

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

ISO New England Inc., Eversource)	ER19-1951
Energy Service Company (as agent))	
ISO New England Inc.,)	ER19-1952
New England Power Pool)	
Participants Committee)	

**MOTION TO INTERVENE AND COMMENTS OF THE
AMERICAN WIND ENERGY ASSOCIATION,
RENEW NORTHEAST 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”),¹ the American Wind Energy Association (“AWEA”), RENEW Northeast, Inc. (“RENEW”), and the Solar Council (“Council”) (collectively, the “Clean Energy Entities”) respectfully move to intervene and submit comments responding to ISO New England’s (“ISO-NE”) compliance filing regarding Orders No. 845 and 845-A.² For the reasons discussed below, Clean Energy Entities support some of the revisions, but we request that the Commission reject certain proposed revisions. In particular, the ISO-NE filing presents an unreasonably narrow definition of Surplus Interconnection Service and fails to establish an outside-the-queue process for reviewing Surplus Interconnection Service requests. These proposals are inconsistent with the requirements of the Orders. We request that the

¹ 18 C.F.R. §§ 385.211, 214 (2018).

² *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”).

Commission accept the remainder of ISO-NE’s compliance filing, while requiring a subsequent filing to remedy the defects identified in our comments.

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. RENEW Northeast is a non-profit association uniting environmental advocates and the renewable energy industry whose mission involves coordinating the ideas and resources of its members with the goal of increasing environmentally sustainable energy generation in the Northeast from the region’s abundant, indigenous renewable resources. 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.³ The Clean Energy Entities support the Commission’s reforms and appreciate the opportunity to provide comments in various Regional

³ Order No. 845 at ¶2.

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 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.⁴ This in turn will result in fewer restudies and delays. Requirements for new types of interconnection service will allow for the most efficient

⁴ Order No. 845 at ¶192 *et seq.*

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.

Finally, while the Clean Energy Entities support many substantive aspects of ISO-NE's proposal, we oppose ISO-NE's proposed independent entity variations on 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 ISO-NE'S FILING

A. The ISO-NE's definition unacceptably narrows the meaning of Surplus Interconnection Service

The Commission determined in Order No. 845 that Surplus Interconnection Service should have a broad meaning, defining it in the *pro forma* LGIP and LGIA as "any unneeded

portion” of existing interconnection service. In contrast, the ISO-NE’s proposed definition is extremely narrow; it removes the expansive phrase “any unneeded portion” from the definition of Surplus Interconnection Service and replaces it with a new defined term, “Unused Capability,” which ISO-NE has defined in a limited way as the difference between the existing level of interconnection service and certain fixed seasonal values.⁵ As a result of its reference to fixed values, the ISO-NE’s definition would only allow for Surplus Interconnection Service in cases where the “unneeded portion” of interconnection service is available continuously, in all 8760 hours of the year. This is a relatively rare situation and one in which the magnitude of unused service is usually small.

ISO-NE argues in its compliance filing that its proposed narrow definition is necessary to support each interconnection customer’s “desired level of participation in the New England markets,” with the definition for Network Resource (“NR”) Interconnection Service being necessary to support participation in the energy markets and the definition for Capacity Network Resource (“CNR”) Interconnection Service being necessary to support participation in the Forward Capacity Market.⁶ Clean Energy Entities disagree with the claim that such a restrictive definition is necessary for NR Interconnection Service to support an interconnection customer’s participation in energy markets. Many types of interconnection customers do not, in fact, desire to or have the ability to participate in the energy markets on a continuous basis, and that is well-understood when they are studied by ISO-NE. In the simplest example, a solar generator does

⁵ The ISO-NE proposal defines “Unused Capability” as: (i) in the case of NR Interconnection Service at an existing, commercial Generating Facility, for Summer, the Summer NR Capability minus the latest Seasonal Claimed Capability for Summer as corrected to 50 degrees F, and, for Winter, the Winter NR Capability minus the latest Seasonal Claimed Capability for Winter as corrected to 0 degrees F; and (ii) in the case of CNR Interconnection Service at an existing, commercial Generating Facility, for Summer, the Summer CNR Capability minus the latest Summer Qualified Capacity, and for Winter, the Winter CNR Capability minus the latest Winter Qualified Capacity.

