

New England Energy Vision Statement

REPORT TO THE GOVERNORS

Advancing the Vision



**NEW ENGLAND STATES' VISION FOR A CLEAN, AFFORDABLE, AND RELIABLE
21ST CENTURY REGIONAL ELECTRIC GRID**

*Submitted by:
Managers of the New England States Committee on Electricity
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REPORT: ADVANCING THE VISION

The New England States' Vision for a clean, affordable, reliable 21st century power grid has brought about important dialogue among state and federal officials, consumers, environmental justice educators, ISO New England (ISO-NE)¹ management and Board of Directors, and electricity market participants.

Changes to wholesale market design, transmission and ISO-NE governance are intricately tied together as we move toward a modern grid that meets needs cost-effectively.

The dialogue around each Vision Statement element - market design, transmission and ISO-NE governance - occurred at technical forums and through written comments. The discussion affirmed that all three elements are intricately tied as we move to a modern grid that meets needs cost-effectively. Since the Vision Statement's October 2020 release, significant progress has been made toward the frameworks and elements the New England states advanced jointly. That progress is described in this report.

For each of the three elements - wholesale market design, transmission and ISO-NE governance - this Report provides: a summary of the relevant Vision Statement section, a status on current activity, and recommendations. Following those sections is a summary of the relevant technical forum. That includes its objectives, speakers, and the written public comments summarized in Appendix B, all of which inform current activities and recommendations.

We are deeply grateful for the time technical forum participants contributed. They helped explain current constructs and their challenges to the public - those whom regional electricity markets exist to serve. Technical forum participants also informed and accelerated our thinking about potential solutions. We are similarly appreciative of those who provided written comments, which merit review beyond the brief summaries in Appendix B.

A Transmission technical forum speaker spotlighted concerns that transcend transmission development: the need to eliminate or mitigate equity and environmental injustices disproportionately borne by certain communities. We are especially grateful to those who participated with state officials in the subsequent *Engage with Energy* session on Equity and Environmental Justice. Certain governance recommendations in this report are important to further state officials' efforts to integrate these issues into energy infrastructure decisions.

This report is another step toward the significant work we need to execute collaboratively as states, and in partnership with the Federal Energy Regulatory Commission (FERC), ISO-NE, and the New England Power Pool (NEPOOL),² for the public we all serve. We look forward to taking the next steps together.

¹ ISO-NE describes itself as "the independent, not-for-profit corporation responsible for keeping electricity flowing across the six New England states and ensuring that the region has reliable, competitively priced wholesale electricity today and into the future." See <https://www.iso-ne.com/about>.

² NEPOOL describes itself "as New England's independent, FERC-approved stakeholder advisory group on all matters relating to the competitive wholesale market rules and transmission tariff design." See <https://nepool.com/about-nepool/>.

Wholesale Electricity Market Design



VISION STATEMENT HIGHLIGHTS



New England's existing wholesale electricity markets must modernize if they are to support achievement of clean energy laws, while maintaining system reliability and fostering more affordable electricity for regional consumers.

The New England States are committed to pursuing a new, regionally-based market framework that delivers reliable electricity service to local homes and business, but that framework must also account for and support States' clean energy laws in an efficient and affordable manner. The States believe that such a framework must, at a minimum, reflect the following principles:

- Meet States' decarbonization mandates and maintain resource adequacy at the lowest cost by using market-based mechanisms;
- Establish effective mechanisms that accommodate existing and future long-term contracts for clean energy resources executed pursuant to state law;
- Integrate distribution-level resources effectively and efficiently;
- Allow interested buyers and sellers to participate; and
- Provide for an appropriate level of state involvement in market design and implementation.

...

NESCOE³ supports continued exploration of an FCEM-like framework and other wholesale market structures and reforms that address the aforementioned challenges associated with the existing capacity market design and our energy and ancillary services markets.

³ NESCOE, the New England States Committee on Electricity, is New England's Regional State Committee. Governed by a Board of Managers appointed by each of the six New England Governors, it represents the collective views of the six New England states on regional electricity matters.

MARKET DESIGN: CURRENT ACTIVITY



ISO-NE, in collaboration with NEPOOL and NESCOE, has underway several high priority analyses in 2021 to assess a reliable future clean energy grid.

One is the ***Future Grid Reliability Study, Phase I***. NEPOOL initiated this study in 2020. This was in response to NESCOE's 2019 request to ISO-NE to dedicate market development and planning resources in 2020 to support states and stakeholders in analyzing and discussing potential future market frameworks that contemplate and are compatible with the implementation of state energy and environmental laws.

The ***Future Grid Reliability Study, Phase I*** is a series of engineering and economic analyses that use NESCOE and stakeholder-defined scenarios to identify grid reliability challenges that could occur in the year 2040 in light of state energy mandates and policies. ISO-NE, NEPOOL and NESCOE worked collaboratively through the NEPOOL Participants Committee to develop a consensus study approach and the scenarios. NEPOOL has submitted the request to ISO-NE as a 2021 Economic Study. ISO-NE will issue a Phase I report in the first quarter of 2022, which NESCOE will assess for its implications.

A contemplated Phase II that would assess revenue sufficiency and system security in a gap analysis is paused. ISO-NE, NEPOOL and NESCOE will consider Phase II after reviewing the results of and issues resolved through the Phase I study

"Prioritize analysis of cumulative impacts, while reducing burdens and increasing benefits to environmental justice populations ~ *Equity and Environmental Justice Forum comment*

and other future grid-related studies. These ongoing analyses will be critical inputs into Phase II; assessing their results will enable efficiencies in how the region approaches and shapes Phase II.

Another study effort is ***Pathways to the Future Grid***, which ISO-NE is undertaking at the request of its Board of Directors. In this analysis, ISO-NE will evaluate the effectiveness and efficiency of two potential market frameworks in facilitating the evolution of New England's power grid that reflects state energy mandates and policies. ISO-NE will evaluate a Forward Clean Energy Market at the request of NEPOOL and NESCOE. A Forward Clean Energy Market is a centralized auction that procures clean energy attributes on a forward basis. A forward procurement would settle on a spot basis in the commitment year. ISO-NE will also evaluate a net carbon pricing framework, its preferred market mechanism. Net carbon pricing is a mechanism that charges carbon emitting generators a price per unit of carbon emitted. This cost would be reflected in generator offers into the wholesale energy market, which has the effect of increasing energy revenues for both emitting and non-emitting resources. The carbon costs collected from emitting generators is netted back to load serving entities. NEPOOL has prioritized advancing this work in a collaborative way with ISO-NE and states through dedicated meetings of its Participants Committee. ISO-NE will issue a report on this analysis in the first quarter of 2022, which NESCOE will assess for its implications.

In furtherance of a potential **Forward Clean Energy Market**, New England state officials, and separately, a diverse group of New England stakeholders, are each exploring a range of questions. These include product definition, interplay with Renewable Portfolio Standards, and authority around demand bids. These parallel efforts and information sharing between them is not to judge a Forward Clean Energy Market ahead of forthcoming analysis, but rather to help shape that analysis, to identify and narrow issues that may require more in-depth analysis and discussion, and to preliminarily assess options and inherent trade-offs.

As noted in the Vision Statement, NESCOE supported continued exploration of a Forward Clean Energy Market and **other wholesale market structures and reforms** that address the challenges associated with the existing capacity market design and our energy and ancillary services markets. NESCOE is in the early stages of considering concepts for new wholesale energy and ancillary service market mechanisms - or for improvements to the current market mechanisms - that would support the continued availability of existing highly efficient generation resources, as well as existing clean energy resources, which are needed for system reliability.

To the extent that ancillary services and energy market mechanisms are enhanced, this has the potential to de-emphasize the capacity market as a primary source of revenue for supporting resources needed for resource adequacy. In the technical forums, many panelists observed that resource adequacy needs are changing with a resource adequacy model based on summer peak load as the central focus for resource retention and incentivizing new resources becoming less important as the integration of variable energy resources increases on the grid. Reforms addressing this changing landscape must be addressed contemporaneously with other major market design reforms.

