

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

**New York Independent System Operator, Inc. )**

**ER19-1949**

**MOTION TO INTERVENE AND COMMENTS OF THE  
AMERICAN WIND ENERGY ASSOCIATION,  
THE ALLIANCE FOR CLEAN ENERGY NEW YORK,  
AND THE SOLAR COUNCIL**

Pursuant to Rules 211 and 214 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission (“FERC” or the “Commission”),<sup>1</sup> the American Wind Energy Association (“AWEA”), the Alliance for Clean Energy New York (“ACE NY”), and the Solar Council (“Council”) (collectively, the “Clean Energy Entities”) respectfully move to intervene and submit comments responding to the New York Independent System Operator’s (“NYISO”) Compliance filing regarding Orders No. 845 and 845-A.<sup>2</sup> For the reasons discussed below, Clean Energy Entities request that the Commission grant some, but not all of the independent entity waivers requested by the NYISO. Most notably, Clean Energy Entities strongly disagree with the NYISO’s contention that New York’s unique market design precludes them from making the necessary changes to facilitate the implementation of Surplus Interconnection Service.

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<sup>1</sup> 18 C.F.R. §§ 385.211, 214 (2018).

<sup>2</sup> *Reform of Generator Interconnection Procedures and Agreements*, 163 FERC ¶ 61,043 (2018) (“Order No. 845”), *on reh’g* 166 FERC ¶ 61,137 (2019) (“Order No. 845-A”).

## **I. MOTION TO INTERVENE**

AWEA is a national trade association representing a broad range of entities with a common interest in encouraging the expansion and facilitation of wind energy resources in the United States. ACE NY is a nonprofit membership organization whose mission is to promote clean energy, energy efficiency, a healthy environment and a strong economy for New York State. This diverse coalition includes private renewable energy and energy efficiency companies, environmental and economic development organizations, academic institutions, and consultants to the energy sector. The Solar Council is a group of companies participating in AWEA's RTO Advisory Council that own, operate, develop, and finance solar projects and act, in coordination with AWEA, to advance joint goals before the Federal Energy Regulatory Commission and the nation's regional transmission markets and independent system operators.

Clean Energy Entities are committed to improving interconnection processes to facilitate deployment of clean energy, their interests in this proceeding cannot be represented by any other party, and their interventions are in the public interest.

## **II. GENERAL COMMENTS SUPPORTING COMPLIANCE WITH ORDER NO. 845 AND 845-A**

The Commission's Orders No. 845 and 845-A revise the *pro forma* Large Generator Interconnection Procedures ("LGIP") and *pro forma* Large Generator Interconnection Agreement ("LGIA") to require changes that will improve certainty, promote more informed

interconnection, and enhance interconnection processes.<sup>3</sup> The Clean Energy Entities support the Commission’s reforms and appreciate the opportunity to provide comments in various Regional Transmission Organization and Independent System Operator (collectively, “RTO”) dockets to help ensure that each compliance filing results in generator interconnection processes that are just and reasonable and not unduly discriminatory or preferential.

An evolution of the electricity mix is currently underway in the United States, and interconnection queues across the country are larger than ever. Low gas prices, plummeting costs for renewable resources, and new technologies such as energy storage are transforming the way in which electricity is generated. Moreover, the demand for clean energy has never been higher, with states, utilities, and corporations increasing their commitments to purchase renewable resources. A more efficient, transparent and functional interconnection process is critical for each of these types of entities to be successful in reaching their goals, which will bring the benefits of clean, low-cost energy to consumers. As detailed in the Appendix, the Clean Energy Entities believe that the reforms the Commission has required under Orders No. 845 and 845-A are a step in the right direction toward remedying some of the shortcomings in RTOs’ existing interconnection processes.

The Clean Energy Entities believe that the Order No. 845 reforms will benefit interconnection customers through a more timely and cost-effective interconnection process and will aid transmission providers by mitigating the potential for serial restudies associated with

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<sup>3</sup> Order No. 845 at ¶2.

late-stage interconnection request withdrawals. Specifically, the provision of more timely, transparent, and accurate information will increase certainty for interconnection customers and assist them in earlier evaluation and faster development, and will assist in earlier, less disruptive withdrawals from the interconnection queue.<sup>4</sup> This in turn will result in fewer restudies and delays. Requirements for new types of interconnection service will allow for the most efficient use of the existing grid and provide interconnection customers flexibility in meeting the needs of their projects.