⁶ ISO-NE Compliance Filing, p.31. Clean Energy Entities do not contest the ISO-NE’s assertion with respect to CNR Interconnection Service needed for participation in the Forward Capacity Market.

not seek to participate in the energy markets during the hours between sunset and sunrise. Under the *pro forma* definition, the unused NR interconnection service available during those hours would be recognized as available for Surplus Interconnection Service because it is not needed and not used by the original solar interconnection customer. Yet under ISO-NE's definition, the fact that the original interconnection customer does not need or use NR interconnection service during those hours is ignored. Instead, the ISO-NE interpretation means that since NR interconnection service can be used by the original interconnection customer during *other* hours (i.e., the unneeded NR interconnection service is not continuously available) the amount available in the remaining hours would be disqualified from use as Surplus Interconnection Service. Although a resource only runs a certain number of hours, it has interconnection rights that have already been studied by ISO-NE at full output, as noted by the Commission. Given those rights, which may have been contingent on the original interconnection customer paying for network upgrades, it is immaterial in what hours that original interconnection customer chooses to use those interconnection rights. The Commission has indicated that Surplus Interconnection Service is intended to allow the Original Interconnection Customer and the Surplus Interconnection Customer to share the interconnection rights in the manner they agree upon, as long as their total output does not exceed the original GIA limit and no network upgrades are required to allow the additional generator to locate at the same Point of Interconnection.

RENEW's proposal, which was adopted by NEPOOL through the stakeholder process (hereinafter the "NEPOOL Proposal")⁷, would restore the broad meaning of Surplus

⁷ Details of the RENEW proposal and the NEPOOL adoption thereof are included in the Composite Materials for the May 3, 2019 Participant Committee. http://nepool.com/NPC_2019.php.

Interconnection Service for NR Interconnection Service.⁸ Clean Energy Entities believe that, with respect to NR Interconnection Service, ISO-NE's Proposal conflicts directly with the language and intent of the Order and largely defeats the purpose of the Order. The NEPOOL Proposal, on the other hand, adheres to the language and the intent of Orders No. 845 and 845-A and supports the purpose of the Order. Furthermore, and contrary to ISO-NE's assertion, the NEPOOL Proposal is more supportive of participation in the energy markets than ISO-NE's proposal, because it allows participation in the energy markets during periods that would be foreclosed to an interconnection customer under the ISO-NE's proposal. The NEPOOL Proposal would achieve the intent of the Commissions Surplus Interconnection Service requirement in that it would make more efficient use of the existing grid than the limited definition proposed by ISO-NE.

1. ISO-NE's definition does not allow for variation over time

Because ISO-NE's definition of Surplus Interconnection Service is set based on values that are fixed for an entire season, it does not allow for variation over time in the availability of the service. The Commission explicitly envisioned such variation in the Order, stating:

We clarify that surplus interconnection service is created because generating facilities *may not operate at full capacity at all times.*⁹

and

⁸ The NEPOOL Proposal would define "Unused Capacity" as follows:

Unused Capacity shall mean: (i) in the case of NR Interconnection Service at an existing, commercial Generating Facility, a continuous or periodic scheduled MW quantity as specified in an Interconnection Agreement, not to exceed the existing, commercial Generating Facility's NR Interconnection Service; and (ii) in the case of CNR Interconnection Service at an existing, commercial Generating Facility, for Summer, the Summer CNR Capacity minus the latest Summer Qualified Capacity, and for Winter, the Winter CNR Capacity minus the latest Winter Qualified Capacity.

⁹ Order No. 845 at ¶468, emphasis added.

...It is possible for an original interconnection customer to have surplus interconnection service at a particular interconnection point because the generating facility capacity that the transmission provider originally studied pursuant to the *pro forma* LGIP may be in excess of the actual interconnection service required by the generating facility, *at least during some periods*.¹⁰

The Commission's Surplus Interconnection Service requirement, as clarified in these sections, was intended such that two generators sharing interconnection service at the same POI could work together to determine how each would use the available interconnection capacity at different times of the year, as long as together the two generators do not exceed the original interconnection capacity.

2. ISO-NE's definition conflicts directly with the language of the Order

Because ISO-NE's definition does not allow for variation over time, it would only recognize Surplus Interconnection Service in circumstances where it is available continuously. This result conflicts directly with the language of Order No. 845, which states:

The provisions addressed in this Final Rule will allow an existing interconnection customer to make a specified and limited amount of surplus interconnection service available...on a continuous basis (i.e., a certain number of MW of surplus interconnection service always available for use by a co-located generating facility), *or on a scheduled, periodic basis (i.e., a specified number of MW available intermittently)*.¹¹

The phrase "on a scheduled, periodic basis" and the word "intermittently" cannot be reconciled with ISO-NE's definition and are rendered meaningless by it.