Since the Vision Statement was issued, there has been broad recognition that action is needed to prevent the **Minimum Offer Price Rule** (a federal rule requiring a minimum price for new resources entering the capacity market) from impeding the ability of resources sponsored by states from clearing in the Forward Capacity Market. Reforming this rule has become a regional priority, given the preference expressed by FERC's chairman and comments from some fellow Commissioners. ISO-NE distinguishes New England from other regional markets as requiring the rule's reform to be filed concurrent with other changes to influence capacity prices that ISO-NE believes are needed to maintain reliability, though ISO-NE has yet to provide supporting data or analysis.

Finally, there appears to be broad recognition that ISO-NE's **Competitive Auctions with Sponsored Policy Resources** market mechanism that was intended to integrate certain state-supported resources into the Forward Capacity Market is not an effective means to do so.

MARKET DESIGN: RECOMMENDATIONS

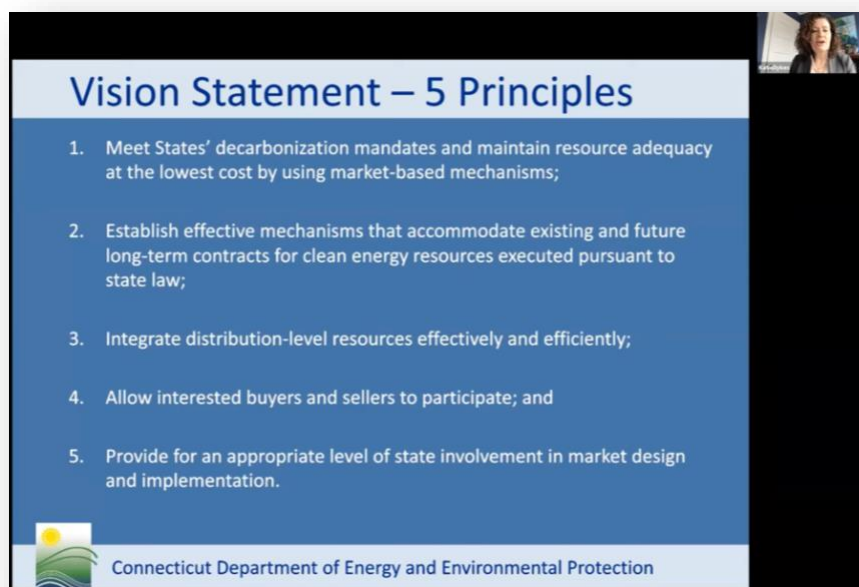
Support what will work best for consumers in considering potential new market mechanisms or adjustments to existing mechanisms. To that end,



- Progress to the next level of market design detail on a regional forward market through which states may elect, at each state's option, to procure clean energy attributes. Discussion to date on such a market shows some promise compared to other designs. Such a forward, opt-in style regional market has the potential to deliver scalable clean energy that provides predictability to all market participants and appropriate flexibility for each state to make determinations about whether, when, and to what extent participation makes sense based on then-current needs. With ISO-NE and market participants, work to develop market design details and associated analyses to further inform state judgments about pursuing the implementation of such a market. This assessment will include consideration of any interim or transitional design features that may be necessary before ultimately achieving the most economically efficient form of regional forward market, including, as one example, a single regional clean energy product definition. The development of any mechanism that the states pursue to achieve state jurisdictional policy goals and mandates must carefully consider the states' role in the governance of that program.
- Continue to assess other potential market mechanisms, such as but not limited to, a market approach that supports the needs of new and existing clean energy resources. Assessment of a mechanism that supports the differing needs of new resources, as well as existing resources that help meet reliability needs, will turn in part on the design details of the forward market described above.
- Continue to explore potential new energy and ancillary service market mechanisms - or improvements to such current market mechanisms - that could support the region in reliably and cost-effectively integrating large amounts of intermittent renewable energy resources in a way that is compatible with states' decarbonization mandates.
- Engage in ISO-NE's recommended approach to eliminating the Minimum Price Offer Rule (MOPR), and any related FERC proceeding, while ensuring that any other changes that ISO-NE seeks to pair with MOPR reforms in the name of promoting system reliability are fully evaluated and justified based on verifiable data.

WHOLESALE MARKET DESIGN TECHNICAL FORUM

The Connecticut Department of Energy and Environmental Protection, Maine Governor's Energy Office, Massachusetts Executive Office of Energy and Environmental Affairs, New Hampshire Public Utilities Commission, Rhode Island Office of Energy Resources, and Vermont Department of Public Service held a technical forum in February 2021. The purpose was to discuss with the public wholesale electricity market design changes needed in the New England region to advance the principles identified in the Vision Statement. A complete record of the technical forums, including recordings of Wholesale Market Design forums One and Two, is available at this [link](#).



Markets Technical Forum Video [Day 1](#) and [Day 2](#)

Technical Forum Objectives



reach common understanding

- states' energy laws, policies and perspectives
- basics of the regional electricity market, NEPOOL, ISO-NE and NESCOE
- Vision Statement market design principles

discuss

- resource adequacy and approach in various regions, including jurisdictional issues
- current problems with the wholesale market design as it relates to consumer costs and state clean energy laws and mandates

explore

- proposed alternative market designs - energy only, forward clean energy market, residual capacity market, modified fixed resource requirement - and criteria for evaluation
- pros and cons of each, along with jurisdictional questions



The New England states appreciated the contribution of experts on various aspects of wholesale market design. Their presentations and biographies are available at this [link](#).

Wholesale Market

Design

Speakers

Session 1

New England State Officials

Identified laws, policies, perspectives that drive energy policy; highlighted state modeling related to carbon reduction goals and mandates

Dave Cavanaugh, NEPOOL Chair

Explained NEPOOL, its history and stakeholder process; reviewed relevant initiatives underway - Future Grid Reliability Study and Future Market Pathways

Eric Johnson, ISO-NE

Described ISO-NE and its role, resource adequacy, why it administers the wholesale markets and its various components - capacity, energy and ancillary services.

NESCOE Managers

Provided an overview of NESCOE and its role

New England State Officials

Discussed the wholesale market principles in the Vision Statement and why they are key to state support for market reforms

Wholesale Market

Design

Speakers

Session 2

The Honorable Tony Clark, Wilkinson Barker Knauer, LLP

Provided an overview of resource adequacy, how other regions approach it, and the importance of clarity around planning responsibilities; discussed forward capacity markets; summarized state/federal jurisdictional issues.

Market Participant Panel (Abby Krich, Pete Fuller, Doug Hurley, James Daly, Phil Martin)

Identified and discussed current problems with the wholesale market design as it relates to consumer costs and state clean energy laws and mandates.

Consultant/Observer Panel (Steve Corneli, Kathleen Spees/Brattle, Casey Roberts/Sierra Club, Jennie Chen)

Identified and discussed alternative market designs and concepts, such as an energy-only market, a forward clean energy market, a residual capacity market, and a modified fixed resource requirement approach.

Rob Gramlich, Grid Strategies, LLC

Discussed pros and cons of centralized procurement approaches, including jurisdictional considerations.

Transmission Planning



NEW ENGLAND STATES' VISION FOR A CLEAN, AFFORDABLE, AND RELIABLE
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VISION STATEMENT HIGHLIGHTS



NESCOE supports the efficient use of existing transmission facilities and the construction of new facilities, where necessary and appropriate, to ensure the transmission grid's reliability, efficiency, and ability to integrate clean energy resources, consistent with certain States' legal requirements and other mandates.

However, ISO-NE currently does not conduct a routine transmission planning process that helps to inform all stakeholders of the amount and type of transmission infrastructure needed to cost-effectively integrate clean energy resources and DERs across the region. The need for such planning has become paramount.

