

170 FERC ¶ 61,117
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Neil Chatterjee, Chairman;
Richard Glick and Bernard L. McNamee.

New York Independent System Operator, Inc. Docket No. ER19-1949-000

ORDER ON COMPLIANCE

(Issued February 20, 2020)

1. On May 22, 2019, New York Independent System Operator, Inc. (NYISO) submitted proposed revisions to Attachment X of its Open Access Transmission Tariff (OATT) to comply with the requirements of Order Nos. 845 and 845-A,¹ which amended the Commission’s *pro forma* Large Generator Interconnection Agreement (LGIA) and *pro forma* Large Generator Interconnection Procedures (LGIP).² As discussed below, we find that NYISO’s compliance filing partially complies with the requirements of Order Nos. 845 and 845-A. Accordingly, we accept NYISO’s compliance filing, effective April 20, 2020, as requested, and direct NYISO to submit a further compliance filing within 60 days of the date of this order.

I. Background

2. On April 19, 2018, the Commission issued Order No. 845, which revised the Commission’s *pro forma* LGIA and the *pro forma* LGIP to improve certainty for interconnection customers, promote more informed interconnection decisions, and enhance the interconnection process. The Commission stated that it expects that these reforms will provide interconnection customers better information and more options for obtaining interconnection service, and as a result, there will be fewer overall interconnection requests and fewer interconnection requests failing to reach commercial

¹ *Reform of Generator Interconnection Procedures and Agreements*, Order No. 845, 163 FERC ¶ 61,043 (2018), *errata notice*, 167 FERC ¶ 61,123, *order on reh’g*, Order No. 845-A, 166 FERC ¶ 61,137, *errata notice*, 167 FERC ¶ 61,124, *order on reh’g*, Order No. 845-B, 168 FERC ¶ 61,092 (2019).

² The *pro forma* LGIP and *pro forma* LGIA establish the terms and conditions under which public utilities that own, control, or operate facilities for transmitting energy in interstate commerce must provide interconnection service to large generating facilities. Order No. 845, 163 FERC ¶ 61,043 at P 6.

operation. The Commission also stated that it expects that, as a result of these reforms, transmission providers will be able to focus resources on those interconnection requests most likely to reach commercial operation.³ In Order No. 845-A, the Commission generally upheld the reforms it required in Order No. 845 but granted certain requests for rehearing and clarification.

3. In Order No. 845, the Commission adopted ten different reforms in three categories to improve the interconnection process. First, in order to improve certainty for interconnection customers, the Commission: (1) removed the limitation that interconnection customers may exercise the option to build the transmission provider's interconnection facilities⁴ and stand alone network upgrades⁵ only in instances when the transmission provider cannot meet the dates proposed by the interconnection customer;⁶ and (2) required that transmission providers establish interconnection dispute resolution procedures that allow a disputing party unilaterally to seek non-binding dispute resolution.⁷

4. Second, to promote more informed interconnection decisions, the Commission: (1) required transmission providers to outline and make public a method for determining contingent facilities;⁸ (2) required transmission providers to list the specific study

³ *Id.* P 2; Order No. 845-A, 166 FERC ¶ 61,137 at P 1.

⁴ Transmission provider's interconnection facilities are "all facilities and equipment owned, controlled or operated by the Transmission Provider from the Point of Change of Ownership to the Point of Interconnection as identified in Appendix A to the Standard Large Generator Interconnection Agreement, including any modifications, additions or upgrades to such facilities and equipment. Transmission Provider's Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades, Stand Alone Network Upgrades or Network Upgrades." *Pro forma* LGIA art. 1 (Definitions).

⁵ Stand alone network upgrades are "Network Upgrades that an Interconnection Customer may construct without affecting day-to-day operations of the Transmission System during their construction. Both the Transmission Provider and the Interconnection Customer must agree as to what constitutes Stand Alone Network Upgrades and identify them in Appendix A to the Standard Large Generator Interconnection Agreement." *Id.*

⁶ Order No. 845, 163 FERC ¶ 61,043 at P 85.

⁷ *Id.* P 3.

⁸ Contingent facilities are "those unbuilt Interconnection Facilities and Network Upgrades upon which the Interconnection Request's costs, timing, and study findings are

processes and assumptions for forming the network models used for interconnection studies; (3) revised the definition of “Generating Facility” to explicitly include electric storage resources; and (4) established reporting requirements for aggregate interconnection study performance.⁹

5. Third, the Commission adopted reforms to enhance the interconnection process by: (1) allowing interconnection customers to request a level of interconnection service that is lower than their generating facility capacity; (2) requiring transmission providers to allow for provisional interconnection agreements that provide for limited operation of a generating facility prior to completion of the full interconnection process; (3) requiring transmission providers to create a process for interconnection customers to use surplus interconnection service¹⁰ at existing points of interconnection; and (4) requiring transmission providers to set forth a procedure to follow when assessing and, if necessary, studying an interconnection customer’s technology changes without affecting the interconnection customer’s queue position.¹¹

II. NYISO’s Compliance Filing

6. On May 22, 2019, NYISO submitted proposed revisions to Attachment X of its OATT, including revisions to its Large Facility Interconnection Procedures (LFIP) and *pro forma* LGIA, to comply with the requirements of Order Nos. 845 and 845-A. NYISO states that its proposed revisions incorporate the revisions in Order Nos. 845 and 845-A with certain independent entity variations. NYISO states that its proposed independent entity variations largely conform the revisions in Order Nos. 845 and 845-A to the terminology and procedures of NYISO’s OATT previously accepted by the Commission. NYISO states that it also proposes a limited number of more substantive independent

dependent, and if delayed or not built, could cause a need for Re-Studies of the Interconnection Request or a reassessment of the Interconnection Facilities and/or Network Upgrades and/or costs and timing.” *Pro forma* LGIP § 1 (Definitions).

⁹ Order No. 845, 163 FERC ¶ 61,043 at P 4.

¹⁰ Order No. 845 added a definition for “Surplus Interconnection Service” to section 1 of the *pro forma* LGIP and article 1 of the *pro forma* LGIA, defining the term as “any unused portion of Interconnection Service established in a Large Generator Interconnection Agreement, such that if surplus interconnection service is utilized the Interconnection Service limit at the Point of Interconnection would remain the same.” *Id.* P 459.

¹¹ *Id.* P 5.

entity variations based on interconnection, operational, and market issues unique to NYISO.¹²

7. NYISO requests that the Commission make its proposed revisions effective 60 calendar days following the date of the Commission's order accepting the proposed revisions.¹³ NYISO states that, in Order No. 845-A, the Commission directed that the effective date of the proposed revisions to comply with the requirements of Order Nos. 845 and 845-A "shall be the date established in the Commission's order accepting that [regional transmission organization/independent system operator's (RTO/ISO)] compliance filing, which shall be no earlier than the issuance date of such an order."¹⁴ NYISO states that this proposed effective date will give it sufficient time to implement the changes to its LGIF, including, but not limited to, making adjustments to its website, portals and interconnection software.¹⁵

III. Notice and Responsive Pleadings

8. Notice of NYISO's compliance filing was published in the *Federal Register*, 84 Fed. Reg. 24,770 (2019), with interventions and protests due on or before June 12, 2019. On June 6, 2019, the comment period was extended through June 26, 2019.¹⁶

9. Timely motions to intervene were filed by Calpine Corporation; NextEra Energy Resources, LLC; NRG Power Marketing LLC; Energy Storage Association; EDP Renewables North America LLC; Electric Power Supply Association; New York Transmission Owners; EDF Renewables, Inc.; New York Transco, LLC; Enel Green Power North America, Inc.; Renewable Energy Systems Americas, Inc; and E.ON Climate & Renewables North America, LLC.

¹² NYISO Filing at 1. NYISO states that it also proposes a limited, conforming revision to Attachment S of its OATT. *Id.* n.4.

¹³ *Id.* at 32.

¹⁴ *Id.* (citing Order No. 845-A, 166 FERC ¶ 61,137 at P 166).

¹⁵ *Id.* at 32.

¹⁶ Notice Granting Extension of Time, Docket Nos. ER19-1949-000, ER19-1950-000, ER19-1951-000, ER19-1952-000, ER19-1954-000, ER19-1958-000, and ER19-1960-000 (June 7, 2019).

10. Clean Energy Entities¹⁷ filed a timely motion to intervene and comments. On July 11, 2019, NYISO filed an answer. On July 26, 2019, Clean Energy Entities filed an answer to NYISO's answer.

IV. Discussion

A. Procedural Matters

11. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2019), the timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding.

12. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2019), prohibits an answer to a protest or an answer unless otherwise ordered by the decisional authority. We accept the answers filed in this proceeding because they have provided information that assisted us in our decision-making process.

B. Substantive Matters

13. As discussed below, we find that NYISO's compliance filing partially complies with the requirements of Order Nos. 845 and 845-A. Accordingly, we accept NYISO's compliance filing, effective April 20, 2020, as requested, and direct NYISO to submit a further compliance filing within 60 days of the date of this order.

1. Proposed Variations

14. As discussed further below, NYISO has requested certain variations from the Commission's requirements in Order Nos. 845 and 845-A. The Commission explained in Order No. 845 that such variations would be reviewed under the same standard allowed by Order No. 2003. The Commission explained that Order No. 2003 permits an RTO/ISO to seek "independent entity variations" for pricing and non-pricing provisions, and that RTOs/ISOs "shall have greater flexibility to customize [their] interconnection procedures and agreement to fit regional needs."¹⁸ The Commission in Order No. 2003

¹⁷ Clean Energy Entities include the American Wind Energy Association, the Alliance for Clean Energy New York, and the Solar Council.

¹⁸ Order No. 845, 163 FERC ¶ 61,043 at P 825 (citing *Standardization of Generator Interconnection Agreements and Procedures*, Order No. 2003, 104 FERC ¶ 61,103, at P 826 (2003), *order on reh'g*, Order No. 2003-A, 106 FERC ¶ 61,220, *order on reh'g*, Order No. 2003-B, 109 FERC ¶ 61,287 (2004), *order on reh'g*, Order

stated that this balanced approach recognizes that an RTO/ISO is less likely to act in an unduly discriminatory manner than a transmission provider that is a market participant; an RTO/ISO therefore has greater flexibility to customize its interconnection procedures and agreements to fit regional needs.¹⁹ The Commission has granted independent entity variations from rulemakings where an RTO/ISO demonstrates that the proposed variation: (1) is just and reasonable, and not unduly discriminatory or preferential; and (2) accomplishes the purposes of the final rule.²⁰ It is not a sufficient justification to state that a variation conforms to current RTO/ISO practices or to the RTO's/ISO's tariff definitions and terminology.²¹ Even if the transmission provider is an RTO/ISO, it must still justify its variations in light of the Commission's *pro forma* LGIP and/or *pro forma* LGIA.²² We will evaluate NYISO's proposed variations from the requirements of Order Nos. 845 and 845-A accordingly.

2. Interconnection Customer's Option to Build

15. In Order No. 845, the Commission revised articles 5.1, 5.1.3, and 5.1.4 of the *pro forma* LGIA to allow interconnection customers to unilaterally exercise the option to build for stand alone network upgrades and the transmission provider's interconnection facilities, regardless of whether the transmission provider can complete construction of such facilities by the interconnection customer's proposed in-service date, initial synchronization date, or commercial operation date.²³ Prior to Order No. 845, this option to build was available to an interconnection customer only if the transmission provider did not agree to the interconnection customer's preferred construction timeline.²⁴ The Commission stated in Order No. 845 that this reform of the option to build will "benefit

No. 2003-C, 111 FERC ¶ 61,401 (2005), *aff'd sub nom. Nat'l Ass'n of Regulatory Util. Comm'rs v. FERC*, 475 F.3d 1277 (D.C. Cir. 2007)).

¹⁹ Order No. 2003, 104 FERC ¶ 61,103 at P 827.

²⁰ See, e.g., *ISO New England, Inc.*, 164 FERC ¶ 61,222, at P 9 (2018) (citing Order No. 2003, 104 FERC ¶ 61,103 at PP 26, 827); *Midcontinent Indep. Sys. Operator, Inc.*, 154 FERC ¶ 61,247, at P 20 (2016); *California Indep. Sys. Operator Corp.*, 140 FERC ¶ 61,070, at P 44 (2012)).