The Clean Energy Entities look forward to working with the Commission and jurisdictional utilities to implement the reforms in Order Nos. 845 and 845-A, and to promote further reforms that will help to address the high levels of delays and high costs of required interconnection upgrades that are stymying the development of new resources across the country today. For instance, the MISO interconnection queue has recently topped 100GW of interconnection requests, SPP has about 85 GW, and other regions' and individual utility queues are similarly overwhelmed with requests. Additionally, Orders 845 and 845-A do not specifically address the lack of policy regarding the interconnection and operation of hybrid resources, which is much needed in markets across the United States. We urge the Commission to continue to evaluate and address the many challenges that will still be affecting interconnection processes following Order 845 implementation.

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<sup>4</sup> Order No. 845 at ¶192 *et seq.*

Finally, while the Clean Energy Entities support many substantive aspects of NYISO's proposal, we oppose NYISO's proposed independent entity variations on Interconnection Study Reporting and Surplus Interconnection Service. Additionally, we note that individual members of the Clean Energy Entities may choose to highlight further areas of support or concern regarding the compliance filing at issue in this proceeding.

### **III. COMMENTS ON NYISO'S FILING**

#### **A. Clean Energy Entities Agree with Some but Not All of the NYISO Requested Independent Entity Variations**

Clean Energy Entities appreciate the allowance by FERC for "independent entity variations" from the pro-forma LGIP and GIA. The Commission deferred ruling on any substantive independent entity variations to the 845 Compliance requirements until the NYISO submitted its compliance filing. While we agree with and support many of the independent entity variations requested by the NYISO in its compliance filing, there are two in particular that we believe are unjustified, unnecessary, and counter to the intent and purpose of Order 845. NYISO's requests for independent entity variations on Data Reporting and Surplus Interconnection Service are not justified and should be rejected by the Commission.

In its filing the NYISO notes that its standard Large Facility Interconnection Process (LFIP) was developed with "extensive stakeholder involvement in response to the Commission's Order No. 2003". While we do not doubt that this is true, we respectfully point out that the stakeholders in 2003 are very different from the stakeholders who are participating and involved in the NYISO's interconnection process today in 2019. The number of queued projects has significantly increased over the years, and a process that was established in 2003 may not

fundamentally meet the needs of the majority of stakeholders in 2019. Even the improvements of 2018, that were greatly appreciated by stakeholders, did not go far enough or significantly address the most pressing and problematic issue of today—the uncertainties and delays in the NYISO interconnection process that Order 845 is in part designed to address across the country, given that many of the same issues and problems are commonly experienced in each region. Those issues include, but are not limited to, delays in the process due to the sheer volume of requests, and cost uncertainty, often due to project withdrawals.

Furthermore, a shift from coal-based generation to gas and inverter-based generation such as wind, solar and battery storage is also being experienced across the country, creating a more pressing need for the reforms in Order 845. Regions such as the NYISO, do not have hybrid interconnection procedures, even though hybrid projects create significant economic efficiencies for consumers while also enhancing grid reliability. The Surplus Interconnection Service requirement of Order 845 offers a means to add battery storage to existing projects and is especially important in the NYISO where the state is making Renewable Energy Credit (REC) awards that include hybrid projects, but the NYISO has yet to even begin an effort to make the Tariff changes necessary to process hybrid interconnections.

#### **B. NYISO Requested Independent Entity Variations Supported by Clean Energy Entities**

Clean Energy Entities support NYISO's request for an independent entity variation in regard to terminology used in the NYISO's LFIP and LGIA. We also do not oppose the independent entity variation requirement for consent by all affected developers in regard to the Option to Build. We do support NYISO's proposed independent entity variation requested in

regard to Dispute Resolution to ensure that the decision maker for the 845 required non-binding dispute resolution is a neutral third party. We agree that these variations are “consistent with or superior to” the required compliance changes under Order 845.