NESCOE recommends that ISO-NE conduct a comprehensive long-term regional transmission planning process that involves interested stakeholders who wish to provide input into the development and implementation of a framework. As a starting point, such a framework would include the following:

1. Initiate a regional transmission planning effort that provides a high-level transmission system plan to meet the needs of States' energy transition, with participation and input by State officials,
2. Use the scenarios that have been developed and used in various States' analyses of pathways to decarbonization as a starting point for developing multiple future resource scenarios (e.g., 3-4) as the basis for assessing future regional transmission needs, and conduct a conceptual regional transmission system plan for the select future scenarios for identified timeframes (e.g., 2030, 2040 and 2050),
3. Provide needed transmission system planning information to the region, including high-level cost estimates,
4. From the conceptual system plan, conduct detailed analyses for specific scenarios, with the objective being to understand future conditions and needs, including:
 1. Onshore system upgrades, including specific areas that need strengthening,
 2. Offshore systems that may be needed to support offshore wind resources,
 3. Potential options that should be explored, including non-transmission alternatives, and
 4. The impact of DERs (both distributed generation and flexible load sources) on transmission needs,
5. With the insights gained from the scenarios used in the long-term system planning, conduct stakeholder meetings to discuss the potential use of transmission to integrate all of the necessary energy resources in the region at the lowest cost possible, and
6. Informed by States' direction, conduct detailed planning processes to maximize the use of existing transmission, build new transmission only where absolutely necessary, and use competitive processes to minimize costs to consumers.
7. After completing the steps above with States and stakeholders, ISO-NE should identify process changes that may be required, the frequency at which the process would be repeated (or the analysis updated), and the adoption of such a process into ISO-NE's routine transmission planning efforts to ensure the integration of clean energy resources at the lowest possible cost.

TRANSMISSION PLANNING: ISO-NE RESPONSE AND CURRENT ACTIVITY



The ISO-NE Board of Directors responded to the Vision Statement’s transmission component by committing that ISO-NE would conduct a high-level, long-term transmission study, the *2050 Transmission Study*.

The *2050 Transmission Study* will inform the region of the amount, type and high-level cost estimates of transmission infrastructure that would be necessary to cost-effectively incorporate clean-energy and distributed energy resources and to meet New England states’ energy policy requirements and goals, including economy wide decarbonization. The analysis and cost estimates are expected to include material upgrades to the distribution system necessary to integrate such a level of clean energy resources.

The analysis may affirm the need for substantial new infrastructure investment to advance state mandates and policies, including emerging reliability challenges associated with anticipated electrification of the transportation and heating sectors.

The study will look out to 2050, well beyond ISO-NE’s current ten-year requirement for transmission planning to meet the region’s reliability needs. This will enable the New England states to prepare for that time horizon, as well as interim points in time such as 2035 and 2040.

“Transmission planning must: 1) include a wide-array of environmental justice community stakeholders’ voices during the entire planning process; 2) seek input from environmental justice populations; and 3) translate environmental justice populations’ viewpoints into coherent and concrete policies.” ~ *Equity and Environmental Justice Forum comment*

The *2050 Transmission Study* is not a recommendation, plan or foreshadowing of a specific transmission project to satisfy one or more New England state policy objectives or mandates. No transmission project will move forward unless one or more New England states elect to move ahead with incremental transmission infrastructure to satisfy policy requirements or mandates.

Examining the interim year 2040 will align transmission system analysis and cost estimates with the *Future Grid Reliability Study*. As discussed earlier, the *Future Grid Reliability Study*, requested by NEPOOL, is a series of engineering and economic analyses that uses NESCOE and stakeholder-defined scenarios to identify grid reliability challenges that could occur in the year 2040 in light of state energy mandates and policies. ISO-NE expects to issue a report explaining that analysis in early 2022.

The New England states and ISO-NE’s transmission planning staff are actively working to identify inputs and assumptions for the *2050 Transmission Study*, as well as discussing other potential applications of the long-term planning studies. ISO-NE has agreed that proactive system planning is necessary and useful to support the states’ policy directions.

Following those early conversations, and before ISO-NE commences work, the *2050 Transmission Study* will be discussed with ISO-NE's Planning Advisory Committee. This will include conversation and feedback about its scope, assumptions and inputs. The Planning Advisory Committee is a public forum in which interested persons may ask questions and provide feedback at the meeting or later in writing. These meetings are accessible to persons across the region through remote participation. The request in this report for ISO-NE to issue information about major infrastructure planning items to the Planning Advisory Committee in non-technical terms will enable community engagement and help state officials' efforts to integrate equity and environmental justice considerations into infrastructure decision-making.

This month, FERC took two noteworthy steps toward enhanced federal-state coordination that are directionally supportive of the Vision Statement's focus on transmission system reliability, efficiency, and ability to integrate clean energy resources:

- Established a Joint Federal-State Task Force on Electric Transmission that may consider issues and potential solutions related to transmission planning, resource interconnection, and cost allocation.
- Issued a policy statement clarifying how states and other entities can enter into voluntary agreements relative to the development and funding of electric transmission facilities.

The New England states welcome the opportunity to engage in these emerging developments.

This type of long-term, state-led transmission planning tool must be routine. To that end, ISO-NE has committed to developing and submitting to FERC modifications to its transmission planning tariff, the rules that govern its planning processes and activities. Revising the tariff will ensure that this flexible, scenario-based mechanism is integrated into the planning process, providing critical insight into transmission system needs and costs that result from state mandates and policies. ISO-NE has indicated that work on tariff language will begin by the third quarter of 2021.

TRANSMISSION PLANNING: RECOMMENDATIONS



- Continue to inform and define the *2050 Transmission Study*, with input from stakeholders. Assess the results of the *2050 Transmission Study* and, leveraging insight gained from the scenario analysis, determine collective or individual state interest in exploring the use of “competitive processes to minimize costs to consumers” consistent with the Vision Statement and in furtherance of state policies or mandates.
- Work with ISO-NE and stakeholders to ensure that ISO-NE's transmission planning tariff is reformed on a timely basis to implement a state-led, proactive scenario-based planning process for long-term analysis of state mandates and policies as a routine planning practice.
- Proactively engage in and shape other anticipated transmission system planning reform efforts, such as updating ISO-NE's rules to provide states

with a more meaningful role in the evaluation and selection of public-policy driven transmission projects and continue to explore ways to improve the process to interconnect clean energy. This recommendation is also important to enabling state officials' efforts to integrate equity and environmental justice considerations in each state into infrastructure decision-making.

TRANSMISSION PLANNING TECHNICAL FORUM

The Connecticut Department of Energy and Environmental Protection, Maine Governor's Energy Office, Massachusetts Executive Office of Energy and Environmental Affairs, New Hampshire Public Utilities Commission, Rhode Island Office of Energy Resources, and Vermont Department of Public Service held a technical forum

in February 2021. The purpose was to discuss with the public transmission planning changes needed in the New England region to advance the priorities identified in the Vision Statement. A complete record of the technical forum, including a [recording](#), is available at this [link](#).



Transmission Planning Technical Forum [Video](#)

Technical Forum Objectives



reach common understanding

- states' position on regional market and system needs
- current transmission planning process

discuss

- magnitude of system needs
- need to maximize use of existing system
- importance of environmental justice in planning and developing transmission projects

share

- knowledge of how other system planners are developing plans to meet the needs of the future



The New England states appreciated the contribution of experts on various aspects of transmission planning. Their presentations and biographies are available at this [link](#).

Transmission Speakers

Bob Ethier, ISO-NE, VP of System Planning

Provided a simplified summary of ISO-NE's current transmission planning process

Bill Quinlan, Eversource, President of Transmission

Provided a synthesis of states' simulated future electricity load and resource mix, including distributed energy resources, in the context of transmission needs

Dr. Biljana Stojkovska, National Grid Electricity System Operator

Gave an overview of the United Kingdom's analysis in planning for offshore wind grid to meet clean energy goals

Marc Montalvo, Daymark Energy

Discussed the traditional drivers of transmission needs and the new paradigm for transmission needs, and how the traditional planning process needs improvement

Rebecca Tepper, Office of the Massachusetts Attorney General

Described the importance of maximizing the use of the existing system by using advanced technologies to reduce environmental and ratepayers' cost impact

Sharon Lewis, Executive Director of Connecticut Coalition for Environmental Justice

Explained the importance of environmental justice when planning and developing transmission

Craig Price, Australia System Operator (AEMO)

Shared Australia's experience with scenario-based long-term transmission planning

ISO-NE GOVERNANCE



VISION STATEMENT HIGHLIGHTS



ISO-NE's mission and governing structure were established when the electric industry was restructured about twenty-five years ago. At that time, regional planning and markets had relatively marginal interaction with the requirements of state laws: markets were to be fuel-neutral, transmission needs were largely reliability-based, and states were to achieve their clean energy goals through the new Renewable Portfolio Standards. Today, we need all that, and more.

Accordingly, as noted above, in July 2019, NESCOE called for an assessment of ISO-NE's wholesale market objectives, market designs, and mission statement given these changed circumstances and legal requirements.

