



To: ISO New England Planning Advisory Committee
From: American Council on Renewable Energy, American Clean Power, and RENEW Northeast¹
Date: November 22, 2024
Re: NESCOE Letter on Potential Transmission Needs for a Longer-term Transmission Planning RFP

As organizations whose missions are focused on promoting a clean, reliable, affordable energy future for all Americans, the October 16, 2024, New England States Committee on Electricity (“NESCOE”) memorandum concerning the procurement of transmission to meet certain needs identified in the ISO New England (“ISO-NE”) Longer-Term Transmission Planning (“LTTP”) Tariff represents to us an important first step towards realizing transmission upgrades for the Maine/Boston section of the regional transmission system that will unlock additional renewable energy sources in Maine and reduce curtailment of existing resources. We fully support NESCOE’s goal of defining the scope of this RFP in a way “that allows for a high likelihood of a successful solicitation.”

New England’s failure over a decade ago to right-size onshore transmission upgrades in a way that would have allowed for the interconnection of high-quality, low-cost Maine land-based wind, in addition to meeting system reliability needs, through the Maine Power Reliability Program, significantly slowed development of that low-cost renewable resource, development that has largely become halted until that needed transmission can be built.

The current process of connecting each generator sequentially is slow, incremental, and expensive. Unless efforts are undertaken swiftly to address near-term transmission needs through the LTTP process, clean energy deployment will slow, and NESCOE states will struggle to meet climate and economic development goals. Implementing this state-driven transmission procurement process will overcome these challenges and accelerate clean energy deployment. Our coalition of organizations offers the following comments on the NESCOE memo.

I. Identifying the “Need” for the First LTTP RFP

The details of how ISO-NE calculates the benefits defined in the Tariff will significantly impact the results. As NESCOE considers the scope of this first RFP, it should coordinate closely with ISO on the details of this evaluation process. Examples of two key questions to be answered are: what assumptions will be made about the type, quantity, and location of new generation in Maine when ISO-NE models whether the need is met, which will impact the

¹ The views and opinions expressed in this filing do not necessarily reflect the official position of each of the individual members of American Clean Power Association, the American Council on Renewables Energy, or RENEW Northeast.

transfer limit calculation, and what are the benefits (e.g., production cost savings, losses, expected unserved energy)?

The possible needs identified in NESCOE’s letter included either a requirement or preference for solutions that “facilitate the interconnection” of new generation north of the Surowiec-South interface. If this is ultimately included in the final scope of the RFP, NESCOE should clarify what it means to “facilitate the interconnection” of these new resources. Does it mean reducing the interconnection related network upgrades for new resources to meet the energy-only interconnection standard or to meet the capacity interconnection standard? Does it mean enabling a higher portion of the energy from these new, and the existing, clean energy resources to be delivered to the market (i.e., to reduce congestion)?

II. RFP Design

As the first RFP under the newly approved LTTP process, this will likely become the baseline standard for future RFPs. It is important to take into consideration the application of Tariff language to other foreseeable system upgrade scenarios when designing the parameters for this first RFP given the significant amount of transmission needed to meet the projected 2050 peak loads of 51 to 57 gigawatts identified in ISO-NE’s 2050 Transmission Study.²

To attain least-cost solutions, ISO-NE should prioritize competitive practices that allow Qualified Transmission Project Sponsors (“QTPS”) to participate fully and propose a complete range of solutions to identified needs. Increased competition will incentivize an influx of much-needed capital into the region and allow participants with a range of experience operating or developing various technologies to help solve the enormous challenges before us. Evaluation of multiple solutions to address identified needs is a prudent approach that will maximize competition and yield the most efficient and cost-effective transmission projects. For cost-effectiveness over the long-term, the States should also entertain proposals that are scalable or expandable for potential subsequent transmission RFPs to accommodate interconnection of offshore wind in the Gulf of Maine.

