REPORT TO THE NEW ENGLAND GOVERNORS 2022

New England States
Committee on Electricity

Representing the Collective Interests of the Six New England States

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A Reliable, Affordable, Clean 21st Century Power System

From Analysis to Action

The process of transforming New England's power system to meet state clean energy mandates and to maintain affordability requires a corresponding evolution of each of the interconnected elements of the regional electric grid: wholesale markets, transmission planning, and ISO-NE governance and accessibility.

The year 2022 delivered progress toward making reforms that will harmonize these elements with current state laws and changes to the underlying New England power system. NESCOE appreciates the major grid transformation-related work that ISO-NE produced in response to requests from the New England Power Pool, the ISO-NE Board and NESCOE: the *Future Grid Reliability Study,* the *Pathways to a Future Grid Analyses,* the *2050 Transmission Study*, and ISO-NE's response to requests for winter reliability assessments. A broad range of stakeholder perspectives on the engineering, economic, transmission, market, and consumer cost analysis are necessary to make decisions that will result in a grid that is reliable, affordable, and clean.

The year 2022 also saw evolution in ISO-NE governance and accessibility, and NESCOE appreciates that ISO-NE made several enhancements in this regard. Among these enhancements are an ISO-NE Board Resolution on Cost-Consciousness; an agreement to open a Board meeting to the public annually; and, in matters where regional proposals seek to implement state energy or environmental policies, an agreement that ISO-NE will develop and propose, in collaboration with the New England states, designs that provide the states with decision-making authority.

Achieving state law mandates will require progress on transmission infrastructure development in the years ahead. As buildings must rest on solid foundations, the region has work to do, including, for example, on transmission cost analysis, accuracy of transmission project cost estimates, visibility into transmission owners' asset condition replacement projects and planning, and community engagement on siting decisions. The New England states welcome an earnest partnership with federal agencies, ISO-NE, the transmission owners, consumer advocates, and other stakeholders to continue to make progress on these fronts.

It is time to move, together, from analysis to action, from study to solutions.

SECTION I: NESCOE GOVERNANCE

A Board of Directors representing the six New England states directs NESCOE's affairs and engagement in regional issues. Each Governor appoints the state's NESCOE Manager. Regardless of the number of individuals each Governor appoints as a NESCOE Manager, each New England state has one undivided vote in arriving at NESCOE determinations.

The vast majority of NESCOE determinations have been unanimous, reflecting the commonality of interests across the region and New England states' efforts to achieve consensus on regional electricity matters. In circumstances where there is not consensus, NESCOE makes determinations with a majority vote (i.e., a numerical majority of the states) and a majority weighted to reflect relative electric load of each state within the region's overall load.

State of Connecticut
Commissioner, Department of Energy and Environmental Protection
Katie S. Dykes

Katie Scharf Dykes is the Commissioner of Connecticut's Department of Energy & Environmental Protection (DEEP). She was nominated by Governor Ned Lamont to serve as the Commissioner of DEEP and was confirmed on February 20, 2019. Katie previously served as Chair of the Connecticut Public Utilities Regulatory Authority (PURA) from 2015-2018, and as Deputy Commissioner for Energy at Connecticut DEEP from 2012-2015. Katie also served as the Chair of the Board of Directors of the Regional Greenhouse Gas Initiative, Inc. (RGGI) from 2014 to 2017. RGGI is a multi-state effort focused on reducing carbon emissions from electric generating facilities. Katie joined CT DEEP in March 2012 after prior service as Deputy General Counsel for the White House Council on Environmental Quality and as a Legal Advisor to the General Counsel for the U.S. Department of Energy. She is a graduate of Yale College and the Yale Law School.

State of Maine
Chairman, Public Utilities Commission
Philip L. Bartlett II

Philip L. Bartlett II, J.D., was appointed to the Maine Public Utilities Commission in June 2019 by Governor Janet Mills. Prior to his appointment, he practiced law with Stacia, Bartlett & Chabot. He also served in the Maine Senate from 2004 to 2012 and was elected by his peers to serve as Senate Majority Leader from 2008 to 2010. Bartlett chaired the Energy, Utilities and Technology Committee as well as the Joint Select Committee on Maine's Energy Future and he served on the Government Oversight Committee, Natural Resources Committee and Labor Committee. He taught micro and macroeconomics at the collegiate level. Chairman Bartlett holds a juris doctorate degree from Harvard Law School. He completed his undergraduate work at Tufts University, where he graduated Summa Cum Laude majoring in Economics and Political Science. His term expires in March 2025.

