



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

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

**Comments on Notice of Proposed Rulemaking Regarding Improvements to
Generator Interconnection Procedures and Agreements**

*Submitted by The Alliance for Clean Energy New York
October 13, 2022*

I. Introduction

The Alliance for Clean Energy-New York (“ACE NY”) appreciates the opportunity to provide comments on the Federal Energy Regulatory Commission (“Commission”) Notice of Proposed Rulemaking (“NOPR”) in the above-captioned proceeding.¹ In the NOPR, the Commission has identified numerous aspects of current rules regarding generator interconnection procedures and agreements that are not just and reasonable. Alliance for Clean Energy New York submits these comments to assist the Commission in developing a final rule that adopts many of the reforms in the NOPR, with certain improvements identified herein.

ACE NY is a member-based organization with a mission of promoting the use of clean, renewable electricity technologies and energy efficiency in New York State to increase energy diversity and

¹ Improvements to Generator Interconnection Procedures and Agreements, Notice of Proposed Rulemaking, 179 FERC ¶ 61,194 (2022) (“NOPR”).

security, boost economic development, improve public health, and reduce air pollution. Our diverse membership includes companies engaged in the full range of clean energy technologies, but particularly developers of grid-scale renewable energy projects in New York State.

It has become clear to the members of ACE NY that the interconnection processes currently in effect across the country are severely deficient. This is certainly true for New York State, where the ability of the State to meet its clean energy goals is threatened by an interconnection process that is, quite simply, too slow. To be clear, the interconnection process was too slow in New York prior to the current increased need created by a large batch of renewable energy and transmission proposals, all geared at modernizing and decarbonizing the electric system of the New York Independent System Operator (“NYISO”). A change to a new approach is essential. This change must, among other things, increase the priority given by transmission providers – both the NYISO and transmission owners – to the interconnection processes and the interconnection requests that each transmission provider faces. ACE NY welcomes the FERC’s initiative to move forward with proposals that address the shortcomings of the current process and provide an impetus to improve, hopefully dramatically improve, the performance of interconnection processes and the entities that are charged with running them.

II. THE COMMISSION SHOULD ACT TO REFORM GENERATOR INTERCONNECTION PROCEDURES AND AGREEMENTS

a. **Cluster Study Process**

ACE NY agrees with the Commission’s findings that the cluster study process should be the required interconnection study method under the *pro forma* Large Generation Interconnection Procedure (“LGIP”) and supports the Commission’s proposal to eliminate the serial first-ready, first-served process and to replace it with a cluster study process.

With the increasing interconnection process backlogs in many areas and demand for new generation at all-time high levels, providing more certainty regarding cost and schedule for new

generation projects is more important than it has ever been, as is simply getting generation projects through the study process quicker. Cluster studies present the opportunity to provide these improvements. In addition to automation and more efficient processing of studies, incorporating cluster studies throughout the United States should enable the projects in the queue to reach construction and operation more quickly, and thus begin providing the benefits to the overall bulk electric system.

There are several reasons why the cluster study process is superior to the serial one:

- Reduction of the impact created by projects dropping out of the study cluster and the resulting re-studies;
- Reduction in resources needed to perform interconnection studies (both time and personnel);
- More consistency and repeatability in performing the studies and in study results, based on experience from areas where the cluster process has been successfully implemented including MISO, SPP, Public Service of Colorado and PacifiCorp.

ACE NY believes that the NYISO's current approach to the Facilities Study, in which a cluster study – called the “Class Year Study” - is used for the Facilities Study phase, is valuable as an alternative to the Commission's proposal to use a serial approach for the Facilities Study phase. At the end of the Class Year Study, the NYISO requires projects to post security in the entire amount of the estimated cost of interconnection upgrades. This approach to a security deposit ensures that no re-studies will be needed in the event a project later decides to withdraw from the queue. While the size of the security deposit can be higher than one experiences with some other approaches, the certainty it provides projects in terms of the elimination of the risk of re-studies makes it a superior approach. The Commission should allow independent entity variations in cases where the RTO/ISO can demonstrate that its process is superior to the Commission's proposal.

