UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Improvements to Generator Interconnection Procedures and Agreements	)))	**Docket No. RM22-14-000**

COMMENTS OF THE NEW YORK INDEPENDENT SYSTEM OPERATOR, INC.

Pursuant to the Notice of Proposed Rulemaking ("NOPR") in the above-captioned proceeding,[1] the New York Independent System Operator, Inc. ("NYISO") respectfully submits the below comments and requests that the Commission consider them in developing any final rule in this proceeding. In addition to these comments, the NYISO is a signatory to, and supports, the *Initial Comments of the ISO/RTO Council*, which were also submitted today.

I. BACKGROUND

On July 15, 2021, the Commission issued an Advance Notice of Proposed Rulemaking ("ANOPR") in the above-captioned proceeding requesting comments on a host of proposed reforms concerning electric regional transmission planning, cost allocation, and generator interconnection processes.[2] The NYISO submitted initial comments on October 12, 2021,[3] and reply comments on November 30, 2021.[4]

On June 16, 2022, the Commission issued the NOPR proposing interconnection-related reforms applicable to public utility transmission providers in three key areas: (1) implementing a

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[1] *Improvements to Generator Interconnection Procedures and Agreements,* Notice of Proposed Rulemaking, 179 FERC ¶ 61,194 (2022) ("NOPR").

[2] *Building for the Future Through Electric Regional Transmission Planning and Cost Allocation and Generator Interconnection,* Advanced Notice of Proposed Rulemaking, 176 FERC ¶ 61,024 (2021) ("ANOPR").

[3] Comments of the New York Independent System Operator, Inc., Docket No. RM21-17-000 (Oct. 12, 2021) ("NYISO ANOPR Comments").

[4] Comments of the New York Independent System Operator, Inc., Docket No. RM21-17-000 (Nov. 30, 2021) ("NYISO ANOPR Reply Comments").

first-ready, first-served cluster study process; (2) increasing the speed of interconnection queue processing; and (3) incorporating technological advancements into the interconnection process. The NOPR invited all interested persons to submit comments on the potential reforms and in response to specific questions.

II. EXECUTIVE SUMMARY

The NYISO appreciates the opportunity to submit comments in response to the NOPR. For the reasons detailed in these comments, the NYISO urges that the final rule recognize the different circumstances and challenges across regions and permit each transmission provider, in coordination with its stakeholders, to address the proposed reforms within the context of the region's unique interconnection procedures, circumstances, and challenges.

The NYISO's Large Facility Interconnection Procedures ("LFIP") and Small Generator Interconnection Procedures ("SGIP") contained in Attachments S, X, and Z of its Open Access Transmission Tariff ("OATT") establish its requirements for the interconnection or modification of Large Facilities and Small Generating Facilities.[5] These requirements include significant, long-standing variations from the Commission's *pro forma* requirements established in Order Nos. 2003 and 2006 that reflect the unique circumstances in New York and the NYISO's wholesale market rules and planning processes. These variations were developed with extensive stakeholder involvement and have been accepted by the Commission pursuant to its independent entity variation standard. Among the significant variations, the NYISO already uses a first-ready, first served approach for managing projects in its interconnection queue and uses a cluster

[5] Capitalized terms not otherwise defined in these comments shall have the meaning specified in Attachments S, X, or Z to the NYISO OATT, and if not defined therein, in the NYISO OATT and NYISO Market Administration and Control Area Services Tariff.

Class Year Study as the final, hallmark study in its LFIP. Details regarding the NYISO's interconnection procedures are set forth in Appendix A.

As with all regions, the NYISO is experiencing a significant surge of new generator projects entering its interconnection queue to interconnect to the New York State Transmission System. The NYISO anticipates that the increased number of projects will continue for the foreseeable future as an unprecedented pace of generation development will be required to meet New York's climate and emission goals. This surge is already taxing the NYISO's existing interconnection processes, necessitating the commitment of significant additional time, staffing, and resources and causing backlogs in the NYISO's interconnection queue.

The NYISO shares the Commission's concerns regarding the need to streamline the interconnection process to manage these interconnection challenges and to make the process more efficient for those projects serious about moving forward. The NYISO works with its stakeholders on an ongoing basis to review its interconnection processes and to identify and implement process enhancements. In recent years, the NYISO has adopted comprehensive revisions to its interconnection processes driven by both stakeholder and developer input and the NYISO's experience in administering these processes.[6] These revisions have focused primarily on increasing efficiencies, increasing transparency, and expediting the interconnection study process, while maintaining certainty and flexibility for developers.

[6] *See, e.g., N.Y. Indep. Sys. Operator, Inc.*, Letter Order on Tariff Revisions, Docket No. ER20-638-000 (Jan. 31, 2020) (corrected via errata issued on Feb. 4, 2020); *N.Y. Indep. Sys. Operator, Inc.*, Letter Order on Tariff Revisions, Docket No. ER18-80-000 (Dec. 7, 2017); *N.Y. Indep. Sys. Operator, Inc.*, Letter Order on Tariff Revisions, Docket No. ER14-627-000 (Jan. 23, 2014); *N.Y. Indep. Sys. Operator, Inc.*, Order on Tariff Revisions, 135 FERC ¶ 51,014 (2011); *N.Y. Indep. Sys. Operator, Inc.*, Letter Order on Tariff Revisions, Docket No. ER11-2842-001 (July 6, 2011); *N.Y. Indep. Sys. Operator, Inc.*, Letter Order on Tariff Revisions, Docket No. ER10-290-000 (Jan. 6, 2010).

The NYISO's reforms have resulted in real improvements for developers in New York.[7] However, with the substantial influx of new projects, additional reforms to the NYISO's interconnection processes are needed. The NYISO is already undertaking with its stakeholders several new initiatives. These include initiatives: (i) to improve the coordination between the NYISO's and New York Transmission Owner's interconnection and transmission expansion processes;[8] (ii) to develop further comprehensive study process improvements, including improvements to stakeholder communications and to revisit and reform the Interconnection System Reliability Impact Study,[9] and (iii) to reform the NYISO's *pro forma* interconnection agreements and to establish a *pro forma* agreement for upgrades required for Affected Systems or for multiple projects.[10] Details concerning recent and ongoing initiatives are included in Appendix A, and presentation materials concerning ongoing initiatives are included in Appendix B. The NYISO plans to continue its progress on these initiatives in parallel with this proceeding. The Commission has made clear that the NOPR is not intended to divert or slow such reform efforts.[11]

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[7] For example, Class Year 2019 was the largest Class Year in the history of the NYISO's interconnection process. Sixty-one projects completed Class Year 2019 in approximately 18 months, one of the most expeditious Class Year Studies to date. In addition, the current Class Year 2021 includes 57 projects and is on target to go to the NYISO Operating Committee for approval in October – approximately 19 months from the Class Year 2021 start date. These Class Years significantly improve on the two-to three-year timeframe of prior Class Years.

[8] *See* Coordination of Interconnection and Transmission Expansion Studies, NYISO Transmission Planning Advisory Subcommittee (Sept. 1, 2022) included in Appendix B to the NYISO's comments.

[9] *See* Interconnection Studies Process Improvements, NYISO Transmission Planning Advisory Subcommittee (Sept. 1, 2022) included in Appendix B to the NYISO's comments.

[10] *See* Modifications to NYISO's *Pro Forma* Interconnection Agreements and Establishment of *Pro Forma* EPC Agreement for Certain SUFs and SDUs, NYISO Transmission Planning Advisory Subcommittee (Sept. 1, 2022) included in Appendix B to the NYISO's comments.

[11] NOPR at P 6; *see also id.* at Christie concurrence ("I also caution strongly that we should avoid undermining through this NOPR what the RTOs/ISOs, working through their stakeholder processes, are already doing to fix their own queue problems.")

Notwithstanding these ongoing initiatives, the NYISO welcomes the opportunity to pursue additional reforms to address current and anticipated interconnection challenges. To address these challenges, the NOPR proposes the most significant and comprehensive set of revisions to the Commission's *pro forma* interconnection procedures and agreements since they were created by Order Nos. 2003 and 2006. The NYISO agrees with the stated goals of the NOPR to ensure that developers can interconnect to the transmission system in a reliable, efficient, transparent, and timely manner in light of the changing landscape in the type and volume of generation projects.

As detailed in Part III below, the NOPR includes several significant reforms that the NYISO supports that are already included in the NYISO's processes. Among other things, the NYISO already uses a first-ready, first served approach, uses a cluster study as its final study in its LFIP, includes rules for the interconnection of co-located resources, permits the addition of generators to existing interconnection requests that do not change interconnection service, and uses a headroom mechanism to share network upgrade costs. These processes are working well in New York. The final rule should not require the NYISO to disturb these rules, many of which are long-standing requirements and function within the specific framework of the NYISO's existing procedures.

The NOPR includes additional reforms that, if carefully tailored to the specific circumstances in New York, could enhance the NYISO's existing processes. Among other things, the NYISO generally supports an expanded use of first-ready, first served cluster studies, revisiting developers' financial commitment and readiness requirements, addressing the involvement of affected systems in the interconnection process, and considering alternative transmission technologies in the interconnection process. The final rule should provide

transmission providers with flexibility to implement such reforms within the unique circumstances of each region.

However, as further described in Part III, the NOPR also proposes certain uniform, one-size-fits-all modifications that are based in part on assumptions that do not apply across regions. A number of the proposed reforms to the Commission's *pro forma* requirements are not applicable to the NYISO's unique interconnection processes, do not address the underlying causes of delays or inefficiencies in New York, or would require rebalancing the tradeoffs among the different, competing priorities in the interconnection process.

The NYISO, with its stakeholders' input, has struck and maintained a careful balance in its interconnection processes among the differing, and often conflicting, goals of reliability, speed, flexibility, and finality. If the Commission directs regions to prioritize certain process elements and goals (*e.g.*, providing for faster performance of studies), then other elements of the process will be impacted (*e.g.*, flexibility for developers).

Moreover, certain of the proposed reforms in the NOPR would unfairly penalize independent system operators ("ISOs") and regional transmission organizations ("RTOs"). In particular, rather than eliminating the reasonable efforts standard as proposed in the NOPR, the Commission should retain this standard and build on it - *e.g.*, by adopting enhanced reporting requirements to identify the actual causes of delays and to develop targeted solutions. As detailed in Part III.B.1 below, the NOPR has not established a basis for its preliminary finding that the use of the reasonable efforts standard is resulting in unjust and unreasonable rates. ISO/RTOs work diligently to complete interconnection studies and to improve the study process. Study delays are caused by a host of factors, many of which are outside of ISOs/RTOs' control. Studies are only becoming more complex with the expanding scope of ISO/RTOs'

interconnection responsibilities, including the unprecedented increase in generation projects. Changing the reasonable efforts standard would also necessitate a review of existing tariffs study deadlines, which have not materially changed since Order No. 2003 and which may no longer reasonably reflect the time needed to complete studies.

The final rule should also not establish financial penalties on not-for-profit ISOs/RTOs. As detailed in Part III.B.2 below, the strict liability penalty regime proposed in the NOPR is not supported by Commission precedent involving reliability or transmission study penalties. The NOPR would threaten the financial viability of ISO/RTOs and is likely to result in recurring litigation over the assignment of penalty costs. To the extent that ISOs/RTOs are permitted to recover penalty costs from customers, as they practically would have to be, penalties would only serve to arbitrarily harm those customers. Exposure to disproportionately heavy penalties for study delays would also create perverse incentives to prioritize meeting deadlines over the quality and completeness of studies. These incentives would undermine the interconnection study process that outweigh any possible positive impact on "accountability."

To the extent the final order requires penalties, it must adopt a different system than the one proposed by the NOPR. As described in Part III.B.3 below, the Commission must adhere to due process requirements, in addition to its obligations to engage in reasoned decision-making under the Administrative Procedure Act, when imposing penalties. The NOPR's strict liability penalty regime falls far short of these legal standards. A legally defensible penalty structure must be based on reasonable study deadlines, assess the actual drivers of the study delays, account for mitigating circumstances, and avoid excessive penalties.

In addition, as described in Parts III.A.5 and III.C.6 below, the final rule should not require that transmission providers provide additional interconnection studies, including

preliminary informational studies or resource solicitation studies. Such studies would require an entirely new layer of administrative requirements, agreements, and studies at the start of the interconnection process. This process would require the NYISO to redirect limited resources that could otherwise be dedicated to the Commission's goal of speeding up interconnection studies and addressing backlogs for developers that have submitted an interconnection request.

Finally, certain proposed reforms constitute modifications to the Commission's *pro forma* requirements that, as accepted by the Commission, are not part of the NYISO's interconnection process. For example, the reforms to Commission's *pro forma* surplus interconnection service requirements do not apply in New York as the surplus interconnection service rules do not fit within the NYISO's interconnection framework. The final rule should permit ISO/RTOs to maintain their existing independent entity variations accepted by the Commission.

Accordingly, the NYISO urges that the final rule recognize the widely different circumstances and challenges across regions and permit each transmission provider, in coordination with its stakeholders, to address the proposed reforms within the context of the region's unique interconnection procedures, circumstances, and challenges.

The NYISO provides in Part III below comments concerning the individual proposed reforms and requests for comment included in the NOPR.[12] Of particular note, and as detailed further in Part III below, the NYISO requests that the Commission in the final rule:

- Permit each region to determine how best to incorporate cluster studies and to allocate related study costs within the region's interconnection framework;
- Clarify that each region may determine how proportional impacts are determined for purposes of allocating upgrade costs to projects within a cluster;

[12] The NYISO has not weighed in on every proposal in the NOPR. The NYISO respectfully submits that its lack of comment should not be construed as support for any proposal.

- Permit each region to demonstrate that it already makes sufficient studies and information available to prospective developers, rather than mandating additional informational interconnection studies or the posting of additional information;

- Retain the reasonable efforts standard and reject the NOPR's proposed penalty regime and instead encourage alternatives to incentivize all parties to work collaboratively to complete interconnection studies in a timely manner;

- Permit each region, where applicable, to use existing rules for allocating the costs of shared network upgrades across cluster studies;

- Permit each region to determine the scope and application of any modifications to financial commitment and readiness requirements to better target the particular causes of speculation and delays in the region;

- Provide each region with flexibility in incorporating modifications to the affected system rules within the context of its unique regional and interregional circumstances and challenges;

- Provide each region with flexibility to accommodate resource planning entity's source solicitation processes, rather than mandating additional interconnection studies;

- Permit each region, where applicable, to use existing rules for accommodating co-located generation sited behind the same point of interconnection;

- Permit each region, where applicable, to use existing rules to provide for the addition of generating facilities to an interconnection request when it does not change interconnection service;

- Permit each region to address surplus interconnection service rules, if applicable to that region, within the context of its existing processes;

- Permit each region to hold off considering dynamic line ratings as part of its interconnection procedures until it has implemented the requirements in Order No. 881;

- Provide each region with flexibility concerning how it studies energy storage resources and non-synchronous generating facilities, rather than requiring transmission providers to use resource specific information that will significantly increase the complexity of interconnection studies;

- Confirm that ISO/RTOs may make use of independent entity variations to address the reforms proposed in the NOPR in light of their unique interconnection processes and regional circumstances;[13] and

- Adopt the 180-day compliance period proposed in the NOPR. [14]

The NYISO respectfully requests that the Commission consider these comments as it considers a final rule in this proceeding.

III. COMMENTS ON PROPOSED NOPR REFORMS

A. Proposed First-Ready, First-Served Cluster Study Process Reforms

1. The NYISO Supports the Use of a First-Ready, First Served Cluster Study Process. The Final Rule Should Provide Regions with Flexibility Concerning the Implementation of Such Studies within the Region's Interconnection Framework

The NOPR proposes to require that transmission providers use a first-ready, first-served cluster study approach for the interconnection studies conducted in their Large Generator Interconnection Procedures.[15] The NOPR also proposes implementation requirements for the cluster studies.[16]

The NYISO supports the use of a first-ready, first-served cluster study approach for conducting interconnection studies. The most significant element of the NYISO's interconnection procedures is its unique first ready, first served cluster study process for its LFIP – the Class Year Study process. The NYISO initially adopted this process in 2001 and then retained it as the final interconnection study of its LFIP in response to Order No. 2003. The

[13] *See* NOPR at PP 6, 342.
[14] *See id.* at P 342.
[15] *See id.* at PP 39, 64-79.
[16] *See id.* at PP 65-79. Among other things, the NOPR proposes adopting a window each year for an Interconnection Customer to satisfy the requirements to enter into a cluster study, modifying existing interconnection study process rules to establish a cluster approach for system impact studies and facilities studies, and revising queue position and project modification rules to account for projects participating in a cluster having the same priority. *Id.*

NYISO has over twenty years' experience in conducting its Class Year Study and, with its stakeholders, has made numerous process improvements over the years based on this experience.

