UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

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

REPLY COMMENTS OF THE NEW ENGLAND STATES COMMITTEE ON ELECTRICITY

Pursuant to the Notice of Proposed Rulemaking issued by the Federal Energy Regulatory Commission ("Commission" or "FERC") on June 16, 2022,[1] and the Commission's October 28, 2022 Notice on Request for Extension of Time, the New England States Committee on Electricity ("NESCOE") files reply comments on the Commission's proposed reforms to its *pro forma* Large Generator Interconnection Procedures ("LGIP") and *pro forma* Large Generator Interconnection Agreement ("LGIA") to address interconnection queue backlogs, improve certainty, and prevent undue discrimination for new technologies. NESCOE filed comments on the NOPR on October 13, 2022.[2]

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

[2] Initial Comments of the New England States Committee on Electricity, Docket No. RM22-14-000 (filed Oct. 13, 2022) ("NESCOE Initial Comments"). Given NESCOE's role as regional state committee in New England where ISO New England Inc. ("ISO-NE") is a transmission provider, NESCOE's perspective is primarily focused on regional transmission organizations ("RTOs")/independent system operators ("ISOs").

I. REPLY COMMENTS

A. Reforms to Implement a First-Ready, First-Served Cluster Study Process

1. NESCOE Generally Supports the Concept of Increasing Interconnection Information Access, But the Commission Should Afford Transmission Providers Sufficient Flexibility to Ensure They Are Not Overburdened and that Ratepayers, in Turn, Do Not Pay Excessive Costs.

The Commission proposes to revise the *pro forma* LGIP to require transmission providers to offer an informational interconnection study and to publicly post certain information pertaining to generator interconnection to serve as an additional resource for prospective interconnection customers in deciding whether to submit a request.[3] NESCOE agrees with the proposal's objective: to reduce the multiple speculative interconnection requests that end up being submitted by potential interconnection customers that lack information to assess the viability of a specific proposed generating facility.[4] As Vistra Corp. ("Vistra") explains, "[o]btaining exclusive development rights is time-consuming, costly, and potentially disruptive to the local community and should thus only be done when there is a realistic chance the project will reach commercial operation. The information provided through the proposed information access reforms should allow project developers to focus on the most viable interconnection sites."[5]

At the same time, it is important not to overburden transmission providers with so many new obligations that it becomes just as cumbersome to efficiently process requests as it is under current procedures. NESCOE recognizes that the "proposed informational interconnection

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[3] NOPR at PP 42, 51.

[4] *Id*. at P 40.

[5] Comments of Vistra Corp., Docket No. RM22-14-000 (filed Oct. 13, 2022) ("Vistra Initial Comments"), at 4.

studies are, by definition, outside the queue study process and thereby create an increased administrative burden on transmission providers that are already overwhelmed with interconnection-related studies and data requests."[6] Accordingly, the Commission should take care not to create "unintended consequences that could further delay transmission providers' ability to process interconnection requests."[7]

On balance, NESCOE believes that providing potential interconnection customers with additional information is more likely than not to reduce speculative requests. However, achieving that balance requires the Commission to allow for flexibility in its final rule. For example, ISO-NE indicates that 45 days would be too short of a timeframe to provide the optional informational studies that the Commission proposes.[8] ISO-NE also requests that the Commission clarify that transmission providers may limit the total number of information studies that they would be obligated to undertake at the same time.[9] The Commission should weigh these concerns seriously. If transmission providers are overburdened, this would affect the efficient processing of the interconnection queue. In addition, to protect ratepayers from charges related to analyses performed at the request of interconnection customers, the Commission should allow transmission providers to assign the costs associated with the extra work of conducting informational studies to interconnection customers. To accommodate the needs of both transmission providers and interconnection customers—and ultimately ratepayers—the

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6 Initial Comments of the Organization of MISO States, Inc. [("OMS")], Docket No. RM22-14-000 (filed Oct. 13, 2022) ("OMS Initial Comments"), at 5.

7 *Id*.

