Hope* and *Bluefield*.
- e. Please explain whether such a replacement rate would include a requirement for the interconnection customer to post security on any portion of the management fee. If so, please explain whether or not the security requirement lowers the risk of a loss to the transmission owner and, if it does lower such risk, how that reduced risk is accounted for in your proposed management fee. If such a replacement rate does not account for reduced risk due to the security requirement, please explain why there is no need to account for the security requirement impacts on the risk of non-recovery.
- f. Please explain whether such a management fee would impact costs for interconnection customers as compared to the unilateral election of TO Initial Funding.

¹⁷⁹ *Id.*

Appendix B – eTariff Citations for Unilateral TO Initial Funding

MISO

- MISO, FERC Electric Tariff, attach. X, Generator Interconnection Procedures, §§ 3.4.1, 5.8, 7.3.1.1, 7.3.2.1, 7.3.3.1, & 17 (161.0.0).
- MISO, FERC Electric Tariff, attach. X, app. 6, Generator Interconnection Agreement, Article 11.3 (98.0.0).
- MISO, FERC Electric Tariff, attach. X, app. 8, Facilities Construction Agreement, Article 3.2.1 (47.0.0).
- MISO, FERC Electric Tariff, attach. X, app. 9, Multi-Party Facilities Construction, Article 3.2.1 Agreement (47.0.0).
- MISO, FERC Electric Tariff, attach. X, app. 14, Facilities Service Agreement (34.0.0).

PJM

- PJM Interconnection, L.L.C., Intra-PJM Tariffs, OATT, Part VI Subpart B 217.8 Interconnected TO Initial Funding of Upgrades (0.1.0).
- PJM Interconnection, L.L.C., Intra-PJM Tariffs, OATT, attach. O-2 (0.0.0)
- PJM Interconnection, L.L.C., Intra-PJM Tariffs, OATT, Part VII Subpart I Initial Funding of Network Upgrades (0.0.0).
- PJM Interconnection, L.L.C., Intra-PJM Tariffs, OATT, Part VII.I 338 Initial Funding of Network Upgrades (0.0.0).
- PJM Interconnection, L.L.C., Intra-PJM Tariffs, OATT, Part IX Subpart M Form of Network Upgrade Funding Agreement (0.0.0).
- PJM Interconnection, L.L.C., Intra-PJM Tariffs, OATT, Part VIII Subpart I Initial Funding of Network Upgrades (0.1.0).
- PJM Interconnection, L.L.C., Intra-PJM Tariffs, OATT, Part VIII.I 436 Initial Funding of Network Upgrades (0.1.0).

SPP

- SPP, Open Access Transmission Tariff, attach. V, sec. 12 (0.0.0).
- SPP, Open Access Transmission Tariff, attach. V, app. 6 Generator Interconnection Agreement (21.2.0).
- SPP, Open Access Transmission Tariff, attach. V, app. 8 Interim Generator Interconnection Agreement (18.1.0).

ISO-NE

- ISO-NE, Transmission, Markets & Services Tariff, Schedule 22 (22.0.0), app. 6, art. 11.3
- ISO-NE, Transmission, Markets & Services Tariff, Schedule 23 (18.0.0), ex. 1, art. 5.2.
- ISO-NE, Transmission, Markets & Services Tariff, Schedule 25 (8.0.0), app. 6, art. 11.3.

Appendix C – Commenter and Protestor Names Cited in the Order

Abbreviated Name

Full Name(s)

Clean Energy Advocates	American Clean Power Association, Advanced Power Alliance, Solar Energy Industries Association, and the Sustainable FERC Project
Consumer Stakeholders	The City of New York, Natural Resources Defense Council, Sustainable FERC Project, and Multiple Intervenors
EPSA	Electric Power Supply Association
Joint Consumer Advocates	Office of the People’s Counsel for the District of Columbia, Maryland Office of People’s Counsel, and Delaware Division of the Public Advocate
Joint Protestors	American Clean Power Association, Advanced Energy Economy, Natural Resources Defense Council, Sustainable FERC Project, and Sierra Club
OPSI	Organization of PJM States, Inc.
SEIA	Solar Energy Industries Association
Market Monitor	Monitoring Analytics, LLC, acting in its capacity as the Independent Market Monitor for PJM
Multiple Intervenors	Multiple Intervenors is an unincorporated association of approximately 60 large industrial, commercial, and institutional energy consumers with manufacturing and other facilities located throughout New York State
NY Interconnection Customers	American Clean Power Association, Alliance For Clean Energy-New York, New York Battery and Energy Storage Technology Consortium, and Energy Storage Association
PJM Industrial Customer Coalition	PJM Industrial Customer Coalition is an ad hoc association of large industrial, commercial, and institutional end-users of electricity that have electricity-consuming facilities in the PJM region
State Entities	New York State Public Service

	Commission and New York State Energy Research & Development Authority
UIU	New York State Department of State Utility Intervention Unit