²¹ *Midwest Indep. Sys. Operator, Inc.*, 139 FERC ¶ 61,219, at P 9 (2012).

²² See *PJM Interconnection, L.L.C.*, 108 FERC ¶ 61,025, at P 16 (2004).

²³ Order No. 845, 163 FERC ¶ 61,043 at PP 85-87.

²⁴ Order No. 2003, 104 FERC ¶ 61,103 at P 353; see also *pro forma* LGIP § 5.1.3.

the interconnection process by providing interconnection customers more control and certainty during the design and construction phases of the interconnection process.”²⁵

16. In Order No. 845-A, the Commission granted rehearing and clarification of certain aspects of the revised option to build. Specifically, the Commission revised the definition of stand alone network upgrade in the *pro forma* LGIP and *pro forma* LGIA to: (1) state that, when there is a disagreement, the transmission provider must provide the interconnection customer a written technical explanation outlining why the transmission provider does not consider a specific network upgrade to be a stand alone network upgrade;²⁶ and (2) clarify that the option to build does not apply to stand alone network upgrades on affected systems.²⁷ The Commission also made revisions to article 5.2 of the *pro forma* LGIA to allow transmission providers to recover oversight costs related to the interconnection customer’s option to build.²⁸ In addition, the Commission clarified that the revised option to build provisions apply to all public utility transmission providers, including those that reimburse the interconnection customer for network upgrades.²⁹

a. NYISO’s Compliance Filing

17. NYISO proposes revisions to the definition of “Stand Alone System Upgrade Facility” under its LFIP and *pro forma* LGIA with minor revisions to the Commission’s language based on previously accepted variations in the terminology. NYISO also requests an independent entity variation to continue, based on NYISO’s existing Class Year process, the version of article 5.1.3 of NYISO’s *pro forma* LGIA that the Commission previously accepted, which states that a developer’s option to build an attachment facility or stand alone system upgrade facility that is needed for more than one project is contingent on the agreement of all the other affected developers.³⁰ NYISO contends that maintaining this independent entity variation is not inconsistent with, and would not interfere, with the option to build requirement under Order No. 845.

²⁵ Order No. 845, 163 FERC ¶ 61,043 at P 85.

²⁶ Order No. 845-A, 166 FERC ¶ 61,137 at P 68.

²⁷ *Id.* P 61.

²⁸ *Id.* P 75.

²⁹ *Id.* P 33.

³⁰ Filing at 11 (citing *N.Y. Indep. Sys. Operator, Inc.*, 108 FERC ¶ 61,159 (2004)).

b. Comments

18. Clean Energy Entities state that they support NYISO's proposed option to build revisions and that they do not oppose continuing the independent entity variation requiring the agreement of all the other affected developers.³¹

c. Commission Determination

19. We find that NYISO's proposed revisions regarding the option to build comply with the requirements of Order Nos. 845 and 845-A because NYISO adopts the Commission's *pro forma* LGIP and *pro forma* LGIA revisions with modifications based on previously accepted independent entity variations to terminology used.

20. We also accept NYISO's proposal to continue, based on the Class Year process, the independent entity variation to article 5.1.3 of NYISO's *pro forma* LGIA that a developer's option to build an attachment facility or stand alone system upgrade facility that is needed for more than one project is contingent on the agreement of all the other affected developers. We find that NYISO's proposed independent entity variation is just and reasonable, not unduly discriminatory or preferential, and accomplishes the purposes of Order Nos. 845 and 845-A because it reconciles the requirements of Order Nos. 845 and 845-A with NYISO's existing Class Year process.

3. Dispute Resolution

21. In Order No. 845, the Commission revised the *pro forma* LGIP by adding new section 13.5.5, which establishes generator interconnection dispute resolution procedures that allow a disputing party to unilaterally seek non-binding dispute resolution.³² The Commission established these new procedures because dispute resolution was previously unavailable when the parties did not mutually agree to pursue a binding arbitration under section 13.5 of the pre-Order No. 845 *pro forma* LGIP. The Commission further explained that participation in the new non-binding dispute resolution process in *pro forma* LGIP section 13.5.5 does not preclude disputing parties from pursuing binding arbitration after the conclusion of the non-binding dispute resolution process if they seek a binding result.³³

³¹ Clean Energy Entities Comments at 6.

³² Order No. 845, 163 FERC ¶ 61,043 at P 133; *see also pro forma* LGIP § 13.5.5.

³³ Order No. 845, 163 FERC ¶ 61,043 at P 139.

a. NYISO's Compliance Filing

22. NYISO proposes revisions to section 30.13.5.5 of Attachment X to the OATT to adopt the dispute resolution language required by Order Nos. 845 and 845-A. NYISO also proposes two independent entity variations to further the purpose of the non-binding dispute resolution procedures. NYISO explains that these two variations include provisions specifying what is necessary to include in a written request for non-binding dispute resolution and adding a requirement that the neutral decision maker disclose any disqualifying relationship or interest. NYISO states that these variations are aimed at reducing delays once non-binding dispute resolution is requested by providing high-level details and information necessary to involve the correct parties in the dispute resolution and by appointing a neutral decision maker that does not have any current or past substantial business or financial relationships with either party.³⁴ Regarding the affirmative disclosure obligation by the neutral decision maker, NYISO notes that it is always possible that an individual may initially appear to be neutral but later it may become known that the individual has a potential impermissible relationship or interest. NYISO states that the proposed language requires the neutral decisionmaker to advise of any disqualifying relationships and interests when known and provides a clear mechanism to either replace the decision maker or obtain the express written consent from each party that the decision maker can continue dispute resolution for the parties.³⁵

b. Comments

23. Clean Energy Entities support NYISO's request for an independent entity variation to ensure that the decision maker for the required non-binding dispute resolution is a neutral third party.³⁶

c. Commission Determination

24. We find that NYISO's proposed revisions regarding dispute resolution in new section 30.13.5.5 of Attachment X to the OATT comply with the requirements of Order Nos. 845 and 845-A because NYISO adopts the Commission's *pro forma* revisions with certain modifications. We also accept NYISO's request for independent entity variations for its provisions specifying what is necessary to include in a written request for non-binding dispute resolution and adding a requirement that the neutral decision maker disclose any disqualifying relationship or interest. We find that NYISO's proposed variations are just and reasonable, and not unduly discriminatory or preferential, and

³⁴ Filing at 12.

³⁵ *Id.*

³⁶ Clean Energy Entities Comments at 6-7.

accomplish the purposes of Order Nos. 845 and 845-A. In particular, we find that, as NYISO asserts, these variations may help reduce delays once non-binding dispute resolution is requested by providing high-level details and information necessary to involve the correct parties in the dispute resolution and help ensure that the neutral decision maker for the dispute resolution does not have any undisclosed current or past substantial business or financial relationships with either party.

4. Identification and Definition of Contingent Facilities

25. In Order No. 845, the Commission added new definition to section 1 of the *pro forma* LGIP, providing that contingent facilities shall mean those unbuilt interconnection facilities and network upgrades upon which the interconnection request's costs, timing, and study findings are dependent, and if delayed or not built, could cause a need for restudies of the interconnection request or a reassessment of the interconnection facilities and/or network upgrades and/or costs and timing.³⁷ The Commission also added new section 3.8 to the *pro forma* LGIP, which requires transmission providers to include, within section 3.8, a method for identifying the contingent facilities that they will provide to the interconnection customer at the conclusion of the system impact study and include in the interconnection customer's generator interconnection agreement.³⁸ The Commission specified that the method must be sufficiently transparent to determine why a specific contingent facility was identified and how it relates to the interconnection request.³⁹ The Commission stated that this transparency will ensure that the method is applied on a non-discriminatory basis.⁴⁰ The Commission further required that transmission providers provide, upon the interconnection customer's request, the estimated network upgrade costs and estimated in-service completion date associated with each identified contingent facility when this information is readily available and not commercially sensitive.⁴¹

a. NYISO's Compliance Filing

26. NYISO proposes to revise Attachment X to the OATT to add new section 30.3.7 to specify the method used to identify contingent facilities but requests independent entity

³⁷ Order No. 845, 163 FERC ¶ 61,043 at P 218; *see also pro forma* LGIP § 1 (Definitions).

³⁸ Order No. 845, 163 FERC ¶ 61,043 at P 199.

³⁹ *Id.*; *see also pro forma* LGIP § 3.8.

⁴⁰ Order No. 845, 163 FERC ¶ 61,043 at P 200.

⁴¹ *Id.* P 199; *see also pro forma* LGIP § 3.8.

variations related to the timing of identifying contingent facilities and the definition of contingent facilities in Order No. 845, due to the differences in NYISO's interconnection queue approach and its unique Class Year process. With respect to the variation related to timing, NYISO proposes to identify and inform a developer about contingent facilities at the conclusion of the Class Year Studies in the detailed study report that is provided to each developer instead of at the close of the system impact study phase. NYISO also proposes that it will also, upon the request of a developer, provide the estimated costs and estimated in-service completion time of each identified contingent facility when the information is readily available and not commercially sensitive. In addition, NYISO proposes that such contingent facilities will be specified in the interconnection agreement.⁴²

27. To accommodate its interconnection queue and Class Year process, NYISO proposes to revise the *pro forma* definition of contingent facilities as follows:

Contingent Facilities shall mean those ~~interconnection facilities and network upgrades~~ Attachment Facilities and System Upgrade Facilities and/or System Deliverability Upgrades associated with Class Year Projects upon which the interconnection request's costs, timing, and study findings Large Facility's Class Year Project Cost Allocations are dependent, and if delayed or not built, could cause a need for restudies of the interconnection request or a reassessment of the interconnection facilities and/or network upgrades and/or costs and timing impact the actual costs and timing of the Large Facility's Project Cost Allocation for System Upgrade Facilities or System Deliverability Upgrades.^{43]}

28. NYISO states that its proposed variations are consistent with the purpose and intent of Order No. 845.⁴⁴ NYISO explains that its interconnection queue approach and Class Year Study process does not use the serial interconnection queue process employed by most regions, which is the basis for the Commission's *pro forma* process of identifying contingent facilities in higher-queued requests and informing the developer of contingent facilities after the system impact study. NYISO asserts that under its approach, the Class Year Study is the appropriate stage in its interconnection process to accurately identify contingent facilities of both higher and lower-queued projects. Because it does not employ a serial queue approach, NYISO states that if it must identify

⁴² Filing at 13.

⁴³ *Id.*; proposed OATT, attach. S, § 25.1.2, and OATT, attach. X, § 30.1.

⁴⁴ Filing at 13.

contingent facilities at the system impact study phase, it would have to expand its system impact studies to evaluate the impact of both higher and lower-queued projects and, as a result, would be unable to identify contingent facilities with the accuracy that would be useful for the developer.⁴⁵

29. NYISO states that Attachment S to the OATT already provides detailed procedures for building base cases and identifying upgrade facilities, which can include sharing of upgrade facilities by multiple projects and allocating the costs of upgrades to the responsible projects. Therefore, NYISO asserts that its interconnection queue approach and Class Year process already account for contingent facilities, as the facilities are reflected in the Class Year Study Report.⁴⁶

b. Commission Determination

30. We find that the revised provisions that identify and describe NYISO's method for determining contingent facilities, as NYISO proposes in Attachment X to the OATT, partially comply with the requirements of Order Nos. 845 and 845-A.

31. We find that NYISO complies with the requirements of Order Nos. 845 and 845-A because NYISO adopts the definition of contingent facilities, in section 30.1 of Attachment X to the OATT, with modifications to reflect differences in terminology and the Class Year Study process in NYISO's interconnection queue process. Further, NYISO's proposed revisions comply with the requirements related to providing estimated network upgrade costs and estimated in-service completion dates associated with contingent facilities to the interconnection customer. We also find that the revised provision that adopts the language regarding the need for the transmission provider to include a method for identification of contingent facilities complies with the requirements of Order Nos. 845 and 845-A. NYISO proposes new section 30.3.7 in Attachment X to the OATT, which adopts the language regarding the need for the transmission provider to include a method for identification of contingent facilities.

32. We find that NYISO's request for independent entity variations to reflect differences in terminology and the Class Year Study process in NYISO's interconnection queue process clarify and provide consistency with NYISO's interconnection queue process, and these variations thus accomplish the purposes of Order No. 845. We also accept NYISO's request for an independent entity variation regarding the timing of identifying contingent facilities. NYISO's proposed revisions largely adopt the requirements related to providing estimated network upgrade costs and estimated in-service completion dates associated with contingent facilities to the interconnection

⁴⁵ *Id.* at 14.