8 Initial Comments of ISO New England Inc., Docket No. RM22-14-000 (filed Oct. 13, 2022) ("ISO-NE Initial Comments"), at 19.

9 *Id*.

Commission should ensure that a final rule is not overly prescriptive so that it can account for regional needs.

2. A Final Rule Should Afford Regional Flexibility in Developing the Details of Cluster Study Processes.

NESCOE's initial comments expressed general support for the NOPR's proposal to move towards a first-ready, first-served cluster process.[10] ISO-NE provides useful context with its explanation that it implements a serial queue based on system areas, so that studies for projects in regions without an existing cluster process (*e.g.*, Vermont or Connecticut) may proceed simultaneously with studies for projects in Maine where ISO-NE has implemented cluster studies.[11] In light of these procedures, ISO-NE advocates sensibly for flexibility on how to structure cluster studies in the region.[12]

Others in New England also voice support for the need for regional flexibility. NESCOE agrees with the New England Power Pool's ("NEPOOL") suggestion that "[i]f a cluster process were to be used for all Interconnection Requests, ISO/RTOs should have flexibility to determine whether to conduct the process on a regional basis with a single cluster or on a sub-regional basis with multiple clusters. If multiple clusters, then the region should be allowed to determine whether multiple cluster processes are conducted simultaneously or on a staggered schedule."[13] The American Clean Power Association and RENEW Northeast (jointly, "Clean Energy Associations") also point to the existing construct in New England in urging the Commission to

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[10] NESCOE Initial Comments at 9.

[11] ISO-NE Initial Comments at 21.

[12] *Id*.

[13] Initial Comments of the New England Power Pool Participants Committee, Docket No. RM22-14-000 (filed Oct. 13, 2022), at 14.

allow for flexibility so that the RTOs/ISOs can evaluate subclusters if they deem it more efficient.[14] NESCOE echoes the requests for sufficient flexibility in a final rule so that RTOs/ISOs can work with those in their regions to develop cluster processes—including exceptions to those processes as appropriate—that are workable and reflect distinct regional needs, practices, and preferences.

3. The Commission Should Not Prescribe the Massachusetts Capital Investment Project Process as a Means of Allocating Network Upgrade Costs Among Clusters.

The Commission proposes to revise its *pro forma* LGIP and *pro forma* LGIA to require sharing of network upgrade costs and describes very detailed and specific proposals.[15] In response, Eversource Energy Service Company ("Eversource") suggests that the cost allocation proposals submitted by the company as part of Massachusetts' capital investment project provisional framework ("Provisional Framework") would serve as a desirable model for cost sharing between earlier and later clusters.[16] As Eversource notes, the straw proposal[17] set forth by the MA DPU for the cost allocation in the Provisional Framework determines a per megawatt ("MW") fee "for certain upgrades, giving current and future interconnecting customers more cost

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[14] Comments of the American Clean Power Association and RENEW Northeast on Notice of Proposed Rulemaking, Docket No. RM22-14-000 (filed Oct. 13, 2022) ("Clean Energy Associations Comments"), at 20.

[15] NOPR at P 98.

[16] Comments of Eversource Energy Service Company, Docket No. RM22-14-000 (filed Oct. 13, 2022) ("Eversource Initial Comments"), at 15 (citing *Provisional System Planning Program Guide*, Mass DPU Docket No. 22-47, at https://www.mass.gov/guides/provisional-system-planning-program-guide).

[17] In opening an inquiry into electric distribution companies' distributed energy resource ("DER") planning and the assignment and recovery of costs related to the interconnection of distributed generation ("DG"), the Massachusetts Department of Public Utilities ("MA DPU") issued a straw proposal that outlined DER planning requirements, a modified cost allocation methodology for both interconnecting customers and ratepayers, and possible common system modification fee structures for different types of facilities. *Distributed Energy Resource Planning and Cost Assignment*, Mass DPU Docket No. 20-75, Attachment A (2020).