We support determining which aspects of the possible scope are likely to be highly valued under the benefit metrics prescribed by the Tariff (making them good candidates for the defined “need” in a successful solicitation) and which are less likely to be highly valued under the current benefit metrics (making them better candidates for further evaluation factors rather than requirements). Because any proposal in the LTTP RFP must fully meet the identified “need” to be eligible for selection, NESCOE should carefully consider the minimum requirements it identifies, such that it is possible for solutions to meet or come close to the Benefit to Cost ratio of 1.0. NESCOE can encourage the submittal of proposals that go beyond this minimum need, but the chances of success will be highest if the need is defined in a way that there are likely to be solutions with a higher Benefit to Cost ratio.

² ISO New England, *2050 Transmission Study* 16 (February 12, 2024).

The RFP should require developers to offer cost containment mechanisms of the type of their choosing, including inflation index adjustments, that will be subject to evaluation criteria on their effectiveness for ensuring consumer protection.

We also support the States and ISO-NE committing to Tariff revisions through an LTTP Phase 3 based on lessons learned and other issues raised but not addressed in the original stakeholder process that will remove barriers limiting the pool of participants and projects that can participate in the LTTP process.

III. Size

The request for proposals to increase the Maine-New Hampshire interface capacity above 3,000 megawatts and the Surowiec-South interface capacity above 3,200 megawatts should be treated as a minimum threshold, with bidders able to propose projects that allow for higher interface capacity to provide flexibility to inject future renewables from Northern Maine. ISO-NE's April 2024 Planning Advisory Committee ("PAC") presentation showed that even after relocating certain offshore wind points of interconnection further south, the 2050 interface flows on ME-NH reached as high as 3,988 MW. Further increases to the interface will likely be needed after this initial RFP.

Before the issuance of the RFP, detailed information should be provided to stakeholders about the transfer limits at those interfaces with the New England Clean Energy Connect in operation, as it is unknown how much additional transfer capacity the line and its interconnection upgrades will create. The RFP should be adjusted to account for the transfer limits with the New England Clean Energy Connect project in service.

If the region wishes to enable the new resources from future clean energy procurements to maximize their benefits to consumers, the RFP should be designed to enable these resources to qualify for participation in the ISO-NE Forward Capacity Market.

IV. Technical Issues

Before an RFP proceeds, ISO-NE will need to address important limitations that could affect project eligibility:

A. What is a Comprehensive Solution?

Section 16.4(b) of the Tariff requires that Longer-Term Proposals offering solutions must comprehensively address all of the needs identified in the RFP. The NESCOE memo identified subsets of transmission upgrades across one larger Maine/Boston zone that spans multiple Transmission Owner service territories. We recommend that NESCOE and ISO-NE inform developers as to whether they are contemplating one RFP seeking solutions to upgrade each of the interfaces or whether they will issue a set of RFPs to meet each sub-need. Allowing for a comprehensive solution to be comprised of discrete segments or sections could provide additional flexibility for meeting transmission needs. Segmentation could alleviate challenges

that arise when the comprehensive solution spans multiple states or multiple transmission owner’s rights-of-way. Under a segmentation scenario, ISO-NE should provide guidance to inform non-incumbent QTPSs on how to work effectively with multiple incumbent Transmission Owners and non-incumbent QTPSs.

For any proposal, ISO-NE and NESCOE should clarify what is meant by a “comprehensive solution.” Here are some example scenarios that could benefit from clarification:

- The issue of corollary upgrades, which are upgrades required to incumbent transmission owner facilities, was discussed extensively during the LTTP Tariff development process. A proposal from a QTPS, under the LTTP process, must include all components needed to meet the need, including identification of any upgrades needed to a Transmission Owner’s facilities. Would a Transmission Owner be obligated to build all such necessary upgrades to their system should that QTPS proposal be selected? How would an LTTP proposal requiring such upgrades to a Transmission Owner’s system, compare to an Elective Transmission Upgrade (“ETU”) that, under Schedule 25, was required to pay for the interconnecting transmission owner to make interconnection-related network upgrades to their system? Would all of the interconnection related network upgrades identified in a Schedule 25 study be identified as corollary upgrades in a QTPS proposal under the LTTP process?
- If the states request one RFP covering each of the sub-needs spanning multiple Transmission Owner service territories and a strict interpretation of “comprehensive solution” is followed, would any QTPS be eligible?