In recent years, the NYISO's Class Year Study has been slowed by its inclusion of some projects for which Points of Interconnection (POI) are not physically feasible. Sometimes this occurs because several nearby projects combine to create situations in which some, but not all, can be accommodated via feasible POIs. ACE NY supports a rule that would make the demonstration of a feasible POI a requirement for a project to move into the Facilities Study (Class Year Study)

phase of the process. This should be paired with a requirement that transmission owners (TO's) provide certain specified information regarding the POI earlier in the process, as discussed in more detail below on page 9.

Interconnection cost estimates are the key to the process and often drive the decision by a developer to move forward with a project or not. Accordingly, the Commission should require that interconnection cost estimates be provided at each stage of the process. Upon learning of its initial interconnection cost estimate, a developer should be allowed to exit the cluster study without penalty.

ACE NY encourages the Commission to establish the requirement to perform the cluster process going-forward and establish an appropriate transition process to ensure that projects already in the queue in areas with serial queues are not unduly harmed. In addition to the no-harm principle, we encourage the Commission to ensure that any future transition process does not delay the projected commercial operation date of existing and future interconnection requests. Additionally, the Commission should continue to consider additional changes, not only those already proposed by the recent Transmission Planning Notice of Proposed Rulemaking, but also to the participant funding process, to address the inefficiencies that continue to challenge the generation interconnection process.

b. Readiness Requirements

i. Increased Study Deposits

ACE NY supports the general Commission strategy of establishing strong entry requirements, accompanied by withdrawal penalties that become larger as a project moves through the phases of the process. It is important to provide a motivation for weak projects to withdraw relatively early in the process to lessen the number of projects that must be handled and to reduce the number of interactions among projects that must be studied and re-studied.

ACE NY supports the proposed schedule of Study Deposits except for the amount proposed to be due at the signing of a Large Generator Interconnection Agreement (“LGIA”). As described below, ACE NY supports a deposit at the end of the Facilities Study phase that is tied to the estimated cost of each project’s interconnection cost allocation. This deposit should be due upon completion of the Facilities Study phase and should not wait until the signing of a LGIA.

ACE NY believes that larger projects will not require significantly higher costs for studies and believes that the Commission’s proposed \$250,000 cap will be sufficient for the cost of the studies required for assessing the largest projects.

ii. Demonstration of Site Control

ACE NY supports the Commission’s proposal for 100% site control, with a caveat. ACE NY supports 100% site control for the site needed for the generation facility. 100% site control for a project’s switching station(s) or its generator lead lines should NOT be required. The NYISO currently requires 100% control of the site of the generation facility, and this requirement has proven to be reasonable.

Offshore wind projects, in particular, should not be required to have site control for the transmission lines they use. These lines can be part of an Order 1000 Public Policy Transmission Planning Process and can be subject to an extensive governmental approval process, neither of which typically would be far enough along to be made an early requirement in the interconnection process.

iii. Commercial Readiness/Commercially Viable/ Offtake Agreement

As a general rule, we support project readiness criteria at various stages of the interconnection process. In New York State, though, the inclusion of a requirement for an offtake agreement does not work.

As was implicitly acknowledged in the NOPR, commercial readiness, in the form of an offtake agreement for the output of a generator, is a matter that is not as relevant for facilities in RTOs/ISOs as it is for facilities that are in a bilateral market areas.² Given that New York generators operate in the NYISO, an offtake agreement should not be required at any phase of the process.

New York State does have a functional equivalent to an offtake agreement. It takes the form of a Renewable Energy Credit (“REC”) contract that renewable generators can obtain from the New York State Energy Research Authority (“NYSERDA”) by successfully competing in a NYSEDA solicitation process under New York’s Clean Energy Standard (“CES”) Program. A REC contract is substantially similar to an offtake agreement. Therefore, the possession of a NYSEDA REC contract could be considered sufficient evidence of project’s commercial readiness.