certainty."[18] Under the Provisional Framework, Massachusetts ratepayers would fund the initial construction of any proposed electric power system upgrades.[19] Ratepayers would then potentially be reimbursed over time from fees charged to future DG facilities that are able to interconnect due to the prior upgrades.[20] Eversource contends that the Provisional Framework's approach to cost allocation would reduce or solve "the problem of a cluster entering a death spiral as one member after another withdraws," because the costs for the remaining members do not increase.[21] Accordingly, Eversource urges the Commission to "strongly consider a similar approach in any future proposals addressing cost allocation."[22]

NESCOE generally supports the concept of cost sharing of network upgrades between earlier and later interconnecting customers[23] and appreciates the benefit of more cost certainty for current and future interconnecting customers. However, NESCOE disagrees that the Commission should look to the Provisional Framework, or any other similar proposal, as a model for a uniform cost allocation rule. The MA DPU has yet to rule on Eversource's (or any other

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[18] Eversource Initial Comments at 15.

[19] *Joint Testimony of Diguanto Chatterjee, Lavelle A. Freeman, Juan F. Martinez and Gerhard Walker*, Mass DPU Docket No. 22-47 (Apr. 15, 2022) at 15, at https://fileservice.eea.comacloud.net/FileService.Api/file/FileRoom/14819617 ("Under the Straw Proposal, a Distribution Company would submit a [capital investment project ("CIP")] for Department review and approval, and if approved, would construct the CIP and recover the costs of construction from distribution customers via a new Reconciling Charge. Under the Eversource proposal, all incurred costs of Distribution upgrades will initially be included in the reconciling charge."); *see also Provisional System Planning Program Guide*, Mass DPU Docket No. 22-47, at https://www.mass.gov/guides/provisional-system-planning-program-guide.

[20] *Provisional System Planning Program Guide*, Mass DPU Docket No. 22-47, at https://www.mass.gov/guides/provisional-system-planning-program-guide.

[21] Eversource Initial Comments at 15.

[22] *Id*.

[23] *See* NESCOE Initial Comments at 9-11.

company's) capital investment project filing.[24] While some design aspects of the Provisional Framework, or any similar framework, may warrant future consideration by the Commission or transmission providers in consultation with states and stakeholders, NESCOE emphasizes, as it did in initial comments, the distinct approach that New England has taken to interconnection-related network upgrade costs borne out of "a fair and equitable balancing of [load and generator] interests."[25] NESCOE respectfully asks the Commission not to impose a one-size-fits-all approach to the sharing of network upgrade costs that would disrupt New England's long-time construct. Here too, flexibility in a final rule is critical.

4. Thoughtfully Designed Increased Financial Commitments and Readiness Requirements Should Help Reduce Speculative Interconnection Requests.

The Commission proposes several new requirements to address its concern that existing rules allow interconnection customers to continue to submit multiple speculative interconnection requests and subsequently withdraw those requests, trigging a cascading effect of re-studies.[26] The proposals are designed to "discourage speculative interconnection requests and allow transmission providers to focus on processing viable interconnection requests and to better approximate the cost of the interconnection study process."[27] Specifically, the NOPR proposes

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[24] *See, e.g.*, *Marion-Fairhaven Capital Investment Project Proposal*, Mass DPU Docket No. 22-47, at https://eeaonline.eea.state.ma.us/DPU/Fileroom/dockets/bynumber/22-47.

[25] NESCOE Initial Comments at 4 (quoting Comments and Protest of the New England Power Pool Participants Committee, Docket No. EL18-31-000 (filed Dec. 6, 2017), at 3-4).

[26] NOPR at P 102.

[27] *Id*. at P 103.

reforms pertaining to "(1) increased study deposits, (2) demonstration of site control, (3) commercial readiness, and (4) withdrawal penalties."[28]

NESCOE explained that it generally supports more stringent demonstrations of financial commitment and commercial readiness to help weed out speculative projects, but noted that it anticipated commenters might point out potential unintended consequences.[29] In particular, NESCOE expressed concern about the potential for such financial commitment and commercial readiness requirements to be so stringent that they have the unintended consequence of narrowing the scope of resources that wish to participate in RTO/ISO markets, which in turn could diminish the benefits customers receive from competition.[30]

The proposed commercial readiness requirement—if allowed to be carefully tailored to the needs of each region—should serve as an important protection against speculation in the interconnection queue. Having reviewed the comments of ISO-NE, transmission providers/owners, developers and others, NESCOE believes that the Commission should pursue these types of reforms, but that the Commission should allow regional flexibility so that transmission providers can work with states and others in their regions to design the details of these reforms. NESCOE is sympathetic to arguments that commercial readiness may be difficult to demonstrate in certain circumstances where a developer does not yet have the certainty of an interconnection agreement—in particular, it may be difficult to obtain an executed power

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[28] *Id*.