The NYISO welcomes the opportunity to consider with its stakeholders a more extensive use of cluster studies in its interconnection process and to build on its successful Class Year Study approach. As indicated above, the NYISO is currently developing enhancements to its Interconnection System Reliability Impact Study. In complying with any final rule, the NYISO intends to discuss with its stakeholders additional enhancements, including clustering, for its Interconnection System Reliability Impact Study and other interconnection studies. The final rule should provide each region with flexibility concerning how such cluster studies can be implemented within the particular region's interconnection framework, including taking into account the successful attributes of a region's existing cluster study rules and lessons learned. This flexibility should include permitting each region to determine the best structure for cluster studies within its interconnection framework, such as eliminating, combining, or otherwise incorporating existing feasibility, system impact, and facilities study stages to provide for the most timely and efficient approach.

In addition, the final rule should permit a transmission provider to build on long-standing cluster study requirements that represent a careful balancing of interests agreed upon by a region's stakeholders and should not mandate prescriptive implementation requirements. For example, the NOPR proposes to establish specific re-study requirements.[17] However, a key benefit of the NYISO's Class Year Study process is that it effectively limits re-studies and provides developers with enhanced cost certainty, while also protecting the Connecting

[17] *See id.* at P 74.

Transmission Owner and other developers if a developer that participated in the study subsequently drops out of the queue.

Specifically, the Class Year Study will determine the upgrades, and related costs, to interconnect all projects in the Class Year. If, at the conclusion of the process, one or more developers decline to accept these costs, the NYISO will, within tight, tariff-prescribed timeframes, remove their projects and update the upgrades and cost information for the remaining developers. When all remaining developers accept their costs and provide the required security, the Class Year Study is final and not subject to re-studies. The developer is only responsible for upgrade costs in excess of its secured amount under limited circumstances set forth in Attachment S of the OATT but will have to forfeit its security if it withdraws its project and other developers are relying on the upgrades that it accepted. The NYISO should be permitted to retain such long-standing requirements in its existing cluster study process.

The NOPR would also require transmission providers to establish a transition process for moving to a first-ready, first-served cluster study process. Specifically, the NOPR would require transmission providers to offer existing eligible, developers the option, for each project in the queue, to either enter a transitional serial interconnection facilities study or a transitional cluster study, with commercial readiness requirements, or to permit them to withdraw from the interconnection queue without penalty.[18] The NYISO agrees that transmission providers will be required to develop a transition rule to account for any new cluster studies. The final rule should provide each region with flexibility to propose a transition process in line with its existing and proposed cluster study process, and related study changes included in its compliance proposal.

[18] *See id.* at PP 39, 156-160.

Finally, the Commission's proposed cluster study reforms apply to its *pro forma* Large Generator Interconnection Procedures. However, a significant amount of the increased growth of interconnection requests are for generators 20 MW or smaller, particularly for renewable projects. The final rule should permit, but not mandate, regions to propose a cluster approach for interconnection studies for Small Generating Facilities.

2. The Final Rule Should Provide Regions With Flexibility Concerning the Cost Allocation Approach for Cluster Study Costs

The NOPR would require that the shared costs of cluster studies be allocated as follows: 90% of the applicable study costs to interconnection customers on a *pro rata* basis based on requested MWs included in the applicable cluster, and 10% of the applicable study costs to interconnection customers on a *per capita* basis based on the number of interconnection requests included in the applicable cluster.[19] The NOPR requests comment on whether a different cost allocation approach may be appropriate or whether each transmission provider should be provided additional flexibility to propose a cost allocation approach on compliance with any final rule.[20]

The final rule should provide transmission providers with flexibility to propose a methodology for allocating study costs in line with the design of the cluster study or studies, particularly as the studies associated with different interconnection facilities and upgrades have different complexity and related costs. The NYISO has developed with its stakeholders a carefully balanced approach for allocating study costs that equitably distributes study cost responsibility among projects in the Class Year, while allowing the study costs that are attributable to a specific project to be directly assigned to that project. Specifically, a developer

[19] *See id.* at P 82.
[20] *See id.* at P 83.

is responsible for all of the study costs associated with studying the Attachment Facilities, Distribution Upgrades, and Local System Upgrade Facilities required for its individual facility.[21] A developer participating in a Class Year is also responsible for an equal share of all of the Class Year Study costs - *i.e.*, the costs associated with studying the System Upgrade Facilities required for the reliable interconnection of the cluster of facilities and, if developer is seeking Capacity Resource Interconnection Service in the Class Year, the System Deliverability Upgrades required for deliverability. The final rule should allow the NYISO to retain elements of its existing study cost allocation methodology that align with the study changes included in its compliance proposal.

3. The NYISO Supports the Use of a Proportional Impact Method to Allocate Upgrade Costs within a Cluster. The Final Rule Should Provide Regions with Flexibility Concerning How the Proportional Impact Is Determined

The NOPR would require transmission providers to allocate network upgrade costs to interconnection customers within a cluster using a proportional impact method.[22] The NYISO supports the use of a proportional impact method to allocate the network upgrade costs to interconnection customers within a cluster.

As noted by the NOPR, the NYISO already uses a proportional impact method.[23] The NYISO determines proportional impact based on the trigger for the upgrade: (i) for thermal upgrades: MW impact; (ii) for short circuit upgrades: ampere impact; (iii) for stability upgrades: ampere impact; (iv) for voltage upgrades: volage deviation impact; and (v) for protection/communication upgrades, equally per project.[24]

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[21] *See* OATT Attach. X § 30.13.3.
[22] *See* NOPR at P 88.
[23] *See id* at P 87.
[24] *See* OATT Attach. S §§ 25.6.2.5, 25.6.2.6.

The final rule should provide regions with flexibility concerning how proportional impact is determined and not mandate a particular approach, including not mandating the use of a distribution factor analysis. This will permit the NYISO to focus on process changes that will have a measurable effect on study efficiency, rather than revisiting its longstanding, just and reasonable approach for determining proportional impact.

4. The Final Rule Should Provide Regions with Flexibility to Use Existing Rules for Allocating the Costs of Shared Network Upgrades Across Cluster Studies

The NOPR would require transmission providers to allocate the costs for network upgrade costs between interconnection customers in an earlier cluster study and interconnection customers in a subsequent cluster study that benefit from the same network upgrade in a manner that is roughly commensurate with the benefits received.[25] The NOPR proposes detailed procedures for the identification of shared network upgrade costs and the payment of such costs among interconnection customers.[26]

As noted in the NOPR, the NYISO already uses a "headroom" process as part of its Class Year Study that allocates shared network upgrade costs among developers in different Class Years.[27] Under the NYISO's headroom requirements, if a developer pays for upgrades that create capacity on the electric system in excess of that needed for the developer's project, then the developer may be reimbursed by a subsequent developer for its use of the excess capacity of the upgrades.[28] The NYISO's headroom concept was included in the NYISO's initial interconnection procedures filed in 2001 and has operated successfully for twenty years.

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[25] *See* NOPR at P 98.
[26] *See id*. at PP 98-99.
[27] *See id*. at P 92.
[28] Such headroom can be created by a developer that elects to construct System Upgrade Facilities that are larger or more extensive than the minimum facilities required to reliably interconnect its proposed project ("Elective System Upgrade Facilities"). *See* NYISO OATT Attach. S §§ 25.6.1.4.1 & 25.7.12.7 (establishing similar

If the final rule adopts shared network upgrade facility costs requirements, it should permit regions flexibility concerning the implementation of such rules, including the flexibility to maintain existing rules concerning the sharing of such upgrade costs.

5. The Final Rule Should Recognize What Regions Are Doing to Provide Meaningful Information to Prospective Developers and the Tradeoffs and Diminishing Returns to the Interconnection Process of Substantially Expanding Such Requirements

The NYISO supports the Commission's goal of making meaningful information available for prospective developers before they enter the interconnection queue and, as detailed below, currently makes substantial amounts of information available for use by the developer and its consultants. The NYISO agrees that such information can assist developers in locating their projects - potentially decreasing speculative projects. The final rule, however, should recognize what regions are already doing to make meaningful information available and the tradeoffs and diminishing returns to the interconnection process of substantially expanding such requirements, including delaying the process for developers that have submitted an interconnection request.

The NOPR proposes to require a transmission provider to offer an optional informational interconnection study to provide additional information for prospective interconnection customers in deciding whether to submit an interconnection request.[29] Such studies would create a new layer of additional studies, agreements, and related administrative requirements. This additional work would significantly increase the number of studies that must be performed by the already taxed interconnection resources of transmission providers. To perform such studies, the

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headroom requirements for System Deliverability Upgrades). Headroom can also result simply from the fact that commercially available facilities may be somewhat larger than what is required for a particular project. If a developer of a later project uses the headroom created and paid for by the earlier developer, the later developer must pay the original developer for this headroom in accordance with specific headroom reimbursement rules. *See* NYISO OATT Attach. S §§ 25.8.7 & 25.7.12.6 (establishing similar Headroom requirements for System Deliverability Upgrades).

[29] *See* NOPR at PP 39, 42-48. Prospective developers could have up to five separate informational interconnection study requests pending at a time. *See id.* at P 43.

NYISO would have to redirect limited resources from processing interconnection requests and working on interconnection studies, impeding the Commission's goal of speeding up such studies and addressing backlogs.

Such preliminary, high-level studies for speculative or preliminary projects are of limited value. Instead, the NYISO already provides developers the opportunity to request an Optional Interconnection Facilities Study at the outset of the interconnection process for developers to obtain a preliminary evaluation of the system impact and interconnection costs associated with their projects prior to their electing to advance to more detailed studies and cost responsibilities. The Commission should not further overwhelm existing interconnection processes by providing for developers to request numerous additional studies for speculative or preliminary projects.

In addition, the NOPR proposes to establish minimum requirements for transmission providers to publicly post available information pertaining to generator interconnection, including an interactive visual representation of available interconnection capacity and a table of relevant interconnection metrics.[30] The NYISO already makes information available that is more valuable to developers than the proposed interactive heatmaps, which are of limited and transitory value. Before a developer submits an interconnection request in New York, it can request the standard base cases currently being used by the NYISO for Optional Interconnection Feasibility Studies and Interconnection System Reliability Impact Studies. The developer can use these base cases for its own purposes to consider and evaluate design alternatives or refinements for its project and/or its proposed interconnection.

[30] *See id.* at PP 39, 49-52.

The NYISO also makes available a significant amount of system information on its public website. Among other things, the NYISO posts: (i) extensive market data;[31] (ii) its annual Load & Capacity Data Report or ("Gold Book") with historical, current, and future load and capacity data,[32] (iii) a biennial System & Resource Outlook that provides substantial information concerning the transmission system statewide, including information derived from an energy deliverability metric.[33] (iv) annual wind and solar information (including wind and solar performance information plus workbook attachments that detail the statewide wind production and statewide wind curtailments at the monthly level with a multiyear lookback),[34] (v) monthly wind and solar performance data,[35] and (vi) quarterly and annual congestion data.[36] A developer may use a consultant to review the interconnection cases, the above information, and prior interconnection and planning study reports.

This collective data provide developers with a reasonable amount of information by which it can determine whether, and where, to propose to interconnect a project in New York. The Commission should not convert the NYISO's interconnection studies into operations or congestion studies nor should the NYISO's role in the interconnection study be as a consultant to the developer for its economic decision as to whether and where to propose a project, particularly

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[31] *See* NYISO market data; *available at:* https://www.nyiso.com/markets.

[32] *See* NYISO 2022 Load & Capacity Data Report; *available at:* https://www.nyiso.com/documents/20142/2226333/2022-Gold-Book-Final-Public.pdf/cd2fb218-fd1e-8428-7f19-df3e0cf4df3e.

[33] *See* 2021-2040 System & Resource Outlook (The Outlook) (Draft Report: August 31, 2022); *available at:* https://www.nyiso.com/documents/20142/32976598/2021-2040_System_Resource_Outlook_Report_v19_MC.pdf/c638407b-65f9-fe53-4314-9ddce613378f.

[34] *See* "Annual Wind and Solar Information" located under Reports at the Reports & Info page of the NYISO's website; *available at*: https://www.nyiso.com/reports-information.

[35] *See* "NYISO Monthly Report" located under Corporate Reports at the Document Library of the NYISO's website; available at: https://www.nyiso.com/library.

[36] Such information is available at: https://www.nyiso.com/ny-power-system-information-outlook.

as such work would come at the expense of the timely administration of interconnection requests in the queue.

6. The Final Rule Should Provide Regions with Flexibility Concerning the Scope and Application of More Stringent Financial Commitment and Readiness Requirements to Best Target Such Reforms to the Region's Circumstances

The NOPR would require a transmission provider to impose more stringent financial commitments and readiness requirements on interconnection customers, including increased study deposits, more stringent site control requirements, a commercial readiness framework, and higher withdrawal penalties.[37] The purpose of the proposed reforms is to allow transmission providers to focus on processing viable interconnection requests and to better approximate the cost of the interconnection study process.[38]

The NYISO agrees that the increased financial commitment and readiness requirements proposed in the NOPR would likely lead to fewer speculative projects in the interconnection queue. As a result, the NYISO expects that the smaller number of projects in the interconnection queue would facilitate the completion of the interconnection studies on a faster basis.

The final rule should provide each region with flexibility concerning the scope and application of any modifications to financial commitment and readiness requirements, so that such modifications are best targeted to address the particular causes of delays in that region. The NYISO provides comments below concerning the individual financial commitments and readiness requirements proposed in the NOPR.

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[37] *See* NOPR at PP 39, 103.
[38] *See id.* at P 103.

a. Increased Study Deposits.

The NOPR proposes to adopt increased study deposits before each phase of the new cluster study process, which deposit amounts are tied to the size of the proposed generating facility.[39] In addition, the NOPR proposes to require interconnection customers to submit a deposit equal to nine times the amount of its study deposit when executing the LGIA or requesting the filing of an unexecuted LGIA, which deposit would be refunded once the facility achieves commercial operation.[40]

The study deposit rules proposed in the NOPR are substantially higher than the NYISO's current deposits. The NYISO expects that such rules would likely result in fewer speculative projects proceeding through its interconnection process. In addition, a significant deposit upon the execution of the interconnection agreement may lessen the likelihood of developers proceeding to an interconnection agreement prematurely. The NYISO has started to see instances where a project proceeds all the way through the NYISO's Class Year Study and to the negotiation of an interconnection agreement, only to either: (i) withdraw during the negotiation of the interconnection agreement or (ii) execute an interconnection agreement and then require multiple extensions of the proposed Commercial Operation Date. If the current, more flexible regulatory milestones remain in place, the NYISO expects the frequency of these events to increase over time, adding significant uncertainty to the overall process.

b. More Stringent Site Control Requirements.

The NOPR proposes to require an interconnection customer to demonstrate 100% site control for its proposed generating facilities when it submits its interconnection request.[41] The

[39] *See id*. at PP 106-107.
[40] *See id.* at P 108.
[41] *See id.* at P 116.

interconnection customer would have to demonstrate exclusive land rights.[42] The interconnection customer could provide a deposit in lieu of site control when it submits its interconnection request only when regulatory limitations prohibit the interconnection customer from obtaining site control.[43] In such instances, the interconnection customer would submit an initial deposit in lieu of site control of $10,000 per MW, subject to a floor of $500,000 and a ceiling of $2,000,000, which would be applied toward any interconnection studies or withdrawal penalty, if applicable.[44] In such case, the interconnection customer must demonstrate 100% site control prior to the facilities study.[45] In addition, the NOPR would require the transmission provider include in its tariff specific acreage requirements for each generating facility technology type.[46]

The NYISO agrees with the need for stringent site control requirements to ensure projects are not speculative and are able to make timely progress. The Commission should provide specific criteria for the 100% site control determination to facilitate implementation of the proposed rule. In particular, the final rule should clarify that 100% site control equates to site control over a prescribed number of acres per MW for a particular project type. In addition, the final rules should establish specific acre per MW criteria for each project type (*e.g.*, offshore wind, land-based wind, solar, etc.) for purposes of the site control determination and to establish the extent to which transmission providers can depart from such criteria based on the particular circumstances of a given project. In making site control determinations, the NYISO currently relies primarily on guidelines developed by the National Renewable Energy Laboratory, while

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[42] *See id.* at P 117.
[43] *See id.* at P 118.
[44] *See id.*
[45] *See id.*
[46] *See id.* at P 116.

other transmission providers use alternative criteria. This creates uncertainty for developers as they secure site control. Transmission providers and developers would benefit from clear site control rules that apply across regions. The NYISO therefore requests that the final rule establish uniform requirements across regions for making the 100% site control determination. In addition, the final rule should provide clear requirements for what circumstances would prohibit a developer from obtaining site control due to regulatory prohibitions. Finally, the final rule should clarify the scope of site control and whether it is limited to the generating facility or also includes other elements (*e.g.*, developer's interconnection facilities).

c. Commercial Readiness Framework.