**C. The NYISO’s Requested Independent Entity Variation for interconnection Study Reporting is Unjustified and will Result in Inaccurate Reporting**

Clean Energy Entities strongly disagree with the NYISO’s proposed compliance on Interconnection Study Reporting, including its request for independent entity variation. The proposed variance on Interconnection Study Reporting will significantly mask the depth and breadth of study delays that would indicate a flawed process in need of improvements. Interconnection study delays are considered excessively long in the NYISO and the cause of significant discontent and requests for improvements to the transmission owners (TOs) process as well as potential revamping of the NYISO Class Year process itself. The NYISO independent entity variation approved years ago that created the NYISO process that exists today, may be largely the cause of the long study delays in NYISO’s interconnection process and require a significant overhaul. But without accurate metrics for reporting on study timing, the justification for such an overhaul cannot be established. The issue of proposed metrics that would lead to inaccurate results was brought up by stakeholders including ACE NY<sup>5</sup>, among others, in stakeholder meetings and written comments, but was not addressed in the NYISO’s final Compliance filing.

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<sup>5</sup> May 12, 2019 letter from Mark Reeder, consultant for ACE NY to Thanh Nguyen and Sara Keegan, of the NYISO, included as attachment to this filing.

In establishing a metric to assess the length of time needed to complete an interconnection study, the beginning point from an interconnection customer perspective is when the interconnection customer has met all the NYISO requirements to proceed with the interconnection, and the end point is when the interconnection customer has a final product in hand that allows the project to move forward to the next step in the interconnection process. The milestones that the NYISO has proposed<sup>6</sup> fail to meet the above description.

Clean Energy Entities urge the Commission to adopt a SRIS starting point metric of when NYISO has received all three of the following from the developer:

1. Receipt of the required deposit
2. Receipt of all required technical data
3. Confirmation of satisfaction of the site control requirement

Delaying the starting point metric until the date that the NYISO notifies the developer that the study has commenced will not capture the significant delays that can occur at times between when the NYISO has received all the necessary and required information from the interconnection customer and when the actual study starts. Similarly, the starting point should also not be tied to the date of the approval of the study scope by the Operating Committee, as the NYISO has proposed. The time required to develop a scope, write it up, and bring it to the Transmission Planning Advisory Subcommittee (TPAS) and the Operating Committee (OC) is part of the time it takes for the NYISO to process a SRIS study. To exclude this time from the

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<sup>6</sup> Pages 16-19 of the NYISO 845 compliance filing.



reporting requirement would lead to an inaccurate representation of the actual time it takes the NYISO to complete the study.

The NYISO proposed SRIS ending point is “the date upon which an initial draft study report is circulated to the developer and the Connecting Transmission Owner(s)”<sup>7</sup>. This proposal is also flawed. Drafts must be reviewed by key parties and revised. Rarely is a first draft a final product in any setting, and certainly not in the case of SRIS studies. It is common for SRIS studies to go through 3, 4, or more revisions before being finalized. Revisions to first drafts of interconnection studies are common practice across the country and certainly not at all unique to the NYISO or its process. At a minimum, the milestone used for the completion of a SRIS study should be the date of the circulation of the final draft, but much more appropriately is the date upon which a final study has completed Transmission Planning Advisory Subcommittee (TPAS) review and is approved by the Operating Committee, and therefore qualified for entry into a Class Year Study. A SRIS study is not considered complete until this occurs, and therefore this should be used as the ending point metric for the SRIS.

The metrics used for Feasibility studies, should follow the same logic as for SRIS studies. 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. The

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<sup>7</sup> Page 18 of the NYISO Compliance Filing

ending date should be when the study is considered complete and ready to progress to the SRIS as its next step.

Clean Energy Entities' suggestions for accurate Interconnection Study Reporting will allow for informed decisions to be made both by Interconnection Customers in choosing to initiate an interconnection request and planning for the interconnection process, and also for the NYISO to identify and eventually address through a collaborative effort with stakeholders, the root cause of delays. Without an accurate reporting metric not only will the intent of Order 845 not be met, but issues with delays in the NYISO study process will be masked, creating an additional barrier to both identifying delays and identifying and implementing solutions to address them.