Restricting the availability of Surplus Interconnection Service to circumstances in which it is always available also conflicts directly with the language of the Order when it states:

¹⁰ Order No. 845 at ¶ 471, emphasis added.

¹¹ Order No. 845 at ¶ 472, emphasis added.

...the original interconnection customer must be able to stipulate the amount of surplus interconnection service that is available, *to designate when that service is available*, and to describe any other conditions under which surplus interconnection service at the point of interconnection may be used...¹²

If the Commission had intended to limit surplus interconnection service to circumstances in which it is always available, as ISO-NE proposes, then it would have had no reason to include the italicized language in the Order.

ISO-NE's narrow definition also fails to recognize the full range of circumstances in which an existing generator's actual use of its interconnection service may differ from the level at which its interconnection request was studied. The Commission was clear that Surplus Interconnection Service would be available to address such differences "under a variety of circumstances," going on to specify that "[t]his would include situations where existing generating facilities operate infrequently, such as peaker units, or operate often below their full generating facility capacity, such as variable generation."¹³ Here again, ISO-NE's narrow definition leads to a direct conflict with the language of the Order, because the definition would not allow for Surplus Interconnection Service in these situations.

3. ISO-NE's definition effectively defeats the purpose of the Order

The Commission was clear that the purpose of the Surplus Interconnection Service reform was to broadly address inefficiency in the use of the existing transmission system and to remove economic barriers for technologies that could reduce such inefficiency. Specifically, the Commission intended that the reform would:

...reduce costs for interconnection customers by increasing the utilization of existing interconnection facilities and network

¹² Order No. 845 at ¶ 481, emphasis added.

¹³ Order No. 845 at ¶ 472 and Fn. 835 .

upgrades rather than requiring new ones, improve wholesale market competition by enabling more entities to compete through the more efficient use of surplus existing interconnection capacity, and remove economic barriers to the development of complementary technologies such as electric storage resources that may be able to easily tailor their use of interconnection service to adhere to the limitations of the surplus interconnection service that may exist.¹⁴

The effect of ISO-NE's narrow definition, which would recognize Surplus Interconnection Service in only a small subset of the circumstances envisioned by the Commission, is that in all other cases the unused capability on the existing transmission system will continue to be unused, and the inefficiencies identified by the Commission will remain unaddressed, thereby largely defeating the purpose of the reform.

ISO-NE's restrictive definition will also prevent the removal of economic barriers to technologies that could reduce inefficiency, such as electric storage resources, at most existing points of interconnection in the system, and it will tend to undermine New England state policies promoting access to the grid for renewable, clean energy resources. For example, under the *pro forma* definition and the NEPOOL proposal, an existing solar generator could add a storage device behind the inverter and thereby take advantage of previously unused capability at this location on the system. The maximum rating of the inverter would automatically limit the output of the combined devices at the point of interconnection to the level which ISO-NE has previously determined necessary to protect reliability. This application would achieve the Commission's stated purposes of more efficiently using existing interconnection capacity and removing economic barriers to the development of electric storage resources, and it would also advance state policies promoting access to the grid for renewable and clean energy resources. However, under ISO-NE's restrictive definition, the nighttime hours supporting this application

¹⁴ Order No. 845 at ¶ 467.

would not be recognized as Surplus Interconnection Service because they are only available periodically and not continuously, and the application would not be allowed, thus frustrating the goals of the reform.

4. ISO-NE’s definition is unjust and unreasonable because, in most circumstances, it would not allow an original interconnection customer to transfer or use unneeded interconnection service, even if proper precautions are taken to ensure system reliability.

The Commission recognized that, “consistent with the requirements of Order 2003, transmission providers assume that each interconnection customer is fully utilizing its interconnection service when studying other requests for new interconnections.”¹⁵ For this reason, existing interconnection customers retain the right to inject at full capacity, regardless of whether they actually do so. Accordingly, the Commission found that “where proper precautions are taken to ensure system reliability, it would be unjust and unreasonable to deny an original interconnection customer the ability either to transfer or use for another resource surplus interconnection service.”¹⁶ Under ISO-NE’s narrow definition, which fails to recognize Surplus Interconnection Service in most instances envisioned in the Order, a majority of interconnection customers who have unneeded interconnection service would effectively be denied the ability to transfer or use that unneeded interconnection service, even if proper precautions are taken to ensure reliability. This is an outcome which the Commission has specifically identified as unjust and unreasonable. Because ISO-NE’s definition that produces this result, the Commission should find the definition to be unjust and unreasonable.