⁴⁶ *Id.*

customer, but the proposed revisions include an independent entity variation related to the timing of identifying contingent facilities due to the differences in NYISO's interconnection queue and Class Year Study process. While Order No. 845 requires transmission providers to identify contingent facilities at the close of the system impact study phase, we agree with NYISO that, due to NYISO's interconnection queue process, the Class Year Study is the appropriate stage in its interconnection process to accurately identify contingent facilities of both higher and lower-queued projects. Therefore, we accept NYISO's request for an independent entity variation related to the timing of identifying contingent facilities because the proposed revisions are just and reasonable, not unduly discriminatory or preferential, and accomplish the purposes of Order No. 845.

33. However, as specified in Order No. 845, transmission providers must include a method for determining contingent facilities.⁴⁷ The Commission required that this method must provide sufficient transparency to determine why a specific contingent facility was identified and how it relates to the interconnection request.⁴⁸ The Commission also required that a transmission provider's method to identify contingent facilities be transparent enough to ensure that it will be applied on a non-discriminatory basis.⁴⁹ NYISO's Attachment S of the OATT and the proposed revisions to Attachment X of the OATT lack the requisite transparency required by Order Nos. 845 and 845-A because the proposed revisions do not detail the specific technical screens or analyses and the specific thresholds or criteria that NYISO will use as part of its method to identify contingent facilities.⁵⁰ Without this information, an interconnection customer will not understand how NYISO will evaluate potential contingent facilities to determine their relationship to an individual interconnection request.⁵¹ Further, including provisions regarding specific thresholds or criteria will ensure NYISO's technical screens or analyses will be applied to interconnection requests on a consistent, not unduly discriminatory or preferential basis. Accordingly, we direct NYISO to file, within 60 days of the date of this order, a further compliance filing that includes in section 30.3.7 in Attachment X of its OATT the method it will use to determine contingent facilities, including the technical screens or analyses it proposes to use to

⁴⁷ Order No. 845, 163 FERC ¶ 61,043 at P 199.

⁴⁸ *Id.* P 200.

⁴⁹ *Id.*

⁵⁰ The Commission declined to implement a standard threshold or criteria, such as a specific distribution factor threshold, because different thresholds may be more appropriate for different queue types and geographical footprints. *Id.* P 220.

⁵¹ *See pro forma* LGIP § 3.8 (“The method shall be sufficiently transparent to determine why a specific Contingent Facility was identified”).

identify these facilities. We also require that NYISO include in section 30.3.7 the specific thresholds or criteria it will use in its technical screens or analysis to achieve the level of transparency required by Order No. 845.

5. Transparency Regarding Study Models and Assumptions

34. In Order No. 845, the Commission revised section 2.3 of the *pro forma* LGIP to require transmission providers to maintain network models and underlying assumptions on either an Open Access Same-Time Information System (OASIS) site or a password-protected website. If the transmission provider posts this information on a password-protected website, a link to the information must be provided on its OASIS site. Revised *pro forma* LGIP section 2.3 also requires that “network models and underlying assumptions reasonably represent those used during the most recent interconnection study and be representative of current system conditions.”⁵² In addition, the Commission revised *pro forma* LGIP section 2.3 to allow transmission providers to require interconnection customers, OASIS site users, and password-protected website users to sign a confidentiality agreement before the release of commercially sensitive information or critical energy infrastructure information (CEII).⁵³

35. In Order No. 845-A, the Commission reiterated that neither the Commission’s CEII regulations nor Order No. 845 precludes a transmission provider from taking necessary steps to protect information within its custody or control to ensure the safety and security of the electric grid.⁵⁴ The Commission also clarified that, to the extent any party would like to use the Commission’s CEII regulations as a model for evaluating entities that request network model information and assumptions (prior to signing a non-disclosure agreement), it may do so.⁵⁵ The Commission further clarified that the phrase “current system conditions” does not require transmission providers to maintain network models that reflect current real-time operating conditions of the transmission provider’s system. Instead, the network model information should reflect the system conditions currently used in interconnection studies.⁵⁶

⁵² Order No. 845, 163 FERC ¶ 61,043 at P 236.

⁵³ *Id.*; see also *pro forma* LGIP § 2.3.

⁵⁴ Order No. 845-A, 166 FERC ¶ 61,137 at P 84 (citing Order No. 845, 163 FERC ¶ 61,043 at P 241).

⁵⁵ *Id.* P 85 (citing 18 C.F.R. § 388.113(g)(5)(i) (2019)).

⁵⁶ *Id.* P 88.

a. **NYISO's Compliance Filing**

36. NYISO states that it proposes to comply with the requirement to maintain network models and underlying assumptions on a password-protected website by extending existing provisions in section 30.2.3 of Attachment X to the OATT to make such representations and assumptions available to developers upon request. Specifically, NYISO proposes to add the following language to Attachment X section 30.2.3:

In addition, the ISO shall maintain network models and underlying assumptions within its possession on its secure portion of the NYISO website, which shall be accessible through a link from the OASIS. Such network models and underlying assumptions should reasonably represent those used during the most recent Class Year Interconnection Facilities Study and be representative of current system conditions used in the interconnection studies.⁵⁷

37. NYISO contends that section 30.2.3 already provides requirements to access confidential information or CEII. NYISO proposes to apply them to interested parties accessing the network models but to make it clear that such requirements would not only apply to developers but also password-protected website users.⁵⁸

b. **Commission Determination**

38. We find that NYISO's proposed revisions to section 30.2.3, Base Case Data, are just and reasonable, not unduly discriminatory or preferential, and accomplish the purposes of Order Nos. 845 and 845-A to provide transparency regarding study models and assumptions.

6. **Definition of Generating Facility**

39. In Order No. 845, the Commission revised the definition of "Generating Facility" to include electric storage resources and to allow electric storage resources to interconnect pursuant to the Commission-jurisdictional large generator interconnection processes. Specifically, the Commission revised the definition of "Generating Facility" in the *pro forma* LGIP and *pro forma* LGIA as follows:

Generating Facility shall mean Interconnection Customer's device for the production *and/or storage for later injection* of

⁵⁷ Filing at 15.

⁵⁸ *Id.*

electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.⁵⁹

40. The Commission found that this definitional change will reduce a potential barrier to large electric storage resources with a generating facility capacity above 20 MW that wish to interconnect pursuant to the terms in the *pro forma* LGIP and *pro forma* LGIA.⁶⁰

a. NYISO's Compliance Filing

41. NYISO proposes revisions to its LFIP and *pro forma* LGIA to incorporate "and/or storage for later injection" to the definition of "Generating Facility," consistent with Order No. 845.

b. Commission Determination

42. We find that NYISO's revisions regarding the definition of a "Generating Facility" comply with the requirements of Order Nos. 845 and 845-A because NYISO adopts the Commission's *pro forma* revisions without modification.

7. Interconnection Study Deadlines

43. In Order No. 845, the Commission modified the *pro forma* LGIP to add sections 3.5.2 and 3.5.3, which require transmission providers to calculate and maintain on their OASIS sites or public websites summary statistics related to the timing of the transmission provider's processing of interconnection studies and to update those statistics on a quarterly basis.⁶¹ In these sections, the Commission included bracketed tariff language to be completed by the transmission provider in accordance with the timelines established for the various studies in their LGIPs.⁶² The Commission also revised the *pro forma* LGIP to add section 3.5.4 to require transmission providers to file informational reports with the Commission if a transmission provider exceeds its interconnection study deadlines for more than 25% of any study type for two consecutive

⁵⁹ Order No. 845, 163 FERC ¶ 61,043 at P 275 (additions italicized); *see also pro forma* LGIP § 1 (Definitions).

⁶⁰ Order No. 845, 163 FERC ¶ 61,043 at P 275.

⁶¹ Order No. 845, 163 FERC ¶ 61,043 at P 305; *see also pro forma* LGIP §§ 3.5.2, 3.5.3.

⁶² *Id.*

calendar quarters.⁶³ In adopting these reporting requirements, the Commission found that the reporting requirements strike a reasonable balance between providing increased transparency and information to interconnection customers and not unduly burdening transmission providers.⁶⁴ In Order No. 845-A, the Commission revised *pro forma* LGIP section 3.5.3 to clarify that the data reporting and retention requirements begin in the first calendar quarter of 2020.⁶⁵

a. NYISO's Compliance Filing

44. NYISO states that it adopts the posting requirements of Order No. 845 and includes the requirements in Sections 30.3.4.2, 30.3.4.3, and 30.3.4.4 of Attachment X to the OATT. NYISO states that consistent with Order No. 845, it proposes to post the study reporting metrics on its OASIS or publicly accessible portion of its website and include any links as necessary.⁶⁶ NYISO states that, consistent with Order No. 845-A, it will begin reporting metrics for the first quarter of 2020 within 30 days from the end of that quarter.

45. NYISO proposes several independent entity variations with respect to the start date and completion date of its studies to account for Commission-accepted variations in NYISO's interconnection process.⁶⁷ With respect to the study start date, NYISO states that, in response to Order No. 845's requirement that the start date of the study be the date that the transmission provider receives the fully executed study agreement, NYISO proposes to use an alternative start date in light of its 2017 queue reforms that eliminated study agreements for certain interconnection studies. NYISO contends that its queue reforms eliminated separate study agreements for the optional feasibility study and System Reliability Impact Study (SRIS). Therefore, NYISO proposes to establish the feasibility study start date as "the date that the ISO notifies the parties that the study commenced following the latter of: (i) confirmation of receipt of the required study deposit; (ii) confirmation of receipt of the required technical data; or (iii) acceptance by the Connecting Transmission Owner(s) of the study scope for the Optional

⁶³ Order No. 845, 163 FERC ¶ 61,043 at P 305; *see also pro forma* LGIP § 3.5.4.

⁶⁴ Order No. 845, 163 FERC ¶ 61,043 at P 307.

⁶⁵ Order No. 845-A, 166 FERC ¶ 61,137 at P 107.

⁶⁶ Filing at 16. NYISO also proposes a minor conforming change to existing language that would be contained in section 30.3.4.1 of Attachment X to the OATT to specify that the list of valid interconnection requests may be maintained in a publicly accessible portion of its website.

⁶⁷ *Id.*

Interconnection Feasibility Study.”⁶⁸ NYISO states that including the study scope as a threshold to determining the start date is consistent with the study start date of the *pro forma* LGIP under Order No. 2003.⁶⁹ NYISO states that before a study commences under the *pro forma* LGIP, a developer must have provided the required study deposit and have a fully executed study agreement, which requires all technical data and the study scope detailed in Attachment A to the study agreements.

46. NYISO states that it made similar changes regarding the start date for the SRIS metrics but conformed them to the necessary requirements that must be met before such a study may commence. Specifically, the date a SRIS commences would be “the date of the NYISO’s notification that the study commenced following the latter of: (i) confirmation of receipt of the required study deposit; (ii) confirmation of receipt of the required technical data; (iii) confirmation of site control; or (iv) approval of the study scope for the Interconnection System Reliability Study by the ISO Operating Committee.”⁷⁰ NYISO also states that this change is consistent with the start of the study under the *pro forma* LGIP because an interconnection customer must also demonstrate site control when the executed system impact study agreement is delivered to the transmission provider.⁷¹

47. Next, given the unique nature and the specific timelines specified for completing the Class Year Study, NYISO proposes to reference the Class Year schedule set forth in section 25.5.9 of Attachment S to the OATT. NYISO states that projects in a Class Year Study execute facilities study agreements at different times, but each agreement applies to only a single Class Year Study, which necessitates the use of a start date other than the execution of a facilities study agreement. NYISO, therefore, proposes to use the defined term Class Year Start Date as the study start date for purposes of reporting metrics related to the Class Year Study.⁷²

48. With respect to the study completion date, NYISO proposes section 30.3.4.2 of Attachment X to the OATT to clarify that a study is deemed complete on the date upon which the study itself is complete and it distributes the initial draft study report to the developer and transmission owner(s). NYISO asserts that its proposal is reasonable in

⁶⁸ *Id.* at 17 (citing proposed OATT, attach. X, § 30.3.4.2.1).