The NOPR proposes to include a commercial readiness framework by which an interconnection customer must demonstrate, prior to entering into a cluster study, its satisfaction of certain milestones that demonstrate commercial readiness or, in the alternative, provide a deposit in lieu of such demonstration, with increasing study deposit amounts as the project proceeds through the cluster studies.[47]

The NYISO already uses a "regulatory milestone" requirement that a developer must satisfy to be eligible to enter the NYISO's cluster Class Year Study. Pursuant to the NYISO's Class Year Study process, to enter a Class Year, a project must: (i) demonstrate that it satisfies an applicable regulatory milestone[48] or (ii) submit a qualifying contract or post a two-part deposit in lieu of the regulatory milestone.[49] A developer that meets this milestone requirement by submitting a qualifying contract or posting a deposit is still required to satisfy the regulatory

[47] *See id.* at PP 128-137.
[48] *See* NYISO OATT Attach. S § 25.6.2.3.1.1.
[49] *See id.* at § 25.5.9.1.

milestone within six months of the NYISO tendering the draft interconnection agreement.[50] If the developer does not satisfy the regulatory milestone, its project is subject to withdrawal from the NYISO's interconnection queue.[51] The regulatory milestones that must be achieved are set forth in the NYISO OATT and reflect siting requirements in New York for different types of generation and transmission projects. The milestones are intended to identify a point in the specific permitting process that represents that the project has made significant progress, without requiring that the permitting process is necessarily complete.[52]

The NYISO's experience thus far concerning such regulatory milestones is that a significant number of projects are proceeding to the Class Year Study, or even completing a Class Year Study, posting Security for required upgrades, and proceeding to the interconnection agreement stage without having yet satisfied the regulatory milestone. Such projects are making use of qualifying contracts or deposits to continue through the interconnection process while seeking their regulatory milestone and betting on achieving such milestone prior to the tariff's withdrawal deadline. Further tightening of the regulatory milestone requirements may be required as the NYISO continues to assess whether the exceptions are enabling more real projects to proceed or simply allowing speculative projects to move forward in the queue and slow down the Class Year Study for other projects in same study.

The final rule should permit regions to make use of their existing commercial readiness framework and related milestones if used in that region. The regulatory milestone requirements in New York have been the subject of extensive negotiation and development among the NYISO

[50] *See id.* at § 25.6.2.3.2.
[51] *See id.* at § 25.6.2.3.3.
[52] *See id.* at § 25.6.2.3.1.1.

and its stakeholders and are tailored to specific siting and permit requirements applicable in New York.[53]

d. Withdrawal Penalties

The NOPR proposes to require transmission providers to assess withdrawal penalties to interconnection customers when the customer chooses to withdraw at any point in the interconnection study process or does not otherwise reach commercial operation, except in defined circumstances in which the withdrawal does not harm other interconnection customers or if the withdrawal follows a significant unanticipated increase in network upgrade cost estimates.[54]

The final rule should permit regions with existing withdrawal penalty requirements that achieve the Commission's goal for such penalties to retain such requirements and to consider whether additional penalty requirements could provide additional benefits. The NYISO's Class Year Study process already establishes carefully balanced rules concerning a developer's financial responsibility if its project is withdrawn. A developer participating in a Class Year Study has the opportunity to determine at the decision period at the conclusion of the study whether to accept the Project Cost Allocation for the upgrades identified for its project and post the related security.[55] If the developer does not want to proceed at the identified cost, then the developer will exit without financial penalty at that time; however, the developer cannot proceed with its project without completing a Class Year Study.

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[53] The regulatory milestones include, among other things, milestones concerning: air and wind permit applications pursuant to the New York State Department of Environmental Conservation, negative declaration determinations issued by the New York State Environmental Quality Review Act ("SEQRA"), applications filed pursuant to Article 10 of the New York State Public Service Law for the siting of major electric generating facilities, applications filed pursuant to Article VII of the New York Public Service Law for the siting of major utility transmission facilities, and other applicable siting and permitting milestones.

[54] NOPR at P 141.

[55] *See* NYISO OATT Attach. S § 25.8.2.

The remaining developers that elect to proceed at the cost identified for their projects must accept their Project Cost Allocation and post security or make cash payment in that amount.[56] This caps a developer's cost responsibility for the upgrades associated with its project, subject to limited tariff-prescribed exceptions, but also subjects the developer's security to forfeiture if its project is withdrawn and other developers are relying on the upgrades it accepted.[57] The forfeited security will be used by the Connecting Transmission Owner to offset the costs of constructing the required upgrades.

The NYISO's approach limits the need for re-studies and limits penalties – in the form of forfeiture of security – to instances in which a developer's withdrawal harms other developers. Unlike the NYISO's approach, the withdrawal penalty amounts proposed in the NOPR, which are tied to study costs, are unlikely to provide sufficient capital to cover the costs of constructing the upgrades of withdrawn projects that are being relied upon by other developers.

B. Proposed Reforms to Increase the Speed of Interconnection Queue Processing

The NYISO understands how important it is that interconnection studies be completed in a timely manner. This has been true since the Commission first established interconnection procedures, and it will be even more important during the ongoing transition to a cleaner resource mix.

Nevertheless, as discussed in this section, the Commission should not eliminate the reasonable efforts standard or impose financial penalties on not-for-profit ISOs/RTOs for late studies.[58] Instead, the Commission should consider alternative means of ensuring that all

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[56] *See id.* at § 25.8.2.1.

[57] *See id.* at §§ 25.8.5, 25.8.6, 25.9.2.

[58] The NYISO takes no position at this time on the questions of whether the reasonable efforts standard should be modified, or whether penalties might be appropriate, for transmission providers that are not ISOs/RTOs.

participants are incentivized to work collaboratively and diligently in ISO/RTO interconnection study processes. Specifically, the Commission could build on Order No. 845's reporting requirements as the NYISO suggests below. In the alternative, if the Commission decides that some sort of penalty regime is necessary, it must address the critical legal defects in the NOPR's proposals to satisfy the standards of due process and reasoned decision-making.

1. The Final Rule Should Not Eliminate the Reasonable Efforts Standard

The NOPR has not justified its "preliminary finding" that "use of the reasonable efforts standard results in rates that are unjust and unreasonable."[59] Just four years ago, Order No. 845 concluded that it would not be appropriate to establish "firm deadlines" or penalties under the reasonable efforts standard.[60] The NOPR acknowledges that it proposes to move away from this recent ruling but does not provide any reasoned basis for doing so.

Order No. 845 correctly observed that missed study deadlines often "will not be the result of the transmission provider having acted inappropriately."[61] The NOPR continues to recognize that common explanations offered for studies extending beyond the anticipated deadline "include the high volume of interconnection requests, re-studies caused by withdrawal of higher-queued interconnection requests, and coordination among transmission owners, affected systems, and interconnection customers."[62] Nevertheless, the NOPR focuses only on data showing that "nearly all transmission providers across the country regularly fail to meet interconnection study deadlines."[63] The NOPR leaps from these data to the conclusion that there is a "potential need for further reforms to better ensure that transmission providers meet interconnection study

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[59] NOPR at P 167.
[60] Order No. 845 at PP 322-23.
[61] *Id.* at P 309.
[62] NOPR at P 165 (footnotes omitted).
[63] *Id.* at P 166.

deadlines"[64] because the fact that "transmission providers do not face any consequence for missing study deadlines"[65] is supposedly prolonging studies.

It would be arbitrary and capricious for the Commission to make such a one-sided determination. Not-for-profit ISOs/RTOs clearly have no financial or competitive incentive to missing deadlines. There is no basis for presuming that they would deliberately do so. The NOPR cites no evidence, and the NYISO is not aware of any, to suggest that ISOs/RTOs are failing to work diligently to complete studies on time. To the contrary, the NOPR acknowledges[66] that an ever-increasing number of interconnection requests, the changing resource mix, emerging technologies, and the limited number of qualified engineers available to conduct studies[67] are creating interconnection challenges. Yet the NOPR's proposal to eliminate the reasonable efforts standard inexplicably ignores these real-world challenges.

The NYISO's experience conducting interconnection studies further illustrates that lengthier studies are typically caused by complex factors that are an inherent part of the interconnection process and that are often outside of an ISO/RTO's control. For example, the NYISO's August 12, 2022 quarterly informational report on interconnection study metrics

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[64] *Id.*

[65] *Id.* Footnote 241 of the NOPR cites to testimony by Utah Public Service Commission Chairman Ted LeVar suggesting that the Commission should consider "consequences" for transmission providers that miss study deadlines. However, Chairman LeVar also expressly noted that "[f]ines are not always the best consequences." Joint Fed.-State Task Force on Elec. Transmission, Technical Conference, Docket No. AD21-15-000, Tr. 89:17-18 (Ted LeVar) (May 6, 2022) (May Joint Task Force Tr.). In addition, Commissioner LeVar is from a non-ISO/RTO state and acknowledged that there are significant differences between ISO/RTO and non-ISO/RTO regions. *See* May Joint Task Force Tr.at 45-46 ("[T]here's usefulness to best practices, but these best practices are going to operate differently in each RTO and particularly between the RTO and non-RTO areas.") Commissioner LeVar's statements therefore are not a rational basis for imposing a late study penalty regime on ISOs/RTOs.

[66] *See* NOPR at P 20.

[67] *Id.* ("Further, transmission providers report that there is a nationwide shortage of qualified engineers to keep pace with the increasing number of interconnection requests in the queue and associated interconnection studies) and n. 67.

("August 12 Report") described various primary drivers of delays.[68] These included: (i) revisions required to the data and/or diagram provided by the developer; (ii) multiple points of interconnection ("POIs") proposed by a developer resulting in the need for additional analysis; (iii) project modeling revisions due to a developer's request to modify a project or change a proposed POI; (iv) technical challenges due to the POI(s) proposed by a developer; (v) revisions to study base cases due to system representation updates; and (vi) the need for project-specific deliverability analyses.[69] There were also a variety of administrative challenges involving information exchanges between the parties to interconnection studies and their consultants or other technical issues.

The August 12 Report goes on to emphasize that "the NYISO's current processing of studies under the LFIP continues to be affected by the significant, sustained growth in the volume of Large Facility Interconnection Requests and developer-initiated changes to the information provided in the Interconnection Requests."[70] Moreover, more projects are seeking to interconnect in closer proximity to each other, which results in additional complexity and cascading impacts on other projects due to the interactions between different Interconnection Requests.[71] Finally, the August 12 Report described the NYISO's ongoing efforts to obtain more resources, develop new process efficiencies, and advance process improvements to expedite the study process.[72]

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[68] *See N.Y. Indep. Sys. Operator, Inc.*, Interconnection Study Processing Metrics Informational Filing, Docket No. ER19-1949-000 (August 11, 2022).

[69] *Id.* at Attachment A.

[70] *Id.* at 6.

[71] *Id.*

[72] *Id.*

The NYISO has not systematically reviewed other ISO/RTO quarterly metrics filings. But the NYISO understands that they raise similar points. It would not be reasoned decision-making for the Commission to disregard the evidence from ISO/RTO reports and draw an overly simplistic conclusion that the reasonable efforts standard is somehow to blame for studies that require more time than the *pro forma* study deadlines.[73] The actual evidence contradicts the NOPR's preliminary finding that the reasonable efforts standard is unjust and unreasonable.

If the Commission were to eliminate the reasonable efforts standard, the Commission must first allow each region to establish study deadlines that are appropriate recognizing the scope and purpose of each study. The *pro forma* deadlines date back decades and were not developed with the need to interconnect the current influx of clean energy projects in mind. They also were not designed for first-ready, first-served interconnection frameworks, clustered interconnection studies, or other NOPR proposals that might include a scope of work or level of complexity requiring additional time to complete. Over the years, the NYISO has used a first-ready, first-served process, evaluated interconnection requests in parallel, employed a unique Class Year Study process that considers the cumulative impacts for a group of projects, and adopted numerous other improvements.[74] But the NYISO's study deadlines have barely changed and are still essentially the same as the *pro forma* LGIP's. Instead of arbitrarily presuming that missed deadlines must reflect failures by ISOs/RTOs, the Commission must seriously consider

[73] Specifically, Paragraph 165 of the NOPR identifies the NYISO one of sixteen transmission providers in February 2022 that "submitted required informational reports to the Commission because they exceeded an interconnection study deadline for more than 25% of any study type for two consecutive quarters." But the NYISO's February interconnection study metrics report explained that the delays were caused by the same kinds of complex factors beyond the NYISO's control that are described above. It is not reasoned decision-making for the NOPR to cite the NYISO's February report without attaching any weight to the evidence it provided regarding the actual causes of interconnection study delays.

[74] *See* Appendix A at Sections II and III.

that some tariff deadlines may no longer be reasonable.[75] If the Commission moves away from the reasonable efforts standard, it will be critically important to ensure that study deadlines are reasonable in light of actual complexity and difficulty presented by particular studies.

It would also be premature for the Commission to blame the reasonable efforts standard for possible future missed study deadlines *before* the NOPR's various proposed reforms have been implemented. The NOPR is seeking "to remedy several well-established sources of delay, such as speculative interconnection requests, affected systems coordination, and serial interconnection queues."[76] It is likely that these reforms will have at least some impact. Rushing to modify the reasonable efforts standard would amount to saying that the Commission expects the NOPR's reforms to fail. The fact that some transmission providers, including the NYISO, that have already implemented some of the NOPR's reforms are still periodically missing *pro forma* deadlines[77] does not mean that the issue will persist after all of the reforms, including those that would apply to other entities, are in place. The Commission should also consider the possibility that the additional improvements that ISOs/RTOs, including the NYISO, are already pursuing in advance of any final rule will help to ameliorate the NOPR's concerns. As detailed in Appendix A, the NYISO is currently pursuing and plans to continue to pursue improvements to its interconnection process.

Simply stated, some form of reasonable efforts standard is the right approach to apply to complex interconnection processes that must address constantly changing circumstances, inputs from multiple participants, incomplete or insufficient applications. and overlapping interactions

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[75] It would also be arbitrary and capricious for the Commission to treat missing existing study deadlines as evidence of failure by ISOs/RTOs when those deadlines are expressly not "firm" under Order No. 845. *See* Order No. 845 at PP 322-323.

[76] NOPR at P 167.

[77] *See id.* at P 166.

among decisions made by multiple entities. The reasonable efforts standard, combined with Order No. 845's reporting requirements, already provides the Commission and interested stakeholders with the information necessary to evaluate how long ISOs/RTOs are taking to finish studies and to compare their relative performance. If that information indicates that a particular entity is systematically delaying interconnection studies, then the Commission will be in a position to investigate and take appropriate action given the circumstances of a particular case. The fact that the Commission, to date, has not identified a violation of the reasonable efforts standard does not indicate that the standard itself is flawed.

Finally, retaining the reasonable efforts standard does not mean that Commission could not take other concrete steps to encourage timeliness and accountability by all parties involved in interconnection studies. If the Commission believes that more must be done, it should build on Order No. 845 by updating and enhancing its reporting requirements. Future interconnection metrics reports could provide more specific descriptions of the primary drivers of missed deadlines, perhaps using standardized terminology established by a final rule. The objective would be to create even more transparency than Order No. 845 by more clearly identifying the specific actions and entities contributing to issues and the relative weight of their contributions. Armed with this information, the Commission would better understand why studies may take longer than expected to complete and be able to take targeted actions to address any problems, including in any instances where an ISO/RTO is truly at fault. It would be far more reasonable, and legally defensible, to adopt enhanced reporting rules instead of prematurely abandoning the reasonable efforts standard and arbitrarily presuming that ISOs/RTOs are to blame for every missed deadline.

2. The Final Rule Should Not Impose Financial Penalties on Not-for-Profit ISOs/RTOs

The NOPR recognizes that "the application of penalties for late interconnection studies in the context of RTOs/ISOs may raise several unique issues."[78] This is a substantial understatement. Imposing penalties on ISOs/RTOs would not improve their study performance. But it would create perverse incentives and serious risks. Penalties would either disproportionately threaten the financial viability of ISOs/RTOs and reduce the quality of reliability studies or impose costs on ISO/RTO customers that may have no influence on the duration of studies.

a. Penalties Will Either Impose Disproportionately Harsh Consequences on Not-For-Profit ISOs/RTOs or Have No Effect Other than Punishing Customers

The NOPR proposes to prohibit penalties for late interconnection studies from being recovered through transmission rates.[79] As the NOPR acknowledges, this creates an issue for not-for-profit ISOs/RTOs because they do not have shareholders to absorb the cost of penalties. But contrary to what the NOPR implies, this is not a routine or minor issue for not-for-profit ISOs/RTOs. To the contrary, financial penalties pose a potentially existential threat to ISOs/RTOs that could result in bankruptcy if they are denied the ability to recover penalty costs.

The NOPR notes that ISOs/RTOs have been allowed to make special tariff filings to seek permission to pass through reliability-related penalty costs from their stakeholders.[80] The

[78] NOPR at P 171.
[79] *See id*. at P 169.
[80] *See id.* at P 172.