B. The ISO-NE proposal ignores the Commission’s clear directive to establish a process “outside of the queue” for review of requests for Surplus Interconnection Service

¹⁵ Order No. 845 at ¶ 468.

¹⁶ Order No. 845 at ¶ 471.

Order No. 845 directs transmission providers to establish an expedited process to review requests for Surplus Interconnection Service. The Commission clarified that “This process would be expedited in the sense that it would take place *outside of* the interconnection queue.”¹⁷ The Commission also described the review procedure as “an expedited process, *separate from* the interconnection queue.”¹⁸

The ISO-NE proposal effectively ignores this clear direction from the Commission, because it begins with a presumption that a request for Surplus Interconnection Service *must* go through the queue.¹⁹ This presumption can only be rebutted if studies demonstrate that the request would meet the ISO-NE’s preexisting test for immateriality and therefore would not need to be added to the queue under that test. Footnote 108 states “under the existing Material Modification provisions in New England, any request to increase the capabilities established in an Interconnection Agreement automatically triggers a new Interconnection Request.” But Surplus Interconnection Service by definition does not increase the MW limit of an existing GIA, but instead is based on the limitation that the combined output of the Original

¹⁷ Order No. 845 at ¶ 486. Emphasis added.

¹⁸ Order No. 845 at ¶ 468. Emphasis added.

¹⁹ The ISO-NE’s proposed revisions to section 3.3. include the following sentence: “Surplus Interconnection Service is not applicable when *a new Interconnection Request for Interconnection Service* or Network Upgrades would be required to implement the proposed change to the Original Interconnection Customer’s Facility.” (emphasis added)

ISO-NE’s proposed new section 3.3.1 provides, in relevant part:

Studies for Surplus Interconnection Service may consist of reactive power, short circuit/fault duty, stability analyses, and/or other appropriate studies. Steady-state (thermal/voltage) analyses may be performed as necessary to ensure that all required reliability conditions are studied. If the original Interconnection System Impact Study is not available for the Original Interconnection Customer’s Generating Facility, limited analysis may need to be performed associated with the request for Surplus Interconnection Service, which may include, but not be limited to, both off- peak and peak analyses, and/or reactive power, short circuit/fault duty, stability, and steady-state analyses, to confirm the Surplus Interconnection Service request can be accommodated without the need for additional upgrades *and a new Interconnection Request.* (emphasis added.)

Interconnection Customer and the Surplus Interconnection Customer cannot exceed the MW level of service stated in the GIA. The ISO-NE's misinterpretation leads to its conclusion that the addition of another generator under Surplus Interconnection Service increases the capability or capacity limit of the Interconnection Agreement, thus triggering a material change and requiring a new Interconnection Request. In other words, the ISO-NE proposal does not create a new process outside of the queue, as the Order requires, but instead continues to use an existing process to filter requests and inappropriately deem the addition of a new generator "material," without actually analyzing the impact of two generators operating under the MW constraints of the original GIA. The result is that the Commission's reform would have no effect; ISO-NE is essentially proposing to use the same review process after the Order as the one it was using before the Order.

1. The ISO-NE proposal ignores the Commission's determination regarding the technical standard for review of requests for Surplus Interconnection Service

The ISO-NE asserts that imposition of the material modification test is necessary to ensure that accommodation of a Surplus Interconnection request outside of the queue does not adversely affect the reliable operation of the system.²⁰ This ignores the fact that the Commission has already considered this issue and made a determination. Responding to similar concerns raised in the order on rehearing, the Commission said, "We clarify that, by definition, surplus interconnection service is only available up to the level that can be accommodated without requiring the construction of new network upgrades."²¹ With this requirement in place, the Commission declined to convene a technical conference or staff-led workshop on the reliability issues raised by Surplus Interconnection Service requests, on the grounds that "[t]his clarification

²⁰ ISO-NE Compliance filing, p.37

²¹ Order No. 845A at ¶ 138.

should address concerns regarding the potential impact [on system reliability] of differences in electrical characteristics.”²²