[29] NESCOE Initial Comments at 13.

[30] *Id*.

purchase contract without knowing the network upgrade and interconnection costs.[31] NESCOE remains concerned that a potential unintended consequence of the Commission's proposed reforms is the likely exclusion of non-contracted resources.[32] NESCOE is confident that, in our region, ISO-NE can work with states, developers, and others to fashion viable and balanced solutions. A final rule should promote this cooperative approach.

The Commission proposes to allow interconnection customers the option to submit a "Commercial Readiness Deposit" in lieu of demonstrating commercial readiness.[33] As with the requirements to demonstrate commercial readiness, NESCOE believes the availability of such a deposit should be part of the collaborative regional discussion. However, NESCOE disagrees that requiring study deposits in lieu of other demonstrations of commercial readiness would inherently be unduly discriminatory.[34] Rather, it may be a necessary tool if no other means of demonstrating commercial readiness are available.

NESCOE concurs with ISO-NE's conclusion on the proposed reforms to study deposits. ISO-NE expresses support for the proposal for study deposit amounts at each stage of the process "as a reasonable method for ensuring funds are available to conduct studies as needed and to

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31 *See, e.g.*, Comments of EDF Renewables, Inc., Docket No. RM22-14-000 (filed Oct. 13, 2022) ("EDF Renewables Initial Comments"), at 5-6 (arguing that a Power Purchase Agreement ("PPA") should not be required to demonstrate commercial readiness because "[t]he interconnection customer has little or no control over many of the factors that determine when a PPA can be executed. It is commercially impracticable for a project to be marketable before knowing its network upgrade and interconnection facilities costs. Such costs will directly impact PPA pricing.").

32 NESCOE Initial Comments at 13.

33 NOPR at P 132.

34 Vistra Initial Comments at 6-7 ("The opportunity to provide a deposit in lieu of the demonstration of commercial readiness does not cure the potential for undue discrimination. The deposit, particularly in light of the increased withdrawal penalties, will make merchant projects less competitive by raising up-front costs and increasing risk. If the Commission believes it needs additional requirements to avoid speculative projects, it should allow an interconnection customer to demonstrate commercial readiness through a pending permit application with meaningful progress.").

ensure the most viable projects proceed through the queue," but advocates that the Commission extend flexibility for regions to determine the required study deposit amounts.[35]

For the reasons discussed above, NESCOE respectfully asks the Commission to retain the commercial readiness requirement in a final rule but to have a more flexible approach than what is described in the NOPR to ensure that the final requirement does not create a barrier to certain resources.

5. The Commission Should Allow for Flexibility in Developing a Transition Process.

NESCOE agrees with ISO-NE that "a transition proposal is warranted, but the Commission should provide flexibility for each region to establish a transition that accounts for regional variations in existing interconnection constructs."[36] Imposing overly onerous requirements on existing projects in the queue could have a negative impact on the RTO's/ISO's ability to process existing requests, and could unfairly burden existing projects that have moved along in the process under the existing rules and procedures.[37] Allowing regions flexibility, as ISO-NE suggests, would enable transmission providers to work with developers, both those with existing projects and those without, and other stakeholders in shaping a balanced approach to the transition.

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35 ISO-NE Initial Comments at 28.

36 *Id*.

37 *See, e.g.*, EDF Renewables Initial Comments at 8-9 (proposed requirements that late-stage customers must "provide a deposit equal to 100% of the interconnection facility and network upgrade costs allocated to the interconnection customer in the system impact study report" and must "provide evidence of exclusive site control and to demonstrate commercial readiness through one of three methods that does not include an additional refundable deposit" "are well intentioned but unduly burdensome.").