Given the purpose and intent of Interconnection Study Reporting in Order 845, the NYISO has not justified that its request for variance is both fair and reasonable in its compliance filing, nor has it sufficiently justified a need for an independent entity variation. Therefore, we request the Commission deny this request and require full compliance with this provision through enforcement of accurate study metrics.

**D. The NYISO's Request for Independent Entity Variation to Avoid Providing Surplus Interconnection Service in Unjustified and Contrary to the Purpose of Order 845**

The NYISO request for an independent entity variation to avoid providing Surplus Interconnection Service is largely based on the premise that a "Minimum Interconnection Standard ... allows for re-dispatch of a facility in interconnection studies to less than the

facilities full capacity in order to mitigate reliability impacts at full capacity”<sup>8</sup>. Additionally, the NYISO notes that “even if an interconnection study did not require re-dispatch, a facility is never guaranteed that it can operate at its full capacity in normal operations due to various system conditions and subsequent new project entry”.

To be clear, neither of these conditions are unique to the NYISO system. In the Midcontinent Independent System Operator (MISO) Business Practice Manual 15, redispatch, load shedding or RAS are all permitted to mitigate constraints in Generator Interconnection Studies<sup>9</sup> and are also used in MISO’s Transmission Expansion Process to mitigate Baseline Reliability Constraints<sup>10</sup>, and then incorporated into the underlying assumptions in the Generator Interconnection models. MISO has been exemplary in its 845 compliance in regard to Surplus Interconnection Service.

Furthermore, FERC’s Order 2003 is very clear that the granting of generator interconnection rights does not guarantee transmission service nor deliverability of a project. Language to this effect is commonly encountered in the Tariff language of most if not all,

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<sup>8</sup> NYISO 845 Compliance Filing Pages 23-24.

<sup>9</sup> “ MISO Generator Interconnection Planning BPM 15 R19, available at: <https://www.misoenergy.org/legal/business-practice-manuals/>, Page 43, Section 6.6.1 Thermal Analysis: “Development of solutions for identified transmission issues will consider transmission upgrades and transmission alternatives like planned generation re-dispatch, reconfiguration, load shed, or Remedial Action Scheme (RAS) on a comparable basis consistent with Attachment FF and Section 4.3.1.2 of the Transmission Planning BPM (BPM-020). Section 6.1.2.5, Mitigation to Resolve Stability Constraints: mitigation in ERS can include an “operating guide or RAS in accordance with local planning criteria”; Appendix C, mitigation for deliverability can include an operating guide if it does not redispatch “existing NRIS generators, and it is an acceptable practice as per the applicable planning criteria.”

<sup>10</sup> MISO Transmission Planning BPM 20, Section 4.3.1.2.

transmission providers' interconnection processes across the country. 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. 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. This is a common practice.

Generator Interconnection studies rarely if ever, require that all generation across the footprint, or even within a specific region be turned on to the maximum level and constraints be mitigated based on those power flows. There are often dispatch assumptions in studies based on fuel type and proximity to the generator under study. There are also thresholds for mitigating constraints, such as 20% overloading, meaning that a constraint may be 18% overloaded while the generator can still interconnect and not pay for upgrades, but in this case, there is the potential that the generator's output may be managed in real time dispatch operations, including through curtailment. Interconnection service being granted based on minimum standards is not unique to the NYISO. Interconnection service is generally based on minimum interconnection principles for reliable operation, under the assumption that operational redispatch and market based redispatch will occur.

Interconnection rights do not guarantee transmission rights. Even in cases where the Interconnection Customer must pay for costly upgrades to the transmission system, it can encounter and suffer from congestion on the very line it paid to construct. This is the nature of interconnection rights, which are based on "reliable interconnection" and not a guarantee of transmission capacity to deliver the power. In the case of Surplus Interconnection Service, the

added generator assumes the risk and costs associated with delivery of power, just as the original generator does. If a project has obtained a level of interconnection service, it cannot go above that level with added surplus generation, and it must be subject to evaluation of material impact and other study procedures to ensure it can reliably interconnect per the minimum interconnection standard, similar to original generator that was studied.