Just as the time is right for a holistic relook at markets and transmission planning, so too is it time to ensure ISO-NE's mission and governance keep pace with changes in law and a transitioning energy system.

ISO-NE's governance does not give a sufficiently meaningful voice to State and consumer interests and its mission statement does not reflect the relationship between ISO-NE's functions and the New England States' legal requirements, policy imperatives, and associated consumer interests.

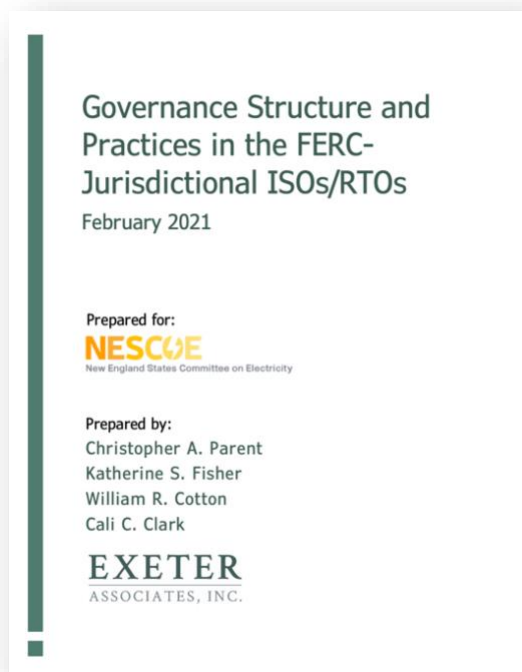
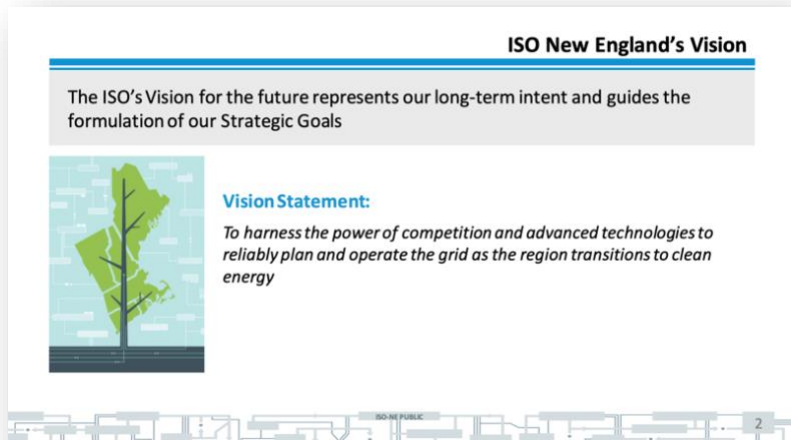
Beginning in 2021, ISO-NE and its Board should convene a collaborative process with States and stakeholders to identify potential changes to its mission statement and governance structure that improve transparency and foster improved alignment with a rapidly-evolving 21st century clean energy grid. As part of this process, NESCOE seeks to explore reform of ISO-NE governance to achieve greater transparency around decision-making, a needed focus on consumer cost concerns, and support for States' energy and environmental laws.

Commencing that discussion next year affords time now for the States and stakeholders to consider best governance practices that other grid operators have adopted and to review other relevant information. Doing so will permit the gathering of constructive ideas on how to ensure that ISO-NE's management and Board become more transparent and accountable to the public in their decision-making, including meaningful consideration of consumer interests and States' energy and environmental requirements.

The States expect that any governance changes pursued through this collaborative process should be informed by consideration of the issues raised in this Vision Statement, including, but not limited to: (1) whether the process for identifying and recommending ISO-NE Board members provides State officials with an appropriately meaningful role that is commensurate with the public interest, (2) the interplay described in this Vision Statement between the requirements of State laws and regional planning and markets, and (3) the lack of transparency in ISO-NE management and Board of Director decision-making.

ISO-NE GOVERNANCE: ACTIVITY

ISO-NE adopted a Vision Statement to guide its Strategic Goals in November 2020. The Vision has important echoes of the states' 2020 Vision Statement in recognizing the transition to clean energy.



NESCOE commissioned Exeter Associates, Inc. to produce a report, *Governance Structure and Practices in the FERC-Jurisdictional ISOs/RTOs*. The full report, issued in February 2021, is available at this [link](#).

The report provides a summary of the governance structure and practices of the six FERC-jurisdictional independent system operators and regional transmission organizations (ISOs/RTOs): California ISO, New York ISO, ISO New England, Midcontinent ISO, PJM Interconnection, and Southwest Power Pool.

The report does not capture every nuance of governance, but rather provides a macro view across the different ISOs/RTOs for comparison and discussion purposes. Matrices produce a summary comparison of the key aspects of the governance structure and practices across the six regions. The report helps to identify both simple practices that ISO-NE could adopt on its own

initiative without the need for tariff reforms and those that would require a stakeholder process and FERC consideration and approval.

Shortly after the Vision Statement issuance, the **ISO-NE Board of Directors** indicated an intent to discuss governance issues.



The **ISO-NE Board of Directors' Nominating and Governance Committee** agenda indicates it discussed the technical forum on Governance in March 2021. A subsequent Board Report confirms “[t]he Committee discussed comments regarding the need for improved Board transparency,” although it offered no additional information. The May 2021 agenda indicates it is formulating a proposal regarding Board transparency. The June 2021 Board Report explains that “[T]he Committee also discussed the governance component of the states’ vision document” without further elaboration.

ISO-NE GOVERNANCE: RECOMMENDATIONS

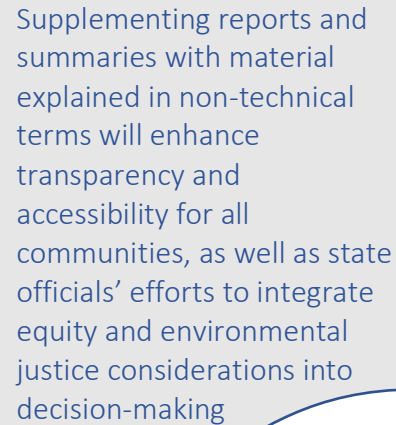


- The assessment of governance practices used by other regional transmission operators and discussion of governance reforms described below reveal a number of best practices that would enhance ISO-NE’s transparency and accountability. Some are within ISO-NE’s discretion and could be implemented quickly. The Vision Statement called on ISO-NE and its Board to “convene a collaborative process with States and stakeholders to identify potential changes to its mission statement and governance structure that improve transparency and foster improved alignment with a rapidly-evolving 21st century clean energy grid.” To date, agendas of an ISO-NE Board Committee indicate governance and transparency discussion; however, no process has been convened or proposal advanced.

The New England States call on ISO-NE to adopt the following practices and governance reforms, at a minimum:

- ISO-NE Board of Directors establish a standing Board of Director Committee on State and Consumer Responsiveness, with a charter that includes explicit assessment of consumer costs and interests in fulfilling its responsibilities, and consideration of how state requirements and mandates interact with and should be accounted for as part of ISO-NE’s work and mission. State officials should be invited to attend and participate in discussions of this Committee as non-voting participants. Such Committee will also assist state officials’ efforts to integrate equity and environmental justice considerations.

- ISO-NE Board of Directors schedule at least annual public meetings of its Board of Directors to allow states and the public to hear from Board members on current issues and priorities. Holding some public Board meetings in the evenings, after traditional work hours, will increase public accessibility for all communities.
- ISO-NE Board of Directors provide increased substantive detail in Board reports and minutes to inform the public and stakeholders about the Board's decision-making, including how it balanced different interests in making decisions and issuing guidance to ISO-NE management.
- ISO-NE management issue public summaries of reports to the Board in those circumstances when there are alternative proposals in order to provide some visibility into the information upon which the Board and management bases decisions that affect New England electricity consumers.
- ISO-NE updates its mission statement to appropriately balance and account for consumer and state interests in exercising its authority to affect electric power rates and system reliability, designing and implementing markets and market rules, and planning for the interconnection of resources providing service to the regional grid.
- In circumstances where ISO-NE rejects a proposal or amendments supported by at least a majority of the six New England states, ISO-NE details in writing prior to the NEPOOL Participants Committee vote on such matter how it balanced consumer costs and other state interests against other factors.