Commission also points to Order Nos. 672[81] and 890[82] as ostensibly establishing the principle that ISOs/RTOs should be subject to penalties on the same basis as other transmission providers. There are multiple distinctions that undercut the NOPR's reliance on these orders.

First, although ISOs/RTOs are allowed to make FPA Section 205 filings[83] to seek to recover reliability penalty costs, this mechanism has rarely been used and has even less often resulted in challenges or disputes.[84] The NYISO has tariff provisions on file[85] that authorize it to seek to recover reliability penalty costs but has never used them because it has never been assessed a penalty. To the best of the NYISO's knowledge, other ISOs/RTOs have been assessed at most a handful of penalties in the fifteen years since mandatory reliability penalties were introduced. But if the reasonable efforts standard is eliminated, penalties are imposed for all missed deadlines (regardless of actual fault), and deadlines are not updated to reflect the increasing scope and complexity of studies, then ISOs/RTOs could face frequent penalties. Challenges to penalty passthroughs to customers, and litigation over efforts to assign penalties in whole or in part to parties that contributed to missed deadlines, would become common.

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[81] *Rules Concerning Certification of the Elec. Reliability Org.; & Procs. for the Establishment, Approval, & Enforcement of Elec. Reliability Standards*, 114 FERC ¶ 61,104, (2006); *order on reh'g*; Order No. 672-A, 114 FERC 61,328 (2006).

[82] *Preventing Undue Discrimination & Preference in Transmission Serv.*, Order No. 890, 72 FR 12266 (Mar. 15, 2007), 118 FERC ¶ 61,119, *order on reh'g*, Order No. 890-A, 73 FR 2984 (Jan. 16, 2008), 121 FERC ¶ 61,297 (2007), *order on reh'g*, Order No. 890-B, 123 FERC ¶ 61,299 (2008), *order on reh'g*, Order No. 890-C, 74 FR 12540 (Mar. 25, 2009), 126 FERC ¶ 61,228, *order on clarification*, Order No. 890-D, 129 FERC ¶ 61,126 (2009).

[83] Under the NYISO's shared governance system, the NYISO may ordinarily make Section 205 filings only with super-majority support of the stakeholder Management Committee. One exception to this practice is that the NYISO expressly has unilateral authority to make Section 205 filing to seek to recover reliability penalty costs under Section 6.11.13.1 of the NYISO OATT. If the Commission adopts penalties for interconnection study delays in this proceeding it should be clear that all ISOs/RTOs may make penalty recovery filings without first having to obtain stakeholder permission.

[84] *See, e.g.*, *Midwest Independent Transmission System Operator, Inc.*, 135 FERC ¶61,118 (2010) (accepting pass-through of $7,000 reliability penalty cost over protests); *Letter Order*, Docket No. ER22-2449-000 (August 30, 2022) (accepting uncontested pass-through of $280,000 reliability penalty cost).

[85] NYISO OATT § 6.11 "Schedule 11 – Penalty Cost Recovery" ("Schedule 11").

Consequently, repeated exposure to automatic interconnection study penalties is a higher risk proposition for not-for-profit ISOs/RTOs than their exposure to NERC reliability penalties.

The Commission's order accepting Schedule 11 to the NYISO OATT underscores the financial pressures that ISOs/RTOs would face under the NOPR's proposed penalty regime. Schedule 11 outlines the procedures that the NYISO may follow to recover reliability penalty costs when it is at fault for a violation or to attempt to assign[86] those costs to other parties that contributed to, or that actually caused, the violation.[87] One party protested allowing the NYISO to seek recovery of costs in any instance where it was at fault. The Commission rejected that protest but was very clear that it would closely scrutinize NYISO cost recovery filings and reserved the right to reject them. The Commission made the same point in its *Guidance Order* on ISO/RTO penalties[88] and in other individual ISO/RTO proceedings.[89]

Specifically, the Commission stated that its review of individual recovery filings would provide a "constant check on the NYISO's behavior. NYISO must come before the Commission in each instance that it seeks to pass through a penalty, and have the request be considered on a case-by-case basis. If the Commission were ever to find that the NYISO became lax in its pursuit of reliability . . . then the Commission could simply deny relief or take other appropriate action."[90] The Commission tentatively acknowledged that "the NYISO, as a not-for-profit has

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[86] The NOPR does not expressly contemplate allowing ISOs/RTOs to try to assign penalty costs to other parties. If the Commission adopts the NOPR's penalty proposal it should allow ISOs/RTOs to propose such cost assignments when warranted consistent with the reliability penalty framework.

[87] Schedule 11 also provides for other entities to seek to recover reliability penalty costs from the NYISO and each other.

[88] *See Reliability Standard Compliance and Enforcement in Regions with Regional Transmission Organizations or Independent System Operators*, 122 FERC ¶ 61,247 at P 16 (2008) ("[W]e will not allow RTOs and ISOs to adopt tariff mechanisms that provide automatic recovery of penalties incurred for Reliability Standard violations and will instead require that proposals to recover any such penalties be filed case-by-case.")

[89] *See, e.g., Cal. Indep. Sys, Operator, Corp.*, 138 FERC ¶ 61,156 at P 15 (2012).

[90] *N.Y. Indep. Sys. Operator, Inc.*, 127 FERC ¶61,196 at P 36 (2009).

less of an ability to pay penalties than its customers or members may, which could mean that in some future cases a broad allocation of penalty costs could be warranted."[91] But the Commission also emphasized that it would consider multiple factors beyond the NYISO's ability to pay when deciding whether to allow recovery.[92] As noted above, the NYISO has never had to make a reliability penalty recovery filing and face the risks that would be entailed. But the NYISO very likely would have to do so under a strict liability penalty regime for missing inflexible and potentially unreasonable deadlines.

Second, the NOPR proposes to automatically impose financial penalties for all late studies, with narrow exceptions for force majeure events and cases where all interconnection customers consent to a 30-day extension. By contrast, at least since NERC's implementation of its "find, fix, track, and report" enforcement paradigm in 2012, many violations of reliability standards do not result in any financial penalty.[93] Non-compliance only leads to penalty liability after a risk-based evaluation of all of the facts and circumstances related to an individual violation.[94] Violators may avoid penalties for a variety of reasons including demonstrating a culture of compliance, cooperating with investigations, and taking effective remedial actions. Thus, the reliability penalty regime incorporates due process. It is not the kind of strict liability system that the NOPR would impose for interconnection studies.

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[91] *Id.* at P 35.

[92] *Id.* at P 36.

[93] *See, e.g.,* Appendix 4B of the NERC Rules of Procedure, Section 2.1 ("NERC or the Regional Entities have the discretion to impose a zero dollar monetary sanction where appropriate after consideration of all the relevant principles and factors discussed in these Sanction Guidelines. Monetary and non-monetary penalties do not apply for noncompliance or violations that NERC or the Regional Entities determine should be processed through the Compliance Exception or the Find, Fix, Track and Report ("FFT") disposition methods described in the NERC Compliance Monitoring and Enforcement Program, Appendix 4C of the NERC Rules of Procedure.")

[94] *See, e.g., id.* at Section 1 ("NERC and the Regional Entities will follow these Sanction Guidelines when determining monetary and non-monetary penalties, while retaining the discretion to take into account the facts surrounding each violation and using professional judgment to deviate from the recommended ranges for each factor as appropriate in order to achieve monetary and/or non-monetary penalties that bear a reasonable relationship to the seriousness of the violation.")

Third, when reliability penalties are imposed, they are calculated based on case-specific evaluations of the severity of each violation and its potential to harm reliability conducted under the framework of NERC's penalty guidelines. Violators may reduce penalty amounts through cooperation and other good conduct. The NOPR's penalty proposal includes no such flexibility or discretion.

Fourth, Order No. 890 did subject ISOs/RTOs to penalties for untimely transmission studies. However, Order No. 890 stated "we believe the due process afforded the transmission provider is an important element of the penalty regime, so we decline to impose penalties automatically, without a notification filing to the Commission."[95] The NOPR's strict liability penalty regime provides no such due process protection. Furthermore, the NYISO generally does not conduct the kinds of transmission studies that Order No. 890 addressed. The NYISO files required reports with the Commission to confirm that it has not violated any Order No. 890 deadlines but has never had a violation.[96] The NYISO's understanding is that *pro forma* transmission studies are likewise not a major issue for most other ISOs/RTOs given the differences between their transmission reservation models and the *pro forma* OATT.[97] Thus the formal applicability of the Order No. 890 penalty regime to ISOs/RTOs does not mean that the application of penalties to ISOs/RTOs is practicable or would not have harmful effects. Untimely study penalties would effectively be a new issue for the NYISO and other ISOs/RTOs.

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[95] Order No. 890 at P1347.

[96] *See, e.g., Annual Compliance Report of the New York Independent System Operator, Inc.*, Docket No. OA08-109 (Apr. 1, 2022).

[97] *See, e.g., PJM Interconnection, LLC*, Submission in Response to Deficiency Letter, Docket No. ER22-2110-001 at 2-5 (explaining that PJM proposed to eliminate Order No. 890 transmission study penalties from its tariff because they would no longer be appropriate under a clustered interconnection study paradigm.)

In short, the "precedents" cited by the NOPR do not demonstrate that questions and concerns regarding the imposition of penalties on not-for-profit ISOs/RTOs have been resolved. The core issue remains that ISOs/RTOs are more vulnerable to even relatively small financial penalties than entities with other means to pay.[98] Because ISO/RTO penalties of any kind have been rare, and challenges to ISO/RTO penalty recovery have been rarer still, there are no examples of Commission denials of penalty cost recovery. ISOs/RTOs would be subject to considerable legal and practical uncertainty regarding their ability to recover interconnection study penalties under the NOPR.

It might be argued that these concerns are overstated because the Commission is likely, in practice, to routinely accept ISO/RTO penalty recovery proposals. But if that proves to be the case then the penalties would serve no useful purpose. Customers would simply absorb all costs. ISOs/RTOs would have no greater incentive to complete studies on time than they already have under their tariff and professional obligations to perform their functions diligently and well.

Consequently, imposing penalties on ISOs/RTOs would either expose them to disproportionately severe risks – and make cost recovery filings a potential threat to their financial viability – or be practically meaningless. The Commissions should look for other ways to promote accountability and timeliness, such as the NYISO's enhanced reporting proposal outlined above.

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[98] The NOPR cites Order No. 890 for the proposition that "[n]on-profit transmission providers have other sources of money to pay penalties beyond the revenue they collect for sales of transmission service." NOPR at P 171. To the best of the NYISO's knowledge, the Commission has never specified what those sources are. The Commission does not identify what these "other sources of money" are. Not-for-profit ISOs/RTOs may recover some costs from other rate schedules, but all ISO/RTO expenses are ultimately flowed through to customers and paid with revenues collected from them. Not-for-profit ISOs/RTOs do ***not*** have retained earnings like traditional for-profit utilities.

b. Penalties Will Not Effectively Incentivize More Timely Completion of Interconnection Studies

The NOPR seeks comment on, "whether penalties will effectively incent more timely completion of interconnection studies in RTOs/ISOs, and/or whether monetary penalties may have adverse consequences (e.g., incenting timeliness over accuracy or increased waiver requests)."[99] The answer is that penalties would incentivize more timely completion of studies but would not do so "effectively" because they will perversely over-incentivize ISO/RTO compliance with deadlines at all costs.

As discussed above, the problem is not that ISOs/RTOs are failing to make diligent efforts to complete studies on time. Study deadlines are commonly missed for the reasons specified above, including the potential unreasonableness of the deadlines themselves under current conditions. The NYISO is already pursuing various other improvements to its interconnection process.[100] The NYISO is doing what it realistically can to meet its tariff obligations and the expectation of its stakeholders. It is simply not the case that penalties are needed to motivate the NYISO to be more diligent or efficient. The NYISO believes that the same is true of other ISOs/RTOs.

Consequently, the principal way for ISOs/RTOs to avoid penalties under the NOPR's strict liability regime would be to prioritize timeliness over quality and completeness of both studies and cost estimates. ISOs/RTOs would be incentivized to be provide developers with less flexibility, to be less able to accommodate special or unusual request, less able to work to remedy deficiencies in interconnection requests, and more inclined to reject requests. These incentives would be powerful because, as discussed above, ISOs/RTOs are especially vulnerable

[99] NOPR at P 172.
[100] *See* Appendix A at Section III.

to financial penalties. The Commission should seriously consider that imposing strict penalties and inflexible deadlines in an attempt to improve the interconnection study process is likely to misfire by reducing the quality of studies and providing developers with less accurate information and more limited options.

Just as importantly, incentivizing ISOs/RTOs to prioritize speed over accuracy and completeness would inevitably encourage shortcuts that could reduce reliability over time. To be clear, the NYISO, and the professionals that it employs, would never consciously make decisions that sacrificed reliability to avoid penalties. The same is surely true of other ISOs/RTOs. Nevertheless, even the most diligent and conscientious people would be influenced, at some level, by the need to avoid penalties. Studies conducted under strict time pressure could be inferior to what they would have been otherwise. Less attention might be devoted to a complete review of project modeling data and associated model modifications, certain design contingencies or system conditions might not be evaluated as thoroughly, dynamic stability results might not be assessed as fully, etc. Having less time to finish a study could result in the identification of upgrades that mitigate reliability impacts but are not the optimal choices for the system. Construction estimates and design specifications could be less accurate. The cumulative impact of these individual imperfections over time could adversely impact reliability. The Commission should not create incentives for interconnection studies to be merely "good enough" instead of excellent.

It would be especially unreasonable to give not-for-profit ISOs/RTOs such badly-aligned incentives when ISOs/RTOs lack any possible commercial or business motive to delay interconnection studies in the first place. Moreover, the threat of penalties, and of penalty cost-related litigation, will tend to impede the cooperation among ISOs/RTOs, transmission owners,

developers, and other parties that will be critically important to actually realizing the interconnection process improvements that the NOPR is seeking.

3. If the Commission Determines that ISOs/RTOs Must Be Subjected to Penalties for Late Interconnection Studies it Must Accept Alternative Rules that Satisfy Due Process and the Administrative Procedure Act Standards

As discussed above, the Commission should not impose financial penalties on not-for-profit ISOs/RTOs in connection with interconnection studies. Alternative rule changes, such as enhanced reporting requirements, are a much more appropriate option. However, if the Commission decides to adopt some form of penalty regime, the NOPR's proposal must be replaced with an alternative that could satisfy the standards of due process and the Administrative Procedure Act ("APA").

The Commission has previously recognized that it must comply with due process requirements when imposing penalties. These include obligations to act fairly and reasonably, to consider the facts surrounding a violation when deciding whether a financial or non-financial action is warranted, and to avoid excessive or disproportionate penalties.[101] In addition, the Commission must always make decisions consistent with the Administrative Procedure Act and judicial precedent prohibiting arbitrary and capricious decision-making.[102]

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[101] *See, e.g.*, *Revised Statement on Penalty Guidelines*, 132 FERC ¶ 61,216 at P 222 (2008); Enforcement of Statutes, Regulations and Orders, 123 FERC ¶ 61,156, at P 50-71 (2008) at 51 ("With this expanded authority comes added responsibility to ensure that the Commission's penalty determinations are fair and reasonable, and take into account the unique factors relevant to a given violation. . . As we discussed in our 2005 Policy Statement, and as we describe more fully below, we implement these statutory mandates and our due process obligations by taking into account numerous factors in determining the appropriate civil penalty for a violation, including the nature and seriousness of the violation and the company's efforts to remedy it.")

[102] *See, e.g.*, *See Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) ("Normally, an agency rule would be arbitrary and capricious if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise."); *Midwest ISO Transmission Owners v. FERC*, 373 F.3d 1361, 1368 (D.C. Cir. 2004) (holding that the Commission must at least "examine[] the relevant data and articulate[] a [] rational connection between the facts found and the choice made.").

For the reasons set forth above, the NOPR's proposal to hold ISOs/RTOs strictly liable for missing deadlines that may be unreasonably short, for reasons that will often be beyond their control, and without regard for mitigating circumstances violates due process and would be arbitrary and capricious. It would also have perverse consequences. The NOPR's proposal must not be adopted in its current form and would be unlikely to withstand judicial review if it is.

The NYISO respectfully submits that if the Commission opts to require penalties, the first step should be for each ISO/RTO to propose appropriate rules for its region. The proposals could be submitted in individual ISO/RTO compliance filings in response to a final rule. Each ISO/RTO region will face different issues and challenges in timely completing interconnection studies in the years ahead. The types and number of projects entering queues, the interactions between them, and relevant state policies will vary from region to region. The Commission has allowed ISOs/RTOs to adopt independent entity variations from other interconnection rules and should be open to the possibility that regional penalty rules could be justified.