⁶⁹ *Id.* (citing Order No. 2003, *pro forma* LGIP, app. 2 and 3).

⁷⁰ *Id.* (citing proposed OATT, attach. X, § 30.3.4.2.2. Approval of the study scope by the Operating Committee is required for the SRIS).

⁷¹ *Id.* (citing Order No. 2003, § 7.2 of *pro forma* LGIP).

⁷² *Id.* at 18.

light of the potential delays caused by tariff-required time periods for a developer to cure deficiencies related to its interconnection request, and the tariff-defined comment period for the developer following NYISO's issuance of the initial draft study report.⁷³

49. NYISO proposes variations to the timing of study completion date to account for the requirements under the OATT and foundational agreements that require that the Operating Committee approve SRIS scopes and reports before they are considered final. NYISO asserts that its OATT affords a developer three months to bring the study report to the NYISO Transmission Planning Advisory Subcommittee, following delivery of the final draft report (after receipt of all comments on the initial draft report), before proceeding to the Operating Committee. NYISO argues that, using the final report (which becomes final on the date the Operating Committee approves the report) as the completion date is unreasonable because it would reduce NYISO's study time to near zero days within which to perform the study, as the developer's decision period to bring the study to the Operating Committee and the Operating Committee's approval will alone take more than 90 days from receipt of the final draft.⁷⁴

50. Finally, NYISO incorporates the requirements of section 3.5.3 of Attachment X to the OATT, as revised by Order No. 845-A, in its new section 30.3.4.3 of Attachment X to the OATT, but specifies that "days" refers to "Calendar Days" to provide further clarity and consistency. Additionally, NYISO adopts the requirements of section 3.5.4 of the *pro forma* LGIP in its new section 30.3.4.4 of Attachment X to the OATT, but specifies that "days" refers to "Calendar Days" and makes other minor, non-substantive revisions to match the previously accepted terminology.⁷⁵

b. Comments

51. Clean Energy Entities argue that NYISO's requested independent entity variations for interconnection study reporting are not justified and will result in inaccurate reporting. Clean Energy Entities contend that the beginning point of an interconnection study from an interconnection customer's perspective is when the interconnection customer has met all of the NYISO requirements to proceed with the interconnection study, and the end point is when the interconnection customer has a final study report that

⁷³ *Id.*

⁷⁴ *Id.* at 19.

⁷⁵ *Id.*

allows the project to move forward to the next step in the interconnection process. Clean Energy Entities assert that NYISO's milestones fail to meet these criteria.⁷⁶

52. Clean Energy Entities urge the Commission to adopt a SRIS starting point metric of when NYISO has received: (1) receipt of the required deposit; (2) receipt of all required technical data; and (3) confirmation of satisfaction of the site control requirement from the developer. Clean Energy Entities argue that delaying the SRIS study start date metric until the date that NYISO notifies the developer that the study has commenced will not capture the significant delays that can occur between when NYISO has received all of the necessary and required information from the interconnection customer and when the actual study starts. Clean Energy Entities state that the start date should not be tied to the date of the approval of the study scope by the Operating Committee, as NYISO proposes. Clean Energy Entities also argue that the time required to develop the study scope and bring it to the Transmission Planning Advisory Subcommittee and the Operating Committee is part of the time it takes for NYISO to process a SRIS, and to exclude this time from the reporting requirement would lead to an inaccurate representation of the actual time it takes NYISO to complete the study.⁷⁷

53. Clean Energy Entities argue that NYISO's proposed SRIS ending point—the date upon which an initial draft study report is circulated to the developer and the connecting transmission owner(s)—is also flawed. Clean Energy Entities state that rarely is a first draft a final product for SRIS studies, and the milestone used for the completion of a SRIS study should be, at minimum, the date of the circulation of the final draft, but more appropriately is the date upon which a final study has completed Transmission Planning Advisory Subcommittee review and is approved by the Operating Committee, and therefore qualified for entry into a Class Year Study. Clean Energy Entities contend that an SRIS study is not considered complete until this occurs, and that this point should therefore be the designated the ending point metric for the SRIS.⁷⁸

54. Clean Energy Entities also assert that, similarly, the metrics used for feasibility studies should follow the same logic as that for SRIS studies, and the starting point should not be delayed until after a connecting transmission owner accepts the scope, but when the interconnection customer has met all the requirements to proceed. Clean

⁷⁶ Clean Energy Entities Comments at 8.

⁷⁷ *Id.* at 8-9.

⁷⁸ *Id.* at 9.

Energy Entities also assert that the ending date should be when the study is considered complete and ready to progress to the SRIS as its next step.⁷⁹

c. Answers

55. NYISO answers that, to accommodate its previous elimination of separate study agreements for the optional feasibility study and SRIS, it proposed using the notification that a study has commenced as a comparable starting point to the receipt of a fully executed study agreement, which is the starting point identified by Order No. 845.⁸⁰ NYISO states that such notification comes shortly following the latter of the receipt of the study deposit, all required technical data, site control (as applicable), and acceptance of the scope of work. NYISO asserts that these steps would be required prior to the execution of a study agreement under the *pro forma* LGIP. NYISO cites Order No. 845 to argue that the Commission intended to choose a starting point that would occur after the study's terms are formally agreed upon.⁸¹ Accordingly, NYISO states that Clean Energy Entities' position that a scope of work should be finalized after the start of the study is at odds with Order No. 845. NYISO adds that any delay in issuing the notice would likely result from NYISO needing to confirm the sufficiency of the technical data submitted by the developer, which, if insufficient, would require further developer action before the study commences.⁸²

56. NYISO states that, while the Clean Energy Entities' position is that the ending point of the study should be the final report, the *pro forma* LGIP does not contain a tariff-defined period for the transmission provider to receive comments prior to the distribution of the study report and the meeting with the interconnection customer. NYISO explains that its OATT does mandate a point by which the parties will have an opportunity to comment prior to the final study report's issuance. In particular, NYISO states that its OATT includes a 15-business day period for the developer to comment in the study period, and including this comment period in the study metric would reduce the time that NYISO has to perform study work by approximately three weeks. NYISO therefore asserts that the distribution of the initial draft of the report to the parties is the appropriate and comparable point in the process for the study completion date. Regarding Clean Energy Entities' proposal that the ending point of the SRIS should be the Operating Committee's approval of the SRIS report, NYISO argues that their proposal potentially adds three months or more to the study duration for a period of time

⁷⁹ *Id.* at 9-10.

⁸⁰ NYISO Answer at 5.

⁸¹ *Id.* at 6 (citing Order No. 845, 163 FERC ¶ 61,043 at P 332).

⁸² *Id.* at 6.

entirely within the developer's control and that would not involve study work by NYISO, the connecting transmission owner, or affected system operators. NYISO states that NYISO would exceed the 90 day study period on nearly every study by including the over three month period for the developer to decide whether to proceed with the review by the Transmission Planning Advisory Subcommittee and then the Operating Committee. NYSIO argues that its proposed study ending point accounts for the unique requirement in NYISO's foundation agreement and OATT that requires Operating Committee approval of the study report, and it is comparable to the study ending point envisioned by Order No. 845.⁸³

57. In their answer, Clean Energy Entities clarify that they agree that Order No. 845 defines a starting point comparable to a fully executed study agreement, and that a scope of study is necessary prior to executing a study agreement.⁸⁴ Clean Energy Entities clarify its statement that "when the interconnection customer has met all the NYISO requirements to proceed with the interconnection"⁸⁵ refers to the point that is: (i) after the feasibility scoping meeting; (ii) after the NYISO has provided a good faith estimate of the time and cost (scope) such that; (iii) the developer is asked to provide either a \$10,000 or \$60,000 deposit and the point of interconnection to NYISO; and (iv) the developer has provided the deposit. Clean Energy Entities state that if this is the same point that NYISO has identified as the starting point for the feasibility study, then they agree with NYISO on the starting point for the feasibility study.⁸⁶

58. Clean Energy Entities also state that, upon further consideration, they do not oppose setting the start date for the SRIS after the Operating Committee has approved the scope of work for the SRIS, as that is also the date NYISO uses to determine what is included in the study model.⁸⁷ They state that, at that point, the SRIS study scope has been finalized and the interconnection customer has met all of the requirements to proceed with the SRIS study. They argue, however, that this date may differ from the date that NYISO actually informs the interconnection customer that the study has started, and delays between these two dates should be accounted for.⁸⁸

⁸³ *Id.* at 7-8.

⁸⁴ Clean Energy Entities Answer at 5.

⁸⁵ *Id.* (citing Clean Energy Entities Comments at 8).

⁸⁶ Clean Energy Entities Answer at 5.

⁸⁷ *Id.* at 6.

⁸⁸ *Id.*

59. Clean Energy Entities also point out that, for the SRIS ending point, NYISO fails to note that the interconnection customer cannot control when the committees meet (e.g., if an interconnection customer wanted to bring the study as soon as possible, there could still be several weeks waiting time). Clean Energy Entities argue that it would be reasonable to include an automatic adder of time between the earliest point the interconnection customer could bring the study forward (i.e., if it elected not to wait at all to complete the process) and the next date when the committees meet to ensure accurate reporting of the study period. Alternately, Clean Energy Entities state that any time the interconnection customer elects to “wait” could be subtracted from the timing determination. Clean Energy Entities state that committee approval is a required aspect of the study process timing, and it is largely beyond the interconnection customer’s control. Clean Energy Entities state that this time must be accounted for and not used to the interconnection customer’s detriment. Additionally, even if the Commission were to determine that committee review does not belong in the study reporting metric or timeline, Clean Energy Entities request that the Commission require NYISO to codify its stance that a draft report cannot be considered a final study for use in any legal, engineering, or practical capacities in order to avoid confusion.⁸⁹

d. Commission Determination

60. We find that the revised provisions that address NYISO’s study deadline statistics and informational reporting requirements, as proposed in sections 30.3.4.2, 30.3.4.3, and 30.3.4.4 of Attachment X to the OATT, comply with the requirements of Order Nos. 845 and 845-A. We also accept NYISO’s proposed independent entity variations, because they account for Commission-accepted variations in NYISO’s interconnection process, are just and reasonable and not unduly discriminatory, and accomplish the purposes of Order Nos. 845 and 845-A.

61. We find that NYISO’s proposal to use the notification that a study has commenced as the starting point for the optional interconnection feasibility study and the SRIS for the reporting of study metrics is a just and reasonable alternative to the receipt of a fully executed study agreement, which is the identified starting point in Order No. 845. NYISO also proposes to use the defined term Class Year Start Date as the study start date for purposes of reporting metrics related to the Class Year Study. We agree with NYISO that Order No. 845’s requirement that the start date of the feasibility and SRIS be the date on which the fully executed study agreement is received by the transmission provider is inconsistent with NYISO’s Commission-accepted interconnection procedures that have eliminated the requirement for the interconnection customer to execute separate study agreements for those studies. Instead, NYISO proposes to use as the start date the date that NYISO notifies the parties that the study commenced following receipt of the required study deposit, and NYISO deeming the technical data be sufficient, together

⁸⁹ *Id.* at 7-8.

with acceptance of the study scope for the optional interconnection feasibility. The SRIS start date also includes confirmation of site control and approval of the study scope by the NYISO Operating Committee. In its answer, Clean Energy Entities clarifies that they agree that Order No. 845 defines a starting point comparable to a fully executed study agreement, and they agree that a scope of study is necessary prior to executing a study agreement. We also note that NYISO states that its notification of a study commencement shortly follows the latter of the receipt of the study deposit, all required technical data, site control (as applicable), and a completed scope of work,⁹⁰ and Clean Energy Entities provide no evidence that NYISO has delayed such notification.

62. We also find that NYISO's proposal to use the issuance of an initial draft study report as the study completion date for calculating its study deadline metrics is a reasonable independent entity variation. We reject Clean Energy Entities' proposed alternative study completion dates of the point at which studies are complete and ready to progress to SRIS for the feasibility study, and the issuance of the final draft or approval to progress to the Class Year for the SRIS. We agree with NYISO that these revisions may inaccurately include in study metrics the OATT required time period for developer comments, waiting time used by the interconnection customer, and elements beyond NYISO's study period including Transmission Planning Advisory Subcommittee review, and Operating Committee approval. The Commission stated in Order No. 845 that the date ranges for the metrics "are clearly defined, and the period between the executed study agreement and the study completion date reflects the amount of time to complete a study after the study's terms are formally agreed upon."⁹¹ We find that it would be inappropriate to include in the study metrics delays associated with the project developers' review and comment on the draft study. Finally, we find Clean Energy Entities' request that NYISO codify its stance that a draft study report cannot be considered a final study for use in any legal, engineering, or practical capacities to be beyond the scope of this proceeding.