Supplementing reports and summaries with material explained in non-technical terms will enhance transparency and accessibility for all communities, as well as state officials' efforts to integrate equity and environmental justice considerations into decision-making

- In connection with the development of future ISO-NE market rule changes, where such changes seek to execute or integrate state energy and environmental policies and requirements, ISO-NE should collaborate with the states to propose a form of shared section 205 rights with states.
- “States should have a stronger role in ISO-NE and NEPOOL processes, so that they can further the intent of their environmental justice laws and policies.” ~ *Equity and Environmental Justice Forum comment*
- The New England states would also support FERC revisiting the ISO/RTO governance and process requirements set out in Order No. 719, issued over a decade ago, to ensure, among other things, that states and consumers in New England are meaningfully represented in: (i) the composition of ISO-NE’s Board of Directors, (ii) the Joint Nominating Committee process that governs Board nominations, and (iii) ISO-NE’s mission statement. Additionally, governance procedures must provide appropriate public access to, and transparency into, ISO-NE management and Board decision-making. This includes but is not limited to material that is presented in non-technical terms to enable accessibility by all communities.

ISO-NE GOVERNANCE TECHNICAL FORUM

The Connecticut Department of Energy and Environmental Protection, Maine Governor’s Energy Office, Massachusetts Executive Office of Energy and Environmental Affairs, New Hampshire Public Utilities Commission, Rhode Island Office of Energy Resources, and Vermont Department of Public

Service held a technical forum in February 2021. The purpose was to discuss with the public regional transmission system operators’ governance practices and reforms needed in the New England region to advance the priorities identified in the Vision Statement. A complete record of the technical forum, including a [recording](#), is available at this [link](#).

AREA	CAISO	ISO-NE	MISO	NYISO	PJM	SPP
Open to Public?	Yes	No ^[1]	Yes	Yes	Yes	Yes
Senior Committee	None	Participants Committee	Advisory Committee	Management Committee	Members Committee	Markets & Operations Policy Committee
Voting Stakeholders	None	NEPOOL members	MISO members ^[2]	NYISO voting members	PJM members ^[3]	SPP members
Non-Voting Participating Stakeholders	Stakeholders	NESCOE (and state commissions)	Non-members	• NYISO non-voting members • NY DPS/PSC	Non-members	Non-members
Sponsor Issues/Proposals in the Stakeholder Process	Stakeholders	• NEPOOL members • NESCOE	Stakeholders	NYISO members	Stakeholders	Stakeholders
Senior Committee Voting Approach	None	6 weighted sectors (66%/60%) ^[4]	10 weighted sectors (66%) ^[5]	5 weighted sectors (58%)	5 weighted sectors (66%)	2 weighted sectors (66%)
Appeals Process (to whom)?	Yes (Board)	Yes (Participants Committee)	No	Yes (Management Committee/Board)	No	Yes (Board)

Note: This matrix is focused on how stakeholders provide feedback on proposals and not necessarily the transmission planning process or other regional stakeholder processes that may be in place.

ISO-NE Governance Technical Forum [Video](#)

Technical Forum Objectives



reach common understanding

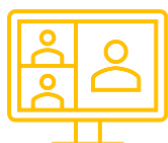
- current ISO-NE governance practices and processes
- states' concerns about transparency, accountability, and mission statement alignment

gather

- information about consumer- and state-responsive governance frameworks

discuss

- elements of existing governance practices and processes that should be preserved
- alternative governance practices and processes that should be considered



The New England states appreciated the contribution of experts in various aspects of regional system operator governance. Their presentations and biographies are available at this [link](#).

Governance Speakers

Anne George, ISO-NE, Vice President External Affairs and Corporate Communications

Provided an introduction and overview of current governance practices, including state engagement, decision-making, board selection

Panel: Anne George/ISO-NE, Doug Hurley/Synapse, Christina Belew/MA AG, Matt Nelson/NESCOE Managers

Identified and discussed current problems and areas of improvement with governance in the State/NEPOOL/ISO-NE structure

Panel: Prof. Stephanie Lenhart, Christina Simeone, Prof. Seth Blumsack, Steve Gaw

Gave an overview of Lessons Learned: Governance in other Regions

Prof. Michael Dworkin

Reflected on Governance Over the Past 15 Years

Panel: Prof. Kate Konschnik (moderator), Travis Kavulla/NRG, Prof. Shelley Welton, Michael Panfil

Discussed alternative governance frameworks and options to improve the existing governance process

Equity and Environmental Justice Forum

The Connecticut Department of Energy and Environmental Protection, Maine Governor's Energy Office, Massachusetts Executive Office of Energy and Environmental Affairs, New Hampshire Public Utilities Commission, Rhode Island Office of Energy Resources, and Vermont Department of Public Service held a



Equity and Environmental Justice Forum [Video](#)

public forum on the evening of March 18, 2021 to talk about equity and environmental justice concerns related to the Vision Statement. This state official hosted forum was incremental to and not a substitute for the regular public input and comment opportunities administered by state officials in state agency proceedings and other forums.



A recording of the Equity and Environmental Justice Forum, which had several hundred attendees, is at this [link](#). The purpose was to introduce the broad range of issues in the Vision Statement and to afford an opportunity for participants to question and discuss it with state officials. In addition to engaging about the Vision Statement, the forum welcomed comment on other questions, as follows:

- What energy challenges exist in your community?
- When you think about energy, what matters most to you?
- What changes to the energy system would you most like to see?
- What are the biggest barriers to changing our energy system?
- What ways can state governments better engage people on energy issues?
- What is your vision for our energy future?

VISIÓN DE ENERGÍA DE NUEVA INGLATERRA

INVOLUCRATE CON LA ENERGÍA

Aprenda sobre el sistema energético regional de Nueva Inglaterra, haga preguntas y comparta sus pensamientos sobre cómo la planificación energética podría ser más equitativa.

18 DE MARZO DE 2021
6:30 A 8:00 PM EST

INSCRÍBASE AQUÍ GRATUITAMENTE

Si tiene preguntas sobre este evento, por favor comuníquese con Claire Sickinger al claire.sickinger@ct.gov

Por favor comuníquese con Cenit Mirabal en cenit.mirabal@ct.gov o llame al (860) 418-5938 si necesita ayuda o servicio de comunicación; necesita información en otro idioma; o si desea presentar una queja por discriminación según la ADA o el Título VI. Cualquier persona que necesite una adaptación para la audiencia puede llamar al número de retransmisión del estado de CT: 711.

After the forum, fourteen individuals and organizations submitted written comments including: Aaron Goode, Acadia Center, Brian Campbell, Clifford Krolick, Community Action Works, Darla Bruno, Environmental Defense Fund, Hannah Metzger, Innu Nation of Labrador, Letecia Colon de Mejias, Massachusetts Climate Justice Working Group, Northeast Clean Energy Council – Advanced Energy Economy – Sunrun – Enel, Regina Cornwell, and William Lynch. The comments are at this [link](#).

EQUITY AND ENVIRONMENTAL JUSTICE: NEXT STEPS



Pursue creation of an *Ad Hoc State Work Group on Equity and Environmental Justice in Energy Infrastructure*, comprised of New England state officials with policy, permitting, siting, and regulatory authorities. Such group would work with the participation of regional partners, including for example, ISO-NE leadership, NEPOOL sector representatives, environmental justice representatives, academic experts, FERC, and others. Initial goals would include identifying barriers to integrating individual states' environmental justice considerations into the regional planning processes and to develop best practices that seek to address these barriers over time.

Preliminarily, and in advance of such best practices work group, some near-term action items will facilitate transparency and accessibility in regional electricity matters for all communities. NESCOE will:

- Share the Engage with New England Energy forum comments and requests with ISO-NE leadership and state officials in each New England state with energy infrastructure planning, permitting and siting authority.
- Suggest that the ISO-NE's Planning Advisory Committee, an open public forum, consider issuing supplemental meeting material that describes the major infrastructure agenda items briefly in non-technical language.
- Suggest that the ISO-NE's Regional System Plan include a supplement that explains the primary findings and project list in non-technical language.