4. Additional Comments on the NOPR's Penalty Proposals

The NOPR seeks comments on its proposed penalty structure.[103] If a final rule imposes financial penalties on not-for-profit ISOs/RTOs, it would be unjust, unreasonable, and unduly discriminatory to set them at the same level applicable to other transmission providers. For the reasons set forth above, an identical penalty would have a much more severe punitive effect on not-for-profit ISO/RTOs than on transmission providers with more resources to pay penalties. Because ISOs/RTOs are differently situated it would be unduly discriminatory to treat them the same. Any financial penalties imposed on ISOs/RTOs should therefore be smaller in size or slower to trigger. In addition, the Commission should adopt features of the NERC compliance

[103] NOPR at P 173.

model, including the use of non-financial sanctions for minor or excusable violations and allowing penalty reductions for taking cooperative and remedial actions.

The NOPR seeks comment "on whether to include exceptions to the penalty other than force majeure, and if so, what those exceptions should be."[104] As an initial matter, the force majeure definition in NYISO's LFIP, and the *pro forma* LGIP, encompasses "any other cause beyond a Party's control." If the Commission adopts the NOPR's penalty proposal it should clarify that "causes beyond a party's control" includes instances where another party causes an ISO/RTO to miss a study deadline. The Commission should also broaden the NOPR's proposal "to permit the transmission provider to extend the deadline or a particular study by 30 days by mutual agreement of the transmission provider and all interconnection customers in the relevant study."[105] As discussed above, ISOs/RTOs will often not be able to control delays and interconnection customers may contribute significantly to them. Accordingly, it would be unreasonable to give individual customers the ability to veto extensions to complete studies. Instead, if the NOPR penalty proposal were adopted, thirty-day extensions should, at a minimum, be made available if an ISO/RTO notifies the Commission that there is good cause to take additional time to complete the study. When an ISO/RTO makes such a filing there should be a rebuttable presumption that the extension is justified given all of the legitimate difficulties associated with meeting existing study deadlines (as detailed above).

The NOPR also asks "whether Commission staff should issue periodic reports summarizing the status of transmission providers' queues and timeliness of interconnection studies based on information collected through existing reporting requirements, and whether this

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[104] *Id.*
[105] *Id.* at P 170.

periodic report should be in addition to or a substitute for the proposed monetary penalties discussed above."[106] Given the problems with the NOPR's penalty proposals, if the Commission believes that it must do more to foster accountability then it would be much more productive to adopt enhanced reporting requirements for not-for-profit ISOs/RTOs such as those suggested by the NYISO above.

Finally, if the Commission adopts interconnection study penalties then they must apply to all parties to the interconnection process. Penalties should only be imposed on those entities that actually cause unreasonable delays. Where, for example, developers miss deadlines, provide incomplete information, or require an ISO/RTO to address unique and complex issues for their benefit, no penalty should be assigned to the ISO/RTO. Making ISOs/RTOs (or their customers) responsible for penalties caused by other parties would be arbitrary, capricious, and unlawful.

Of course, developing a reasonable penalty process that satisfies both due process and administrative law standards would be difficult and time-consuming. The task would consume time and resources better spent on improving and administering the interconnection process itself. Once implemented, even a more reasonable penalty process would still be likely to result in litigation over penalty cost allocations given the complexities and multi-project interactions that characterize interconnection processes. But a desire for administrative simplicity is no excuse for unjustly imposing penalties on ISOs/RTOs alone. If the Commission determines that developing a just penalty regime is impractical, then that is a reason to decline to establish penalties in the first place, not a reason to impose the NOPR's flawed, unreasonably punitive, and legally defective penalty proposal on ISOs/RTOs.

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[106] *Id.* at P 173 (internal citations omitted).

5. The Final Rule Should Provide for Regionally Tailored Rules Concerning Affected Systems

The NOPR proposes to establish an affected system study process.[107] This process would include detailed requirements concerning initial notification of the affected system, a scoping meeting, study requirements, cost allocation, treatment of study results and assessment, and the assessment of financial penalties on affected systems that fail to timely complete their obligations.[108]

The NYISO agrees that there needs to be better coordination and more specific requirements concerning the role and responsibilities of affected systems. The final rule should, however, provide each region with flexibility to address these issues within the context of its unique regional and interregional circumstances and challenges.

For example, the NYISO, ISO-New England, and PJM currently share information concerning generator and transmission interconnection and coordinate the impacts of interconnecting projects across their systems through their *Amended and Restated Northeastern ISO/RTO Coordinated System Planning Protocol* ("Protocol").[109] Section 4 of the Protocol establishes a process by which a region will coordinate with the other regions to conduct any studies required for determining the impact of a generation or transmission interconnection.

The NOPR also proposes to establish a *pro forma* affected system study agreement and a *pro forma* affected system facilities construction agreement.[110] The NYISO supports the creation of a *pro forma* study agreement for studies concerning the impact on affected systems.

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[107] *See id.* at P 183.
[108] *See id* at PP 183-192.
[109] *Amended and Restated Northeastern ISO/RTO Planning Coordination Protocol*, *available at* https://www.nyiso.com/documents/20142/1406358/Northeast_Planning_Protocol_FINAL_SIGNED_VERSION.pdf.
[110] NOPR at PP 197-204.

In addition, the NYISO supports the creation of a *pro forma* construction agreement for the construction of required upgrades on intra-region affected systems. The NYISO is currently undertaking an initiative to create a *pro forma* agreement that will address the construction of upgrades required on affected systems in New York.[111] The use of such agreements for affected system work in another region introduces significant additional complexity, including different reliability rules, system modeling, and operational requirements, and should be addressed between neighboring regions.

The final rule should provide transmission providers with flexibility concerning the terms of the agreements to align with the specific interconnection requirements in each region. For example, the draft *pro forma* construction agreement in the NOPR uses a cash repayment approach that does not align with the method for developers' funding of upgrades in the NYISO's interconnection procedures.[112]

Finally, the NOPR proposes to require the transmission provider acting as the affected system to study interconnection requests using Energy Resource Interconnection Service ("ERIS") modeling standards, regardless of the requested level of service on the host transmission provider's transmission system.[113] The NOPR further provides that if a transmission provider acting as an affected system believes that it is necessary to study an interconnection request that is requesting Network Resource Interconnection Service ("NRIS") -

[111] *See* Modifications to NYISO's *Pro Forma* Interconnection Agreements and Establishment of *Pro Forma* EPC Agreement for Certain SUFs and SDUs, NYISO Transmission Planning Advisory Subcommittee (Sept. 1, 2022) included in Appendix B to the NYISO's comments.

[112] *See* NOPR Appendix B, Proposed Affected Systems Facilities Construction Agreement, Section 3.2.2.

[113] *See* NOPR at P 211.

level service using NRIS modeling standards, such a transmission provider could make a filing under section 205 of the FPA.[114]

The NYISO does not object to the proposed use of ERIS modeling standards for the affected system. However, the final rule should provide transmission providers with flexibility to work with their neighboring regions to address modeling consistencies in system representations across regions.

6. The Final Rule Should Provide Regions with Flexibility to Accommodate Resource Planning Entity's Resource Solicitation Processes

The NOPR proposes to require transmission providers to allow a resource planning entity to initiate an optional resource solicitation study to group together resources associated with the resource planning entity's qualifying resource solicitation process or qualifying resource plan for purposes of informational interconnection studies.[115]

The final rule should provide regions with flexibility concerning how they account for such solicitation processes within their interconnection procedures. As with the preliminary informational studies discussed in Part III.A.5 above, the proposed optional resource solicitation study would introduce additional studies and administrative requirements into interconnection procedures. This would require the NYISO to redirect limited resources and impede the timely administration of interconnection studies for projects in its existing interconnection queue and the elimination of backlogs.

Transmission providers should be permitted to identify more efficient ways to account for such resource solicitations within the region's interconnection framework. For example, the

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[114] *See id.*

[115] *See id.* at PP 223-237. A resource planning entity is defined in the NOPR at: "any entity required to develop a Resource Plan or conduct a Resource Solicitation Process, including a relevant state entity or load serving entity." *See id.* at P 223 fn 315.

NYISO has separately addressed the NOPR's aims by permitting state agencies to act as a developer for purposes obtaining a generic interconnection request that they can put out for solicitation. The New York State Energy Research and Development Authority ("NYSERDA") is currently using this "build ready" option in the NYISO's interconnection process in connection with its resource solicitations. This has proved thus far to be an efficient approach to evaluating a "generic" version of a project that will ultimately be selected through a resource solicitation, allowing the project's interconnection studies to be in progress once it is selected and eliminating numerous alternative queue positions for projects competing for the same resource solicitation.

C. Proposed Reforms to Incorporate Technological Advancements into the Interconnection Process

1. Increasing Flexibility in the Generator Interconnection Process

a. The NYISO Supports Accommodating Co-Located Generation Resources Sited Behind the Point of Interconnection with Shared Interconnection Requests and Has Established Such Rules in its OATT

The NOPR would require transmission providers to allow more than one resource to co-locate on a shared site behind a single point of interconnection and share a single interconnection request.[116] The NYISO supports this proposal. The NYISO has already revised its LFIP and SGIP requirements to permit the use of Co-located Storage Resources ("CSRs").[117] Pursuant to the NYISO's CSR rules, an Energy Storage Resource and a wind or solar Intermittent Power Resource that share a common Point of Injection can participate in the ISO Administered Markets as CSRs. The two resources participating in the CSR will submit a single, shared

[116] *See id.* at P 242.

[117] *See N.Y. Indep. Sys. Operator, Inc.*, 174 FERC ¶ 61,242 (2021) (accepting tariff revisions to implement participation model for co-located storage resources).

interconnection request, or consolidate two interconnection requests, in the NYISO's interconnection queue and will share a single interconnection agreement. The ERIS rights and Capacity Resource Interconnection Service ("CRIS") rights will be allocated to each Generator in the CSR separately.

b. The NYISO Supports Permitting the Addition of Generating Facilities to an Interconnection Request When It Does Not Require a Change to Interconnection Service Level and Permits Such Additions in its OATT

The NOPR would require transmission providers to evaluate the proposed addition of a generating facility to an interconnection request as long as the interconnection customer does not request a change to the originally requested interconnection service level.[118]

The NYISO supports this proposal. The NYISO OATT already allows such technical advancements as non-material modifications as long as the total requested ERIS and CRIS does not increase.[119] For example, the NYISO has recently allowed solar projects to supplement their projects with co-located energy storage resources in the same interconnection request, where such projects, as modified, do not increase the total requested ERIS.

In addition, as described above, the NYISO has recently revised its interconnection procedures to provide for the Co-located Storage Resources participation model and to account for multiple resource types behind the same point of interconnection. The new CSR rules also included a transition window, and related modification rules, that permitted existing projects in the NYISO's interconnection queue to combine to participate as a CSR. The NYISO is currently undertaking a further initiative with stakeholders concerning hybrid aggregated storage resources that will establish an additional participation model for multi-resource facilities behind a point of

[118] NOPR at P 255.
[119] *See* OATT § 30.3.1.

interconnection. The proposal, still in discussion with stakeholders, will further modify the interconnection procedures to allow existing stand-alone generators or projects in the NYISO's interconnection queue to be modified into such hybrid resources or CSRs.[120]

c. The Final Rule Should Not Require the Application of Surplus Interconnection Service Rules for Regions that Do Not Provide Such Service

The NOPR would require transmission providers to allow interconnection customers to access the surplus interconnection service process once the original interconnection customer has an executed LGIA or requests the filing of an unexecuted LGIA.[121] As described below, the NYISO does not provide for the utilization of "surplus" interconnection service. For this reason, the Commission has previously granted the NYISO an independent entity variation from the surplus interconnection service requirement in its Order No. 845 proceeding,[122] which is a settled issue in New York and should not be re-opened in this proceeding. The NOPR does not propose to revisit the Commission's determination regarding whether a transmission provider provides surplus interconnection service.

The concept of surplus interconnection service relies on the premise that a facility's interconnection service is based on an evaluation of the facility at full capacity, with reliability upgrades being required for any adverse reliability impacts of the facility's injection of its full capacity, with no re-dispatch or dispatching down of the facility to mitigate such adverse impacts. However, that is not the case under the NYISO's unique Minimum Interconnection Standard, which allows for re-dispatch of a facility (*i.e.*, both the studied project and existing

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[120] *See* NYISO Presentation – Hybrid Aggregated Storage (HSR) Model – Energy and Capacity Market Design Proposal, NYISO Market Issues Working Group/ Installed Capacity Working Group at Slides 33-41 (Aug. 4, 2022); *available at:* https://www.nyiso.com/documents/20142/32687686/8%20%209%20HSR%20Capacity%20and%20Energy%20Market%20Design%20Final.pdf/351994e1-3fae-ccd6-09aa-eed632c96b3b.

[121] *See* NOPR at P 264.

[122] *See N.Y. Indep. Sys. Operator, Inc.*, 170 FERC ¶ 61,117 at P 98 (2020).

generators in the case) in interconnection studies to less than the facility's full capacity in order to mitigate reliability impacts at full capacity. Even if an interconnection study did not require re-dispatch, a facility is never guaranteed that it can operate at its full capacity in normal operations due to various system conditions and subsequent new project entry.

As the Commission concluded in the NYISO's Order No. 845 compliance proceeding:

> We find that NYISO's existing interconnection process, including the NYISO Minimum Interconnection Standard, accomplishes the stated purposes of Order No. 845's surplus interconnection service proposal by reducing costs for interconnection customers and improving wholesale market competition by increasing the utilization of existing interconnection facilities and network upgrades rather than requiring new ones. In particular, NYISO's ERIS interconnection process already reduces the cost burdens for interconnection customers by making the need for network upgrades less likely. We therefore find that NYISO's interconnection process, including the NYISO Minimum Interconnection Standard, is just and reasonable, not unduly discriminatory, and accomplishes Order No. 845's purpose of efficient use of the transmission system.[123]

The independent entity variation the Commission has granted to the NYISO from the surplus interconnection service requirement remains just and reasonable and accomplishes not only the purpose of Order No. 845, but also the purpose of the NOPR to make it easier for proposed interconnection projects to interconnect to the system without costly upgrades.

d. The Final Rules Should Not Provide for Transmission Providers to Use Resource-Specific Operating Assumptions for Energy Storage Resource in Interconnection Studies

The NOPR would require the transmission providers, at the request of the interconnection customer, use operating assumptions for interconnection studies that reflect the proposed operation of an electric storage resource or co-located resource containing an electric storage resource (including hybrid resources) – *i.e.*, whether the interconnecting resource will or will not

[123] *Id.* (internal citation removed).

charge during peak load conditions, unless good utility practice, including applicable reliability standards, otherwise require the use of different operating assumptions.[124] The NOPR would require that the operating assumptions be proposed by the interconnection customer as part of its initial interconnection request.[125]

The NYISO opposes the inclusion of this proposal in the final rule. These requirements would not streamline the interconnection study process but would instead add significantly more complexity to the process and increase the time required to complete studies. The NYISO's interconnection studies are designed to capture extreme system scenarios to best maintain the reliability of the system and to be prepared for rare extreme conditions. Without such planning, the interconnection studies could miss identifying essential non-local SUFs that maintain system reliability.

In addition, the NYISO cannot simply incorporate assumptions that are inconsistent with the likely performance of the facilities under certain conditions or the potential impacts of adjacent resources on the performance of the facilities. For example, the NYISO could not simply accept a proffered assumption that an energy storage resource will not charge during summer peak hours because, depending on the location of the resource, it may charge during these hours to avoid curtailment of other intermittent resources in a constrained area.

Finally, the proposal would establish inconsistent modeling rules for interconnection studies across different types of intermittent resources.

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[124] *See* NOPR at P 280.
[125] *See id.*

2. The NYISO Supports the Consideration of Alternative Transmission Technologies in the Interconnection Process, But It Would Be Premature to Require the Consideration of Dynamic Line Ratings

The NOPR would require transmission providers, upon request of the interconnection customer, to evaluate the requested alternative transmission solution(s) during the LGIP cluster study and the SGIP system impact study and facilities study within the generator interconnection process.[126] Specifically, the NOPR would require consideration of the following technologies: advanced power flow control, transmission switching, dynamic line ratings, static synchronous compensators, and static VAR compensators.[127] The NOPR also proposes to require transmission providers to submit an annual informational report to the Commission that details whether, and if so how, such technologies were considered in interconnection requests over the last year.[128]

The NYISO fully supports the consideration of alternative transmission technologies in its interconnection process and, with the exception of dynamic line ratings, already does so. However, as described below, it is premature to require the incorporation of dynamic line ratings in the interconnection process.[129]

The NYISO has dynamic line rating functionality in place today for New York Transmission Owners to adjust transmission line ratings in real time, when appropriate. The currently effective seasonal transmission line ratings, along with the existing dynamic line rating functionality and the forthcoming changes under the Commission's Order No. 881, support

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[126] *See id.* at P 297.
[127] *See id.* at P 298.
[128] *See id.* at P 302.
[129] The NYISO similarly indicated that the use of dynamic line ratings is premature for transmission planning in response to the Commission's proposal to incorporate dynamic line ratings in transmission planning. Comments of the New York Independent System Operator, Inc., Docket No. RM21-17-000 at 48 (Aug. 17, 2022).

efficient markets, reliable system operation, and the flexibility needed for the NYISO and Transmission Owners to utilize the transmission system effectively and to respond to real-time system conditions. [130]

It would, however, be premature for the Commission to mandate that transmission providers consider dynamic line ratings as part of their interconnection processes. Transmission providers should continue to address ambient adjusted ratings ("AAR") in their ongoing Order No. 881 compliance proceedings. The NYISO recently submitted its compliance filing in response to Order No. 881 to implement the AAR requirements.[131] Consistent with the directives of Order No. 881, the NYISO has requested a 2025 effective date due to the software development, testing, and deployment required for such requirements. The Commission should permit transmission providers to consider whether and how to incorporate dynamic line ratings in their interconnection process after implementing the requirements in Order No. 881.