The language of the ISO-NE Proposal makes clear that the material modification review is *in addition to* the Order’s limitation regarding new network upgrades.²³ This suggests that the ISO-NE does not accept the Commission’s determination that the limitation regarding new network upgrades is sufficient to ensure system reliability. By adding a new and more restrictive standard to the review process, the ISO-NE is effectively displacing the Commission’s determination and establishing itself as the entity that will decide whether or not a request for Surplus Interconnection Service must go through the queue, in direct contradiction of both the language and the intent of the Order. We do not oppose the study or evaluation of Surplus Interconnection Service, nor do we dispute the need for an orderly process, but such an evaluation must be separate from ISO-NE’s queue process and must evaluate whether or not the addition of the new generator, maintaining the combined output at or below the level of the original GIA, *actually* results in a change that is electrically material. ISO-NE should provide a clear and detailed process for this evaluation outside of its interconnection queue process, including specifics about how a Surplus Interconnection Request will be studied.

²² Order No. 845A at ¶ 138.

²³ See ISO-NE’s proposed 3.3 “when a new Interconnection Request for Interconnection Service *or* Network Upgrades would be required...” (emphasis added), and ISO-NE’s proposed 3.3.1 “...without the need for additional upgrades *and* a new Interconnection Request.” (emphasis added).

2. Application of the material modification test undermines the purpose of the Order

i. ISO-NE inappropriately subjects Surplus Interconnection Requests to its material modification process, which is concerned with impacts on interconnection customers in the queue

The Commission was clear that any reliability concerns raised by a Surplus Interconnection Service request can be studied and addressed *without* impacting the queue process. In Order No. 845 it explained, “We clarify that the use or transfer of surplus interconnection service does not entail queue jumping because surplus interconnection service does not compete for the same potential network upgrades that may be at issue in the normal interconnection queue.”²⁴

In Order No. 845A the Commission observed:

...[S]urplus interconnection service cannot be granted if doing so would require new network upgrades. Accordingly, surplus interconnection service *should have no additional impacts* affecting the determination of what upgrades are necessary for interconnection customers that are already in the queue. Similarly, because surplus interconnection service will not be granted if it requires new network upgrades, *there should be no interim facilities that need to be considered contingent facilities* in the normal interconnection study process.²⁵

The Commission further noted:

...[S]urplus interconnection service will likely require new directly assignable interconnection facilities to connect the surplus interconnection service customer to the original interconnection customer’s interconnection facilities. However, interconnection facilities are always the sole cost responsibility of the relevant interconnection customer, so requiring more of those for a surplus interconnection request *will not impact others in the interconnection queue*.²⁶

²⁴ Order No. 845 at ¶ 487.

²⁵ Order No. 845-A at ¶ 135, emphasis added.

²⁶ Order No. 845A at Fn 283, emphasis added.

The material modification framework was not designed for the review of requests for Surplus Interconnection Service, but rather it was designed with reference to the queue and to resolve problems arising within it, while requests for Surplus Interconnection Service are, per the Commission's order, supposed to be processed outside of the queue. By adding its existing material modification test to the Surplus Interconnection Service review process, ISO-NE is effectively disagreeing with the Commission's conclusion that interconnection customers in the queue will not be impacted.

Footnote 108 includes a portion of paragraph 475 from Order No. 845 specifically stating that the intent of Surplus Interconnection Service is to allow an increase of the total generating capacity at the point of interconnection provided that the total combined output does not exceed the MW limit of the original GIA at that location. The ISO-NE inappropriately contradicts the intent of the Order, when it states in this footnote that "under the existing Material Modification provisions in New England, any request to increase the capabilities established in an Interconnection Agreement automatically triggers a new Interconnection Request even where a limiting device is proposed."

We agree that the Commission did not intend to nullify the concept of a test of the material impact with its Surplus Interconnection Service construct. But the Commission did not intend that any increase in the generating capacity with a Surplus Interconnection Request would result in a new Interconnection Request. In fact, the Commission did specifically allow for study of the Surplus Interconnection Request to determine that adding a new generator would not have a negative material impact on the grid or other interconnection customers beyond the rights already granted under the Original Interconnection Customers GIA. Footnote 116 indicates that the ISO-NE is planning to rely strictly on its existing material modification procedures used to

evaluate changes to interconnection requests in its queue. The ISO-NE's Material Modification criteria are too limited to allow for a reasonable evaluation of whether adding a new Surplus Interconnection generator would actually materially impact others on the grid.