B. What are the Limitations on Expanded Utilization of Existing Rights-of-Way Regarding Loss of Right-of-Way Contingencies?

The 2050 study states that, “Many of the transmission system concerns identified in the 2050 Transmission Study could be addressed by rebuilding existing transmission lines with larger conductors, rather than expanding the transmission system into new locations.”³ Bidders will need to understand the limitations on the use of existing rights-of-way along the Maine/Boston zone. However, the study also notes that “the risk that all lines in a right-of-way may be lost (e.g., due to brush fires) would need to be evaluated further outside of this study.”⁴ This issue recently arose with the Second Cape Cod Cluster Study in which ISO-NE found a need for a separate right-of-way from the existing 345 kV on-shore circuits using submarine HVDC cables.⁵ Before the RFP is issued, ISO-NE should issue guidance on whether new or existing extreme contingency violations such as the loss of right-of-way contingencies need to be addressed as part of a proposed solution.

³ *Id.* at 18.

⁴ *Id.* at 28.

⁵ ISO New England, *Second Cape Cod Resource Integration Study Preliminary Results* 6 (April 2022).

C. Will Proposals Be Limited to the 1,200-Megawatt Loss of Source?

We also recommend ISO-NE address whether the RFP can allow for solutions that have the capability to exceed the current 1,200 MW loss of source limit. For example, could a proposed solution include a radial transmission line that could deliver greater than 1,200 megawatts, such as the ISO-NE proposed 2,000 megawatts, before a solution is presented by the Joint ISO/RTO Planning Committee (“JIPC”) that raises the limit. Transmission solutions with a capacity greater than 1,200 megawatts can reduce costs and environmental impact.

ISO-NE also identified at its September 21, 2022, PAC meeting that it would not allow more than 1,200 megawatts of generation (e.g., wind, solar, and storage) to interconnect to a radial line. This limitation would prevent the interconnection of sufficient renewable resources to optimize the operation of the transmission line. We believe this should be allowed, and the cost benefit analysis for LTTP transmission upgrades should be done in a way that evaluates the benefit of allowing more than 1,200-megawatt of generation connected to a radial line.

V. Evaluation Criteria

We encourage, to the extent possible, that certain practices be incorporated into this RFP to maximize its benefits:

- In future revisions to the LTTP Tariff provisions (i.e., LTTP Phase 3), the benefit to cost analysis should be expanded to include evaluation of transmission proposals according to a wider scope of benefits, similar to those listed in FERC Order 1920.⁶ Attachment K, Section 16.4 recognizes the wide scope of benefits from transmission, listing the financial benefits to be considered, as including but not limited to: production cost and congestion savings; avoided capital cost of local resources needed to serve demand; avoided transmission investment; reduction in losses; and reduction in expected unserved energy.
- Consider certain drivers that could impact future resource development and load and cause the future scenarios to differ from that used in the ISO-NE 2050 plan -- including changes in federal and state policies, corporate energy procurements, technology trends, fuel costs, and future locations of large loads.
- As part of the benefits analysis, use additional scenarios that incorporate potential extreme weather events, which can be significant drivers of the value of transmission.
- The evaluation process should be performed in a way that fully recognizes the benefits and capabilities of any proposed advanced transmission technologies, including the use of

⁶ These benefits are avoided or deferred reliability transmission facilities and aging transmission infrastructure replacement; reduced loss of load probability (or reduced planning reserve margin; production cost savings; reduced transmission energy losses; reduced congestion from transmission outages; and reduced production costs and reduced loss of load during extreme weather events and unexpected system conditions; and capacity cost savings from reduced peak energy losses. See *Building for the Future Through Electric Regional Transmission Planning and Cost Allocation*, Order No. 1920, 187 FERC ¶ 61,068, at PP 740-819.

grid-enhancing technologies and high-performance conductors,⁷ as well as storage that performs a transmission function. Consideration of these advanced technologies does not negate the potential need for new lines, and their inclusion can reduce the costs and needed capacity of such lines. Note that these technologies have been developed and are commercially available.