3. The Final Rules Should Not Include the Proposed Modeling and Performance Requirements for Non-Synchronous Generating Facilities

The NOPR would require that all interconnection customers requesting to interconnect a non-synchronous generating facility must provide the transmission provider with the models needed for accurate interconnection studies.[132]

The final rule should not include such requirement, which would be inefficient and would necessitate a rebuild of the NYISO's study base case. The proposed modeling would necessitate

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[130] The NYISO urges the Commission not to require further modifications to the approach to manage transmission line ratings at this time. *See* Notice of Inquiry, *Implementation of Dynamic Line Ratings*, Docket No. AD22-5-000 (Feb. 17, 2022) ("NOI"); *Managing Transmission Line Ratings*, Order No. 881, 87 Fed. Reg. 2,244 (Jan. 13, 2022), 177 FERC ¶ 61,179 (2021). The NYISO recommends that the Commission allow each ISO/RTO to take the time necessary to review the issues raised in the NOI with its respective stakeholders after implementing the requirements of Order No. 881.

[131] *See N.Y. Indep. Sys. Operator, Inc.*, Compliance Filing, Docket No. ER22-2350-000 (July 12, 2022).

[132] *See* NOPR at P 328.

additional software and resources to create a new base case to validate the information that the Commission is proposing to require. In addition, the NYISO's analysis would take much longer to ensure accurate results, significantly slowing down the interconnection process. These technical issues would be better addressed by reliability organizations (*e.g.*, NERC, New York State Reliability Council).

The NYISO does not oppose the NOPR's proposal to require more stringent frequency and voltage ride-through requirements for non-synchronous generators.[133] Any such requirements should be included in the interconnection agreement, but such requirement should not also require review and validation of dynamic modeling for such resources in interconnection studies.

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[133] *See id.* at PP 336-341.

V. CONCLUSION

WHEREFORE, for the foregoing reasons, the NYISO respectfully requests that the Commission consider these comments when considering further action with regards to its NOPR.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding in accordance with the requirements of Rule 2010 of the Rules of Practice and Procedure, 18 C.F.R. §385.2010.

Dated at Rensselaer, NY this 13th day of October 2022.

/s/ Mitchell W. Lucas

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APPENDIX A

DESCRIPTION OF NYISO'S EXISTING INTERCONNECTION PROCEDURES

In this Appendix the NYISO describes its existing interconnection procedures and recent and ongoing initiatives to enhance these procedures.[1]

I. NYISO Interconnection Procedures

The NYISO's interconnection procedures were developed with extensive stakeholder involvement primarily in response to the Commission's Order Nos. 2003 and 2006. In Order No. 2003, the Commission acknowledged the differing characteristics of each region and provided ISOs and RTOs with the flexibility to seek independent entity variations from the final rule "to customize its interconnection procedures and agreements to fit regional needs."[2] Accordingly, the NYISO's interconnection procedures include numerous independent-entity variations accepted by the Commission that are specifically tailored to the distinct circumstances in New York and the NYISO's wholesale market rules and planning processes. As discussed in more detail below, since Order No. 2003, the NYISO, in conjunction with developer and stakeholder input, has continued to implement additional and significant revisions to the interconnection process to update and enhance the New York-specific interconnection requirements.

In particular, the NYISO's interconnection process includes significant Commission-approved variations from the *pro forma* interconnection procedures in Order Nos. 2003 and 2006 concerning the treatment of proposed projects in the interconnection queue, the scope of

[1] Capitalized terms not otherwise defined in this Appendix or the NYISO's comments in this proceeding shall have the meaning specified in Attachments S, X, or Z to the NYISO OATT, and if not defined therein, in the NYISO Open Access Transmission Tariff ("OATT") and NYISO Market Administration and Control Area Services Tariff.

[2] Order No. 2003 at P 827.

interconnection studies, and the process for allocating the cost of System Upgrade Facilities and System Deliverability Upgrades. Some of the more significant variations are highlighted below.

a. The NYISO's Unique Interconnection Queue Provides for Parallel, Rather than Sequential, Project Evaluation

The NYISO's interconnection queue approach differs significantly from the "hard" or "serial" interconnection queue approach used in many other regions. The NYISO's process operates on a first ready, first served basis. Once a developer has submitted a valid Interconnection Request for its project and the project has been included in the NYISO's interconnection queue, the developer's advancement through the NYISO's interconnection process, including the identification of required facilities and related costs to reliably interconnect its project, is largely driven by its own project development and not the progress, or lack thereof, of other projects with higher Queue Positions (*i.e.*, Interconnection Requests that preceded the project).[3] While the NYISO takes Queue Position into account in determining the order of performing interconnection studies, it is only one of the factors that impact the manner in which the NYISO performs its interconnection studies. To the extent practicable, the NYISO evaluates Interconnection Requests in parallel, not sequentially.

The NYISO does not include proposed projects in the base case of its interconnection studies simply because the project has a higher Queue Position than the studied project. Rather, a project is only included in the base case when it has satisfied certain requirements, including its developer's acceptance of the cost of, and provision of security for, any upgrades identified in the Class Year Interconnection Facilities Study ("Class Year Study") to interconnect its project.[4]

[3] *See generally* NYISO OATT §§ 30.3 - 30.8 & 32.1 - 32.4; *see also* NYISO OATT § 25.6.2.3.4 (providing that once eligible for a Class Year Study, a project can enter up to two of the following three Class Year Studies.)

[4] *See* NYISO OATT §§ 22.6.1, 25.5.5.1, 30.2.3. Through the definition of "Base Case" the SGIP incorporates Section 30.2.3's base case rules into the SGIP. *See* NYISO OATT § 32.5, Appendix 1. A Small

For this reason, when studying a developer's proposed project, the NYISO does not model in its base case other projects that are not progressing in their development simply because they have a higher Queue Position. Therefore, unlike other regions, the NYISO does not require a process to continuously re-study the facilities, and related costs, required to interconnect a project if other projects with higher Queue Positions withdraw or fail to progress.

In addition, as described below, for a project subject to the Class Year Study, the project may only advance to be studied with a cluster of other projects in this final interconnection study when it has met certain eligibility requirements, the satisfaction of which are independent of its Queue Position. That is, a project with a lower Queue Position that has satisfied the required eligibility requirements may advance into the Class Year Study prior to a project with a higher Queue Position that has not progressed sufficiently to satisfy the eligibility requirements.

b. The NYISO's Large Facility Interconnection Procedures ("LFIP") and Small Generator Interconnection Procedures ("SGIP")

The NYISO's LFIP and SGIP establish the rights and obligations of parties involved in the NYISO's interconnection processes related to the interconnection or modification of Large Facilities and Small Generating Facilities.[5]

The LFIP contains the procedures for processing the interconnection or modification of Large Generating Facilities (*i.e.*, generating facilities greater than 20 MW) and Class Year

Generating Facility that does not participate in a Class Year Study is entered into the base case when the Developer executes the facilities study agreement for the project.

[5] A developer that seeks to interconnect its Large Facility or Small Generating Facility to the New York State Transmission System or Distribution System must obtain Energy Resource Interconnection Service ("ERIS"). The Interconnection Studies in the LFIP and SGIP identify and allocate the costs of any Attachment Facilities and System Upgrade Facilities required to reliably interconnect the developer's proposed project to the New York State Transmission System or Distribution System. In addition, if a developer wants its Large Facility or Small Generating Facility to qualify as an Installed Capacity Supplier and to participate in the NYISO-administered Installed Capacity market, the developer must also obtain CRIS, requiring, with limited exceptions, a deliverability study of the proposed project in a Class Year Study.

Transmission Projects[6] (*i.e.*, transmission projects that are eligible for and request CRIS).[7] The LFIP provides for potentially three successive Interconnection Studies of each proposed project. These studies analyze proposed projects in varying levels of detail. First is the Optional Interconnection Feasibility Study, which is a high-level evaluation of the project's configuration and local system impacts. The second study is the Interconnection System Reliability Impact Study ("SRIS"), which is a detailed single-project study that evaluates the project's impact on transfer capability and system reliability. The final study in the LFIP is the Class Year Study, which is further described below.

The SGIP contains the procedures for processing the interconnection or modification of generating facilities 20 MW or smaller.[8] Like the LFIP, the SGIP provides for potentially three successive Interconnection Studies of each proposed project of varying levels of detail: an optional feasibility study, a system impact study, and a facilities study or participation in a Class Year Study. The facilities study determines the cost estimates and allocates the costs of Local System Upgrade Facilities.[9] For Small Generating Facilities that require non-Local System Upgrade Facilities, such projects proceed to a Class Year Study.

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[6] Class Year Transmission Project is defined in the NYISO OATT as "a Developer's proposed new transmission facility that will interconnect to the New York State Transmission System or a proposed upgrade—an improvement to, addition to, or replacement of a part of an existing transmission facility—to the New York State Transmission System, for which (1) the Developer is eligible to request and does request Capacity Resource Interconnection Service, subject to the eligibility requirements set forth in the ISO Procedures; or (2) the Developer requests only Energy Resource Interconnection Service and the transmission facility for which it requests Energy Resource Interconnection Service is a transmission facility over which power flow can be directly controlled by power flow control devices directly connected to the Class Year Transmission Project without having to re-dispatch generation. Class Year Transmission Projects shall not include Attachment Facilities, Network Upgrade Facilities, System Upgrade Facilities or System Deliverability Upgrades." NYISO OATT Attach. X, § 30.1.

[7] *See* NYISO OATT Attach. X.

[8] *See* NYISO OATT Attach. Z.

[9] Local System Upgrade Facilities are defined in the NYISO OATT as "the System Upgrade Facilities necessary to physically interconnect a proposed Project to the Connecting Transmission Owner's transmission system, consistent with applicable interconnection and system protection design standards." NYISO OATT §§ 25.1.1, 30.1, 32.5. Local System Upgrade Facilities include any electrical facilities required to make the physical connection (*e.g.*, a new ring bus for a line connection or facilities required to create a new bay for a substation connection) and can also include any system protection or communication facilities that may be required for

c. NYISO's Unique Class Year Study Process

The NYISO's Class Year Study process is a unique concept among ISOs and RTOs. The Class Year Study evaluates the cumulative impact of a group of projects—a "Class Year" of projects. All Large Facilities studied under the LFIP are required to participate in the Class Year Study. Certain Small Generating Facilities studied under the SGIP are also required to participate in the Class Year Study, and Small Generating Facilities requesting CRIS of greater than 2 MW must participate in the deliverability elements of the Class Year Study to obtain CRIS. The Class Year Study procedures are primarily contained in Attachment S to the NYISO OATT, which sets forth the eligibility requirements for Class Year entry, establishes the Class Year Start Date and schedule, describes the obligations of Class Year Projects once they enter a Class Year Study, and details the scope and the cost allocation methodology for the interconnection of new generation facilities and Class Year Transmission Projects.

A Class Year is comprised of projects that have met specified Class Year Study eligibility requirements by the time the study begins. A significant feature of the Class Year Study process is that it is performed for a group of projects that have achieved similar interconnection milestones to determine the cumulative impact of such projects in order to equitably allocate upgrade costs and generate detailed cost estimates.

Among these requirements, to enter a Class Year, a project must satisfy a regulatory milestone. The applicable regulatory milestones are set forth in the NYISO OATT and reflect siting requirements in New York for different types of generation and transmission projects. Specifically, to enter a Class Year, a project must either: (i) demonstrate that it satisfies an

protection of the Connecting Transmission Owner's transmission facility (line or substation) involved in the interconnection.

applicable regulatory milestone[10] or (ii) submit a qualifying contract or post a two-part deposit in lieu of the regulatory milestone.[11] A developer that meets this milestone by submitting a qualifying contract or posting a deposit is still required to satisfy the regulatory milestone within six months of the NYISO tendering the draft interconnection agreement for the project.[12] If the developer does not satisfy the regulatory milestone, its project will be withdrawn from the NYISO's interconnection queue.[13]

The Class Year Study identifies and allocates the costs of the System Upgrade Facilities needed to reliably interconnect all of the projects in a Class Year. The Class Year Study also includes a deliverability evaluation for Class Year Projects that request CRIS and identifies and allocates the costs of any System Deliverability Upgrades required to make these projects deliverable.

Developers proceed to a decision and settlement process towards the completion of the Class Year Study during which they can accept or reject the cost allocations for System Upgrade Facilities and/or System Deliverability Upgrades, as applicable.[14] If, during the decision phase, one or more developers decline to accept the costs associated with their projects, the NYISO will, within tight, tariff-prescribe timeframes, remove their projects and update the upgrades and cost information for the remaining developers.[15] When all remaining developers accept their costs and provide the required security, the Class Year Study is final and not subject to re-studies. The developer is only responsible for upgrade costs in excess of its secured amount under limited circumstances set forth in Attachment S of the OATT, but will have to forfeit its

[10] *See* NYISO OATT Attach. S § 25.6.2.3.1.1.
[11] *See id.* at § 25.5.9.1.
[12] *See id.* at § 25.6.2.3.2.
[13] *See id.* at § 25.6.2.3.3.
[14] *See id.* at § 25.8.2.
[15] *See id.* at § 25.8.2.1

security if it withdraws its project and other developers are relying on the upgrades that it accepted.[16]

In addition, the NYISO uses a "headroom" process as part of its Class Year Study that allocates shared network upgrade costs among developers in different Class Years.[17] Under the NYISO's headroom requirements, if a developer pays for upgrades that create capacity on the electric system in excess of that needed for the developer's project, then the developer may be reimbursed by a subsequent developer for its use of the excess capacity of the upgrades.[18]

II. Improvements and Enhancements of the NYISO's Interconnection Processes.

The NYISO has continued to work with its stakeholders on an ongoing basis to review its interconnection processes and to identify and implement process enhancements. In recent years, the NYISO has adopted a number of comprehensive revisions to its interconnection processes driven by both stakeholder and developer input and the NYISO's experience in administering these processes.[19] These process improvements have focused primarily on increasing efficiencies, increasing transparency, and expediting the interconnection study process.[20]

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[16] *See id.* at §§ 25.8.5, 25.8.6, 25.9.2.

[17] NOPR at P 92.

[18] Such headroom can be created by a developer that elects to construct System Upgrade Facilities that are larger or more extensive than the minimum facilities required to reliably interconnect its proposed project ("Elective System Upgrade Facilities"). *See* NYISO OATT Attach. S §§ 25.6.1.4.1 & 25.7.12.7 (establishing similar headroom requirements for System Deliverability Upgrades). Headroom can also result simply from the fact that commercially available facilities may be somewhat larger than what is required for a particular project. If a developer of a later project uses the headroom created and paid for by the earlier developer, the later developer must pay the original developer for this headroom in accordance with specific headroom reimbursement rules. *See* NYISO OATT Attach. S §§ 25.8.7 & 25.7.12.6 (establishing similar Headroom requirements for System Deliverability Upgrades).

[19] *See, e.g., N.Y. Indep. Sys. Operator, Inc.*, Letter Order on Tariff Revisions, Docket No. ER20-638-000 (Jan. 31, 2020) (corrected via errata issued on Feb. 4, 2020); *N.Y. Indep. Sys. Operator, Inc.*, Letter Order on Tariff Revisions, Docket No. ER18-80-000 (Dec. 7, 2017); *N.Y. Indep. Sys. Operator, Inc.*, Letter Order on Tariff Revisions, Docket No. ER14-627-000 (Jan. 23, 2014); *N.Y. Indep. Sys. Operator, Inc.*, Order on Tariff Revisions, 135 FERC ¶ 51,014 (2011); *N.Y. Indep. Sys. Operator, Inc.*, Letter Order on Tariff Revisions, Docket No. ER11-2842-001 (July 6, 2011); *N.Y. Indep. Sys. Operator, Inc.*, Letter Order on Tariff Revisions, Docket No. ER10-290-000 (Jan. 6, 2010).

