Comments from Public Interest Organizations
On New England States' Transmission Planning Technical Forum

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Acadia Center, Conservation Law Foundation (CLF), Natural Resources Defense Council (NRDC), and The Nature Conservancy (TNC) (Public Interest Organizations) appreciate the opportunity to comment on the New England Energy Vision transmission planning technical forum held on February 2, 2021.[1] We strongly support this exploration of the transmission planning changes needed to more effectively and efficiently advance the priorities outlined in the states' October 2020 Vision Statement for a clean, affordable and reliable regional grid. We offer these comments on ways the New England states can improve transmission planning and begin to determine what the transmission system will need to look like to interconnect high levels of zero carbon resources, how to best maximize the use of the existing system and how to achieve states' emissions reduction targets with well-planned and well-sited transmission as an enabler.[2]

As a result of significant climate action by New England states in recent years, approximately 90% of the region's load is subject to legal mandates to achieve decennial greenhouse gas emissions reduction targets and increasingly ambitious renewable portfolio standards. Yet these state policy objectives will mean nothing if the region is unable to plan and build a grid that can integrate the resources to make them achievable. Proper transmission planning presents the opportunity to bring together the best resources of the states and ISO New England (ISO-NE) to forecast and identify reliability, public policy and economic (price-impacting) needs on the system and plan for them accordingly. In order to ensure widespread buy-in, the process must be open, accessible, and transparent.

Transmission planning reform is needed to move the region away from its current planning circumstances, which include siloed planning processes, a broken system for cost allocation despite the final Federal Energy Regulatory Commission's (FERC) Order 1000, and a failure to acknowledge that states' public policy projects are triggering planning needs. As a result, transmission is built out one utility and one project at a time, with the singular focus and every dollar spent on reliability and reliability alone. The net result is that consumers spend hundreds of millions per year[3] on investments intended to last us for decades, but without fully

[1] New England Energy Vision, "Transmission Planning," https://newenglandenergyvision.com/transmission-planning/ (last accessed March 1, 2021).
[2] "New England Governors' Vision for a Clean Energy Future – Transmission Planning," February 2, 2021, https://newenglandenergyvision.files.wordpress.com/2021/02/2020-02-02-new-england-governors-vision-for-a-clean-energy-transmission-conference-final_posted.pdf (last accessed March 1, 2021).
[3] Key Grid and Market Stats, ISO-NE, https://www.iso-ne.com/about/key-stats/transmission/ (last accessed March 1, 2021).

taking into consideration how the energy system must change over the coming decades to address climate change. Many of the tools needed to reform transmission planning to meet states' policy mandates at least cost are in place, but some tools need to be sharpened, others dusted off and some scrapped. In our comments below, Public Interest Organizations recommend several steps to achieve the necessary planning reforms.

Overarching Objectives

As the region moves forward with transmission planning reforms, Public Interest Organizations urge the states to approach this process with the following objectives as the basis for evaluating any reforms:

- Broaden the scope of transmission planning to integrate reliability, public policy and economic potential into the evaluation of transmission investments;
- Expand or redefine the approach to enumerating benefits and costs of transmission solutions and non-transmission alternatives to allow for states and stakeholders to base decisions on a full accounting of alternatives' impacts, including as it relates to environmental and economic justice;
- Require planning processes that significantly improve accountability to state regulators, greater transparency and accessibility for a broader range of market participants, and broaden stakeholder engagement;
- Consider reforming siting and cost allocation processes;
- Ensure full consideration of non-transmission alternatives, which can often help achieve environmental benefits, save consumers money, and enhance reliability and energy adequacy while avoiding unnecessary infrastructure buildout, in planning, analyses, need identification, competitive solicitation, and selection of approaches to meeting the region's transmission needs; and
- Closely examine and actively work to address underlying state and federal regulatory barriers, biases, perverse incentives and lack of information that currently limit the consideration of non-transmission alternatives and participation of third-party providers and stakeholders in future planning efforts.