APPENDIX A

October 2020 Governors' Statement



NEW ENGLAND'S REGIONAL WHOLESALE ELECTRICITY MARKETS AND ORGANIZATIONAL STRUCTURES MUST EVOLVE FOR 21ST CENTURY CLEAN ENERGY FUTURE

A clean, affordable, and reliable regional electric grid – together with transparent decision-making processes and competitive market outcomes that fully support clean energy laws – is foundational to achieving our shared clean energy future. Connecticut, Maine, Massachusetts, Rhode Island and Vermont are deeply committed to addressing climate change and cost-effectively reducing economy-wide greenhouse gas emissions by at least 80 percent below 1990 levels by 2050, recognizing some states have higher goals. To achieve these goals, we need a decarbonized grid capable of supporting the accelerated adoption of more sustainable electric, heating, and transportation solutions for families and businesses. Moreover, the region's electric markets must account for the full value of on-going state investments in clean energy resources made pursuant to our laws.

Going forward, we require a regional electricity system operator and planner that is a committed partner in our decarbonization efforts, and will:

- 1. Proactively develop market-based mechanisms, in concert with state policymakers, that facilitate growth in clean energy resources and enabling services, while fully accounting for on-going renewable energy investments made pursuant to enacted state laws;***
- 2. Conduct best-in-class system planning activities that proactively address our clean energy needs;***
- 3. Ensure grid resiliency and reliability at least cost in a manner that is responsive to state and consumer needs; and***
- 4. Adopt an organizational mission and structure to reflect our energy transition and establish a higher degree of accountability and transparency to the participating States and other stakeholders.***

Our States have long supported open, competitive market-based mechanisms as a primary means to meet the resource adequacy and reliability needs of our shared electricity grid. Our States restructured the markets for electric generation and retail supply in the 1990s (with the exception of Vermont), and rely on FERC jurisdictional markets and an Independent System Operator (ISO-New England) to operate the regional power system, implement competitive wholesale markets, and ensure open access to the transmission system. As our States accelerate efforts to expand clean energy resources and combat the global challenge of climate change, we now seek to better align our regional competitive markets with the achievement of our decarbonization goals.

Long-range modeling efforts conducted in our States are providing an increasingly clear picture of the electricity system that will be needed to support deep economy-wide decarbonization. The gap between our current system and the system we need to achieve deep decarbonization is marked. Today's wholesale electricity market and organizational structures: (1) are based on a market design that is misaligned with our States' clean energy mandates and thereby fails to recognize the full value of our States' ratepayer-funded investments in clean energy resources; (2) lack a proactive transmission planning approach and tools that facilitate the development of a future system with more clean, dynamic and distributed resources; and (3) are based on a governance structure that is not transparent to the states and customers it serves, with a mission that is not responsive to States' legal mandates and policy priorities. Recognizing these shortfalls, it is time to make the necessary changes to meet the challenges of our 21st century energy transition.

Working together, in consultation with the New England States Committee on Electricity (NESCOE), we have developed a Vision document outlining areas where reform is vital if New England is to achieve its carbon-reduction goals. In the coming months, our States will convene open and accessible forums to ensure that all interested stakeholders have an opportunity to participate in further refinement of our shared Vision for market reform, system planning, reliability, and governance. Through ongoing collaboration with all interested parties, our States are committed to realizing long-lasting, functional, and transparent market-based solutions that will truly facilitate New England's clean energy future.



Charlie Baker
Governor of Massachusetts



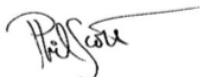
Ned Lamont
Governor of Connecticut



Janet Mills
Governor of Maine



Gina Raimondo
Governor of Rhode Island



Phil Scott
Governor of Vermont

APPENDIX B

SUMMARY OF WRITTEN PUBLIC COMMENTS

Wholesale Market Design: Written Public Comments



The New England states appreciate the interest and input from a wide variety of stakeholders on wholesale electricity market design. Below is a summary of comments submitted to the New England states after the Wholesale Market Design technical forums.¹ They will continue to inform ongoing state and stakeholder deliberations. The comments are available in their entirety at this [link](#).

Acadia Center, Conservation Law Foundation, Natural Resources Defense Council, and Sierra Club (collectively, “Public Interest Organizations”)

Public Interest Organizations observes that current market structures increasingly conflict with state policy priorities and expresses concerns over the pace and trajectory of change, high consumer prices, and surplus resources. Public Interest Organizations comment on certain alternative market designs over the long term and other market reforms in the near term. Public Interest Organizations recommend changes to the capacity market and the prices at which clean energy resources are permitted to offer supply into this market. Public Interest Organizations also recommend reforms to energy and ancillary services markets that provide proper price signals to and enable greater participation of renewable generation, advanced technologies, and customer-side resources. Public Interest Organizations urge continued effort to implement and strengthen climate and clean energy laws and continued use of state-led competitive procurements while, in parallel, supporting longer-term market reforms. Public Interest Organizations provide specific recommendations for near-term changes to current market design and express skepticism regarding an incremental price on carbon emissions. Public Interest Organizations encourages addressing current market design issues before adding additional wholesale market designs and objectives.

Advanced Energy Economy, Enel X North America, Northeast Clean Energy Council, and Sunrun (“Advanced Energy Stakeholders”)

Advanced Energy Stakeholders offer a set of guiding principles for economically and environmentally sustainable outcomes. Advanced Energy Stakeholders view reform of the Forward Capacity Market as centrally important to the goal of achieving the states’ energy and environmental goals and contend that the proposed Integrated Clean Capacity Market (ICCM)² could align with their guiding principles, if designed and implemented

¹ The comment summaries in this Report are intended to provide a brief sense of commenters’ perspectives. The summaries are not intended to be comprehensive or to reflect states’ positions. All comments warrant direct review.

² This design integrates the Forward Clean Energy Market into the Forward Capacity Market.

appropriately. Advanced Energy Stakeholders offer views on some wholesale market design issues and alternate proposals.

Guiding Principles for recommended next steps:

- Ensure states' priorities are respected in competitive wholesale markets
- Maintain reliability at a reasonable cost to customers
- Leverage regional, competitive solutions and promote durable, predictable markets
- Make full use of flexible demand and empower customers to contribute to the energy transition through investments in distributed energy resources
- Define and procure needed grid services through technology-neutral markets
- Remove existing barriers to market entry for new technologies and facilitate market exit of resources no longer needed to meet regional needs

Alternative market design observations: Advanced Energy Stakeholders contend that regional market-based approaches are preferable to alternative resource adequacy constructs and state-by-state resource adequacy plans in attracting diverse, cost-competitive new advanced energy resources and maintain existing advanced energy resources. Advanced Energy Stakeholders also contend that alternative resource adequacy constructs and state-by-state resource adequacy plans increase reliability and cost risks for individual states that may arise from portfolios they construct. Advanced Energy Stakeholders state that regional competitive markets help to mitigate and share risks, whereas residual capacity market and energy-only market designs increase risks. Advanced Energy Stakeholders view an ICCM and carbon pricing as consistent with its guiding principles and as potentially promising solutions.

Next steps: Advanced Energy Stakeholders recommend the New England states continue proactive and vocal engagement on wholesale market reforms, especially in the NEPOOL process and through active discussion with ISO-NE and the ISO-NE Board. Advanced Energy Stakeholders also request the New England states provide periodic updates on progress related to this work and to concurrently strive to identify any state law changes that may be indicated through the future market framework and pathway process.

American Clean Power Association

American Clean Power Association promotes market designs that foster competition and enable development of clean, affordable and reliable power. To that end, American Clean Power Association describes an alternative market design framework. American Clean Power Association contends that the "Capacity as a Commodity" market design that values reliability and consumer choice is superior to the current capacity market design. American Clean Power Association supports an online exchange reflecting bilateral market transactions to meet consumer choice objectives that is also supplemented by a centralized auction to meet remaining reliability requirements.

Environmental Defense Fund

Environmental Defense Fund recommends the states reaffirm the principles that will be applied when evaluating potential market designs for decarbonizing the region's electricity

sector in a responsible and equitable manner. Environmental Defense Fund seeks guidance from states on the types, amounts, and timing of necessary balancing services relative to the growing share variable energy resources. Environmental Defense Fund contends that analysis of and eligibility to provide ancillary services should be technology neutral.