[20] Among the more significant modifications made to the NYISO's interconnection procedures over recent years as part of these ongoing efforts are the following:

Through its engagement with stakeholders, the NYISO has been able to identify key areas of concern expressed by many developers and to develop targeted solutions that function effectively in the NYISO's process.

The revisions have resulted in significant improvements in the performance of the NYISO's interconnection processes and the NYISO's coordination with Developers, Transmission Owners, and other process participants. Most recently, the NYISO conducted a comprehensive improvement effort in 2019 through which the NYISO enhanced numerous aspects of the interconnection process, particularly the need to expedite the interconnection study processes.

The recent interconnection reforms have already demonstrated significant improvements. For example, Class Year 2019 was the largest Class Year in the history of the NYISO's interconnection process. Sixty-one projects completed Class Year 2019 in approximately 18 months, one of the most expeditious Class Year Studies to date. In addition, the current Class Year 2021 includes 57 projects and is on target to go to the NYISO Operating Committee for

- Creation of a separate track, apart from the Class Year Study, for detailed deliverability studies in order that the Class Year can complete and the next Class Year can begin irrespective of the status of the detailed deliverability studies;
- Increased Class Year study efficiencies by (i) frontloading the Class Year Study; (ii) restructuring the scopes of the System Impact Study and the Class Year Study; (iii) requiring project data earlier in the Class Year Study process; and (iv) creating additional milestones for projects to enter a Class Year;
- Modifications to Class Year Study entry and re-entry rules to provide flexibility to Developers while at the same time tightening the overall process to address "queue squatting" by projects not making reasonable progress toward commercial operation;
- Addition of a non-refundable application fee and revised study deposits to discourage premature or speculative projects from entering the queue and to align the deposit amount with actual study costs;
- Modifications of the Class Year Study requirements to reduce the number of Small Generating Facilities that are required to proceed through the Class Year Study, limiting the Class Year Study requirement to only those Small Generating Facilities that require more systemic System Upgrade Facilities;
- Creation of an Expedited Deliverability Study for projects that only request CRIS such that they can be studied for deliverability and obtain CRIS without going through a Class Year Study; and
- Modifications to base case assumptions for Feasibility Studies, SRISs and System Impact Studies to improve technical quality of the studies and to improve efficiency.

approval in October – approximately 19 months from the Class Year 2021 start date. These Class Years significantly improve on the two to three year timeframe of prior Class Years.

III. Current NYISO Initiatives to Further Enhance Its Interconnection Processes.

The NYISO is currently undertaking with its stakeholders several new initiatives to further enhance its interconnection processes.

First, the NYISO is developing revisions to its interconnection and transmission expansion tariffs to provide for coordination among the various processes – both NYISO and Connecting Transmission Owner interconnection study processes – to help mitigate the potential for inconsistent treatment among project developers, provide for more comprehensive study results, and develop explicit tariff mechanisms to address the potential for interactions between projects in different processes.[21]

Second, the NYISO is developing further comprehensive study process improvements, including improvements to stakeholder communications and to revisit and reform the Interconnection System Reliability Impact Study.[22]

Third, the NYISO is developing reforms to its *pro forma* interconnection agreements and to establish a *pro forma* agreement for upgrades required for Affected Systems or for multiple projects.[23]

Presentation material concerning these initiatives are included in Appendix B to the NYISO's comments.

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[21] *See* Coordination of Interconnection and Transmission Expansion Studies, NYISO Transmission Planning Advisory Subcommittee (Sept. 1, 2022) included in Appendix B to the NYISO's comments.

[22] *See* Interconnection Studies Process Improvements, NYISO Transmission Planning Advisory Subcommittee (Sept. 1, 2022) included in Appendix B to the NYISO's comments.

[23] *See* Modifications to NYISO's *Pro Forma* Interconnection Agreements and Establishment of *Pro Forma* EPC Agreement for Certain SUFs and SDUs, NYISO Transmission Planning Advisory Subcommittee (Sept. 1, 2022) included in Appendix B to the NYISO's comments.

In addition to these initiatives, interconnection improvements are currently under discussion with stakeholders as part of other initiatives related to Hybrid Storage Resources, Controllable Transmission lines internal to the New York Control Area, and Installed Capacity Market reforms. These interconnection improvements will, as proposed, help streamline and clarify the interconnection process for co-located resources, establish clear procedures governing the interconnection evaluation of internal Controllable Transmission projects, and expand the scenarios in which facilities can engage in Capacity Resource Interconnection Service transfers.

Appendix B

NYISO Ongoing Interconnection Initiatives

New York ISO
Independent System Operator

Interconnection Studies Process Improvements

Thinh Nguyen

Sr. Manager, Interconnection Projects

TPAS

September 1, 2022

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Agenda

- Background
- Interconnection Study Process
- Challenges/Identification of Improvements
- Interconnection Study Status
- Other Potential Improvements

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Background

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Background

- NYISO seeks to continue to improve the interconnection study process
- Previous discussions:
  - May 5, 2022 TPAS – discussed the improvement to the IP Community Portal to add increased transparency regarding project status
  - August 1, 2022 TPAS – updated stakeholders regarding the NYISO's posting of two interconnection project manager positions to provide one-on-one support to project developers
  - August 18, 2022 OC – updated stakeholders regarding the NYISO's posting of two stakeholder services positions to serve as interconnection project liaisons to help manage stakeholders' inquiries related to interconnection process

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Interconnection Study Process

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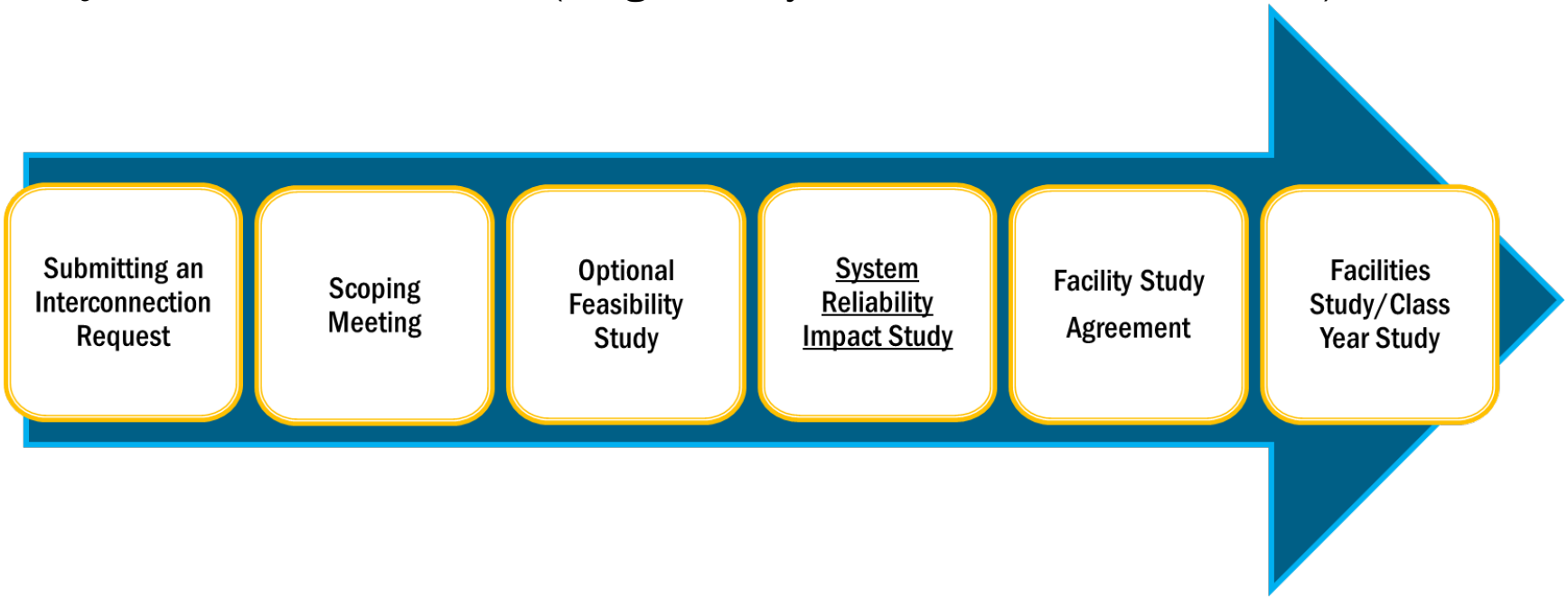
Background

Projects under Attachment X (Large Facility Interconnection Procedures)



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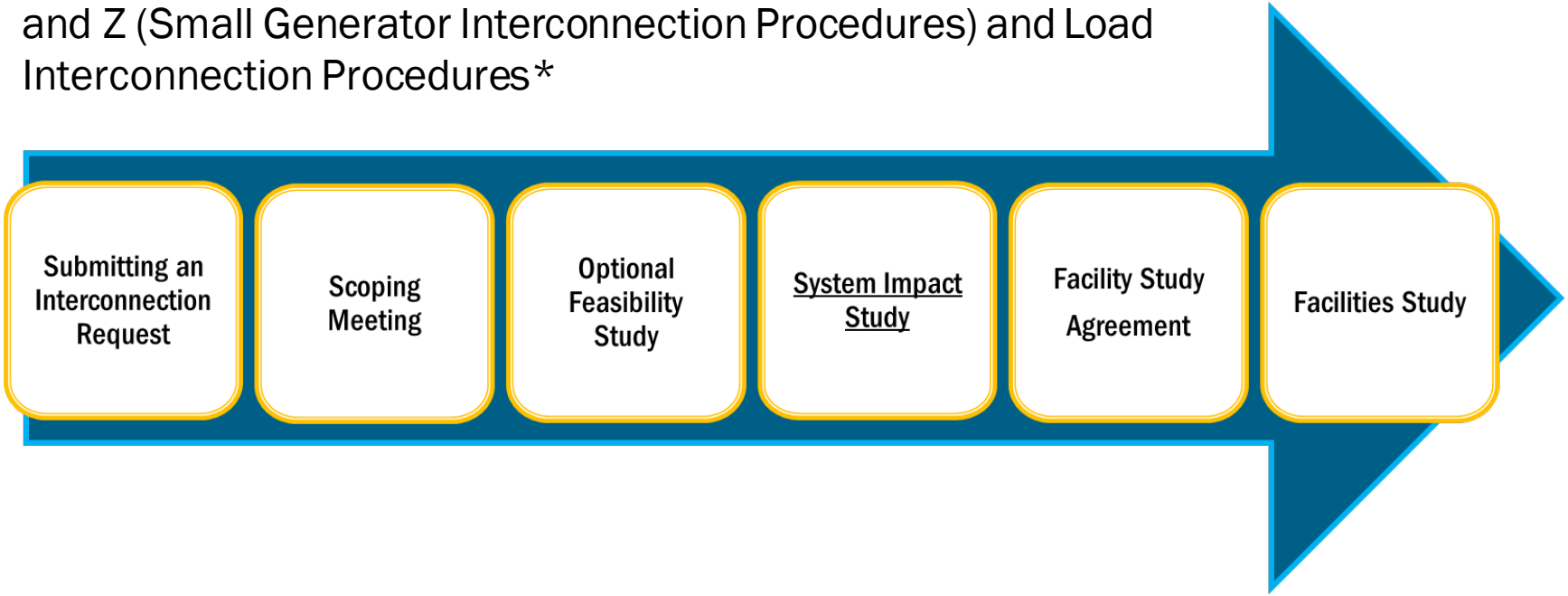
Background

Projects under Attachments P (Transmission Interconnection Procedures) and Z (Small Generator Interconnection Procedures) and Load Interconnection Procedures*



* Load Interconnection Procedures do not include Optional Feasibility Study, and NYISO is not a party to the Facilities Study if there is any such study required by the applicable Connecting Transmission Owner.

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Challenges/ Identification of Improvements

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Challenges

- Increasing number of projects year over year:
  - ✓ 2018: 120+ active studies = ~20 per engineer (6 engineers)
  - ✓ 2019: 160+ active studies = ~25 per engineer (7 engineers)
  - ✓ 2020: 220+ active studies = ~35 per engineer (7 engineers as of 2019)
  - ✓ 2021: 290+ active studies = ~60 per engineer (5 engineers)
  - ✓ 2022: 346+ active studies = ~40 per engineer (9 engineers)
    - 386 total of projects since December 31, 2021
    - 96 New IR processed as of August 2022
    - 40 projects withdrawn as of August 2022

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Challenges (cont')

- Increasing number of material modifications for projects during 2022
- Attrition of 5 engineers on the Interconnection Studies (IS) team from Jan. 2021 – Mar. 2022
- Difficulty hiring Electrical Engineers due to labor market shortage
  - ✓ As a result, 67% of new engineers did not have experience in the IS
- Consultants unable to take on more interconnection due to labor market shortage
- Developers/Interconnection Customers unfamiliar with the Interconnection process, requiring additional NYISO time to attend meetings and address questions

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Identification of Improvements

1. **Resource Aspects**
   - Staff/Consultants
   - Training
   - Software/tools
2. **Administrative Aspects**
   - Documentation
   - Communication with Developers
3. **Technical Aspects (see next slide)**

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Technical Aspects

1. **Eliminate certain analyses from the scope of the SRIS**
   - Voltage deviation analysis
   - Harmonic analysis
2. **Perform the following analyses in the SRIS based on case-by-case basis, as necessary**
   - NPCC A-10 testing
   - Transfer assessment
   - Sub-synchronous torsional interaction screening

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Interconnection Study Status

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Interconnection Study Status

Studies

- First Quarter of 2022
  - ✓ Total of 19 reports drafted and circulated for review : 3 FES, 10 SRIS, 7 SIS
  - ✓ Total of 5 study reports completed

- Second Quarter of 2022
  - ✓ Total of 35 reports drafted and circulated for review: 6 FES, 12 SRIS, 17 SIS
  - ✓ Total of 7 study reports completed

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Other Potential Improvements

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Other Potential Improvements

- Utilization and engagement of consultants to perform studies
- Pursue additional efficiencies in the following aspects of the OFES/SRIS study process:
  - Project modeling validation process
  - Base case review process
  - Identification of local contingencies
  - Elimination of extreme contingency analysis, bus flow analysis and NYISO study review report
- Continue to streamline the study scopes and study reports

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Our Mission & Vision

Mission

Ensure power system reliability and competitive markets for New York in a clean energy future

Vision

Working together with stakeholders to build the cleanest, most reliable electric system in the nation

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Questions?

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New York ISO
Independent System Operator

Coordination of Interconnection and Transmission Expansion Studies

Thinh Nguyen

Senior Manager, Interconnection Studies

Transmission Planning Advisory Subcommittee

September 1, 2022

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Agenda

- Problem Statement
- Conceptual Approach to Enhance Coordination
- Next Steps

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Problem Statement

- Each set of interconnection and transmission expansion procedures has base case inclusion rules that establish the updated base case at the start of each study
- Because of multiple study processes that may proceed in parallel, it is conceivable for projects to proceed in different interconnection study processes without accounting for the impact of projects in another study process that could directly impact each other
- The chance of this circumstance occurring is now more likely to be encountered given the influx of interconnection requests entering the NYISO interconnection queue

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Problem Statement (cont.)

- Additionally, the NYISO's interconnection procedures provide a mechanism for updates to the Connecting Transmission Owner's system representation, including distribution level updates provided by the Connecting Transmission Owner.
- With the increasing number of distribution-level interconnections proceeding outside the NYISO interconnection queue, it is important to capture the collective reliability impacts of projects in both NYISO and Connecting Transmission Owners' interconnection queues.

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Conceptual Approach to Enhance Coordination Among Interconnection Procedures

1. **Revise the base case inclusion rules used in the interconnection studies to enhance the coordination among the NYISO's interconnection procedures, as well as separate interconnection procedures conducted by the State and individual Transmission Owners, by:**
    a) Enhancing the inclusion rules with respect to Transmission Projects and their associated Network Upgrade Facilities ("NUF") in the base cases used by the NYISO's interconnection procedures
    b) Revising the point in time for the inclusion of Small Generators under Attachment Z to a similar level of project commitment as Large Facilities and Transmission Projects
    c) Further specifying the inclusion of interconnection requests that are being studied in the interconnection processes outside of the NYISO's procedures
2. **Clarify and enhance the study of Transmission Projects and Class Year Projects that are not in each other's base cases but have the potential to impact each other by using existing capacity on the system or requiring similar upgrades to the system**

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Proposal 1 - Revise NYISO's Base Case Inclusion Rules

- **Enhancing the inclusion of Transmission Projects and their associated NUFs**

  Current Practice:

  - The base case inclusion rules under both Attachments P and X require the following before a Transmission Project can be included in the base case:
    - Transmission Project that was proposed under Attachment Y and, prior to the Class Year Start Date, was triggered, selected, or approved in one of the NYISO's Order No. 1000 planning processes, and has a completed System Impact Study, has an Article VII applicable deemed complete, and is making reasonable progress under the applicable planning process; or
    - Transmission Project that was not proposed under Attachment Y and has completed a Facilities Study and posted Security for the identified Network Upgrade Facilities as required in Section 22.9.10 of Attachment P and has an Article VII application deemed complete (if applicable).