Despite the presence in New York of NYSEDA REC contracts, the interconnection process in New York should not make the possession of a NYSEDA REC contract a requirement for submitting an interconnection request (“IR”). In fact, a project in New York cannot possibly satisfy such a requirement because a prerequisite for participating in a NYSEDA REC solicitation is that a project has already submitted an IR to the NYISO and has already received a draft SRIS or SIS Study from the NYISO.³ Such a requirement is also problematic for subsequent phases of the cluster study process because of the near impossibility of a project obtaining a NYSEDA REC contract in time for its use in those phases. Therefore, we strongly object to an offtake agreement being requirement for submittal of an IR or for further phases of the interconnection process, given the procurement process in New York.

If there must be an additional readiness requirement ACE NY believes that other forms of evidence should be allowable as proof of commercial readiness, as suggested by the Commission, such as “a site specific purchase order for generating equipment specific to the interconnection request, or

² NOPR at Page 127.

³ 2022 NYSEDA RFP at Page 37. “The Proposer must have a valid, submitted interconnection request with NYISO or the Bid Facility’s interconnecting control area or utility and (1) have received a draft SRIS or SIS from the NYISO or a third party ...”

<https://portal.nyserda.ny.gov/servlet/servlet.FileDownload?file=00P8z000001lgeREAQ>

a statement signed by an officer or authorized agent of the interconnection customer attesting that the generating facility included is to be supplied with major electric generating components (such as wind turbines) with a manufacturer’s blanket purchase agreement to which the interconnection customer is a party.”⁴ These alternative forms of readiness are particularly important in New York because of the inability of projects in New York to obtain the equivalent of an offtake agreement in a timely manner.

Further, the deposit values for a lack of commercial readiness proposed by the Commission are too large. In fact, there should be no commercial readiness deposit requirement to enter the initial cluster. The deposit values for the second cluster and beyond should be limited to just two times the study deposit. For the final phases – the end of the Facilities Study and the signing of a LGIA, a deposit associated with commercial readiness should not add to the withdrawal penalty that would equal the estimated cost of each project’s interconnection upgrade costs, assuming that the Commission accepts ACE NY’s recommendation for deposits for the end of the Facilities Study (see ACE NY’s withdrawal penalties proposal below). Deposits tied to estimated interconnection costs will be sufficiently large to protect the process from the late-stage withdrawal of speculative projects.⁵ Were the Commission to reject that ACE NY proposal for deposits tied to estimated upgrade costs, the commercial readiness deposit for the LGIA phase should be five times the study cost (rather than the Commission’s proposed seven times).

c. Withdrawal Penalties

ACE NY supports the Commission’s overall approach to withdrawal penalties; the penalties for withdrawing early should be small, with penalties becoming larger as one gets deeper into the cluster study process. The Commission’s proposal to set the penalty for withdrawing at the end of the initial cluster should be lowered from one times the study cost to 0.5 times the study cost. It is at this point that the developer first obtains an estimate of its project’s interconnection costs.

⁴ NOPR at Page 137.

⁵ For the most recently completed NYISO Class Year Study, the 2019 Class Year Study, the average interconnection cost allocation for the 24 projects was over \$10 million per project, with only six projects having cost allocations that were less than \$1 million. Use this [link](#) to the NYISO notice showing these results.

Upon receiving such an estimate, a developer should be allowed to exit at little or no cost other than the cost of performing the study.

The withdrawal penalty of one times the study cost proposed by the Commission for each of the additional phases of a cluster study is reasonable. Such an approach appropriately creates a cascading cost to a project that ultimately withdraws because its payment of the study costs accumulate over time as it proceeds through the cluster phases.