- When considering a scope related to increasing interface limits, NESCOE might also consider that raising the maximum interface limit (the planning limit) isn't the only increase that can be considered. The Orrington-South interface planning limit is ostensibly quite high, but is frequently reduced significantly below this limit due to operating conditions such as line outage, generator outage, or generator dispatch conditions, causing significant congestion on that interface. The RENEW Northeast Economic Study request of 2019 provided detailed information about these operational limits on the interface and their causes, highlighting that the interface operated at its planning limit in just 11 percent of hours in 2017.⁸ Increasing the interface capability during certain operational conditions could potentially do as much for reducing congestion and delivering clean generation in this area as increasing the maximum interface limit.
- Include opportunities for consideration of this project's potential as part of a future portfolio. For example, this could include options to further link additional transmission to these projects that would obtain greater benefits. Does the solution lend itself to further increases to the interfaces in an economically efficient manner?⁹
- Consider the extent to which the proposed solution can support new and existing resources in accessing the capacity market, lowering overall energy costs for system users.
- Evaluate overall performance and capabilities, not just cost, including but not limited to:
 - Speed
 - Connection of multiple zones or increased transfer capacity
 - Effectiveness of addressing congestion or curtailment
 - Consumer savings
 - Expandability
 - Interaction with future OSW development

⁷ For a description of the benefits of these technologies, see the Resolution Supporting the Integration of Advanced Transmission Technologies in the Electricity Transmission System, approved by the National Association of Regulatory Utility Commissioners Board of Directors, November 13, 2024, available at p. 9 of: https://pubs.naruc.org/pub/812873F4-E348-B77F-4D75-E513FF13A86D?_gl=1*1riu0t6*_ga*MTgyNTIyMDE5MS4xNzI5Nzg5MDI3*_ga_QLH1N3Q1NF*MTczMjIzM DA1MS4xMS4xLjE3MzIyMzAwNTMuMC4wLjA.

⁸ RENEW Northeast, *2019 Economic Study Request: Economic Impact of Targeted Upgrades to the Orrington-South Interface Limit* (April 1, 2019), https://www.iso-ne.com/static-assets/documents/2019/04/renew_2019_economic_study_request.pdf

⁹ ISO's April 2024 PAC presentation showed that even after relocating certain offshore wind points of interconnection further south, the 2050 interface flows on ME-NH reached as high as 3,988 MW. Further increases to the interface will likely be needed after this initial RFP.

- Resource diversity benefits
- Recognizing that siting criteria remains the jurisdiction of the host state, the RFP should require developers to include an outlook on community engagement plans.

VI. Process

It is important that ISO-NE approach this first RFP under the LTTP using a collaborative and transparent process that engages input from key stakeholders. We recommend that ISO-NE establish a forward-looking solicitation schedule to provide project developers with longer-term market visibility, helping improve competition and reduce costs. We further encourage ISO-NE to solicit stakeholder feedback at multiple intervals, request comment on draft RFPs, and conduct technical workshops with stakeholders to resolve key questions raised in this letter. Developers will require detailed modeling and reliability criteria to craft effective bids.

Given the long timelines associated with developing and building new transmission projects, we recommend that ISO-NE consider launching the next RFP before the complete resolution of the first RFP. Lessons and improvements from the process of launching the first RFP can be applied even while proposals are being evaluated. ISO-NE should begin the process of drafting and soliciting comments on the second RFP as soon as practical to support the much-needed acceleration of transmission build-out in the region especially areas in southeast New England expected to contain offshore wind points of interconnection.