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Proposal 1 - Revise NYISO's Base Case Inclusion Rules

- **Enhancing the inclusion of Transmission Projects and their associated NUFs**

  Proposed Revisions:

  - Revise Attachment P to require a Transmission Project to post Security following the issuance of the Facilities Study report
    - Posting Security will also trigger the tender of a draft Transmission Project Interconnection Agreement
  - Revise Attachment P to add Security forfeiture provisions, similar to those found in Attachment S, as opposed to the current practice of incorporating them into the Transmission Project Interconnection Agreement
  - Revise the base case inclusion rules in Attachments P and S for TIP Transmission Projects that are not selected, triggered, or voted on under Attachment Y to remove the requirement for an executed Transmission Project Interconnection Agreement

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Proposal 1 - Enhance Base Case Inclusion Rules

- **Revise the point in time for inclusion of Small Generators into base cases used for other Small Generators, Large Facilities and Transmission Projects to a point consistent with the inclusion of Large Facilities and Transmission Projects**

  Current Practice:

  - Small Generators that have an executed facilities study agreement under the SGIP are considered to be firm for purposes of including them in the system representation under Section 25.5.5.1 of Attachment S

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Proposal 1 - Enhance Base Case Inclusion Rules

- **Revise the point in time for inclusion of Small Generators to a point consistent with the inclusion of Large Facilities and Transmission Projects**

  Proposed Revision:

  - Revise Attachment Z to require Small Generators to post Security for its System Upgrade Facilities following the completion of the Facilities Study and together with their notice of acceptance of the costs under Section 32.3.5.7 of Attachment Z
    - Small Generators will have 30 Calendar Days after the finalization of the Facilities Study to accept the costs in accordance with Section 32.3.5.7 and 5 Business Days to post Security
    - Posting Security will trigger the tender of a draft Small Generator Interconnection Agreement
  - Revise Attachment Z to add Security forfeiture provisions, similar to those found in Attachment S
  - Modify the inclusion rules under Attachments P and S to specifically refer to Small Generators and their associated System Upgrade Facilities once a project has posted Security

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Proposal 1 - Revise NYISO's Base Case Inclusion Rules

- **Further specify the inclusion of projects that are being studied outside of the NYISO's interconnection procedures**

  Current Practice:

  - Projects studied in either the New York State Standardized Interconnection process or the individual Transmission Owner's interconnection process (*i.e.*, requests studied outside of the NYISO's interconnection procedures) are captured in the NYISO's base cases in accordance with Section 25.5.5.2(vii) of Attachment S, as follows:
    - Yearly updates to existing system provided by Transmission Owners reflect such projects as well as other system changes,
    - Transmission Owner review of base cases at the commencement of an interconnection study reflect the need to add such projects, as needed

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Proposal 1 - Revise NYISO's Base Case Inclusion Rules

- **Further specify the inclusion of projects that are being studied outside of the NYISO's interconnection procedures**

  Proposed Revisions:

  - Revise the NYISO's base case inclusion rules to specifically refer to interconnection projects being studied outside of the NYISO's procedures that the applicable Transmission Owner identifies as having sufficiently advanced for the Transmission Owner to consider firm for purposes of planning its local transmission system
  - Specific criteria relied on by the applicable Transmission Owner can be further defined in the Transmission Expansion and Interconnection Manual

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Proposal 2 - Clarify and Enhance Coordination of Transmission Projects and Class Year Projects

- **Background:**
  - Based upon the interactions of Transmission Projects being studied in the TIP and Class Year Projects being studied in the Class Year, there is a possibility for projects to have or contribute to similar reliability violations and require similar upgrade facilities
  - Due to the timing of the studies, Transmission Projects being studied in the TIP may not meet the base case inclusion rules of the Class Year Interconnection Facilities Study to adequately study the interaction of the two projects on similar upgrade facilities, or vice versa
  - While the NYISO has flexibility in its current tariff to perform scenarios in the TIP Facilities Studies to account for timing issues, the TIP and LFIP can benefit from explicit tariff provisions detailing the use of sensitivities in the TIP to further coordinate the two processes

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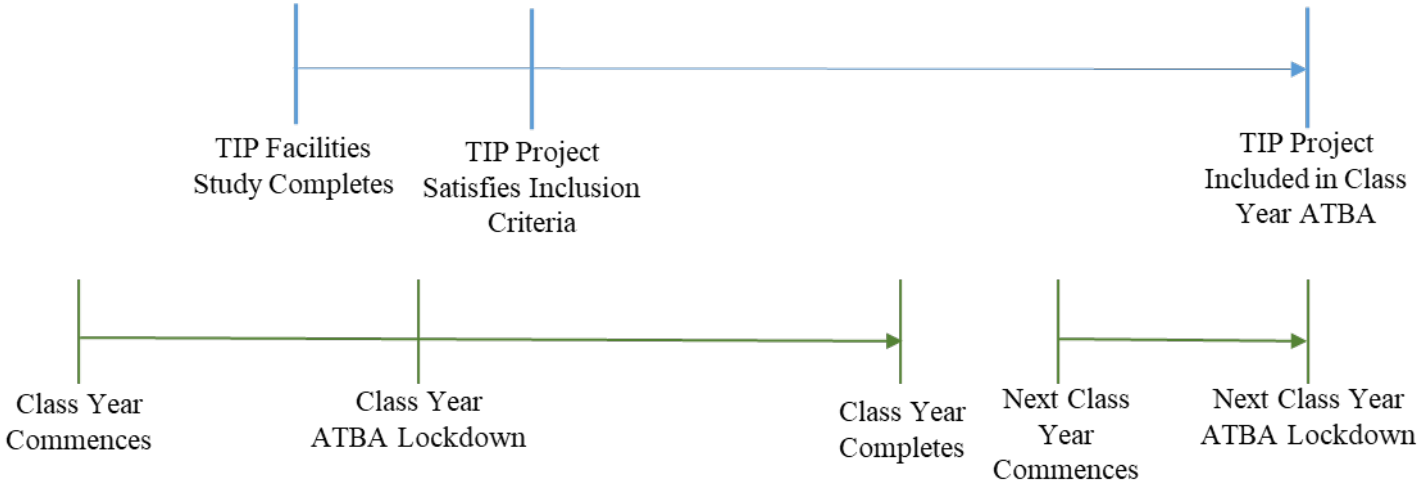
Proposal 2 - Clarify and Enhance Coordination of Transmission Projects and Class Year Projects

- Example:



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Proposal 2 - Clarify and Enhance Coordination of Transmission Projects and Class Year Projects

Proposal:

- The NYISO is considering explicit tariff provisions detailing the use of sensitivities and true-up studies in the TIP Facilities Studies to identify and account for interactions with the Class Year Projects that are concurrently being studied in a Class Year that could require the same or similar upgrade facilities

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Proposal 2 - Clarify and Enhance Coordination of Transmission Projects and Class Year Projects

Proposal:

- At the start of a TIP Facilities Study, the NYISO will evaluate whether there are any potential interactions between the TIP Transmission Project and the Class Year Projects in an ongoing Class Year Study
- The NYISO will run necessary sensitivities in the TIP Facilities Study to account for Class Year Projects and their System Upgrade Facilities/System Deliverability Upgrades (to the extent known) that may have a potential interactions with the TIP Transmission Project
  - More than one sensitivity may be run if the TIP Transmission Project may have interactions with more than one Class Year Project

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Proposal 2 - Clarify and Enhance Coordination of Transmission Projects and Class Year Projects

Proposal:

- Following the completion of the Class Year Study, there will be "true-ups" based on the results of Class Year Projects accepting or rejecting their project cost allocations and posting of Security.
  - The true-up evaluation will occur following the completion of the ongoing Class Year Study, which the NYISO will use the sensitivity closest to the results of the Class Year and incorporate any adjustments based on the results from the Class Year
  - At the completion of the true-up, the NYISO will identify the necessary NUFs for the Transmission Project
  - The Transmission Developer will then have the option to post Security, which will result in the TIP Transmission Project being included in the next Class Year Study's ATBA

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Proposal 2 - Clarify and Enhance Coordination of Transmission Projects and Class Year Projects

Proposal:

- If the Transmission Developer does not post Security prior to the lockdown case of the next Class Year Study ATBA, then the TIP Transmission Project will have a subsequent true-up at the end of that Class Year Study before the NUFs necessary for the interconnection of the TIP Transmission Project are finalized
- The Transmission Developer may, however, still enter into a TIP Interconnection Agreement that identify NUFs contingent on the completion of a true-up following the completion of an ongoing Class Year Study

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Next Steps

- The NYISO anticipates continued discussions and presentation of draft tariff revisions throughout Q3 of 2022
- Please send any written comments to Kirk Dixon at kdixon@nyiso.com

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Questions?

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New York ISO
Independent System Operator

Modifications to NYISO's *Pro Forma* Interconnection Agreements and Establishment of *Pro Forma* EPC Agreement for Certain SUFs and SDUs

Sara B. Keegan, Senior Attorney
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Transmission Planning Advisory Subcommittee

September 1, 2022, NYISO Conference Center, East Greenbush, New York

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Agenda

- Review existing *pro forma* interconnection agreement framework and need for reform to account for increasing numbers of generation projects and related agreements;
- Describe proposed revisions to *pro forma* interconnection agreements and establishment of *pro forma* engineering, procurement, and construction agreement for certain SUFs and SDUs; and
- Receive initial stakeholder feedback and questions.

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Pro Forma Agreements

- **The NYISO OATT includes *pro forma* interconnection agreements among the NYISO, Connecting Transmission Owner, and generation developers for the interconnection of generators to the New York State Transmission System or Distribution System.**
- **The NYISO's *pro forma* Large Generator Interconnection Agreement (LGIA) applies to generators larger than 20 MW.**
    - The LGIA is contained in Attachment X of the NYISO OATT and is based on FERC's *pro forma* agreement established in its Order No. 2003, as modified in subsequent orders (*e.g.*, Order Nos. 845, 827, 842).
- **The NYISO's *pro forma* Small Generator Interconnection Agreement (SGIA) applies to generators 20 MW or less.**
    - The SGIA is contained in Attachment Z of the NYISO OATT and is based on FERC's pro forma agreement established in its Order No. 2006.

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Pro Forma Agreements

- **The NYISO OATT does not include a *pro forma* agreement for the engineering, procurement, and construction ("EPC") of System Upgrade Facilities and System Deliverability Upgrades required for Affected Systems or for multiple projects.**
  - The OATT currently provides for the NYISO to modify the *pro forma* Large Generator Interconnection Agreement for use as an EPC Agreement in such circumstances. (See Att. S Section 25.7.12.13; Att. X Section 30.3.5.)
  - These agreements are then filed at FERC as non-conforming agreements for FERC's acceptance.

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Increased Number of Generation Projects In New York

- **Historically, the NYISO studied and entered into interconnection agreements with a relatively small number of proposed generation projects seeking to interconnect to the New York State Transmission System or Distribution System, with many of these projects being large fossil fuel projects.**
    - For example, Class Year 2015 only included 16 participants (of which 9 participated solely to obtain CRIS).
    - In addition, historically, there have not been many Small Generating Facility projects in New York subject to the NYISO's interconnection process.

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Increased Number of Generation Projects In New York

- **In recent years, the NYISO has experienced a significant increase in developers submitting Interconnection Requests to enter its Interconnection Queue, particularly for renewable generation resources (*e.g.,* wind, solar, and energy storage projects).**
    - For example, Class Year 21 includes 57 projects (of which 3 are CRIS only).
    - In parallel with this increase in Class Year participants, there has been a significant increase in the number of proposed Small Generating Facilities.
    - With the increased number of projects, there has also been an increase in impacts to Affected Systems that require upgrades to ensure the reliable interconnection of generation projects (*e.g.,* upgrades to remote end substations).

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Increased Number of Agreements

- The increased number of projects has resulted in a corresponding increase in the numbers of required interconnection agreements and related EPC agreements. The below table illustrates the increasing numbers of interconnection and related agreements under negotiation (or subject to amendment) with the NYISO in recent years.

	Jun 2016	Dec 2018	Dec 2019	Dec 2020	Jun 2021	Dec 2021	Current
Total	10	19	29	64	75	68	56

- The NYISO anticipates that for the foreseeable future there will continue to be an increased number of required interconnection and related agreements as significant numbers of new generation seek to interconnect in New York.

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Need for Reform

- **The increased numbers of interconnection and related agreements require the NYISO and New York Transmission Owners to expend significant additional time, staffing, and resources and are resulting in longer time periods to complete and execute the agreements.**
    - The OATT provides for the parties to complete a *pro forma* LGIA or SGIA within 6 months of the date of tendering the agreement, but permits the parties to agree to extend this period.
    - Currently, a large number of the negotiation periods for LGIAs and SGIAs have been extended, particularly for LGIAs.

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Need for Reform

- In addition, with the more extensive use of the *pro forma* agreements, the NYISO has identified certain recurring items in the interconnection process and *pro forma* agreements that are necessitating additional discussions during the agreement negotiation process, delaying completion of the agreements, and requiring the filing of many non-conforming agreements at FERC.
- Further, the increased need for parties to enter into EPC Agreements for Affected System work or upgrades across multiple projects also requires additional time, staffing, and resources to develop and negotiate such agreements on a case-by-case basis and to file such non-conforming agreements with FERC for their acceptance.

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Proposed Process Reforms

- As further detailed below, the NYISO proposes to revise the interconnection procedures and the *pro forma* LGIA and SGIA in its OATT to address recurring items identified in its interconnection agreements and to enhance and provide clarity concerning these procedures and agreements to enable parties to complete the agreements in a timely manner.
- In addition, the NYISO proposes to establish a *pro forma* EPC Agreement for inclusion in the NYISO OATT for the engineering, procurement, and construction of upgrades for multiple projects or Affected Systems.
- The NYISO will propose a transition rule to account for interconnection agreements that are under negotiation, but not executed, at the time the revisions become effective.
- In parallel with these revisions, the NYISO may pursue additional process efficiencies, including as part of NYISO's compliance with a likely FERC interconnection rulemaking building on its NOPR and/or additional interconnection improvements targeted by the NYISO for 2023.

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Proposed Revisions to LGIA/SGIA

- **The NYISO proposes the following categories of revisions to its *pro forma* LGIA and SGIA:**
  - Include placeholders in the body of the SGIA and LGIA to address recurring variations that have necessitated non-conforming agreements;
  - Clarify security, invoicing, and oversight cost rules;
  - Provide for use of prepayment approach with agreement of Developer and Connecting Transmission Owner;
  - Clarify that Developer and Connecting Transmission Owner can agree for Developer to construct Connecting Transmission Owner's Interconnection Facilities under the SGIA and to construct Other System Upgrade Facilities under the LGIA and clarify the rules concerning such work by Developer;

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Proposed Revisions to LGIA/SGIA, cont.

- Include in the body of the LGIA and SGIA requirements concerning the impacts of executing the agreement prior to the completion of the Class Year Study and/or Expedited Deliverability Study;
- Update insurance and tax requirements;
- Review indemnity rules for consistency with OATT;
- Revise Phasor Measurement Unit requirements in LGIA;
- Examine potential requirements for co-located, hybrid, or other resources that share interconnection facilities;
- Clarify parties' obligation to satisfy NYISO tariff requirements, including complying with applicable interconnection procedures;

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Proposed Revisions to LGIA/SGIA, cont.

- Clarify the Connecting Transmission Owner standards/specifications that will apply to the interconnection work;
- Clarify process for amending LGIA and SGIA;
- Provide for LGIA to apply for merchant transmission facilities as part of *pro forma* agreement;
- Make additional clarifications and clean ups, including cleaning up typos; and
- Include transition rules for use of the revised *pro forma* agreements.

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Proposed EPC Agreement

- The NYISO also proposes to establish a *pro forma* EPC Agreement in its OATT for the engineering, procurement, and construction of System Upgrade Facilities and System Deliverability Upgrades that are not addressed in LGIAs or SGIAs because the upgrades are required for Affected Systems or for multiple projects.
    - The Commission has accepted such a *pro forma* agreement for MISO and has proposed an agreement for Affected System work as part of its recent interconnection NOPR.
- The EPC Agreement will be developed based on previous EPC Agreements developed by the NYISO and accepted by the Commission and using other example agreements accepted by the Commission.

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Next Steps

- The NYISO anticipates presenting proposed tariff revisions at the 10/3 and/or 11/1 TPAS meeting.
- The NYISO is targeting a Section 205 filing with FERC in Q1 2023 with proposed transition rules to apply the tariff revisions to IAs and EPCs associated with Class Year 2021 projects

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Our Mission & Vision

Mission

Ensure power system reliability and competitive markets for New York in a clean energy future

Vision

Working together with stakeholders to build the cleanest, most reliable electric system in the nation

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Questions?

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