Commonwealth of Massachusetts
Chair, Department of Public Utilities
Matthew Nelson*

Matthew Nelson was appointed Chair of the Department of Public Utilities in February 2019. Nelson began his energy career at the Department in 2007 in the Natural Gas Division. Subsequently, Nelson served as the Supervisor of Regulatory, Policy, and Planning for Eversource Energy as part of the nationally recognized Mass Save program. Returning to the Department, Nelson became the Director of Electric Power, and Regional and Federal Affairs. During Nelson's time at the Department, he has investigated a wide range of utility issues, including grid modernization investments, general rate case issues, solar and renewable energy development, energy efficiency, climate strategies, competitive supply, and storm restoration issues. Nelson's work at the Department and elsewhere has focused on reducing costs to ratepayers while improving reliability and continuing to drive down greenhouse gas emissions. Nelson is a graduate of Stonehill College and he holds a master's degree in economics from Tufts University. ** Chairman Nelson concluded service to NESCOE in 2023.*

Commissioner, Massachusetts Department of Energy Resources
Patrick Woodcock*

Patrick Woodcock was named DOER Commissioner in February 2020. Formerly the Executive Office of Energy and Environmental Affairs' Undersecretary of Energy, Commissioner Woodcock was named Acting Commissioner in December 2019 and served in this role until his current appointment.

Woodcock joined the Baker-Polito Administration in 2017 and served as the Undersecretary of Energy in the Executive Office of Energy and Environmental Affairs for over two years. In that position, Woodcock oversaw the Department of Energy Resources and the Department of Public Utilities. Woodcock serves on the Massachusetts Clean Energy Center Board and Investment Committee, represents Massachusetts on the Boards of the Regional Greenhouse Gas Initiative Inc. and National Association of State Energy Officials and is a member of the Energy Facilities Siting Board.

Prior to his time in the administration, Woodcock was Director of the Maine State Energy Office, a position he held from 2013 through 2016. Previously, Woodcock worked for United States Senator Olympia Snowe in her Washington, D.C. office. Woodcock graduated from Bowdoin College and holds a Bachelor of Arts degree in Government. ** Commissioner Woodcock concluded service to NESCOE in 2023.*

State of New Hampshire
Commissioner, Department of Energy
Jared Chicoine

Jared Chicoine leads the New Hampshire Department of Energy. Prior to his appointment, Jared served as Director of the New Hampshire Office of Strategic Initiatives, and as a Policy Director in the Office of the Governor.

State of Rhode Island
Commissioner, Office of Energy Resources
Nicholas Ucci*

Nicholas S. Ucci serves as Commissioner of the Rhode Island Office of Energy Resources (OER), the state's lead agency on energy policy and programs. OER works closely with private and public stakeholders to foster clean, affordable, and reliable energy solutions for all consumers, while spurring economic and job growth opportunities across Rhode Island's burgeoning clean energy economy.

During his time at OER, Commissioner Ucci has helped expand the state's clean energy portfolio nearly ten-fold, while supporting Rhode Island's standing as a national leader in energy efficiency innovation. He has played a significant role in major renewable energy procurements, including selection of the 400 MW Revolution Wind (offshore) project, and is leading efforts to ensure that 100% of the state's electricity demand is met with renewables by 2030—a nation-leading effort. Nick has also been instrumental in guiding the state's Heating Sector Transformation (HST) initiative and helping to double EV charging infrastructure across Rhode Island roadways.

Nick served as Executive Director of the Rhode Island Energy Efficiency & Resource Management Council (EERMC) and Distributed Generation (DG) Board, as well as Vice Chairman of the state's Executive Climate Change Council (EC4). He is also a recipient of the Environmental Merit Award (Government) from the U.S. Environmental Protection Agency (EPA).

A lifelong resident of the Ocean State, Nick is a proud graduate of the University of Rhode Island (URI), where he earned a Master of Arts degree in Political Science, with a concentration in Public Policy and a Graduate Certificate in Labor Relations. He also holds Bachelor of Arts degrees, with Highest Distinction, in Political Science and Economics from URI. * *Commissioner Ucci concluded service to NESCOE in mid-2022.*

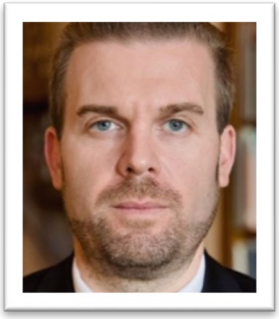
State of Rhode Island
Chairman, Public Utilities Commission
Ron Gerwatowski*

Ron Gerwatowski was appointed to the Public Utilities Commission as Chairman in June 2020 by Governor Gina Raimondo. His term runs through February 2026. Chairman Gerwatowski has worked in the utility and energy industry for over thirty years. Prior to his appointment, he served as a Senior Regulatory Advisor to the Rhode Island Division of Public Utilities and Carriers. For the past four years, he has been a guest lecturer and instructor in the Energy Fellows Program at the University of Rhode Island.