8. Requesting Interconnection Service below Generating Facility Capacity

63. In Order No. 845, the Commission modified sections 3.1, 6.3, 7.3, 8.2, and Appendix 1 of the *pro forma* LGIP to allow interconnection customers to request interconnection service that is lower than the proposed generating facility's capacity,⁹²

⁹⁰ NYISO Answer at 5-6.

⁹¹ Order No. 845, 163 FERC ¶ 61,043 at P 332.

⁹² The term generating facility capacity is defined as "the net capacity of the Generating Facility and the aggregate net capacity of the Generating Facility where it includes multiple energy production devices." *Pro forma* LGIA art. 1 (Definitions).

recognizing the need for proper control technologies and flexibility for transmission providers to propose penalties to ensure that the generating facility does not inject energy above the requested level of service.⁹³

64. The Commission required, in *pro forma* LGIP revised section 3.1, that transmission providers have a process in place to consider requests for interconnection service below the generating facility capacity. The Commission stipulated that such requests should be studied at the level of interconnection service requested for purposes of determining interconnection facilities, network upgrades, and associated costs, but that such requests may be subject to other studies at the full generating facility capacity to ensure safety and reliability of the system.⁹⁴ In addition, *pro forma* LGIP revised section 3.1 states that the interconnection customer is responsible for all study costs and interconnection facility and/or network upgrade costs required for safety and reliability. The Commission also required in *pro forma* LGIP revised section 3.1 that any necessary control technologies and/or protection systems be memorialized in the LGIA.

65. The Commission required, in *pro forma* LGIP revised sections 6.3, 7.3, and 8.2, that the feasibility, system impact, and facilities studies be performed at the level of interconnection service that the interconnection customer requests, unless the transmission provider is otherwise required to study the full generating facility capacity due to safety and reliability concerns. The Commission stated that, if the transmission provider determines that additional network upgrades are necessary based on these studies, it must specify which additional network upgrade costs are based on which studies and provide a detailed explanation of why the additional network upgrades are necessary.⁹⁵

66. Finally, the Commission revised sections 4.4.1 and 4.4.2 of the *pro forma* LGIP to allow an interconnection customer to reduce the size of its interconnection request either

⁹³ Order No. 845, 163 FERC ¶ 61,043 at P 367; *see also pro forma* LGIP §§ 3.1, 6.3, 7.3, 8.2, *pro forma* LGIP app. 1.

⁹⁴ Order No. 845, 163 FERC ¶ 61,043 at PP 383-84.

⁹⁵ *Id.* P 384. The Commission clarified that, if the transmission provider determines, based on good utility practice and related engineering considerations and after accounting for the proposed control technology, that studies at the full generating facility capacity are necessary to ensure safety and reliability of the transmission system when an interconnection customer requests interconnection service that is lower than full generating facility capacity, then it must provide a detailed explanation for such a determination in writing to the interconnection customer. *Id.*

prior to returning to the transmission provider an executed system impact study agreement or an executed facilities study agreement.⁹⁶

a. NYISO's Compliance Filing

67. NYISO states that it incorporates the requirements of Order No. 845 and Order No. 845-A to allow developers to request interconnection service below a facility's capacity with limited requested variations. NYISO states that the process for requesting and studying a request for interconnection service below the full generating facility capacity is detailed in revised section 30.3.2.3 of Attachment X to the OATT.⁹⁷ NYISO states that it adapts some of the *pro forma* language to make it applicable for both generating facilities as well as Class Year transmission projects.⁹⁸ Additionally, if a developer requests Energy Resource Interconnection Service (ERIS)⁹⁹ below the full capacity of the facility, NYISO shall study the requested level of ERIS for purposes of attachment facilities, distribution upgrades, system upgrade facilities, and associated costs. NYISO proposes to specify that it and the connecting transmission owners can require the facility to be studied at its full output, at the developer's expense, to ensure the safety and reliability of the New York State transmission system (and distribution system as applicable) based on Good Utility Practice and related engineering considerations after accounting for any control technology proposed by the developer. Consistent with Order No. 845-A, NYISO also proposes to specify that it will provide the

⁹⁶ *Id.* P 406; *see also pro forma* LGIP §§ 4.4.1, 4.4.2.

⁹⁷ Filing at 20.

⁹⁸ NYISO states that the Commission's *pro forma* language regarding requests for interconnection service below a facility's capacity focused on generating facilities. NYISO explains that, given Class Year transmission projects do not have generating capacity, NYISO revised the language to ensure that the provisions of NYISO's LFIP cover both generating facilities as well as Class Year transmission projects. *Id.*; *see* proposed OATT, attach. X, §§ 30.3.2.3, 30.6.3, 30.8.2.

⁹⁹ ERIS is "the service provided by the ISO to interconnect the Developer's Large Generating Facility or Class Year Transmission Project to the New York State Transmission System or to the Distribution System, in accordance with the NYISO Minimum Interconnection Standard, to enable the New York State Transmission System to receive Energy and Ancillary Services from the Large Generating Facility or Class Year Transmission Project, pursuant to the terms of the ISO OATT." OATT, attach. X, § 30.1.

developer a detailed explanation for the need for additional studies prior to beginning such studies.¹⁰⁰

68. NYISO contends that Order No. 845 did not permit a developer to unilaterally determine what control technologies would be permitted to limit a facility's capacity.¹⁰¹ Therefore, borrowing on language from the NYISO's Small Generator Interconnection Procedures, NYISO proposes revisions to section 30.3.2.3 of Attachment X to the OATT to require the agreement of NYISO and the connecting transmission owners for the use of a control system, power relay, or other similar device settings or adjustments in order to limit the output of the facility. NYISO states that neither it nor the connecting transmission owner may unreasonably withhold agreement, provided that the method that the developer proposes to limit the injection "will not adversely affect the safety and reliability of the New York State transmission system (or distribution system as applicable)."¹⁰² If NYISO and the connecting transmission owner disagree about the method, NYISO asserts that section 30.3.2.3 identifies some of the courses of action that are available to a developer, as well as pursuing dispute resolution under section 30.13 of Attachment X.

69. Lastly, the NYISO proposes a minor variation from the added field in Appendix 1 of the *pro forma* LGIP for an interconnection customer to include the requested level of capacity of interconnection service, "if lower than the Generating Facility Capacity."¹⁰³ NYISO proposes to keep its Commission-accepted variation that has a developer specifying the nameplate capacity of the facility under field number 5 and the requested level of ERIS under field number 6.¹⁰⁴ In addition, NYISO proposes to include an explanatory note for the requested level of ERIS that "[a] Developer may request ERIS below the Generating Facility Capability for Large Generating Facilities and the full facility capacity for Class Year Transmission Projects subject to the requirements and limitations set forth in section 30.3.2.3 of Attachment X to the ISO OATT."¹⁰⁵ NYISO

¹⁰⁰ Filing at 20.

¹⁰¹ *Id.* (citing Order No. 845, 163 FERC ¶ 61,043 at P 385 (permitting a transmission provider to either accept or design its own control technology)).

¹⁰² *Id.* at 20.

¹⁰³ *Id.* at 21.

¹⁰⁴ OATT, attach. X, § 30.14, app. 1.

¹⁰⁵ Filing at 21.

contends that these variations further the Commission's goal with regard to the request for interconnection service below a facility's capacity in Order No. 845.

b. Commission Determination

70. We find that NYISO's proposed revisions to section 30.3.2.3 of Attachment X to the OATT that allow an interconnection customer to request interconnection service below its full generating facility capacity comply with the requirements of Order Nos. 845 and 845-A.¹⁰⁶

71. We also grant NYISO's requested independent entity variations because NYISO demonstrates that the proposed variations are just and reasonable, and not unduly discriminatory or preferential, and accomplish the purposes of the final rule. NYISO adapts some of the *pro forma* language to make it applicable for both generating facilities as well as Class Year transmission projects. NYISO also proposes to require the agreement of NYISO and the connecting transmission owners for the use of a control system, power relay, or other similar device settings or adjustments in order to limit the output of the facility. NYISO proposes a variation from the added field in Appendix 1 of the *pro forma* LGIP for an interconnection customer to include the requested level of capacity of interconnection service. NYISO proposes to keep its Commission-accepted variation that has a developer specifying the nameplate capacity of the facility under field number 5 and the requested level of ERIS under field number 6. In addition, NYISO proposes to include an explanatory note for the requested level of ERIS that "[a] Developer may request ERIS below the Generating Facility Capability for Large Generating Facilities and the full facility capacity for Class Year Transmission Projects subject to the requirements and limitations set forth in section 30.3.2.3 of Attachment X to the ISO OATT."¹⁰⁷ We find that NYISO's proposed variations accomplish the purposes of Order Nos. 845 and 845-A, and they harmonize Order No. 845 and 845-A's requirements with the pre-existing OATT requirements.

9. Provisional Interconnection Service

72. In Order No. 845, the Commission required transmission providers to allow all interconnection customers to request provisional interconnection service.¹⁰⁸ The Commission explained that interconnection customers may seek provisional interconnection service when available studies or additional studies, as necessary,

¹⁰⁶ Order No. 845, 163 FERC ¶ 61,043 at PP 405, 407; Order No. 845-A, 166 FERC ¶ 61,137 at P 118.

¹⁰⁷ Filing at 21.

¹⁰⁸ Order No. 845, 163 FERC ¶ 61,043 at P 438.

indicate that there is a level of interconnection service that can occur to accommodate an interconnection request without the construction of any additional interconnection facilities and/or network upgrades, and the interconnection customer wishes to make use of that level of interconnection service while the facilities required for its full interconnection request are completed.¹⁰⁹ To implement this service, the Commission revised the *pro forma* LGIP and *pro forma* LGIA to add a definition for “Provisional Interconnection Service”¹¹⁰ and for a “Provisional Large Generator Interconnection Agreement.”¹¹¹

73. In addition, the Commission added *pro forma* LGIA article 5.9.2, which details the terms for provisional interconnection service.¹¹² The Commission also explained that transmission providers have the discretion to determine the frequency for updating provisional interconnection studies to account for changes to the transmission system to reassess system capacity available for provisional interconnection service, and included bracketed tariff language to be completed by the transmission provider, to specify the frequency at which they perform such studies in their *pro forma* LGIA.¹¹³ The Commission stated that interconnection customers are responsible for the costs for performing these provisional interconnection studies.¹¹⁴

a. NYISO’s Compliance Filing

74. NYISO proposes revisions to incorporate the requirements of Order No. 845 for provisional interconnection service with requests for independent entity variations to account for previously accepted provisions regarding limited operations, NYISO’s Class Year Study process, and NYISO’s Capacity Resource Interconnection Service (CRIS)¹¹⁵

¹⁰⁹ *Id.* P 441.

¹¹⁰ *Pro forma* LGIP § 1 (Definitions); *pro forma* LGIA art. 1 (Definitions).

¹¹¹ *Id.* The Commission declined, however, to adopt a separate *pro forma* provisional large generator interconnection agreement. Order No. 845, 163 FERC ¶ 61,043 at P 444.

¹¹² *Id.* P 438; *see also pro forma* LGIP § 5.9.2.

¹¹³ Order No. 845, 163 FERC ¶ 61,043 at P 448.

¹¹⁴ *Id.*

¹¹⁵ CRIS is “the service provided by the ISO to Developers that satisfy the NYISO Deliverability Interconnection Standard or that are otherwise eligible to receive CRIS in accordance with Attachment S to the ISO OATT; such service being one of the eligibility

requirements and the necessary limitation on the use of CRIS for facilities interconnected with provisional interconnection service.¹¹⁶

75. NYISO states that, consistent with Order No. 845, it proposes to include definitions of “provisional interconnection service” and “provisional large facility interconnection agreement” in section 30.1 of Attachment X to the OATT and Article 1 of NYISO’s *pro forma* LGIA. NYISO also proposes new article 5.9.2 of NYISO’s *pro forma* LGIA for provisional interconnection service at the request of the developer prior to the completion of NYISO’s LFIP, and a similar provision for provisional interconnection service that replaces section 30.12.3 of Attachment X to the OATT (i.e., procedures for a request for limited operations).¹¹⁷ NYISO proposes to replace the bracketed language in article 5.9.2 of the *pro forma* LGIA with language specifying that the maximum permissible output of the generating facility shall be studied and updated on a frequency determined by NYISO and the Connecting Transmission Owner based on the nature of the generating facility and the specific circumstances surrounding its interconnection to the New York State transmission system (or distribution system as applicable).