Achieving these objectives may, however, be limited by what is currently possible within ISO-NE's and NEPOOL's current structures. For example, ISO-NE staff have, on numerous occasions, pointed to the tariff as the source of limitations on the approach the organization uses for transmission planning. Public Interest Organizations and other stakeholders have also previously described the challenges associated with achieving progress in the existing ISO-NE regional markets driven by the current ISO-NE governance and voting structure of NEPOOL. Reforms to the current transmission planning, markets, and governance structures may address these concerns. However, once explored, it may also turn out that the transmission planning

process now resting upon ISO-NE and vetted through the NEPOOL governance structure cannot be adequately reformed to ensure the timely adoption and implementation of an optimized, long-term approach to transmission planning along the lines of what we recommend here. Should that be the case, Public Interest Organizations recommend the states also consider the option of forming a separate planning entity established to achieve the region's goals based on the values reflected in state climate, economic and social policies.

1. The Scope of Transmission Planning Must be Broadened to Integrate Reliability, Public Policy and Economic Potential to Maximize the Value of Transmission Investments.

Transmission planning entities, including ISO-NE, have historically relied on a siloed approach to transmission planning, which evaluates transmission project benefits by categorizing projects as one of: "reliability," "public policy," or "economic" projects.[4] Categorizing a project as only one of these types discounts many of the values of transmission projects and can result in unjust and unreasonable outcomes.[5] More specifically, this narrow approach fails to take into account economies of scope across multiple categories, and as a result can lead to transmission investments that are less economical than had such investments resulted, instead, from a multi-value, integrated approach to transmission planning.[6]

While most regional transmission organizations (RTOs), like ISO-NE, have not employed a multi-value project (MVP) approach for planning, one example of how it is being done—as Marc Montalvo of Daymark Energy Advisors noted in his presentation at the transmission planning forum[7]—is the Midcontinent Independent System Operator's (MISO) use of an MVP portfolio analysis designed to maximize public policy, reliability, and economic benefits. MISO states that:

> [i]mplementation of a value-based planning process creates a consolidated transmission plan that delivers regional value while meeting near-term system needs. Regional transmission solutions, or Multi-Value Projects (MVPs), meet one [or] more of three goals: reliably and economically enable regional public

[4] Rob Gramlich & Jay Caspary, *Planning for the Future: FERC's Opportunity to Spur More Cost-Effective Transmission Infrastructure*, ACEG, at 11, 29 (January 2021), *available at* https://cleanenergygrid.org/wp-content/uploads/2021/01/ACEG_Planning-for-the-Future1.pdf (last accessed March 1, 2021).
[5] *Id.*
[6] *Id.* at 29.
[7] Marc Montalvo, "Rethinking Transmission Planning: Meeting the Region's Clean Energy Goals," February 2, 2021, https://newenglandenergyvision.files.wordpress.com/2021/02/montalvo-presentation-draft.pptx (last accessed March 1, 2021).

policy needs; provide multiple types of regional economic value; provide a combination of regional reliability and economic value.[8]

According to MISO, its 17 MVPs, approved in 2011, will result in $7.3 billion to $39 billion in net benefits over the next 20 to 40 years, which translates to residential households receiving approximately $4.23 to $5.13 in monthly benefits over a 40-year period.[9]

An MVP approach to transmission planning, as opposed to a siloed approach that categorizes projects based on only one of public policy, economic, or reliability interests, would provide numerous benefits and could enable ISO-NE to engage in better long-term planning for the grid to meet future needs.

Accordingly, the New England states should recommend that ISO-NE explore an MVP approach for future transmission planning, while also taking into account all of the factors discussed in the subsequent sections below.

2. Load Forecasting Must Make the Best Use of State and ISO-NE Data to Help Identify When, Where and How Transmission Needs to be Built to Ensure It Serves Multiple Values.

In order to effectively and efficiently plan the transmission grid of the future, load forecasting must accurately account for increased electrification over the next 30 years, which will have a profound impact on system needs by significantly increasing load. Additionally, load forecasting must analyze the incorporation of increased levels of distributed energy resources, storage, energy efficiency, and load flexibility measures such as demand-side management into the grid over the coming decades. Many of these resources can be deployed rapidly and do not pose the environmental justice, equity and siting concerns associated with large transmission infrastructure. Further, they often provide significant reliability, climate, environmental, health and economic benefits. If transmission planning continues to not fully recognize such factors, it will lead to unjust and unreasonable results, with infrastructure not meeting future needs cost effectively and failing to both incorporate customer-centered resources into planning and connect load to future resource mixes.[10]

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[8] MISO, "Multi-Value Projects (MVPs)," https://www.misoenergy.org/planning/planning/multi-value-projects-mvps/#t=10&p=0&s=&sd= (last accessed March 1, 2021).