He previously served as Assistant Secretary of Energy in Massachusetts in 2015, before moving to Rhode Island. Prior to that time, he served in several different legal and utility executive capacities in various jurisdictions, including Rhode Island, Massachusetts, New Hampshire, and New York.

Chairman Gerwatowski graduated *magna cum laude* from Boston College Law School in 1985, where he served as Managing Editor of the *Boston College Law Review*. He has been a member of the Rhode Island Bar Association since 1991. * *Chairman Gerwatowski began service as a NESCOE Manager in mid-2022.*

State of Rhode Island
Commissioner, Office of Energy Resources
Chris Kearns*



Commissioner Kearns heads the Rhode Island Office of Energy Resources' (OER) in its mission to lead the state toward a clean, affordable, reliable, and equitable energy future. Commissioner Kearns' agency develops policies and programs that respond to the state's evolving energy needs, while advancing environmental sustainability, energy security, and a vibrant clean energy economy. Commissioner Kearns works with public- and private-sector stakeholders to ensure that all Rhode Islanders have access to cost-effective, resilient, and sustainable energy solutions.* *Commissioner Kearns began service as a NESCOE Manager in mid-2022.*

State of Vermont
June Tierney
Commissioner, Department of Public Service

Commissioner June E. Tierney was sworn in as the Commissioner of the Vermont Department of Public Service by Governor Phil Scott on January 5, 2017. Prior to her appointment, Commissioner Tierney served as general counsel to the Vermont Public Service Board (2012-2016). Before then, she was a Board hearing officer (2008-2012), as well as a staff attorney at the Vermont Department of Public Service (2001-2008). A 1986 graduate of Boston University and a 1993 graduate of Vermont Law School, Commissioner Tierney began her legal career with a clerkship at the Vermont Supreme Court, followed by three years as an associate at Davis Polk & Wardwell in New York City, where she specialized in securities fraud litigation, white collar crime defense and corporate internal compliance investigations. Before her admission to the bar, Commissioner Tierney enjoyed the privilege of serving on active duty (1986-1990) as a commissioned officer in the United States Army.

SECTION II: 2022 STAFF & CONSULTANTS

The NESCOE staff team has diverse academic and professional backgrounds—including in economics, accounting, and law—and a cross section of private and public sector experience. NESCOE's staff and technical consultants bring comprehensive and deep experience to analysis and filings with FERC, other federal agencies, federal courts, and ISO-NE.

Shannon Beale, Assistant General Counsel

Shannon Beale joined NESCOE in 2022 as Assistant General Counsel. Previously, she worked for the Massachusetts Attorney General as an Assistant Attorney General in its Energy and Telecommunications Division. Prior to that, Shannon was Counsel and Hearing Examiner with the Massachusetts Department of Public Utilities. Earlier in her career, Shannon practiced law with a firm that focused on litigation and had several law clerk positions, including with the Environmental Protection Agency. Shannon has a Bachelor of Arts, *cum laude*, from Ithaca College. She has a Juris Doctor and Master of Environmental Law and Policy, *magna cum laude*, from the Vermont Law School, where she served as an editor of the *Vermont Journal of Environmental Law*.

Jeff Bentz, Director of Market Affairs

Jeff Bentz, CPA, is NESCOE's Director of Market Affairs and has been with NESCOE since 2011. Previously, Jeff was with a New England generating facility, MASSPOWER, for nearly twenty years. Jeff served in progressive positions with MASSPOWER and was ultimately its General Manager. Earlier in his career Jeff was CPA with Arthur Andersen and Company. Jeff has a Bachelor of Science degree in Accounting from Central Connecticut State University.

Dorothy Capra, Director of Regulatory Services*

In 2011, Dorothy Capra was named NESCOE's Director of Regulatory Services. Beginning in 2000, Dorothy was International Power's Director of Regulatory Affairs for NEPOOL and subsequently assumed that role for PJM as well. In that capacity, she coordinated regulated activities in New England and PJM and related activities at the FERC. Dorothy was elected Vice Chair of the New England Power Pool's (NEPOOL) Transmission Committee and has served in the past as Vice Chair of its Reliability Committee. Earlier, Dorothy was with New England Electric System (National Grid) for ten years in a variety of positions, including in transmission and rates. She began her career at BP Oil, Inc. Dorothy has an MBA from the Amos Tuck School at Dartmouth and a BS in Chemical Engineering from Washington University in St. Louis. ** Dorothy retired at the end of 2022.*

Heather Hunt, Executive Director

Heather Hunt joined NESCOE as Executive Director in 2009. Previously, Heather had a regulatory law practice for six years, was Director of State Government Affairs for United Technologies Corporation and Group Director, and subsequently, Vice President, for Regulatory at Southern Connecticut Gas. Earlier, she was a Public Utility Commissioner in Connecticut and then in Maine and was on the legal staff of a Connecticut Governor. Heather has a Bachelor of Arts in Politics from Fairfield University and a Juris Doctor from Western New England College School of Law. Heather served as Chair of the national Organ Procurement and Transplantation Network's Living Donor Committee and was elected to its Board for a term through June 2025.