NYISO claims 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 2 separate generators. This is actually an issue already addressed by the Midcontinent Independent System Operator which has worked extensively on procedures to allow two projects to connect at a Shared Interconnection POI<sup>11</sup>. Clean Energy Entities do not disagree with the NYISO’s claim that commitment participation caps for resources at the Point of Interconnection would need to be established. We also agree with the NYISO that both resources should be subject to the NYISO’s Supplemental Resource Evaluation if required. We do however disagree with the claim that process changes cannot be made to facilitate the implementation of Surplus Interconnection Service. Those changes can and should be made in order to comply with Order 845.

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<sup>11</sup>Shared POI presentation May14, 2019, IPWG, available at: <https://cdn.misoenergy.org/20190514%20IPWG%20Item%2008%20Shared%20Interconnection%20Facilities344098.pdf>, Tariff Edits to Appendix 1, Appendix 6, and Attachment X to accommodate a shared POI available at <https://www.misoenergy.org/events/interconnection-process-working-group-ipwg---may-14-2019/>

NYISO notes that its Capacity Resource Interconnection Service 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. These also are not uncommon requirements in other systems, MISO again being a prominent example. The NYISO currently has a process to transfer CRIS on an existing facility that is deactivating and exiting the market, to another facility, existing or new, regardless of the whether facilities are at the same or different locations<sup>12</sup>. Less rigorous requirements exist if the project is at the same POI<sup>13</sup> and could be similarly applicable to Surplus Interconnection Service. This level of demonstrated flexibility in the NYISO process for transfer of CRIS from a retiring facility is indicative that the NYISO can accommodate significant changes within its existing market structure. We do not disagree with the NYISO that changes to accommodate Surplus Interconnection Service in the NYISO market may require a mechanism to toggle between two projects as opposed to the full transfer which is permitted today. We agree that changes will need to be made through a well-vetted stakeholder process.

In stark contrast to the NYISO's refusal to comply with Order 845's Surplus Interconnection Service requirement while also having tariff provisions that allow redispatch to mitigate constraints and interconnection studies and in operations, is MISO's stand-alone "packaged" 845 filing dedicated to addressing 845 compliance in regard to "Surplus Interconnection Service"<sup>14</sup>.

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<sup>12</sup> NYISO 845 Compliance Filing page 28.

<sup>13</sup> Id.

<sup>14</sup> See MISO Filing, May 10, 2019, Docket No. ER19-1823-001.

MISO's proposal is based on sound engineering principles and in some cases even stricter material modification principles than those of the NYISO<sup>15</sup>. MISO offers an exemplary Surplus Interconnection Service implementation under Order 845 given multiple and similar challenges as faced by the NYISO.

Additionally, as noted previously, NYISO currently does not have a procedure in place for processing hybrid interconnection requests, while the state of NY is making REC awards that include hybrids. In order to implement the policies of New York State, there is an urgency and need for compliance with the Order 845 requirement for Surplus Interconnection Service in the NYISO. We urge the Commission to require compliance by the NYISO in regard to Surplus Interconnection Service, given that NYISO's request for independent entity variation to Surplus Interconnection Service has not been sufficiently justified, does not meet the 845 compliance requirement, and is not just and reasonable.

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<sup>15</sup> MISO Material Modification Policy currently requires less than a 1% Voltage deviation, while NYISO's requires less than a 2% Voltage deviation in studying technology changes while in the Interconnection Process. MISO's Material Modification criteria applies to technology changes while projects are in the Interconnection Process similar to NYISO, but also extends them to apply to Surplus Interconnection Service and Generator Replacement policies

#### IV. CONCLUSION

WHEREFORE, Clean Energy Entities respectfully submit these comments for the Commission's consideration and urge the Commission to reject the NYISO's request for independent entity variations in regard to Surplus Interconnection Service and Interconnection Study Reporting.

Respectfully submitted,

Gabe Tabak  
Counsel  
American Wind Energy Association  
1501 M St NW  
Washington, DC 20005  
(202) 383-2500  
[gtabak@awea.org](mailto:gtabak@awea.org)

Anne Reynolds  
Executive Director  
Alliance for Clean Energy New York  
119 Washington Ave Suite #1G  
Albany, NY 12210  
Email: [areynolds@aceny.org](mailto:areynolds@aceny.org)

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## **APPENDIX**

The Clean Energy Entities offer the following general comments in support of NYISO's compliance filing on Orders No. 845 and 845-A, including several aspects of other compliance filings that we believe constitute best practices.