76. NYISO contends that, in addition to its proposed revisions consistent with the terminology previously accepted by the Commission for NYISO’s LFIP and *pro forma* LGIA, NYISO proposes an independent entity variation to specify that the interconnection service that a facility may offer while providing provisional interconnection service is limited to ERIS and may not include CRIS unless the developer has completed a Class Year Study, accepted cost allocation, and posted security for any required System Deliverability Upgrades.¹¹⁸ NYISO explains that a developer cannot participate as an Installed Capacity Supplier until after it completes a Class Year Study and either: (i) its requested CRIS is deemed fully or partially deliverable, and the developer accepts its deliverable megawatts; or (ii) the developer accepts its project cost allocation and posts security for any required System Deliverability Upgrades identified in the Class Year Study. NYISO asserts that the limitation of allowing facilities that go into service prior to completion of a Class Year Study to do so only with ERIS is one that has been accepted by the Commission in

requirements for participation as an ISO Installed Capacity Supplier.” OATT, attach. X, § 30.1.

¹¹⁶ Filing at 21.

¹¹⁷ *Id.* at 22.

¹¹⁸ *Id.*

LGIA for facilities yet to complete a Class Year Study at the time the LGIA was executed and should apply to provisional interconnection service as well.

77. NYISO proposes an additional independent entity variation for provisional interconnection service in order to extend the current requirement in section 30.11.4 of Attachment X to the OATT so that developers seeking provisional interconnection service must agree, in the LGIA, to accept the cost of System Upgrade Facilities that are identified (after the facility commences provisional interconnection service) in the Class Year Study. NYISO states that the proposed revision to Section 30.12.3 of Attachment X to the OATT applies the requirement in section 30.11.4 that the developer with a provisional large facility interconnection agreement must agree that the proposed facility will accept the cost allocation from the Class Year Study and post security for any identified System Upgrade Facilities, regardless of whether the cost allocation exceeds any identified System Upgrade Facilities or additional System Upgrade Facilities are required.¹¹⁹ NYISO states that the proposed variations are consistent with the Commission-accepted limitations on entering into a LGIA prior to completion of the Class Year Study, particularly given the unique nature of NYISO's Class Year Study process and the requirement to accept cost allocation for System Upgrade Facilities.

b. Commission Determination

78. We find that NYISO's proposed revisions regarding provisional interconnection service partially comply with the requirements of Order Nos. 845 and 845-A, as discussed below. NYISO requested independent entity variations to specify that the interconnection service that a facility may offer while providing provisional interconnection service is limited to ERIS and may not include CRIS, unless the developer has completed the CRIS requirements. NYISO also proposed a variation to extend the current CRIS requirement in section 30.11.4 of Attachment X to the OATT to developers seeking provisional interconnection service. Overall, we find that these variations are just and reasonable, and not unduly discriminatory or preferential, and accomplish the purposes of Order Nos. 845 and 845-A, because these variations are consistent with NYISO's current capacity market rules.¹²⁰ We find that provisional interconnection service should be subject to NYISO's capacity market rules, consistent with the treatment of other types of interconnection service.

¹¹⁹ *Id.* at 23.

¹²⁰ Section 5.12.1 of the NYISO's Market Administration and Control Services Tariff requires a developer to obtain CRIS (which for any resource larger than 2 MW requires completion of a Class Year Study) before being able to participate as an Installed Capacity Supplier in NYISO's capacity market.

79. We also find that NYISO's proposed definitions of provisional interconnection service and provisional large facility interconnection agreement in section 30.1 of Attachment X to the OATT and article 1 of NYISO's *pro forma* LGIA comply with the requirements of Order Nos. 845 and 845-A because they adopt the *pro forma* definitions with variations to ensure consistency with terms used throughout NYISO's LFIP and *pro forma* LGIA.

80. Further, we accept new article 5.9.2 of NYISO's *pro forma* LGIA, which incorporates *pro forma* LGIA article 5.9.2, with modifications for provisional interconnection service at the request of the developer prior to the completion of NYISO's LFIP, and a similar provision for provisional interconnection service that replaces the limited operations provision of section 30.12.3 of Attachment X to the OATT. We find that these proposed revisions are just and reasonable and not unduly discriminatory or preferential, and accomplish the purposes of Order Nos. 845 and 845-A because NYISO's proposed changes allow developers to enter into provisional agreements for limited interconnection service prior to the completion of the full interconnection process.¹²¹

81. However, we find that NYISO's proposed new article 5.9.2 of its *pro forma* LGIA, which incorporates *pro forma* LGIA article 5.9.2, fails to comply with the requirement in Order Nos. 845 and 845-A to replace the bracketed placeholder in article 5.9.2 of the *pro forma* LGIA with language specifying the frequency with which NYISO will study and update the maximum output of a generating facility in an interconnection service agreement that includes provisional interconnection service. Rather than proposing a frequency to replace the bracketed language, NYISO's proposed new article 5.9.2 states that the maximum permissible output of the generating facility shall be studied and updated on a frequency determined by NYISO and the Connecting Transmission Owner based on the nature of the generating facility and the specific circumstances surrounding its interconnection to the New York State transmission system (or distribution system as applicable). Accordingly, we direct NYISO to file, within 60 days of the date of this order, a further compliance filing that specifies a frequency for studying and updating the maximum permissible output of the facility subject to an interconnection service agreement that includes provisional interconnection service.

10. Surplus Interconnection Service

82. In Order No. 845, the Commission adopted *pro forma* LGIP sections 1, 3.3, and 3.3.1 and *pro forma* LGIA article 1 to establish surplus interconnection service, which the Commission defined as any unneeded portion of interconnection service established in an LGIA such that if the surplus interconnection service is utilized the total amount of

¹²¹ See *pro forma* LGIP art. 5.9.2.

interconnection service at the point of interconnection would remain the same.¹²² Surplus interconnection service enables a new interconnection customer to utilize the unused portion of an existing interconnection customer's interconnection service within specific parameters.¹²³ The Commission required transmission providers to revise their tariffs to include the new definition of surplus interconnection service in their *pro forma* LGIP and *pro forma* LGIA, and provide in the *pro forma* LGIP an expedited interconnection process outside of the interconnection queue for surplus interconnection service.¹²⁴ That expedited process must allow affiliates of the existing interconnection customer to use surplus interconnection service for another interconnecting generating facility and allow for the transfer of surplus interconnection service that the existing interconnection customer or one of its affiliates does not intend to use.¹²⁵ The transmission provider must perform reactive power, short circuit/fault duty, and stability analyses studies as well as steady-state (thermal/voltage) analyses as necessary to ensure evaluation of all required reliability conditions to provide surplus interconnection service and ensure the reliable use of surplus interconnection service.¹²⁶ The original interconnection customer must be able to stipulate the amount of surplus interconnection service that is available, designate when that service is available, and describe any other conditions under which surplus interconnection service at the point of interconnection may be used.¹²⁷ When the original interconnection customer, the surplus interconnection service customer, and the transmission provider enter into agreements for surplus interconnection service, they must be filed by the transmission provider with the Commission, because any surplus interconnection service agreement will be an agreement under the transmission provider's open access transmission tariff.¹²⁸

¹²² Order No. 845, 163 FERC ¶ 61,043 at P 467; *see also pro forma* LGIP § 1; *pro forma* LGIA art. 1 (Definitions).

¹²³ Order No. 845, 163 FERC ¶ 61,043 at P 467; Order No. 845-A, 166 FERC ¶ 61,137 at P 119.

¹²⁴ Order No. 845, 163 FERC ¶ 61,043 at P 467; *see also pro forma* LGIP §§ 3.3, 3.3.1.

¹²⁵ Order No. 845, 163 FERC ¶ 61,043 at P 483; *see also pro forma* LGIP § 3.3.

¹²⁶ Order No. 845, 163 FERC ¶ 61,043 at PP 455 & 467.

¹²⁷ *Id.* P 481.

¹²⁸ *Id.* P 499.

a. **NYISO's Compliance Filing**

83. NYISO requests an independent entity variation to relieve it from the Commission's surplus interconnection service requirements and instead allow NYISO to continue using its existing interconnection process, including the NYISO Minimum Interconnection Standard,¹²⁹ which reflects several previously-granted independent entity variations. NYISO states that the surplus interconnection service requirement 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. NYISO argues that this is not the case under NYISO's unique NYISO Minimum Interconnection Standard.¹³⁰

84. NYISO argues that it has established unique interconnection standard rules that are fundamentally incompatible with surplus interconnection service. NYISO explains that, under NYISO's Commission-accepted variation of the definition of ERIS in the OATT, the interconnection service that a developer receives is based on a facility's ability to satisfy the NYISO Minimum Interconnection Standard. In particular, NYISO states that under the NYISO Minimum Interconnection Standard, NYISO in performing interconnection studies does not necessarily assume that a generating facility is operating at its full output under various system conditions and, instead, permits the re-dispatch of the facility and/or other facilities to the extent possible under normal operating procedures to mitigate adverse reliability impacts—i.e., establish a feasible base dispatch. NYISO states that if the project's or another generator's output is reduced and does not require a system upgrade facility, NYISO does not identify upgrades. NYISO contends that as a result, there is no specified output in connection with the facility, regardless of whether or not a system upgrade facility is identified that could provide the "surplus" contemplated in Order No. 845. Therefore, NYISO asserts that the underlying premise of the surplus interconnection service requirement that transmission providers assume that

¹²⁹ NYISO Minimum Interconnection Standard is "the reliability standard that must be met by any generation facility or Class Year Transmission Project that is subject to ISO's Large Facility Interconnection Procedures in Attachment X to the ISO OATT or the ISO's Small Generator Interconnection Procedures in this Attachment Z, that is proposing to connect to the New York State Transmission System or Distribution System, to obtain ERIS. The Standard is designed to ensure reliable access by the proposed project to the New York State Transmission System or to the Distribution System. The Standard does not impose any deliverability test or deliverability requirement on the proposed interconnection." OATT, attach. X, § 30.1.

¹³⁰ Filing at 23-24.

generating facilities operate at their full capacity in interconnection studies is inconsistent with NYISO's interconnection study process.¹³¹

85. NYISO also argues that its unique market design and capacity market rules are inconsistent with surplus interconnection service. NYISO states that, under its existing market design, two projects behind the same point of interconnection must be modeled, scheduled, and settled as two separate generators. NYISO states that this difference in NYISO's market design makes adopting various components of the proposed rule infeasible, particularly with regard to the ability of two resources behind the same point of interconnection to transfer unused interconnection service between them.¹³²

86. NYISO states that for capacity markets, Installed Capacity Suppliers have a daily requirement to offer into the Day Ahead Market for energy in the amount of the Installed Capacity equivalent of their capacity sold for that month. NYISO contends that this obligation would preclude them from transferring ERIS in any month for which they sold associated Installed Capacity or would establish a scenario that opens the door to a supplier failing to meet its obligations to offer energy as required under the rules and for its expected availability. NYISO also states that the use of surplus interconnection service for two facilities behind the same point of interconnection on a scheduled, periodic basis for a specified number of MW that are available only intermittently is not feasible under NYISO's capacity market rules. NYISO states that only one of the two suppliers in the proposed scenario would be able to offer into NYISO's capacity market for an obligation month because each supplier behind the same point of interconnection, even if the same technology type, might have different proven capabilities and different availability or performance derating factors. NYISO explains that these specifications are used to calculate resources' Unforced Capacity, which is the quantity of capacity they are allowed to offer into the market each capability period. NYISO states that Installed Capacity Suppliers have a daily requirement to offer into the day-ahead market for energy in the amount of the Installed Capacity equivalent of their capacity sold for that month. NYISO states that this obligation would preclude them from transferring ERIS in any month for which they sold associated Installed Capacity.¹³³

87. Further, NYISO contends that the surplus interconnection service requirements under Order No. 845 do not work under NYISO's unique and well-established CRIS requirements and buyer-side capacity market power mitigation measures. NYISO states that, under the current tariff, a facility must meet the NYISO Deliverability

¹³¹ *Id.* at 26.