B. Reforms to Increase Speed of Interconnection Queue Processing

1. The Commission Must Ensure That Any Penalties Incurred by RTOs/ISOs Are Not Passed on to Ratepayers.

NESCOE strongly agrees with commenters that urge the Commission not to allow RTOs/ISOs to pass through to ratepayers the costs of penalties incurred as a result of missing study deadlines. While well intentioned, the Commission's proposal to eliminate the reasonable efforts standard in RTO/ISO regions, if adopted, could create a quagmire of complications, with the negatives potentially outweighing any benefits. First and foremost, it is essential that the Commission expressly bar pass-through—direct or effective—to ratepayers of interconnection study delay penalties imposed on RTOs/ISOs.[38] NESCOE agrees with PJM's regional state committee: "In no case should the penalties be passed down to ratepayers, either directly or indirectly."[39]

NESCOE also agrees that imposing a penalty on an RTO/ISO for missing deadlines may not be an effective measure of addressing the actual source of delays, if the information needed or tasks to be completed comes from the transmission owners instead. In New England, ISO-NE shares responsibility for conducting interconnection studies with the relevant participating transmission owner.[40] Indeed, "in most RTO/ISO regions, the overwhelming majority of the necessary studies are performed by the Transmission Owner to whose facilities a generator or

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[38] *See* Comments of the Transmission Access Policy Study Group [("TAPS")], Docket No. RM22-14-000 (filed Oct. 13, 2022) ("TAPS Initial Comments"), at 5-7.

[39] Initial Comments of the Organization of PJM States, Inc., Docket No. RM22-14-000 (filed Oct. 13, 2022), at 9.

[40] ISO-NE Initial Comments at 35.

group of generators will connect."[41] This underscores the importance of affording RTOs/ISOs an opportunity to explain the cause of a delay, as NESCOE explained.[42]

NESCOE does not agree, however, with the ISO/RTO Council that "[a]s revenue-neutral parties, RTOs/ISOs will necessarily need to pass through the costs of any penalties imposed to customers."[43] It is not a foregone legal certainty that such costs must be passed through.[44] As TAPS explains:

> That the Commission has previously allowed the pass-through of NERC reliability penalties to RTO ratepayers does not justify doing so here. NERC penalties, reviewed by the Commission, are an express and integral part of the regimen established by Congress in Federal Power Act ("FPA") section 215. No similar Congressional penalty directive applies to queue management penalties. Moreover, for NERC penalties, the money collected from RTO ratepayers is used to offset the costs of operation of NERC or the relevant Regional Entity, which in turn benefits ratepayers by reducing the NERC/Regional Entity costs that they must pay. In contrast, the NOPR's proposed study delay penalties will be remitted to specific interconnection customers, which may have no commitment to use these payment[s] to offset costs to any consumers, much less ratepayers bearing those costs.[45]

A primary purpose of a penalty is to incentivize compliance with a rule, in this case, "to incent transmission providers to comply with study deadlines, without being unnecessarily

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41 Initial Comments of the ISO/RTO Council, Docket No. RM22-14-000 (filed Oct. 13, 2022) ("ISO/RTO Council Initial Comments"), at 3.

42 NESCOE Initial Comments at 16-17.

43 ISO/RTO Council Initial Comments at 3.

44 Critically, in providing guidance on how to handle reliability penalties incurred by RTOs/ISOs, the Commission determined to "not allow RTOs and ISOs to adopt tariff mechanisms that provide automatic recovery of penalties incurred for Reliability Standard violations and will instead require that proposals to recover any such penalties be filed case-by-case." *Reliability Standard Compliance and Enforcement in Regions with Regional Transmission Organizations or Independent System Operators*, Order Providing Guidance on Recovery of Reliability Penalty Costs by Regional Transmission Organizations and Independent System Operators, 122 FERC ¶ 61,247, P 16 (2008).