[9] Rob Gramlich & Jay Caspary, *Planning for the Future: FERC's Opportunity to Spur More Cost-Effective Transmission Infrastructure*, ACEG, at 92 (January 2021), *available at* https://cleanenergygrid.org/wp-content/uploads/2021/01/ACEG_Planning-for-the-Future1.pdf (last accessed March 1, 2021).

[10] *Id.* at 10-11, 31-32.

Therefore, the states should work with ISO-NE to ensure the use of the best available state and regional data and forecasting methodologies that include reasonable electrification projections.[11] These projections must reasonably account for the expected widespread electrification of transportation and buildings by 2050, and include more accurate assessments of future resource mixes that include increased amounts of distributed generation, storage, energy efficiency and demand response. The states should work to ensure that ISO-NE's regional load forecasting accurately accounts for these expected changes, and ensure that forecasts are assessed and updated regularly as policies evolve and better, more recent information becomes available.

3. Transmission Planning Must Be Open, Accessible and Transparent: Transmission Project Siting Will Only Be Successful Where the Entire Region Understands the Broad Benefits of These Projects.

As set forth in the states' Vision Statement, transmission planning processes must garner a wide array of stakeholder voices during the entire planning process. The states should urge ISO-NE to improve and increase accessibility and transparency with respect to information and data concerning transmission planning, including the ability to compare costs and benefits of transmission and non-transmission alternatives.

Increased stakeholder involvement can also assist in imparting to stakeholders the need for a shared commitment to ensuring the transmission system effectively integrates high levels of well-sited, low marginal cost renewables onto the grid, and to achieving states' decarbonization mandates. Moreover, in contrast to recent attempts to gain approval for large projects that would transmit Canadian hydropower to New England, which faced strong opposition, the states should consider a more cumulative approach to transmission upgrades, using a multi-value approach, that would be more likely to gain support from diverse stakeholders. This would focus on a more comprehensive approach to transmission planning that would emphasize the widespread and regional benefits of transmission projects. The states should consider cases where incremental projects/upgrades make sense, but the MVP framework means certain larger projects may also be the most beneficial.

By ensuring increased and broad-based stakeholder involvement throughout the planning process and focusing on cumulative, long-term transmission improvements that plan for the next 30 years, as opposed to only shorter time frames, states can enhance stakeholders' stake in planning and siting and help avoid past controversies from large-scale, one-off transmission investments. To further build stakeholder trust, this process should include consideration of siting impacts on the environment and local economic concerns early on. Additionally, the states

[11] While ISO-NE has conducted initial load forecasting that examines electrification, this is not far ranging enough to account for extensive electrification by mid-century.

should urge ISO-NE to improve and increase accessibility and transparency with respect to information and data concerning transmission planning, including costs and benefits of transmission and non-transmission alternatives.

4. Environmental Justice and Equity: Those Who Have Had the Least Say Historically and Borne the Greatest Burden of Transmission Development Must Be Included in Transmission Planning and Siting.

It is crucial that transmission planning fully consider environmental justice and equity issues related to transmission siting. As Ms. Sharon Lewis, Executive Director of the Connecticut Coalition for Environmental Justice, noted in her presentation at the transmission planning forum, many transmission facilities are located in marginalized communities and the people who have had the least say and are most impacted by transmission development are often not informed about transmission planning or siting.

As part of the New England Energy Vision process, the states must avoid the previous deficiencies involved in transmission siting and analyze it through an environmental justice lens. The states should proactively seek out input from the environmental justice communities most affected by transmission planning. In doing so, it is essential that transmission planners also translate technical information on transmission planning into a language that impacted communities are able to understand. States should also accept and acknowledge the viewpoints of environmental justice communities and convert those views into coherent policy and explicit analytical approaches to guarantee that such communities are not more adversely impacted from transmission siting (including when accounting for the impacts of other, existing transmission projects) than non-environmental justice communities. Moreover, the states should urge ISO-NE to ensure that its transmission planning is flexible enough that utilities and state siting authorities have options to avoid overburdened communities

Every project planned and approved by the states and ISO-NE should be screened for potential environmental justice implications and impacts at the earliest stage and as the project evolves. Public Interest Organizations note that New England states have planned an environmental justice-specific forum as part of the Energy Vision process, and we look forward to further delving into these issues at the forum and in subsequent comments. We further urge the states to conduct meaningful outreach to environmental justice communities in advance of the upcoming forum to solicit communities' feedback on the event agenda and ensure community members are aware of the opportunities to participate in these discussions and provide feedback.