The withdrawal penalty proposed by the Commission for a project that withdraws at the very end of the process is 9 times the study cost. ACE NY prefers the NYISO’s current approach of tying the penalty at that phase to the cost estimates of each project’s interconnection upgrades. These interconnection upgrade costs are obtained at the end of the Facilities Study phase (in the NYISO, at the end of the Class Year Study). To move forward to an interconnection agreement, a project must post security or a deposit equal to its interconnection cost estimate. This deposit is subject to forfeiture if the project fails to reach commercial operation. It therefore is a penalty for late withdrawal. The NYISO approach has the benefit of protecting all other projects in the cluster, and in future clusters, from withdrawal, and does so without the disruption of re-studies. This is because with the deposit set to equal the cost of each project’s interconnection upgrades, the late withdrawal of a project frees up the deposit money submitted by that project to be used to fund the building of those upgrades to the extent their construction has been relied upon by other projects in the interconnection process.

d. Affected System Studies

ACE NY agrees with the Commission’s findings that existing protocols for affected systems studies are unjust and unreasonable. ACE NY generally supports the Commission’s proposal to revise the *pro forma* LGIP to include an affected system study process. ACE NY agrees with the Commission’s proposal to reform the affected system process including the timing, costs, methodology, and modeling criteria via the *pro forma* agreement process. We offer the following recommendations, largely informed by the existing NYISO process.

ACE NY supports the Commission's finding that the in the current *pro forma*, the affected system operator is not bound by the terms of the host transmission provider's *pro forma* LGIP and is not required to meet any deadlines to complete the affected system study. This is extremely problematic, especially in the NYISO where this lack of coordination leaves projects vulnerable to significant impact and unreasonable timelines that obfuscate the ability to make business decisions. Therefore, ACE NY supports the creation of study timelines and FERC's proposed establishment of deadlines by which all upgrades to be assigned to projects must be identified, including costs. Specifically, no project should be assigned affected system costs after its Interconnection Agreement is executed and/or after the project has accepted its cost allocation in the Class Year process. In New York, this problem does not occur as regards other transmission owners within New York, but it has occurred when the affected system is PJM.

ACE NY supports FERC's finding that the current participant funding process is unjust and unreasonable. The current participant funding for affected system upgrades creates free riders in the affected system for upgrades paid by the project in the host transmission provider. To remedy this situation, ACE NY supports the Commission's proposed mechanism to eliminate participant funding and transition to a mechanism to reimburse the participant for the cost of affected system upgrades.

In the current process, affected systems may impose operating limits on projects without a clear methodology. ACE NY recommends FERC establish a clear methodology to avoid imposing unreasonable operating limits on projects. In the event operating limits are assigned due to reliability, there must be a clear methodology established.

ACE NY supports the Commission's findings that the use of different modeling standards in affected systems is unjust and unreasonable. ACE NY supports the Commission's proposal to require the transmission provider acting as the affected system to use standard ERIS modeling standards regardless of the required level of service of the host transmission provider's transmission system. Any upgrade required by an affected system should be calculated with the standard methodology established by the Commission.

d. Informational Interconnection Study and Public Interconnection Information

ACE NY supports, in concept, the Commission's proposal to institute an Informational Interconnection Study⁶ available to project developers prior to their filing an interconnection request (IR). The study that is proposed is similar to the NYISO's current Optional Feasibility Study. The main difference is that the NOPR's study occurs prior to an IR, whereas the NYISO's study occurs after an IR. The NOPR's approach is preferred because it will have the effect of screening out many projects, helping to reduce the number of projects that are in the interconnection queue without the need to have those projects go through the process of submitting an IR. This approach will also save developers from the effort of submitting IRs that then later need to be withdrawn.

We understand that some stakeholders may be concerned that implementation of the Informational Interconnection Study will take resources at an ISO that could be otherwise be dedicated to a more critical stage of the process, such as the cluster study. Our firm belief is that the interconnection process – and the current delays it is experiencing – is a critical societal issue that needs to be solved. If the best solution requires dedicating additional resources (both financial and human resources) then those resources should be allocated.

A deadline for completing the study is needed and the 45-day value in the NOPR is a good number. ACE NY members are concerned, however, that the NOPR's proposal for enforcing deadlines does not encompass the Informational Interconnection Study.⁷ Accordingly, the proposal for the Informational Interconnection Study should be supplemented with a requirement that RTOs/ISOs/CTOs must file quarterly reports showing data on the number of days it took to complete the Informational Interconnection Studies that were completed during that quarter. If, over time, it appears that these studies are taking more time than is appropriate, stricter enforcement of the 45-day deadline should be added.