45 TAPS Initial Comments at 5.

punitive."[46] If RTOs/ISOs are permitted to pass through the costs of penalties to their ratepayers, the penalties will not serve the function of incentivizing compliance.

NESCOE strongly agrees with TAPS that if the Commission does impose penalties on RTOs/ISOs, the money should not be returned to interconnection customers. This would create a perverse incentive for interconnection customers to cause a delay that would in effect benefit them and create an even larger cost imposed on ratepayers, without any cost causation correlation.[47] While the Commission suggests that RTOs/ISOs could make FPA section 205 filings to assign the penalties,[48] given the complexities involved, the Commission should consider the ISO/RTO Council's comments that attempting to assign responsibility for the delay could itself be time consuming and drain valuable resources that could be better spent on simply trying to complete the needed studies.[49] OMS provided a similar assessment that "enforcement of the study deadlines will be expensive, disruptive to ongoing studies, and likely result in contentious disputes."[50] Thus, a potential unintended consequence of the Commission's proposal is that "the introduction of penalties could lead to artificially faster study completion enabled by lower levels of study quality."[51]

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46 NOPR at P 169.

47 *See* Motion to Intervene and Comments of the National Association of Regulatory Utility Commissioners [("NARUC")], Docket No. RM22-14-000 (filed Oct. 13, 2022) ("NARUC Initial Comments"), at 18 (questioning whether the action of an RTO/ISO spreading the cost of the penalty across its membership would be consistent with cost causation).

48 NOPR at P 172.

49 *See* ISO/RTO Council Initial Comments at 6 ("Ultimately the cause of delays often are not straightforward and assessing them accurately risks consuming engineer time that is better focused on continuing to manage and expedite interconnection requests.").

50 OMS Initial Comments at 15.

51 *Id*.

While transmissions providers and RTOs/ISOs need to be held accountable for missing deadlines, the record in this proceeding demonstrates that the mechanism for accountability raises complex issues that need to be better understood. NESCOE supports NARUC's recommendation "that a technical conference be held prior to any penalty structure becoming effective, allowing transmission providers to publicly discuss lessons learned associated with the new process and to refine the process, as appropriate."[52]

Additionally, NESCOE supports the request made by the Clean Energy Associations that the Commission "require tracking and regular reporting of actual time and cost of constructing interconnection facilities and network upgrades compared with the estimates in the interconnection studies throughout the process. This actual time and cost information, which is not presently made publicly available, will improve transparency and developer expectations. It may also identify areas in need of greater focus or resources."[53] Having this information available to states and stakeholders, along with experience in implementing the other reforms stemming from this rulemaking, will better inform how to best reform the lack of any enforceable deadlines under the existing reasonable efforts standard without harming consumers.

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[52] *Id*. at 15; *see also* ISO/RTO Council Initial Comments at 9 (requesting Commission workshops).

[53] Clean Energy Associations Comments at 47.

2. A Final Rule Should Afford Transmission Providers Sufficient Flexibility to Design Optional Resource Solicitation Studies to Ensure They Are Not Duplicative of Optional Informational Studies.

A number of commenters oppose the Commission's proposal[54] to require transmission providers to afford resource planning entities, including states, an opportunity to initiate an optional resource solicitation study.[55]

NESCOE continues to support the concept of the optional resource solicitation study. Such a study can serve as an important tool for New England states, where state laws and associated procurement processes play a significant role in enabling states to meet their renewable energy mandates and goals.[56] To address concerns that these studies could be burdensome and/or duplicative of the optional informational studies, the Commission should provide transmission providers flexibility to define what works best for their regions. NESCOE strongly supports ISO-NE's request that the Commission "allow regional flexibility in determining the structure for these studies to ensure the[y] meet the needs of different Resource Planning Entities."[57]

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54 NOPR at P 223.

55 *See e.g.*, Vistra Initial Comments at 12 ("the optional Resource Solicitation Study appears largely duplicative of the Interconnection Information Access reforms"); Comments of the National Rural Electric Cooperative Association, Docket No. RM22-14-000 (filed Oct. 13, 2022), at 42 ("the optional informational interconnection studies and optional resource solicitation studies as the NOPR proposes would be duplicative and unduly burdensome for some smaller transmission providers and would add costs for transmission customers as a whole").