### **A. Improving Certainty for Interconnection Customers**

The Clean Energy Entities support aspects of the Order 845 intended to provide interconnection customers with more predictability regarding costs and the timing of interconnection to the grid. Increased certainty for interconnection customers, especially cost certainty, is a vital improvement to the generator interconnection process.

#### **1. The Interconnection Customer's Option to Build**

The Commission's removal of the limitation on when an interconnection customer can exercise the option to build will allow an interconnection customer to opt to build when it believes doing so will reduce costs or improve the timeline for construction of the project and required upgrades, and will help provide more certainty during the design and construction phase of the interconnection process.

#### **2. ISO/RTO Dispute Resolution**

Disputes periodically arise between interconnection customers and transmission providers and owners about a number of issues, including study assumptions, costs, construction

schedules, and the design of interconnection facilities and network upgrades. The Clean Energy Entities support the Commission’s requirement that RTOs/ISOs eliminate the requirement of “mutual agreement of the Parties” for a party to pursue a streamlined dispute resolution process. Revising the standard LGIA to allow any disputing party to unilaterally exercise a right to pursue non-binding dispute resolution will ensure that interconnection customers can avail themselves of this potentially more efficient method of addressing disputes, as compared to the option of filing a complaint with the Commission. It is important that this process is non-binding and that, as required in Order No. 845, at the close of the dispute resolution process the interconnection customer can still pursue arbitration or submit a complaint to the Commission under Section 206 of the Federal Power Act.

## **B. Promoting More Informed Interconnection**

Improved transparency regarding the interconnection process is vital because such transparency will help make the development process more efficient and reduce uncertainty and will ensure that the interconnection process is just and reasonable and not unduly discriminatory or preferential. The Clean Energy Entities support the Commission’s requirements in Orders No. 845 and 845-A that seek to increase the information that is made available to all participants of the interconnection process.

### **1. Identification and Definition of Contingent Facilities**

For many interconnection customers, a serious challenge has been the lack of transparency related to transmission providers' identification of contingent facilities, or interconnection facilities and network upgrades that must be developed as a condition of granting service to an interconnection customer. The Clean Energy Entities support the Commission's requirement that transmission providers include, both in their *pro forma* generator interconnection process and interconnection agreements the transmission provider's method for identifying contingent facilities. The list of Contingent Facilities must be provided to the interconnection customer at the end of the System Impact Study. And the transmission provider must provide the interconnection customer with the estimated cost and in-service dates of these facilities when requested. Interconnection customers depend on the detailed list of contingent facilities that are included in studies and interconnection agreements in order to assess future risk of any increased cost of network upgrades. The Clean Energy Entities also support the Commission's requirement for transmission providers to include in the *pro forma* LGIP the method they will use to determine the list of contingent facilities in evaluating an interconnection request with sufficient detail to determine why a specific contingent facility was included in that list.

MISO offers a good example of a clear and consistent process by which Contingent Facilities are identified for each IC. MISO modified its methodology to study an Interconnection Customer's project's impact on MISO Transmission Expansion Plan ("MTEP")

Appendix A projects and higher-queued generators and their required network upgrades under base case and N-1 conditions. Those facilities that have a 5% or greater distribution factor impact from the Interconnection Customer were listed as contingent facilities in the GIA. This method is both clear and predictable, and not arbitrary. All Transmission Providers should be required to publish a detailed and objective methodology, which focuses on identifying only those contingent facilities that will be electrically impacted by a new interconnecting generator.

## **2. Transparency Regarding Study Models and Assumptions**

The Commission correctly determined that increasing the transparency of the network models and underlying assumptions used for interconnection studies, including shift factors and dispatch information, is a key improvement to the interconnection process. The Clean Energy Entities appreciate the Order No. 845 requirement that transmission providers offer access (with appropriate security provisions) to all the network models and underlying assumptions used for interconnection studies in their pro forma LGIPs. Interconnection customers will benefit from access to this information in order to make an informed decision as to whether to enter the queue. This information will benefit both interconnection customers in the queue as well as those developing interconnection requests by potentially helping them avoid entering the queue with interconnection requests that will result in upgrades that are too costly, thus making a project non-viable.