⁶ NOPR at Page 42.

⁷ NOPR at Page 169.

In addition to the information listed in the NOPR, the Informational Interconnection Study should provide information about the feasibility of the project’s choice of a Point of Interconnection (POI), including information to assist the developer in choosing alternative POIs for that project. The failure of some projects to pin down physically feasible POIs has led to delays in the later phases of the NYISO’s current interconnection process.

An additional step should be added at the end of the process: an informational meeting between the developer, the ISO/RTO and the CTO to discuss the study results and respond to questions by the developer. The specific types of information should be left up to each RTO/ISO but should include information to provide visibility into the available space such as number of bays, a map of fence lines and property limits, any ongoing expansion plans, etc.

ACE NY also supports the concept behind the Commission’s proposal for Public Interconnection Information.⁸ TOs/RTOs/ISOs should be required to provide appropriate up-to-date databases that each developer and its consultants can use as a starting point to perform their own informational studies about the impacts of a project’s injections on system components. A database that enables the upfront creation by developers of such project specific information will help to reduce the clogging of the queue by reducing the number of IRs that the interconnection process must deal with.

e. Enforcing Study Duration Deadlines
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We applaud the Commission addressing the “reasonable efforts standard”. This standard has long been vague and lacking the structure to ensure that transmission providers are completing interconnection studies in a timely manner. The Commission’s review of the reported Order No. 845 metrics helps to corroborate the anecdotal experiences of interconnection customers throughout the nation and demonstrates the widespread failure to complete interconnection studies consistent with the timelines identified in the *pro forma* LGIP. It shows that over time the

⁸ NOPR at Page 49.

initial intentions of the reporting requirements of Order No. 845 have been muted by study delays becoming normalized as the expected result from “reasonable efforts”.

We also support the Commission’s preliminary conclusion that the reasonable effort standard has resulted in rates that are unjust and unreasonable. This standard only requires intentions from the transmission providers, therefore allowing a transmission provider to consistently not meet the timelines outlined in the *pro forma* LGIP and yet still never violate the reasonable efforts standard. This type of standard is not afforded to interconnection customers, who are most often given strict timelines for submitting applications and responding to decision points identified in studies (*e.g.*, accepting allocation for upgrade cost). As a result, transmission providers are currently held to a lower standard than the customers they are supposed to be serving.

With respect to the Commission’s proposal to include penalties, we are in support of three key aspects. First, we agree the penalty structure should incentivize the timely completion of studies while not being unnecessarily punitive. The penalty should be large enough to act as a proper incentive for transmission providers yet should not be so large or complex that it deters from it being enforced. In general, our members believed that \$500/day is not at all sufficient to motivate transmission providers to significantly improve the timeliness or efficiency of their interconnection processes, and this should be significantly higher. A more reasonable level would be at \$5000/day and a significantly higher level, such as \$25,000/day, for the largest clusters. Having a higher penalty for a larger cluster could be accomplished by using a per day/per customer approach, as discussed below. Secondly, it is important the penalties are returned to the affected customer. This ensures that a customer is appropriately compensated for any delays in the completion of studies. This would help offset any cost incurred by the interconnection customer due to the delay. Third, we support allowing ISO/RTOs the ability to collect from parties that contributed to the delays. This should include transmission owners, technical consultants, or other affected system operators. This is important since ISO/RTOs are often beholden to other parties (*e.g.*, transmission owners) providing data and completing aspects of studies in a timely manner. This will ensure that ISO/RTOs are not penalized for delays that are a result of other parties and will ensure the penalties are borne by all parties involved.

We recommend the Commission evaluate the following enhancements or clarifications to the current proposal to eliminate the reasonable efforts standard in the *pro forma* LGIP. First, we recommend the Commission adopt a penalty that is based on a “per day per customer” metric. This would ensure the penalty is commensurate with both length of delay and the number of customers that are affected. This will also ensure a greater incentive to complete cluster studies that impact numerous customers. This would also incentivize for delays to not be perpetuated since the penalty will grow over time. There should be no cap on the cumulative penalty to ensure that a very late study never enters an environment in which the motivation of penalties gets turned off. This meets the need to make sure that there is always a marginal incentive in effect.