5. The States Should Consider Revisiting the Order 1000 Public Policy Process for Future Planning.

For many years, there has been a framework in place in New England, consistent with FERC Order 1000, for considering public policy requirements in the region's transmission planning process. The states have repeatedly declined to trigger the Order 1000 process, despite public policies driving such needs, in part due to a lack of trust on the part of the states, as discussed in the next section.

Although FERC Order 1000 has not worked as intended and needs to be revised to meet future grid needs and better align with states' priorities vis-à-vis transmission planning, it created a mechanism by which states can provide input to RTOs on public policy needs requiring transmission upgrades. A common criticism of ISO-NE is that it has been unresponsive to the New England states' concerns regarding climate change and the need to build a grid for the future that integrates increased renewable energy resources and plans for widespread electrification. Because the public policy mechanism provides an avenue for encouraging ISO-NE to better account for the states' public policy interests, the states should explore providing input to ISO-NE regarding "public policy requirements" that drive transmission needs.

In the New England States Committee on Electricity's (NESCOE) most recent submission on "Transmission Needs Driven by State and Federal Public Policy Requirements,[12] NESCOE did "not request[] that ISO-NE initiate a Public Policy Transmission Study for the current planning cycle."[13] Specifically, the individual states concluded that there were no state statutory or regulatory public policy-related transmission needs.[14] In these and prior submissions, the states argued that their interests do not establish statutory or regulatory public policy related transmission needs. However, the states should consider defining their interests more broadly to conclude that they have state-driven public policy related transmission needs. Nearly all of the New England States have statutory mandates for greenhouse gas emissions reductions. The states will be unable to accomplish these mandatory reductions without significant upgrades to the grid to enable the integration of greater levels of renewable energy and prepare for electrification of the transportation and buildings sectors.

[12] NESCOE Submission Regarding Transmission Needs Driven by State and Federal Public Policy Requirements, at 1 May 1, 2020, *available at* https://www.iso-ne.com/static-assets/documents/2020/05/nescoe-ppts-submission_5-1-2020.pdf (last accessed March 1, 2021).
[13] *Id.* at 1.
[14] *Id.* at Attachment – State Responses.

While the states may be concerned about the potential outcomes of the public policy transmission process specified in the ISO-NE tariff, in the absence of reforms to Order 1000,[15] the existing public policy transmission process is potentially the best way to pressure ISO-NE to acknowledge the states' interests regarding climate change and change ISO-NE's business as usual, reliability-driven approach to transmission planning. Accordingly, the states should revisit and reconsider their aversion to employing the public policy process transmission for future planning.

6. Transmission Planning Reform Will Not be Productive Unless the Region Addresses Cost Allocation and Ways to Reform the Current System.

The states and ISO-NE should first and foremost establish areas of common ground on the issues outlined above and in the states' Vision Statement. However, they must also endeavor to tackle the most significant impediments to decarbonizing our regional grid—cost allocation. An element of the fundamental lack of trust over Order 1000 is around a cost allocation that the states cannot accept. This is a process of identifying costs and benefits and how they are allocated. It can be formulaic, algorithmic or assessed on a case by case project specific basis.

At the outset of the transmission planning forum, the states noted that the forum would not examine questions relating to cost allocation and siting. Narrowing the scope of planning to exclude these topics will result in a limited view of transmission planning that risks creating an inefficient and incomplete process. Concerns relating to how needed transmission upgrades will be paid for and how the states and ISO can best individually and collectively ensure that transmission projects can be successfully and properly sited are intrinsically tied to transmission planning and achieving states' policy goals. Delaying analysis of such issues will result in an incomplete picture of the challenges involved with planning the transmission grid of the future.