FirstLight Power

FirstLight strongly supports decarbonizing the electric grid at a pace and scale commensurate with emissions reduction targets. FirstLight contends that to create a system that is simultaneously clean, affordable and reliable, contributions will be needed from new and existing renewable resources, and new and existing storage resources, as well as energy efficiency and other demand-side resources. FirstLight recommends a focus on equitable compensation of existing zero-carbon resources and electric storage. FirstLight contends that the best outcomes for the states' consumers will be achieved by transporting clean energy delivered during periods of low demand (e.g., midday peak solar contributions, or possibly the highest clean generation periods of offshore wind) to periods of greater reliability or emission reduction needs using electric storage. Accordingly, FirstLight recommends market designs that differentiate the value of clean energy by the timing of clean energy delivery.

Hull Street Energy

Hull Street Energy identifies the importance of building a stable framework for attracting and retaining private capital investment over time, insulated from shifts in state priorities and changes to energy policy. Hull Street Energy recommends a technology-neutral approach to market design that automatically adapts to technology changes over time. Hull Street Energy recommends treating new and existing resources comparably. Hull Street Energy seeks to better understand how environmental externalities can be incorporated into the power market without pricing carbon dioxide emissions to a greater extent.

Mark Montalvo of Daymark Energy Advisors

Mr. Montalvo recommends that market design objectives be updated to align pricing incentives with current state policy objectives. Mr. Montalvo recommends an approach that clearly defines the attributes desired by state policy objectives and structures a procurement mechanism that acquires a portfolio that, in the aggregate, meets the demand for such attributes. Mr. Montalvo espouses simplicity in market design and observes that any potential market reforms must be evaluated against the efficacy of state-led competitive solicitations.

New England for Offshore Wind

New England for Offshore Wind supports regional collaboration in designing a market that appropriately values clean energy resources and aligns with states' climate mandates. New England for Offshore wind supports the states' recommendation to establish market mechanisms that accommodate existing and future long-term contracts for clean energy resources executed pursuant to state law. New England for Offshore Wind prefers that any future clean energy market design appropriately values social, economic, and environmental benefits such as environmental and wildlife protection, equity, and economic development. New England for Offshore Wind urges a continued push for

offshore wind procurements and regional collaboration to the extent possible to capture economies of scale as well as regional social and economic benefits.

New England Power Generators Association (NEPGA)

NEPGA supports identification of economically efficient, market-based solutions that can help states meet legal obligations while maintaining long-term system reliability and competitive market outcomes. NEPGA observes consumer benefits associated with electricity restructuring and associated transfer of investment risk from ratepayers to competitive market participants and related economic and environmental benefits from a cleaner and more efficient generation portfolio. NEPGA supports measures to address climate change and invest in enabling electricity infrastructure through a price on carbon dioxide emissions and through reliability products and services. NEPGA emphasizes a need for a sustainable and durable market design to support competitive revenue opportunities for all resources, including resources that provide firm, flexible, and/or dispatchable energy as well as low- and zero-carbon emissions. NEPGA perceives long-term contracting outside of regional wholesale markets as presenting financial risks to existing competitive resources needed for reliability and clean energy generation. NEPGA seeks to work collaboratively to develop a durable, long-term market solution that facilitates orderly entry and exit of resources and balances inclusion of renewable and zero-carbon generation and competitive market outcomes.

RENEW Northeast

RENEW supports competitive approaches for wholesale market compatibility with achieving state clean energy and climate policies. RENEW perceives a need for resource-neutral reforms to wholesale markets, clearly defined reliability criteria for balancing services³ in a future with high penetrations of variable energy resources, and proper compensation for existing non-emitting resources, including a price on carbon dioxide emissions. RENEW favors a two-pronged approach to reforms that includes continued clean energy procurements in parallel with future changes to competitive wholesale markets.

Vistra Corporation

Vistra supports comprehensive and durable market reform that enables states to achieve clean energy goals while preserving the benefits of regional markets. Vistra observes two prominent approaches for achieving state carbon emissions reduction goals within the wholesale markets: carbon pricing and a clean energy standard, with a preference for carbon pricing. Vistra highlights unresolved details related to proposed market designs and recommends retaining resource neutrality to the extent possible. Vistra urges continued effort toward developing sustainable market designs.

³ Balancing services are generally meant as resources that can “balance” the system needs when variable energy resources are unable to operate (e.g. when the wind isn’t blowing).

Written Public Comments – Transmission Planning



The New England states appreciate the interest and input from a wide variety of stakeholders on forward-looking transmission analysis. Below is a summary of comments submitted to the New England states after the Transmission technical forum. They will continue to inform ongoing state and stakeholder deliberations. The comments are available in their entirety at this [link](#).

Acadia Center, Conservation Law Foundation, Natural Resources Defense Council, and the Nature Conservancy

Acadia Center, Conservation Law Foundation, Natural Resources Defense Council, and the Nature Conservancy (collectively, “Public Interest Organizations”) comment extensively on a host of transmission planning issues and related reforms. Public Interest Organizations recommend the following changes:

- 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, adverse 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.

To that end, Public Interest Organizations specifically contend that:

- The scope of transmission planning must be broadened to integrate reliability, public policy and economic potential to maximize the value of transmission investments.
- Load forecasting must make the best use of state and ISO New England data to help identify when, where and how transmission needs to be built to ensure it serves multiple values.

- 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.
- 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.
- The states should consider revisiting the order 1000 public policy process for future planning.
- Transmission planning reform will not be productive unless the region addresses cost allocation and ways to reform the current system.
- Transmission planning should maximize the equitable use of existing transmission rights-of-way and build new transmission only where necessary.

Advanced Energy Economy & Northeast Clean Energy Council

Advanced Energy Economy (AEE) and the Northeast Clean Energy Council (NECEC) observes that offshore wind development, growth in distributed energy resources, and electrification of heating and transportation will require changes to planning and operating the transmission system. AEE and NECEC state that longer-term transmission planning performed iteratively (refreshed on a regular cycle) will better prepare the region for change. AEE and NECEC provide a list of principles for transmission planning:

- Make efficient use of existing transmission infrastructure
- Prioritize proactive, long-term planning
- Rely on competition when possible
- Take demand-side resources into account
- Remove barriers to use of non-infrastructure solutions and advance energy technologies
- Prioritize distribution system planning

AEE and NECEC also provide recommendations for a 2050 Transmission Plan to be developed by ISO New England at the request of the states. AEE and NECEC support public meetings, for example through the Planning Advisory Committee, to enable and open and transparent processes that improve on the analysis and build confidence in results. AEE and NECEC contend that such public meetings are essential for diverse stakeholder participation and should be sustained throughout the process, especially for planning issues with community and environmental impacts.

Anbaric Development Partners

Anbaric Development Partners (“Anbaric”) states that New England will need tens of gigawatts of new renewable energy sources and that transmission is a cost-effective means for increasing the scale of renewable energy. Anbaric observes that recent analysis identifies consumer cost savings associated with a planned approach to transmission development. Anbaric suggests that transmission expansion can also help facilitate renewable power purchases by third-party buyers (corporations and municipalities, example) to supplement state-led procurements. Anbaric recommends the states pursue near term analysis that results in competitive procurements in late 2021 or early 2022 in

parallel to longer-term transmission planning. Anbaric states that asset condition projects should also be studied with a focus on public policy goals and subject to competitive procurement. Anbaric observes that developing a portfolio of projects has facilitated cost allocation arrangements in other regions of the country. Anbaric provides a sample framework for transmission planning and procurement under existing ISO New England Tariff provisions.

FirstLight Power

FirstLight Power supports maintaining a competitive and reliable grid that advances clean energy goals. FirstLight states that grid-scale energy storage can serve as a less expensive and easier to site alternative to some transmission development. FirstLight advocates for market reforms that would encourage retirement of certain existing resources. FirstLight contends that strategic re-use of certain locations on the transmission system, currently occupied by potential candidates for retirement, could also serve to better utilize the existing and future transmission system.

Joel N. Gordes, electricity consumer

Mr. Gordes states that over dependence on any source of energy has risk. Mr. Gordes expresses concern about offshore wind and associated transmission development.

Nature Conservancy

The Nature Conservancy states that NESCOE should have more influence on grid planning matters. Nature Conservancy envisions increased stakeholder participation in long-term grid planning through NESCOE. Nature Conservancy supports change to technical committee invitation practices to be open to all stakeholders. Nature Conservancy supports immediate transmission planning for offshore wind as a means to limit impacts on the environment and aquatic species, mitigate winter time fuel security risks, and counter long lead times associated with siting, permitting, and construction.