Secondly, we recommend the proposal go into effect following the completion of a transitional cycle rather than the completion of the first cluster cycle. We are concerned that if the penalty is not implemented until after both the transitional cycle and the first cluster study are completed, the delays observed under the reasonable effort standard could perpetuate for years to come. If the Commission has concerns with the penalty being included in the first cluster study, we recommend the Commission modify (*i.e.*, reduce) the penalty structure for the first cycle rather than delay its deployment. This would provide a balance between incentivizing transmission providers to start meeting the required timelines under the first cluster study while still not being overly punitive with the first new cycle.

Third, the Commission would need to verify if failure to meet the *pro forma* LGIP timelines would constitute a tariff violation for the transmission provider or if it would only result in the proposed penalties. This is of specific importance with regards to ISO/RTOs since many currently have strong incentive structures surrounding tariff compliance. Therefore, if this is deemed a tariff violation it could result in not only penalties but also impacts to executive and staff compensation.

Fourth, the Commission will need to ensure that the timelines and expectations of transmission providers are clear. The Commission should be judicious when identifying any exceptions that would place studies on “hold” or prevent penalties. The final proposal should ensure that transmission providers are required to have upfront and timely review of information responses

with interconnection customers to ensure that any “holds” that occur in the study process are justified. This has been observed in jurisdictions that already have penalty mechanisms where transmission providers have extensive exceptions that allow them to circumvent penalties or to place studies on hold due to a preventable shortfall that could have been resolved prior to the start of the study.

Fifth, to the extent that penalties are deemed insufficient or unworkable, we propose that positive financial incentives for excellent performance be explored. Ideally, a plan that includes both positive financial rewards for success and penalties for unfavorable outcomes should be implemented.

In conclusion, we are supportive of the Commission's proposal to revise the *pro forma* LGIP by eliminating the reasonable efforts standard and imposing firm study deadlines and penalties for failing to meet those deadlines. This reform is essential in ensuring the other interconnection process improvements the Commission is proposing are effective in reducing backlogs and decrease time for interconnection. Without this reform, all other process improvements will be limited by the reasonable efforts of transmission providers that have shown to be ineffective.

f. Modeling Assumptions That Reflect Operational Expectations
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ACE NY agrees with the Commission’s preliminary finding that “as newer technologies with operating parameters that differ from traditional generation seek to interconnect, we preliminarily find that it is necessary for transmission providers to use assumptions that accurately reflect the operating parameters of electric storage resources and co-located resources containing electric storage resources (including hybrid resources), so that the unique operating characteristics of such resources are taken into account during the generator interconnection process.”⁹ We also support the Commission’s proposal “to revise the *pro forma* LGIP to require transmission providers, at the

⁹ NOPR at Page 279.

request of the interconnection customer, to use operating assumptions for interconnection studies that reflect the proposed operation of an electric storage resource or co-located resource containing an electric storage resource (including hybrid resources) – *i.e.*, whether the interconnecting resource will or will not charge during peak load conditions, unless good utility practice, including applicable reliability standards, otherwise require the use of different operating assumptions.”¹⁰

The proposal makes eminent sense. It is well known that energy storage resources have an operating pattern that does not include charging during peak load conditions. While the prior interconnection practices may have made sense for the technologies that were then prevalent, energy storage resources and hybrid resources are new technologies and configurations that do not, and should not, be forced to fit into assumptions that did not contemplate their existence. It is proper and beneficial to make the change proposed by the Commission to reflect the realities of modern electric technologies.

III. CONCLUSION

As described in the above discussion and based on both concern with interconnection delays and experience in the NYISO region, ACE NY strongly supports the Commission’s proposals. They need to be implemented. As described above, there are some aspects that can be implemented as proposed, some that can be improved, and some that need to be adapted to reflect the circumstances of New York. ACE NY stands ready to continue to work with the Commission, other stakeholders and the NYISO to make these processes as successful as possible.

Respectfully submitted,

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¹⁰ NOPR at Page 280.