¹³² *Id.* at 26.

¹³³ *Id.* at 27.

Interconnection Standard¹³⁴ (as well as have ERIS) before it can receive CRIS and become an Installed Capacity Supplier. NYISO states that the CRIS transfer rules were designed to accommodate permanent transfers of CRIS from an entity leaving the market and these rules are not intended to allow temporary transfers, e.g., surplus interconnection service, that would disrupt the Installed Capacity market.¹³⁵

b. Comments

88. Clean Energy Entities argue that NYISO's request for independent entity variations to avoid providing surplus interconnection service is unjustified. Clean Energy Entities contend that interconnection service that is being granted based on the NYISO Minimum Interconnection Standard is not unique to NYISO and that interconnection service is generally based on minimum interconnection principles for reliable operation, under the assumption that operational re-dispatch and market-based re-dispatch will occur.¹³⁶ Clean Energy Entities argue that normal operating procedures in competitive markets allow for more generators to be connected to the grid than are needed to supply load at any given time, while competitive market rules determine which of many possible generators actually do supply the load, and if there are constraints that cannot be solved through market signals, the system operator then has the authority and takes action to relieve congestion in real time.

89. Clean Energy Entities also dispute NYISO's claim that its "unique market design" does not allow for surplus interconnection service because two projects operating under the same interconnection point must be modeled, settled, and scheduled as two separate generators.¹³⁷ Clean Energy Entities argue that Midcontinent Independent System Operator, Inc. (MISO) faces challenges similar to those NYISO presents but MISO is still

¹³⁴ NYISO Deliverability Interconnection Standard is "the standard that must be met, unless otherwise provided for by Attachment S to the ISO OATT, by: (i) any generation facility larger than 2MW in order for that facility to obtain CRIS; (ii) any Class Year Transmission Project; (iii) any entity requesting External CRIS Rights; and (iv) any entity requesting a CRIS transfer pursuant to Section 25.9.5 of Attachment S to the ISO OATT. To meet the NYISO Deliverability Interconnection Standard, the Interconnection Customer must, in accordance with the rules in Attachment S to the ISO OATT, fund or commit to fund any System Deliverability Upgrades identified for its project in the Class Year Deliverability Study." OATT, attach. X, § 30.1.

¹³⁵ Filing at 27-28.

¹³⁶ Clean Energy Entities Comments at 11.

¹³⁷ *Id.* at 13.

able to implement surplus interconnection service because it worked extensively on procedures to allow two projects to connect at a shared interconnection point. Clean Energy Entities argue that process changes can and should be made in NYISO to facilitate the implementation of surplus interconnection service.¹³⁸

90. Clean Energy Entities also point to NYISO's argument that CRIS has a deliverability standard that must be adhered to and that CRIS projects must have ERIS as well for eligibility to become a capacity supplier. Clean Energy Entities argue that NYISO currently has a process to transfer CRIS on an existing facility, which is deactivating and exiting the market, to another facility, existing or new, regardless of whether facilities are at the same locations.¹³⁹ Clean Energy Entities contend that this level of demonstrated flexibility indicates that NYISO has the flexibility to accommodate significant changes within its existing market structure.

91. Clean Energy Entities state that regions such as NYISO do not have hybrid interconnection procedures, even though hybrid projects create significant economic efficiencies for consumers while enhancing grid reliability. Clean Energy Entities believe that the surplus interconnection service requirement of Order No. 845 offers a means to add battery storage to existing projects and is especially important in NYISO since the state of New York is making Renewable Energy Credit awards that include hybrid projects, but NYISO has yet to begin an effort to make the changes needed to process hybrid interconnections.¹⁴⁰

c. Answers

92. According to NYISO, Order No. 845 noted that surplus interconnection service is created by transmission providers, consistent with Order No. 2003, "assum[ing] that each interconnection customer is fully utilizing its interconnection service when studying other requests for new interconnections," and, therefore, such interconnection service is "assumed to be unavailable to other prospective interconnection customers."¹⁴¹ NYISO asserts that, in contrast to these Order No. 845 assumptions for interconnection service, its NYISO Minimum Interconnection Standard permits NYISO to redispatch existing generation as well as the generation facility that is the subject of the study. NYISO states that the result is that the generation facility has access to the transmission system but such access is not exclusive based on the generation facility's full output. NYISO therefore

¹³⁸ *Id.*

¹³⁹ *Id.* at 14.

¹⁴⁰ *Id.* at 6, 15.

¹⁴¹ NYISO Answer at 8-9.

contends that, under its NYISO Minimum Interconnection Standard, there is no unused ERIS when a facility injects less than its full output onto NYISO's system, which means there is no surplus interconnection service under NYISO's Commission-accepted interconnection standard.¹⁴²

93. NYISO also argues that Clean Energy Entities impose an incorrect burden on NYISO by requiring NYISO to justify an independent entity variation by comparing NYISO's circumstances to that of MISO. NYISO explains that MISO's interconnection standard does not include NYISO's requirement to dispatch down the studied facility to resolve any identified violations. NYISO states that it will dispatch down not only existing generation but also the studied generator itself to resolve any identified violations in accordance with its normal operating procedures. NYISO asserts that System Upgrade Facilities will be required if, among other things, redispatch, including redispatch of the studied facility, does not resolve the violation, which is meaningfully different than NYISO's understanding of MISO's standard.¹⁴³

94. NYISO also takes issue with Clean Energy Entities' argument that there is flexibility in NYISO's market structure to accommodate surplus interconnection service based on the current ability in NYISO's OATT to transfer CRIS from a deactivating unit that is exiting the market to another facility. NYISO states that its market structure allows for the permanent transfer of CRIS in the limited situation where the original unit is deactivating and leaving the market. NYISO explains that the unit that receives CRIS would need to obtain ERIS before it could use that CRIS to inject capacity onto the system; however, NYISO clarifies that NYISO's Minimum Interconnection Standard does not result in unused and available ERIS on the system. NYISO states that Clean Energy Entities minimize the complexity of toggling CRIS between resources under NYISO's market rules.¹⁴⁴

95. NYISO also argues that nothing under Order No. 845 suggests that an RTO/ISO must create procedures to allow different technologies to comprise a single facility. As a result, NYISO argues that Clean Energy Entities' argument pointing to the absence of procedures in NYISO's OATT or any effort by the NYISO in creating procedures to evaluate "hybrid interconnection requests," are outside the scope of Order No. 845 and NYISO's compliance requirements.¹⁴⁵

¹⁴² *Id.* at 9.

¹⁴³ *Id.* at 10.

¹⁴⁴ *Id.*

¹⁴⁵ *Id.* at 11.

96. Clean Energy Entities answer that NYISO's proposed independent entity variation does not comply with Order No. 845. Clean Energy Entities state that they do not dispute that differences exist between the NYISO and MISO study processes, but that some similarities can be found between many tariff and interconnection procedures. Clean Energy Entities state that all dispatch scenarios generally allow for some level of generation to be turned off, down, or redispatched (whether existing or under study), or for identified constraints to not be mitigated, among other methods that ensure non-exclusivity. However, Clean Energy Entities argue that all dispatch scenarios must respect a "minimum" reliability standard, in accordance with NERC standards and guidelines.¹⁴⁶

97. Clean Energy Entities state that there will be multiple generating facilities in competition on the transmission system that might potentially use the same transmission facilities in different operational circumstances; therefore, the concept of "exclusivity" is a red herring. Clean Energy Entities believe that NYISO is concerned that generators that wish to interconnect under surplus interconnection service may potentially increase congestion on the NYISO system as a result of the dispatch/modeling process, which can involve dispatching down generation to resolve constraints, including both existing resources and the generator under study.¹⁴⁷ Clean Energy Entities believe that the Commission should reject NYISO's proposal to deny interconnection customers the opportunity to obtain surplus interconnection service (at their own risk) because doing so would be contrary to Order No. 845.

d. Commission Determination

98. We accept NYISO's requested independent entity variation to not offer surplus interconnection service and instead continue to use its existing interconnection process, including the NYISO Minimum Interconnection Standard, because we find that its requested variation is just and reasonable, not unduly discriminatory or preferential, and accomplishes the purposes of the final rule. The Commission adopted the *pro forma* LGIP and *pro forma* LGIA provisions for surplus interconnection service to enable a new interconnection customer to utilize the unused portion of an existing interconnection customer's interconnection service within specific parameters.¹⁴⁸ Order No. 845 states that surplus interconnection service is "created because generating facilities may not

¹⁴⁶ Clean Energy Entities Answer at 9-10.

¹⁴⁷ *Id.* at 11.

¹⁴⁸ Order No. 845, 163 FERC ¶ 61,043 at P 467; Order No. 845-A, 166 FERC ¶ 61,137 at P 119.

operate at full capacity at all times,”¹⁴⁹ and that, if an existing transmission provider or its affiliates does not use such service, the service may be made available to other potential interconnection customers. As NYISO argues, this requirement 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. This premise for surplus interconnection service is not applicable to NYISO’s interconnection process because, under the NYISO Minimum Interconnection Standard, ERIS customers are subject to re-dispatch of a facility (both the studied project and existing generators in the queue) in interconnection studies at less than the facility’s full capacity to mitigate reliability impacts. As a result of NYISO’s existing interconnection process, there is no unused ERIS when a generation facility injects less than its full output onto NYISO’s system, which means that there is no surplus interconnection service available on NYISO’s system. 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.¹⁵⁰ 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.

99. For these reasons, we disagree with Clean Energy Entities’ argument that NYISO’s request for an independent entity variation to not provide surplus interconnection service is unjustified.

100. Clean Energy Entities argue that process changes can and should be made in NYISO to facilitate the implementation of surplus service by allowing two projects to connect at a shared interconnection point, such as in MISO, which Clean Energy Entities contend worked extensively on procedures to allow two projects to connect at a shared interconnection point. We find that requiring NYISO to make these process changes to allow more than one generator at a single point of interconnection to bid into the market goes beyond the requirements of Order No. 845. Therefore, we reject Clean Energy Entities request as beyond the scope of this compliance proceeding.

¹⁴⁹ Order No. 845, 163 FERC ¶ 61,043 at P 468.

¹⁵⁰ Order No. 845-A, 166 FERC ¶ 61,137 at P 119.

101. Also, and finally, in response to NYISO's contention that surplus interconnection service does not work under its unique CRIS requirements, Clean Energy Entities argue that NYISO currently has a process to transfer CRIS from an existing facility that is deactivating and exiting the market to another facility, existing or new, regardless of whether the two facilities are at the same point of interconnection. We agree with NYISO's explanation that the CRIS transfer rules, under Attachment S of NYISO's OATT, were designed to accommodate permanent transfers of CRIS from an entity deactivating and leaving the market and were not intended to permit temporary transfers of CRIS due to the fact that NYISO's Minimum Interconnection Standard does not result in unused and available ERIS on the system. Further, the transfer of CRIS rights is, as NYISO suggests, more complex and involved than transferring surplus capacity on a short-term basis. In order for an entity to transfer CRIS rights to another, an entity must make that request as part of NYISO's Class Year process. That request is then subject to a deliverability evaluation in a Class Year Study that is performed separately and prior to NYISO's completion of the deliverability evaluation of the remaining collective Class Year CRIS projects. Because this process is more involved and comprehensive than the requirements of the surplus interconnection process, we disagree with Clean Energy Entities that the provisions that govern the transfer of CRIS rights can be utilized to accommodate surplus interconnection service.

11. **Material Modification and Incorporation of Advanced Technologies**

102. In Order No. 845, the Commission modified section 4.4.2(c) of the *pro forma* LGIP to allow an interconnection customer to incorporate certain technological advancements to its interconnection request, prior to the execution of the interconnection facilities study agreement,¹⁵¹ without risking the loss of its queue position. The Commission required transmission providers to develop and include in their LGIPs a definition of permissible technological advancements that will create a category of technological changes that, by definition, do not constitute a material modification and, therefore, will not result in the loss of queue position.¹⁵² In addition, the Commission modified section 4.4.6 of the *pro forma* LGIP to require transmission providers to insert a

¹⁵¹ While the Commission clarified that interconnection customers may submit a technological advancement request up until execution of the facilities study agreement, the Commission stated that it will permit transmission providers to propose rules limiting the submission of technological advancement requests to a single point in the study process (prior to the execution of a facilities study agreement), to the extent the transmission provider believes it appropriate. Order No. 845, 163 FERC ¶ 61,043 at P 536.