56 NESCOE Initial Comments at 17-18.

57 ISO-NE Initial Comments at 38.

C. Reforms to Incorporate Technological Advancements into the Interconnection Process

1. The Commission Should Require Transmission Providers to Improve Modeling of Energy Storage Resources, While Allowing for Flexibility to Determine the Precise Parameters Along with Provisions in the LGIA to Ensure No Adverse Reliability Impacts.

The Commission proposes to revise the *pro forma* LGIP "to require transmission providers, at the 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."[58] This proposal garnered comments both in support and in opposition.

ISO-NE, for example, expresses strong disagreement with this proposal, arguing that "[i]mplementing the potential myriad bespoke operating approaches is not expected to be implementable in system and market operations and should therefore be rejected."[59] ISO-NE suggests instead that the Commission address concerns related to interconnection of storage devices through a new proceeding and the potential establishment of a new category of interconnection service for the charging mode of storage devices.[60] On the other hand, those representing storage resources not only express support for the proposal, but urge the Commission to take it one step farther. For example, the Clean Energy Associations strongly

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58 NOPR at P 280.

59 ISO-NE Initial Comments at 40.

60 *Id*.

urge the Commission to adopt the proposal that transmission providers be required to "use assumptions accurately reflecting 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."[61] The Clean Energy Associations go on to urge the Commission to "specify that transmission providers should…not study electric storage resources as 100% *injecting* energy during *low* load periods by default."[62]

Although NESCOE recognizes the complexities that are likely involved in modeling energy storage resources, it disagrees with ISO-NE's request that the Commission not proceed with this proposal. Energy storage resources have the potential to contribute to system reliability and enhance market competition in New England. These resources will also be vital in achieving New England's clean energy goals. Three of the New England states have enacted legislation setting forth targets for the amounts of energy storage to be implemented over the coming years.[63] Yet to date, there has not been a robust regional stakeholder process in New England addressing the modeling assumptions that should be used for interconnecting energy storage resources. NESCOE encourages the Commission to include in a final rule a requirement that transmission providers develop modeling assumptions for energy storage resources seeking to interconnect (or demonstrate that existing modeling assumptions exist and are consistent with or

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61 Clean Energy Associations Comments at 52.

62 *Id*. at 53 (emphasis in original).

63 Massachusetts Session Laws, An Act to Advance Clean Energy, Chapter 227 of the Acts of 2018, Section 20 (establishing a 1,000 MWh energy storage target to be achieved by December 31, 2025); An Act Concerning Energy Storage, Connecticut Public Act 21-53 (setting energy storage deployment goal of 1,000 MW by 2030); An Act to Advance Energy Storage in Maine, L.D. 528 (setting energy storage targets of 300 MW by 2025 and 400 MW by 2030).

superior to the guiding principles in a final rule). The best way to accomplish this is a final rule that requires transmission providers to work with the relevant states, transmission owners, storage developers, and stakeholders in their region on developing modeling assumptions that are reasonable, realistic, and ensure the ability to interconnect is offered on a non-discriminatory basis.

NESCOE agrees with NARUC that interconnection studies that model energy storage resources should reflect "reasonable and realistic operating assumptions."[64] As NARUC explains, "[f]ailure to do so may result in overestimated impact on the transmission system that can result in excessive and unnecessary network upgrades that may hinder development of new generation, resulting in unjust and unreasonable rates."[65] NESCOE also agrees that study parameters which assume energy storage devices will withdraw energy during peak demand ignore that such resources can actually be responsive to price signals from transmission providers and inject electricity during peak demand conditions. Similarly, during low-load conditions, storage devices have the ability to withdraw from the grid. As NARUC explains, "[r]equiring that interconnecting resources – particularly energy storage resources – be modeled using similar worst-case operating assumptions ignores the real-time attributes and benefits of these technologies."[66]

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64 NARUC Initial Comments at 36.