### **3. Definition of “Generating Facility”**

The Clean Energy Entities appreciate that the Commission has required that the definition of generating facility must explicitly include energy storage, as storage resources are a growing new technology that have a variety of beneficial uses for the electricity system. We reiterate here that the current orders did not contemplate the unique requirements of another very fast-growing emerging resource – hybrid energy systems, which are single facilities comprised of different types of units – any combination of wind, solar, storage, or even natural gas. We hope that following this, the Commission will consider addressing the need for policies addressing hybrid resource interconnection and operation.

### **4. Interconnection Study Reporting Requirements**

Under the current LGIP, transmission providers must use "reasonable efforts" to complete interconnection studies on a timely basis. Yet, many transmission providers continue to have significant delays in completing interconnection studies, some delays even years long. The Commission’s revision to the LGIP to require transmission providers to post interconnection study metrics online (to their OASIS websites), to file information reports with the Commission, and to provide explanations for why delays are occurring will increase transparency of interconnection study timelines, thereby enabling interconnection customers and the Commission to determine if the transmission provider is satisfying the "reasonable efforts" standard. NYISO’s reporting metrics fall short of providing a clear picture of delays in

the interconnection process and the time it takes an Interconnection Customer to reach a GIA. Thus, the Commission should require NYISO to make a compliance filing to address the issues raised in these comments.

**C. Enhancing the Interconnection Process**

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

The Clean Energy Entities support the Commission's requirement that transmission providers establish a clear procedure to determine whether a request for technology changes necessarily results in a material modification for the interconnection request. Rapid technology improvements combined with lengthy and delayed interconnection processes can mean that by the time an IC moves through the interconnection process to receive an interconnection agreement, the manufacturer of their generating technology may have made improvements that were not contemplated at the time of the original interconnection requests. These ICs should not be forced to return to the beginning of the interconnection queue with a new request, and the Commission's requirement reasonably provides for a process to evaluate whether a technology change such as this actually results in a materially electrical impact on the grid. Such an evaluation should be done reasonably quickly but need not be unrealistically limited. This process for evaluation should also be clear regarding the criteria that will be used to determine when a technology change has a significant negative impact.

## **2. Provisional Interconnection Service**

Provisional Interconnection Service has been offered on a voluntary basis by a few transmission providers. This service now required by the Commission offers developers the ability to interconnect a project quickly before all interconnection studies are complete or before all the required transmission upgrades are complete. Thus, this service, subject to appropriate operating restrictions until studies and network upgrades are completed, will benefit developers who need to get their projects online sooner than otherwise possible.

## **3. Surplus Interconnection Service**

The Commission's requirement that Transmission Providers offer Surplus Interconnection Service under Order No. 845 is one of the more contentious aspects of the order. We support this aspect of the Orders, as it has the potential to help make the most efficient use of interconnection capacity at a time when interconnection queues across the country are overwhelmed with requests and study timelines are both lengthy and experiencing significant delays. Surplus Interconnection Service is especially appropriate as wind and solar resources have come down in price and energy storage resources are becoming more cost effective. These newer entrants into the electricity markets are intended to operate with different daily and seasonal profiles than typical thermal plants, and they can both pair well with each other and with gas plants that can operate flexibly to fill in when renewable resources are not producing.

There is some variability in the compliance proposals across the country with regard to Surplus Interconnection Service, but we highlight MISO's as a best practice among those filings. MISO has for a number of years had a provision called Net Zero Interconnection Service similar to Surplus Interconnection Service. The Commission's Surplus Interconnection Service requirements are an improvement on MISO's starting point, but MISO's process for studying the potential impact of adding an Surplus Interconnection Service generator to an existing interconnection in parallel with the existing interconnection queue, and using criteria similar to its material modification criteria will ensure that requests for Surplus Interconnection Service are treated efficiently though comparably to other parties in the queue. NYISO's claim that it cannot offer Surplus Interconnection Service is unreasonable and unjust and the Commission should require NYISO to comply with the Surplus Interconnection Service provisions of Order 845.