¹⁵² *Id.* P 518.

technological change procedure that includes the requisite information and process that the transmission provider will follow to assess whether an interconnection customer's proposed technological advancement is a material modification.¹⁵³

103. The Commission required that the technological change procedure specify what technological advancements can be incorporated at various stages of the interconnection process and clearly identify which requirements apply to the interconnection customer and which apply to the transmission provider.¹⁵⁴ Additionally, the technological change procedure must state that, if the interconnection customer seeks to incorporate technological advancements into its proposed generating facility, it should submit a technological advancement request, and the procedure must specify the information that the interconnection customer must submit as part of that request.¹⁵⁵

104. The Commission also required that the technological change procedure specify the conditions under which a study will or will not be necessary to determine whether a proposed technological advancement is a material modification.¹⁵⁶ The Commission explained that the technological change procedure must also state that, if a study is necessary to evaluate whether a particular technological advancement is a material modification, the transmission provider shall clearly indicate to the interconnection customer the types of information and/or study inputs that the interconnection customer must provide to the transmission provider, including, for example, study scenarios, modeling data, and any other assumptions.¹⁵⁷ In addition, the Commission required that the technological change procedure explain how the transmission provider will evaluate the technological advancement request to determine whether it is a material modification.¹⁵⁸

105. Further, the Commission required that the technological change procedure outline a time frame of no more than 30 days after the interconnection customer submits a formal technological advancement request for the transmission provider to perform and complete

¹⁵³ *Id.*; see also *pro forma* LGIP § 4.4.6.

¹⁵⁴ Order No. 845, 163 FERC ¶ 61,043 at P 519.

¹⁵⁵ *Id.*

¹⁵⁶ *Id.*; Order No. 845-A, 166 FERC ¶ 61,137 at P 155.

¹⁵⁷ Order No. 845, 163 FERC ¶ 61,043 at P 521.

¹⁵⁸ *Id.*

any necessary additional studies.¹⁵⁹ The Commission also found that, if the transmission provider determines that additional studies are needed to evaluate whether a technological advancement is a material modification, the interconnection customer must tender a deposit, and the transmission provider must specify the amount of the deposit in the transmission provider's technological change procedure.¹⁶⁰ In addition, the Commission explained that, if the transmission provider cannot accommodate a proposed technological advancement without triggering the material modification provision of the pro forma LGIP, the transmission provider must provide an explanation to the interconnection customer regarding why the technological advancement is a material modification.

106. In Order No. 845-A, the Commission clarified that: (1) when studies are necessary, the interconnection customer's technological change request must demonstrate that the proposed incorporation of the technological change will result in electrical performance that is equal to or better than the electrical performance expected prior to the technological change and will not cause any reliability concerns; (2) if the interconnection customer cannot demonstrate in its technological change request that the proposed technological change would result in equal or better electrical performance, the change will be assessed pursuant to the existing material modification provisions in the pro forma LGIP; (3) information regarding electrical performance submitted by the interconnection customer is an input into the technological change study, and this factor alone is not determinative of whether a proposed technological change is a material modification; and (4) the determination of whether a proposed technological change (that the transmission provider does not otherwise include in its definition of permissible technological advancements) is a material modification should include an analysis of whether the proposed technological change materially impacts the timing and costs of lower-queued interconnection customers.¹⁶¹

a. NYISO's Compliance Filing

107. NYISO proposes to add permissible technological advancements to the existing list of modifications contained in section 4.4.2 of the its LFIP that do not require a material modification. NYISO also proposes to include a definition of permissible technological advancement in section 30.1 of Attachment X to the OATT, as follows:

¹⁵⁹ *Id.* P 535.

¹⁶⁰ *Id.* P 534. The Commission set the default deposit amount at \$10,000 but stated that a transmission provider may propose a reasonable alternative deposit amount in its compliance filing and include justification supporting this alternative amount. *Id.*

¹⁶¹ Order No. 845-A, 166 FERC ¶ 61,137 at P 155.

Permissible Technological Advancement shall mean advancements to turbines, inverters, or plant supervisory controls or other similar advancements to the existing technology proposed in the Interconnection Request, provided that such advancements result in electrical performance that is equal or better than the electrical performance prior to the technological change and do not (i) increase the capability of the Large Facility by more than two (2) megawatts, (ii) change the generation technology or fuel type of the Large Facility, (iii) have a material adverse impact on the New York State Transmission System or Distribution System, and (iv) degrade the electrical characteristics of the generating equipment proposed in the Interconnection Request (e.g., the ratings, impedances, efficiencies, capabilities, and performance of the equipment under steady state and dynamic conditions).¹⁶²

108. NYISO states that, consistent with Order No. 845, the proposed definition permissibly excludes changes in the generation technology or fuel type, and includes those changes that do not cause any reliability concerns, do not degrade the electrical characteristics of the generating equipment, and are equal to or better than the performance expected prior to the change. NYISO proposes to permit, as part of a permissible technological advancement, technological advancements that result in a *de minimis* increase in the requested interconnection service not exceeding two MW. NYISO proposes this permissible *de minimis* increase in order to accommodate the most frequent technological changes requested in its interconnection studies—changes to turbine manufacturers that slightly change the capability of a turbine, sometimes by mere tenths of a MW. To accommodate this threshold for changes related to technological advancements, NYISO revises existing language in section 30.4.4.1 of Attachment X regarding modifications generally to specifically permit two MW increases resulting from a permissible technological advancement.¹⁶³

109. NYISO states that, as directed by Order No. 845, it also incorporates a technological change procedure in new section 30.4.4.7 of Attachment X that details how an interconnection customer can request a technological advancement. NYISO details that a developer must submit a request for a technological change using a request form following the initial draft of the SRIS report to the developer and connecting transmission

¹⁶² OATT, attach. X, § 30.1.

¹⁶³ Filing at 30.

owner but prior to the return of an executed interconnection facilities study agreement.¹⁶⁴ NYISO proposes that these procedures apply following the completion of the SRIS but before commencement of the Class Year Study because: “(1) current tariff provisions allow significant latitude in modifications prior to commencement [of] the SRIS; and (2) modifications during the SRIS will prolong the study and not afford NYISO a basis upon which to evaluate the change (*i.e.*, the SRIS provides the technical parameters pre-modification against which the proposed modification will be evaluated).”¹⁶⁵

110. NYISO explains that the first step of the procedures is to review the technological change and determine whether it meets the definition and whether the developer submitted sufficient documentation to demonstrate that the proposed change does not change the electrical characteristics of the project that would result in a greater than two percent voltage drop at the point of interconnection, or a greater than one hundred amperes short circuit contribution. NYISO states that, if the proposed change passes this first step, then it constitutes a permissible technological advancement without the need for further study.¹⁶⁶

111. If the proposed change does not satisfy the first step, NYISO states that, under the second step, it will perform additional studies to determine whether the electrical performance of the facility incorporating the proposed technological change is equal to or better than the electrical performance prior to the technological change and that the change does not result in adverse reliability concerns (*i.e.*, not have a material adverse impact on the transmission system with regard to short circuit capability limits, steady-state thermal and voltage limits, or dynamic system stability and response).¹⁶⁷ NYISO states that such additional studies shall be identified and performed based on NYISO’s engineering judgment and at the developer’s expense. If the proposed change does not satisfy the second step, NYISO states that, under the third step, it will conduct a review to determine whether the change would constitute a material modification consistent with section 30.4.4.3 of Attachment X to the OATT.¹⁶⁸

112. NYISO proposes additional revisions to section 30.4.4 of Attachment X to the OATT, as well as adding a new large facility modification request to streamline requesting modifications to interconnection requests in NYISO’s interconnection queue

¹⁶⁴ *Id.* at 31.

¹⁶⁵ *Id.* at 31 n.139.

¹⁶⁶ *Id.* at 31.

¹⁶⁷ *Id.* at 31, LFIP app. 3.

¹⁶⁸ Filing at 31.

process. NYISO states that this request form will identify for the interconnection customer the specific information that must be submitted for a proposed technological advancement, as required by Order No. 845. NYISO asserts that the addition of the large facility modification request adds administrative efficiencies and eliminates questions for developers on the information that NYISO will need to evaluate a request to modify a pending interconnection request, and also adds terms and conditions that a developer will need to agree to for NYISO to conduct the review and avoid the need for delays in negotiating a study agreement or if the NYISO needs to conduct a materiality review under Section 30.4.4.3 of Attachment X to the OATT. NYISO adds that, if a developer submits a technological change, the developer must submit a \$10,000 study deposit, together with documentation that shows that the technological change is a permissible technological advancement.¹⁶⁹ NYISO proposes that it will complete its review and any additional studies within 30 calendar days of receiving a large facility modification request and the required study deposit.

b. Commission Determination

113. We find that the proposed provisions to incorporate a definition of a permissible technological change and associated procedures, as proposed by NYISO in section 30.1 of Attachment X to the OATT, comply with the requirements of Order Nos. 845 and 845-A.

114. Specifically, we find that NYISO's proposed definition of a permissible technological advancement meets the Commission's requirement to provide a category of technological change that does not constitute a material modification. We also find that NYISO's proposed technological change procedure in new section 30.4.4.7 includes the requisite information and process that it will follow to assess whether an interconnection customer's proposed technological advancement is a material modification. We also accept NYISO's proposal to complete its review and any additional studies within 30 calendar days of receiving a large facility modification request and the required study deposit.

12. NYISO's Proposed Variations to Conform to the Terminology in NYISO's OATT

a. NYISO's Compliance Filing

115. NYISO states that it generally follows the Commission's *pro forma* LGIP and *pro forma* LGIA, but NYISO's LFIP and *pro forma* LGIA include numerous independent

¹⁶⁹ *Id.* at 31-32.

entity variations based on the terminology used in NYISO's OATT.¹⁷⁰ NYISO therefore proposes to replace certain terms used in the Order Nos. 845 and 845-A revisions to the Commission's *pro forma* LGIP and LGIA with previously-accepted terms used in NYISO's LFIP and LGIP.¹⁷¹ For example, NYISO proposes to replace the term "Transmission Provider" as used in the Commission's revisions in Order No. 845 with the terms "ISO" and/or "Connecting Transmission Owner," as applicable, to clarify the respective roles of NYISO and the Connecting Transmission Owners as they relate to the modifications to NYISO's LFIP and *pro forma* LGIA directed by Order No. 845.¹⁷² In another example, NYISO proposes to replace the term "Interconnection Customer" as used in the Commission's revisions in Order No. 845 with the term "Developer," as defined in the NYISO's LFIP and *pro forma* LGIA.¹⁷³ NYISO also states that it proposes a few additional minor clarifying or ministerial variations in adopting the Commission's language in order to ensure consistency within NYISO's *pro forma* LGIA.¹⁷⁴ NYISO asserts that the Commission has recognized that where changes to interconnection procedures "are clarifying and/or ministerial in nature and/or NYISO has supplied sufficient justification," such modifications are acceptable under the independent entity variation standard.¹⁷⁵

b. Comments

116. Clean Energy Entities support NYISO's request for independent entity variations based on the terminology used in NYISO's LFIP and *pro forma* LGIA.

c. Commission Determination

117. We accept NYISO's proposal to continue the independent entity variations in the terminology used in NYISO's LFIP and *pro forma* LGIA. We find that these revisions clarify and provide consistency with the other provisions in NYISO's LFIP and *pro forma* LGIA.

¹⁷⁰ *Id.* at 7.

¹⁷¹ *Id.* at 8-10.

¹⁷² *Id.* at 8-9.

¹⁷³ *Id.* at 9.

¹⁷⁴ *Id.* at 10.

¹⁷⁵ *Id.* at 8 (citing *N.Y. Indep. Sys. Operator, Inc.*, 124 FERC ¶ 61,238, at PP 17-18 (2008)).

The Commission orders:

(A) NYISO's compliance filing is hereby accepted, effective April 20, 2020 as requested, subject to a further compliance filing, as discussed in the body of this order.

(B) NYISO is hereby directed to submit a further compliance filing within 60 days of the date of this order, as discussed in the body of this order.

By the Commission.

(S E A L)

Kimberly D. Bose,
Secretary.