65 *Id*. at 36-37.

66 *Id*. at 37.

NESCOE also recognizes the warnings of transmission providers about the potential reliability impacts that could result from storage resources operating outside of the parameters studied in terms of high-demand or low-load conditions.[67] A final rule should ensure that transmission providers have the ability to include in their LGIAs provisions that would hold energy storage resources to performance commitments that correspond to operating assumptions presented to the transmission providers and subsequently modeled. Such provisions may not lend themselves readily to a one-size-fits all model. However, the provisions should not be so strict as to create a barrier to integration of energy storage resources. For all of these reasons, NESCOE recommends that the Commission provide general guidance on the performance commitments to be included in LGIA provisions in a final rule, but allow regions flexibility to determine the appropriate protections to be used in conjunction with the modeling assumptions related to these energy storage resources.

2. A Final Rule Should Allow for the Incorporation of Energy Storage as an Alternative Transmission Technology in the Generator Interconnection Process.

The Commission proposes to revise the *pro forma* LGIP and *pro forma* small generator interconnection procedures ("SGIP") to "require transmission providers, upon request of the interconnection customer, to evaluate certain specified requested alternative transmission solution(s) during the LGIP cluster study and the SGIP system impact study and facilities

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[67] *See, e.g.*, Eversource Initial Comments at 35 ("Facility operation contrary to the 'proposed operation' parameters in the LGIA could result in transmission systems being placed in unstudied and potentially insecure N-1 contingency states, which in turn could risk system instability or even cascades. It is essential that system operators and transmission planners have sufficient visibility and controls in place to ensure that this does not occur. The interplay of system operation and dispatch with storage facility operating assumptions is extremely complex and, if addressed incorrectly, could have disastrous consequences.").

study."[68] The Commission seeks comment on whether the NOPR's proposed list is sufficient and whether, among other things, energy storage that performs a transmission function should be included in this list of alternative transmission technologies.[69]

NESCOE generally supports the concept of transmission providers evaluating alternative technologies but does not believe a final rule should be as prescriptive as some commenters request. As explained above, several of the New England states have a legislative obligation to facilitate the interconnection of significant amounts of additional storage resources. NESCOE agrees with the Clean Energy Associations that energy storage technology should be included "as an alternative transmission technology that can be studied to potentially avoid or reduce the cost of conventional network upgrades associated with an interconnection request."[70] However, making the study of an alternative technology such as energy storage an "opt-out" vs. an "opt-in" option, as the Clean Energy Associations suggest,[71] should be addressed on a region-wide basis. In our region, ISO-NE, in consultation with the participating transmission owners, states, potential energy storage resources and other stakeholders, should have the opportunity for robust and thorough discussion on this issue. This would enable transmission owners concerned about the burden of studying alternative technologies[72] to coordinate with ISO-NE and others to fashion a workable solution. A final rule that requires transmission providers to specify in their

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68 NOPR at P 297. The NOPR proposes the specific list of technologies at P 298.

69 *Id*. at P 300.

70 Clean Energy Association Initial Comments at 62.

71 *Id*. at 63.

72 *See, e.g.*, Eversource Initial Comments at 36-37 (opposing the NOPR's proposal "to require transmission providers to evaluate the listed technologies as burdensome, unwarranted and contrary to the NOPR's stated goal of improving the timeliness and efficiency of the interconnection process").

compliance filings how they will address the integration of energy storage resources and other technologies would achieve the necessary balance.

Additionally, NESCOE agrees with ISO-NE that requests to study alternative transmission technologies should be included in the initial interconnection request along with the specific assumptions that are to be studied.[73] Allowing interconnection customers to add the study of alternative transmission technologies after their initial requests are submitted could be at odds with the goal of achieving more efficiencies in the processing of interconnection queues.

II. CONCLUSION

NESCOE respectfully requests that the Commission consider these reply comments and its initial comments in developing any final rule in this proceeding or taking further action on the potential reforms discussed in the NOPR.

[73] ISO-NE Initial Comments at 41.

Respectfully Submitted,

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