New England for Offshore Wind

New England for Offshore Wind (“OSW”) supports regional collaboration on long range transmission planning efforts. New England for OSW expresses concern about infrastructure siting and environmental justice. New England for OSW describes planning process characteristics that would improve access to and confidence in energy siting outcomes. New England for OSW recommends states set regional targets for OSW development in future milestone years to facilitate transmission planning. New England for OSW observes potential benefits of a planned approach that integrates policy goals, siting, and non-transmission alternatives.

RENEW Northeast

RENEW Northeast supports transmission planning and development efforts to enable renewable and clean energy delivery. RENEW observes the potential scale of renewable resource development associated with carbon emissions reduction targets. RENEW contends that upgrades to the transmission system will be necessary to meet such targets. RENEW provides specific suggested changes to planning practices intended to increase use of existing transmission infrastructure. Such changes include:

- Study raising the 1200 megawatt single contingency limit on new interconnections
- Consider system performance improvements and future policy impacts in addition to cost when making reliability or asset condition upgrades
- Consider transmission investments at a higher voltage than 345 kV
- Address jurisdictional seam issues between the transmission and distribution interface that inhibit technical solutions and increase interconnection costs for generators

RENEW advocates for reforms to the public policy transmission planning provisions in the ISO New England tariff.

Tufts Power Systems and Markets Research Group

Tufts Power Systems and Markets Research Group (Tufts) states that the transmission grid will be the ultimate enabler of renewable energy deployment and that doubling, if not tripling, the capacity of the existing grid is necessary for achieving 2050 emissions reductions targets. To that end, Tufts contends that the onshore grid infrastructure must be deliberately prepared to incorporate the supply from offshore wind. Tufts states that an affordable and lasting offshore grid infrastructure requires a coordinated, networked approach, rather than the current, project-by-project radial approach. Tufts observes that long-term transmission expansion planning is essential to preparing for and delivering the energy transition.

ISO-NE Governance: Written Public Comments



The New England states appreciate the interest and input from a wide variety of stakeholders on ISO-NE governance as well as those practices and processes used in other regions. Below is a summary of comments submitted to the New England states after the Governance technical forum. They will continue to inform ongoing state and stakeholder deliberations. The comments are available in their entirety at this [link](#).

Acadia Center, CLF, EDF, NRDC, Sierra Club, & Sustainable FERC Project Acadia Center, Conservation Law Foundation, Environmental Defense Fund, Natural Resources Defense Council, Sierra Club, and the Sustainable FERC Project (collectively, “Public Interest Organizations”).

The Public Interest Organizations suggest several potential reforms for consideration, including:

- Aligning ISO-NE’s mission statement with State decarbonization goals and policies
- Removing barriers to participation in the ISO New England and New England Power Pool stakeholder processes
- Change ISO New England’s decision-making processes to establish stakeholder committees and working groups when appropriate, create and fund a regional consumer advocate, require state review of ISO New England decisions to consistency with state policy, and incorporate environmental issues and environmental justice criteria
- Requiring all proposals for major Tariff changes filed by ISO-NE for approval by FERC incorporate an enhanced impact assessment by a neutral third party and include sufficient information to allow for an understanding of how proposed Tariff changes are forecasted to impact consumers’ energy burden, environmental externalities and co-benefits, and environmental justice
- Change ISO New England’s board and leadership policies and structures by changing or expanding composition of the board, making board meeting public, and to establish a board committee on climate change

Public Interest Organizations recommend potential avenues for pursuing such reforms, including current and future stakeholder processes and regulatory proceedings.

AEE, NECEC and Sunrun

Advanced Energy Economy (“AEE”), the Northeast Clean Energy Council (“NECEC”), and Sunrun (collectively, “Advanced Energy Stakeholders”) support continued evolution of the effective governance structures. Advanced Energy Stakeholders recommend that the states collectively identify ultimate objectives with respect to governance reforms. Advanced Energy Stakeholders suggest the states determine whether ISO New England’s mission needs to change, what decision making role and issues the states envision in regional electricity matters, and whether decarbonization and consumer costs should be incorporated into ISO New England decision making. Advanced Energy Stakeholders recommend specific near term, incremental reforms:

- Reform the ISO New England board member joint-nominating committee process to increase transparency and consider stakeholder input on the slate of potential candidates
- Create new permanent committees on the ISO New England board related to the transition to a decarbonized grid; harmonizing ISO New England markets, planning, and operations with state policies; and consumer issues
- Hold open sessions of the ISO New England board meetings and make meeting minutes publicly available
- Consider establishing a role and funding source for a regional consumer advocate, similar to the Consumer Advocates of the PJM States
- Require ISO New England to publicly post an explanation of major or strategic decisions (for example, the annual work plan)
- Diversify ISO New England board membership to include more diverse gender representation, experience with consumer advocacy issues, and advanced energy technology sector experience
- Increase ISO New England board member participation in regional stakeholder activities

Advance Energy Stakeholders also recommend specific longer-term, substantial reforms to electricity sector governance:

- Update the ISO New England mission statement to also include achievement of state policies, advance grid decarbonization, and support energy innovation
- Strengthen ISO New England's obligation to analyze costs and benefits of major market rule change proposals by bringing clarity to current analytical requirements and by imposing new requirements for prospective and retrospective analysis of the holistic costs and benefits of major market rule change proposals
- Increase the state role in regional electricity matter decision-making

Mr. Brian Campbell

Mr. Brian Campbell, electricity consumer, expresses concern about electricity costs and power sector air emissions in New England. Mr. Campbell expresses concern about offshore wind resources' cost, environmental impacts, and reliability.

Ms. Jennie Chen

Ms. Jennie Chen submits a policy brief written in March of 2019 for the Nicholas Institute at Duke University titled, *State Participation in Resource Adequacy Decisions in Multistate Regional Transmission Organizations* for consideration.

Community Action Works

Community Action Works supports a transition to a clean, local, and renewable energy system. Community Action Works recommends changes that would result in less fossil fuel use, increased renewable and distributed energy use, and more transparent and democratic and affordable electricity grid.

Consumer Advocates of New England

The Connecticut Office of Consumer Counsel, Maine Office of the Public Advocate, Massachusetts Attorney General's Office, New Hampshire Office of the Consumer Advocate, and the Rhode Island Division of Public Utilities and Carriers (collectively, the Consumer Advocates of New England or "CANE") support ISO New England governance reform. CANE identifies shortcomings of the current system of regional electricity governance including a lack of transparency, barriers to stakeholder participation, lack of consumer advocacy experience on the ISO New England board, and a lack of concern for consumer costs. On the latter, CANE recommends ISO-NE's mission statement be amended to provide cost estimates for a wider range of initiatives reinforced with Tariff provision changes requiring certain cost/benefit analysis. CANE recommends creation of a funding source in the ISO New England tariff for ratepayer advocacy participation in regional electricity matters.

Energy Analysis

Mr. Paul Peterson of Energy Analysis supports decarbonization of the electricity grid by 2030 as a means to achieve emissions reductions targets. Mr. Peterson recommends aligning ISO New England's mission with state goals and policies. Mr. Peterson states that joint leadership between states and ISO New England will be essential to decarbonizing the electricity system.

The Nature Conservancy

The Nature Conservancy states that the current ISO New England governance structure lacks transparency in board makeup and decision making, accountability to consumers and rate payers, and inclusion of state policies and goals in planning and decisions. The Nature Conservancy suggests that ISO New England hold open board meetings like other regional transmission organizations or justify the current practice. The Nature Conservancy suggests that NESCOE and represented states hold a veto over ISO New England board decisions. The Nature Conservancy recommends that consumer perspectives be considered in ISO New England board decisions. The Nature Conservancy supports alignment of state policy and ISO New England planning. The Nature Conservancy states that ISO New England's mission statement should be changed to include transparency measures, cost considerations, and integration of state policies.

The NESCOE Managers express special thanks to the staff at the Connecticut Department of Energy and Environmental Protection for assistance in organizing technical forum logistics, and for easing public accessibility to information by creating and maintaining a dedicated web presence at www.newenglandenergyvision.com