In particular, the imposition of the requirement that any analysis must be completed within 10 business days shows a disregard for the distinction that the Commission sought to highlight between the queue and the Surplus Interconnection Service review process, because the 10-business-day rule is only concerned with the impact that an analysis could have on “the cost or timing of any Interconnection Studies or upgrades *associated with an Interconnection Request with a later queue priority date.*”²⁷²⁸ As previously noted, the Commission intended that the review of Surplus Interconnection Service requests could occur without affecting interconnection customers in the queue, and therefore there should be no need for the 10-business-day limit. This 10-business-day limit is not at all aligned with what other regional transmission organizations are contemplating for the appropriate review of a Surplus Interconnection Request. For instance, MISO's proposed compliance allows for 90 days to complete a study of a Surplus Interconnection Request,²⁹ while SPP “will use reasonable efforts to complete the study within 60 Calendar Days”³⁰ These examples show a reasonable amount of time to actually complete an analysis of the electrical impact of the addition of a Surplus Interconnection Customer to an existing point of interconnection. The ISO-NE's 10-business-day limit should be rejected by the Commission as inadequate to complete the kind of evaluation contemplated under Order 845.

²⁷ The ISO-NE states in its compliance filing that “a request to modify the existing Generating Facility by adding the Surplus Interconnection Service Customer's new device will be granted if no adverse impact can be confirmed by an analysis performed in less than 10 Business Days.” ISO-NE Compliance Filing, p.37.

²⁸ See ISO-NE LGIP at section.I.2.2 (defining Material Modification) emphasis added.

²⁹ “Transmission Provider shall use Reasonable Efforts to complete the study of the Surplus Interconnection Request within ninety (90) Calendar Days.” MISO Docket ER19-1823, Section 3.3.1.2.

³⁰Docket No. ER19-1954, SPP Transmittal Letter at Page 15.

ii. Unnecessarily placing requests for Surplus Interconnection Service in the queue defeats the Order’s central purpose of improving efficiency

The Commission was clear that an overarching purpose of the Surplus Interconnection Service reform is to ensure that existing interconnection capacity is used more efficiently. This purpose will be undermined to the extent that requests for Surplus Interconnection Service are unnecessarily placed into the queue due to their failure to pass the material modification test:

Because the necessary studies for surplus interconnection service shall confirm that the combination of the surplus interconnection customer’s generating facility with the original interconnection customer’s generating facility does not result in a need for new network upgrades, it would be inefficient to put surplus interconnection customers into the interconnection queue.³¹

iii. Imposition of the material modification test leads to outcomes that the Commission has identified as unjust and unreasonable

The Commission stated in Order No, 845 that “where proper precautions are taken to ensure system reliability, it would be unjust and unreasonable to deny an original interconnection customer the ability either to transfer or use for another resource surplus interconnection service.”³² Under the ISO-NE’s proposal, a Surplus Interconnection customer could potentially take “proper precautions to ensure system reliability” (such as the installation of a battery behind the inverter at an existing solar generating facility) but still fail to pass the material modification test if the analysis of its request could not be performed in less than 10 business days. As a result, the request for Surplus Interconnection Service would be denied – an outcome that the Commission has identified as unjust and unreasonable. ISO-NE’s proposed use of its existing

³¹ Order No. 845 at ¶ 487.

³² Order No. 845 at ¶ 471.

material modification process, including a limit of 10 days to perform an analysis, should be rejected by the Commission.

IV. CONCLUSION

WHEREFORE, Clean Energy Entities respectfully submit these comments for the Commission's consideration and urge the Commission to condition acceptance of ISO-NE's filing upon a compliance filing that resolves the substantial issues raised herein related to ISO-NE's proposed provisions for Surplus Interconnection Service, which do not meet the Commission's requirements under Order 845.

Respectfully submitted,

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Dated: June 26, 2019

APPENDIX

The Clean Energy Entities offer the following general comments in support of ISO-NE'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 Commission's Order 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.³³ 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

³³ See Order No. 845 at ¶¶236-242.

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.

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 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. ISO-NE's proposal for Surplus Interconnection Service unreasonably limits its application and does not allow for a reasonable

evaluation of a Surplus Interconnection request's impact on the grid, and thus the Commission should require an additional compliance filing to address the substantial issues raised in these comments.

D. Service Below Capacity

New technologies such as energy storage that can choose 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.