Regarding cost allocation, specifically, as FERC recognized in Order 1000, "knowing how the costs of transmission facilities [will] be allocated is critical to the development of new infrastructure because transmission providers and customers cannot be expected to support the construction of new transmission unless they understand who will pay the associated costs."[16] Order 1000 is far from perfect, and needs to be fixed, but its framework allows for any number of cooperative approaches among the states and among the states and ISO-NE. In the Vision Statement process, the states should explore cost allocation alternatives.[17]

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[15] Because Order 1000 has fallen short in pushing RTOs to plan for future transmission needs driven by public policy instead of just reliability needs, the states should also consider taking steps to encourage FERC to reform its rules regarding RTO planning processes.

[16] *Transmission Plan. and Cost Allocation by Transmission Owning and Operating Pub. Utilities*, Order No. 1000, 136 FERC ¶61051, at 365 (2011) (hereinafter referred to as "Order 1000").

[17] *See, e.g.*, Rob Gramlich & Jay Caspary, *Planning for the Future: FERC's Opportunity to Spur More Cost-Effective Transmission Infrastructure*, ACEG, at 59-67 (January 2021), *available at* https://cleanenergygrid.org/wp-content/uploads/2021/01/ACEG_Planning-for-the-Future1.pdf (last accessed March

Under the ISO-NE tariff, there are a number of options for funding transmission upgrades, including reliability transmission upgrades (RTUs), the costs of which are shared among all six New England states in proportion to their share of the regional load, and elective transmission upgrades (ETUs), whereby project developers must pay 100% of grid upgrades. The ETU model forces interconnecting generators, whose projects necessitate the upgrades, to shoulder all of the burden of upgrades, and creates a process that is highly unpredictable for participating generators who are unsure whether their interconnection requests will require significant upgrades; creates a free-rider problem for subsequent projects that do not bear any of the cost of upgrades; and causes generators to drop out of the interconnection process to avoid having to pay for costly upgrades.[18] The model also fails to take advantage of opportunities to build new infrastructure more cost effectively in a way that maximizes benefits and accommodates new generation projects.[19] The states should consider allocating costs in a way that is "at least roughly commensurate with the benefits"[20] and require customers and generators that receive benefits from transmission infrastructure investments to fund them to an appropriate extent.

If cost allocation cannot be reformed within the existing framework, then the states should consider requesting that ISO-NE reopen the Order 1000 tariff provisions to improve cost allocation. Further, if it is ultimately determined that such improvements are not possible, then the states should make a request to FERC to revise the Order.

7. Transmission Planning Should Maximize the Equitable Use of Existing Transmission Rights-of-Way and Build New Transmission Only Where Necessary.

Authority over the siting of transmission infrastructure rests primarily with the states, and the states should seek to maximize the use of existing transmission rights-of-way, including evaluating the possibility of siting in existing rights-of-way next to rail and road infrastructure, in order to minimize impacts to and avoid resistance from local governments and landowners. Doing so may help reduce environmental harms. In exploring the use of existing rights-of-way, states should also, however, evaluate associated equity implications, to avoid further concentration of and potential harms from expanded infrastructure in impacted communities.

1, 2021); Steve Gaw, *EISG Presentation on Cost Allocation Wars*, Energy Systems Integration Group, at 11-12, 25, 49-51, (February 24, 2021), *available at https://www.esig.energy/event/special-webinar-transmission-series-part-3-paying/*.

[18] Rob Gramlich & Jay Caspary, *Planning for the Future: FERC's Opportunity to Spur More Cost-Effective Transmission Infrastructure*, ACEG, at 28 (January 2021), *available at* https://cleanenergygrid.org/wp-content/uploads/2021/01/ACEG_Planning-for-the-Future1.pdf (last accessed March 1, 2021).

[19] *Id.*

[20] Order 1000, *supra* note 15, at 371.

The states should also begin identifying and addressing siting constraints, current incentive structures that favor new transmission investments over other potentially more beneficial or less harmful approaches, and priorities for transmission planning going forward.

As also discussed above, in all cases of transmission planning and siting, states should solicit input from a diverse set of stakeholders and center the process on ensuring environmental justice and equity.

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Thank you for considering these comments. Public Interest Organizations support the states' recommendation for the region to engage in forward looking long-term transmission planning to meet state policy mandates at least cost. We further support the states' focus on wholesale market design and ISO-NE governance reform, which together with transmission planning are key, interrelated components of ensuring that New England's grid is able to meet the region's electricity needs cleanly, affordably, and reliably. Public Interest Organizations appreciate the opportunity to submit these comments, and we look forward to continuing to participate in the New England Energy Vision process.

Sincerely,

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