Comments to New England States on the *New England Energy Vision* Transmission Planning Technical Session

Advanced Energy Economy and Northeast Clean Energy Council

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I. Introduction

Advanced Energy Economy (AEE) and the Northeast Clean Energy Council (NECEC) appreciate the opportunity to provide feedback on the recent Transmission Planning Technical Session hosted by the New England states. Transmission is the backbone of the electric grid, and as the electricity system transitions to a cleaner resource mix and the entire energy system shifts to rely more on electricity, the transmission system will need to evolve quickly as well. The rapid buildout of offshore wind, widespread adoption of distributed energy resources, and accelerating pace of electrification of transportation and heating will all require a shift in thinking about how we plan and operate the transmission system in New England.

Making the transition to a transmission system that can support an advanced energy future, and doing so both reliably and cost-effectively, will require careful, iterative planning. Developing plans now and refreshing them often will better prepare the region to successfully achieve the states' clean energy goals in 2050 and beyond. Failure to do so risks putting the region in the position of always staying only a half-step ahead of needs, facing constant pressure to implement urgent projects that are unlikely to ultimately fit together into an optimal transmission system. Given the long timeframe for buildout of new transmission infrastructure—often as long as 10 years—forward planning is especially important when it comes to the transmission system. We applaud the states for moving ISO New England toward longer-term transmission planning, and look forward to engaging in that planning process as it moves forward.

Our comments below offer a set of guiding principles for transmission planning and respond to the questions laid out by the New England states following the technical session.

I. Principles for Transmission Planning

Adequate transmission is foundational to the transition to a reliable decarbonized grid. To make this transition reliably and affordably, our organizations recommend that transmission planning adhere to the following guiding principles:

1. **Make efficient use of existing transmission infrastructure.** Making efficient use of existing transmission system should be a first priority to meet future needs cost effectively. This can be done by relying on solutions like dynamic line ratings and advanced power flow optimization technologies, as discussed during the technical session by Rebecca Tepper of the Massachusetts Attorney General's Office.
2. **Prioritize proactive, long-term planning.** Long-term, proactive, iterative transmission planning that aims to meet system needs while taking advantage of identified opportunities to develop cost-effective clean energy resources decades out will lead to better outcomes than short-term approaches more focused on immediate gaps. Long-term planning must be robust to future uncertainty, relying on multiple scenarios and frequent adjustments, in order to balance the benefits of proactive planning against the cost of early over-building that could restrict future flexibility or result in stranded assets. Both Dr Biljana Stojkovska (National Grid U.K.) and Craig Price (Australian Energy Market Operator, AEMO) highlighted the benefits of proactive long-term planning during the technical session. In particular, we agree with Mr. Price's call for an "agile plan" or "dynamic roadmap" that enables no-regrets investment. We also encourage the states to consider the example in AEMO and ERCOT of identifying resource zones and building transmission to facilitate development.
3. **Rely on competition when possible.** Transmission buildout should make use of competitive processes whenever possible, and avoid near-term or emergency exemptions.
4. **Take demand-side resources into account.** Transmission planning should account for the role of demand-side resources and flexible demand as tools to reduce the need for new transmission infrastructure.
5. **Remove barriers to use of non-infrastructure solutions and advanced energy technologies.** Non-infrastructure solutions (such as dynamic line ratings and non-wires alternatives) and advanced energy technologies (including storage) should be available as solutions to meet transmission needs cost-effectively. Currently, these solutions are not considered on an equal basis due to financial incentives that favor infrastructure buildout, as well as regulatory barriers that prevent their consideration, such as the narrow scope of resources that ISO-NE considers to meet transmission needs. To overcome these barriers, states may need to work with FERC to update its views on non-transmission alternatives and use of storage as a transmission asset.
6. **Prioritize distribution system planning.** Effective distribution system planning and operation will help to ensure efficient transmission system buildout. While this step is squarely within states' jurisdiction, states should coordinate closely with

ISO-NE to ensure optimal alignment between transmission system and distribution system needs.

By starting now and keeping these guiding principles in mind, we believe states will achieve a reliable, cost-effective transmission system that will support a decarbonized energy system in New England.

II. **Long-term System Plan Recommendations**

AEE strongly supports the New England states' request for ISO-NE to conduct a 2050 transmission plan. Below, we offer responses to the questions put forward by the New England states following the Transmission Planning Technical Session.

- *How would stakeholders like to participate in providing input into the long-term system plan? How can stakeholder participation and/or the process be shaped to provide this input as efficiently as possible?*

Our organizations do not have a specific preference as to how to stakeholder input should be provided, but we do request that the states and ISO-NE work together to streamline this process. We also encourage an open and transparent stakeholder process to ensure development of robust scenarios, allow for concerns with assumptions or inputs to be identified, and build confidence in the final results. Public meetings hosted by ISO-NE (either through the existing Planning Advisory Committee, or separate meetings following a similar structure and allowing for public participation) may be an effective approach. These meetings, if hosted by ISO-NE, should be cross-posted by states to allow all interested stakeholders to learn about them. This is especially important for issues that will benefit from diverse stakeholder participation, such as identifying corridors for transmission buildout that will limit impacts on communities and important environmental resources. Allowing ample opportunities for broad stakeholder input will also support the essential goal of ensuring that transmission planning (and eventual siting and construction) is done in an equitable and just manner.

- *Would stakeholders be comfortable with having the ISO use state-provided scenarios for the first round of "2021 ISO-NE Long Term System Plan"?*

Our organizations support the states' long-term climate and clean energy goals, and recognizes that the states have put considerable time and resources into identifying a range of resource mixes that will enable achievement of those goals. We are therefore comfortable with states providing initial inputs for use by ISO-NE for the *2021 ISO-NE Long-term System Plan.* AEE and our member companies stand ready to supply technical information and/or provide input on assumptions, e.g., regarding the assumed

performance of advanced energy technologies. We also encourage states to consider identifying and providing input to ISO-NE on the resource areas that states want to see developed.

- *Recognizing that the transmission plan will be improved through future iterations, would stakeholders prefer (1) a "fast" first round or (2) an approach where ISO take its time with the first round?*

Our organizations support moving forward with the 2050 plan expeditiously but thoroughly. We also urge a process that prioritizes opportunities for stakeholder feedback along the way; the presentation by Craig Price emphasized the benefit of frequent and deep stakeholder engagement throughout AEMO's planning process, including a panel representing consumer interests that was compensated for time spent providing feedback to inform the analysis. We therefore recommend avoiding a process that could result in ISO-NE putting significant work into "polished" scenarios without giving stakeholders an opportunity to course-correct as needed earlier in the analysis. Allowing frequent opportunities for stakeholder engagement will also help to ensure that the final product is understood and supported by a broader audience, another takeaway from the AEMO process.

- *Please build on the discussion at the technical forum regarding the savings involved in the early implementation of long-term requirements.*

As explained above in our guiding principles (see #2), our organizations support long-term planning and early implementation of solutions found to be cost-effective across future scenarios. We note the importance of considering a range of scenarios and consistently revisiting assumptions as more information becomes available. This approach—consistent with the examples of National Grid UK and AEMO discussed during the technical session—will appropriately balance the benefits of long-term planning against future uncertainty, allowing the region to focus on no-regrets early investments.

We appreciate the states' consideration of our feedback, and look forward to engaging on transmission planning as the 2050 study moves forward.

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