#### **D. Service Below Capacity**

New technologies such as energy storage that can chose to operate below their full capacity in order to extend the period of time they can deliver power to the grid, and renewable resources that do not operate at their full capacity much of the time, create a situation where it may be beneficial to an interconnection customer to choose interconnection service below their full rated capacity. The Commission's provision for interconnection service below the capacity of a resource will provide flexibility to ICs to make the most cost-effective choice for their project and



can also support efficient use of the grid's existing interconnection capacity at a time when that is a diminishing resource.

May 12, 2019

Thinh Nguyen, Sara Keegan  
New York Independent System Operator (NYISO)  
Via email  
[TNguyen@nyiso.com](mailto:TNguyen@nyiso.com)  
[skeegan@nyiso.com](mailto:skeegan@nyiso.com)

Dear Mr. Nguyen and Ms. Keegan,

I am writing to reinforce the comments I have made several times at TPAS meetings in regard to FERC Order 845 compliance about the milestones that should be used to measure the duration of interconnection studies. In particular, FES and SRIS studies.

I urge you to adopt the perspective of the project developers as your customers. From the perspective of the project developer, the time it takes to do a study starts at the point that the project developer has provided you with all that you need. And it ends at the point in which the developer has a final product in hand that enables the project developer to move to the next step in the interconnection process. The milestones that the NYISO has proposed (refer to slide 34 of the April 12, 2019 presentation) fail to meet the above description. They are too narrowly defined and fail to include chunks of time that are used up while the project developer is awaiting receipt of the final product.

The starting point for measuring the time it takes to complete an SRIS study should be the date at which the NYISO has received all three of the following from the developer:

1. Receipt of the required deposit
2. Receipt of all required technical data
3. Confirmation of satisfaction of site control

The starting point should not be delayed until the time at which the SRIS study scope is approved by the Operating Committee, as the NYISO has proposed for Order 845 compliance (slide 34). The time involved in developing a scope, writing it up, and bringing it to the TPAS and the OC is rightfully included in the time it takes for the NYISO's interconnection process to get a SRIS study done. Consider the perspective of your customer – this is part of how long it takes to get the product from the NYISO process.

The ending point proposed by the NYISO for a SRIS study is “the date upon which the study itself is completed and an initial draft study report circulated” (slide 34). This is flawed. Any person involved in the business world knows that a project is not complete at the time of a first draft. Drafts must be reviewed by key parties and revised. Rarely is a first draft a final product in any setting. And certainly not in the case of SRIS studies. Project developers report that it is common for SRIS studies to go through 3, 4, or more revisions before they get done. They report that much time can be used during this revision process. At a minimum, the milestone used for the completion of a SRIS study should be the date of the circulation of the final draft. That is just common sense.

Better still, the milestone to use for the completion date should be the date at which the SRIS study is approved by the OC. It is clear that, from the perspective of the project developer – the customer – the SRIS study is not done until then. One can debate whether the interconnection process should or should not include the steps associated with TPAS review and OC approval, but the actual facts are that the process does require these steps. Until these steps are done, the SRIS study is not done and it is not ready for use by the project developer (i.e., ready to use as a prerequisite to enter a Class Year Study).

As for Feasibility studies, the same logic should hold as for SRIS studies. The starting point should not be delayed until after a TO accepts the scope. And the ending date should be the circulation of the final draft of the Feasibility Study report, not the first draft.

ACE NY's goals are simply to get good data on the time it takes to complete interconnection studies. We are not looking to make the NYISO do unnecessary filings at the FERC. In this case, however, the FERC has created an opportunity to get the exact data ACE NY needs. ACE NY respectfully requests that the NYISO make the changes described above to the Interconnection Study Deadlines portion of the NYISO Order 845 compliance filing.

Finally, I note that the purpose of this letter is to focus on just one issue in the compliance filing – Interconnection Study Deadlines. It should not be interpreted to mean that ACE NY either supports or opposes any or all of the other Order 845 issues addressed in the compliance filing.

Sincerely,

Mark Reeder  
Consultant for Alliance for Clean Energy New York (ACE NY)  
markreedereconomics@gmail.com