Sheila Keane, Director of Analysis

Sheila Keane joined NESCOE in 2021 as Director of Analysis. Previously, she worked for the Massachusetts

Department of Public Utilities, where she held a variety of roles, including Director of Regional and Federal Affairs. Earlier, Sheila worked in the private sector with a consulting firm, London Economics International. Sheila is a graduate of Harvard University and holds a master's degree in economics from Johns Hopkins SAIS.

Jason Marshall, Deputy Executive Director and General Counsel*

Jason Marshall joined NESCOE in 2012 as Senior Counsel and was elevated to General Counsel in 2014. In 2021, Jason was named Deputy Executive Director. Previously, he was Counsel with the Regional and Federal Affairs Division of the Massachusetts Department of Public Utilities. Earlier, Jason served as Legal Counsel to a Massachusetts State Senator, as an associate at Brown Rudnick LLP, and as a Law Clerk to the Chief Justice of the Massachusetts Appeals Court. Jason has a Bachelor of Arts, with honors, from Boston College and a Juris Doctor, with honors, from the University of Connecticut School of Law. He currently serves on the Cambridge Board of Zoning Appeal. ** Jason concluded service on NESCOE staff in 2023 when he was named Deputy Secretary and Special Counsel for Federal and Regional Energy Affairs Massachusetts Executive Office of Energy and Environmental Affairs, and a NESCOE Manager.*

Technical Consultants and Legal Support

NESCOE retains consultants to provide technical analysis in the areas of system planning and expansion and resource adequacy. In 2022, NESCOE worked with consultants such as **Daymark Energy Advisors, Wilson Energy Economics, and Peter Flynn LLC**.

NESCOE does not use litigation as a primary means to accomplish its objectives, and when it does use litigation, NESCOE staff produces much of the organization's legal work. NESCOE's legal activity often focuses on consumer interests in proceedings at FERC. Like past years, NESCOE participated in a broad range of FERC proceedings involving issues such as electric transmission planning and rates and wholesale market rules. When NESCOE required outside counsel, it worked primarily with **Phyllis G. Kimmel Law Office PLLC** in Washington D.C.

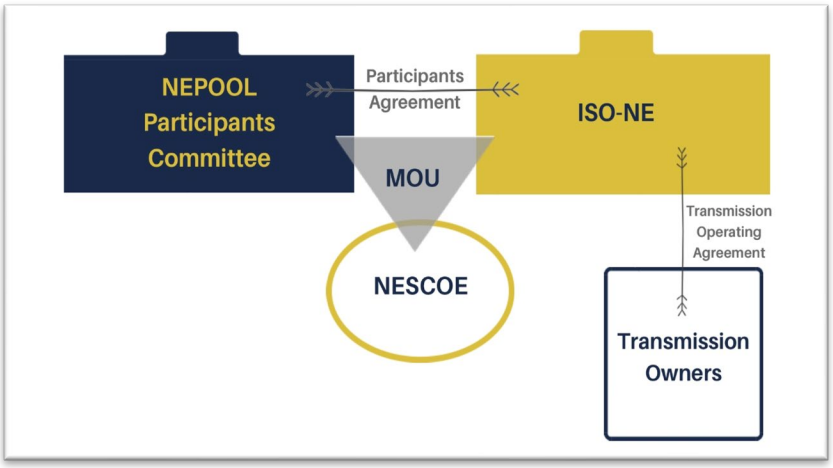
SECTION III: REGIONAL STATE ENTITY COORDINATION

NESCOE regularly communicates with the New England Conference of Public Utility Commissioners (NECPUC) to share information about matters on which it is working and to avoid duplication of efforts. In 2022, NESCOE and NECPUC participated together in meetings with ISO-NE management and its Board of Directors, as well as with NEPOOL sectors. As issues warrant, NESCOE facilitates dialogue with subject matter experts from state governments to enhance coordination and leverage the technical expertise that exists within state agencies on issues with regional electric system implications.

SECTION IV: 2022 ACTIVITY, FOCUS AREAS & ACCOMPLISHMENTS

PARTICIPATION IN REGIONAL STAKEHOLDER FORUMS ON BEHALF OF CONSUMER INTERESTS

New England consumers fund the region's wholesale electricity markets and high-voltage transmission system. The annual costs of the wholesale electricity markets have ranged over the past decade from a low of $5.3 billion in 2016 to a high of $14.7 billion in 2022, the highest since the market was implemented in 2003. These costs include the energy, capacity, and ancillary services markets. The record-high 2022 prices were the result of a significant increase in natural gas prices due to New England's reliance on a constrained natural gas transmission system and events at the national and international level, including the Russian-Ukrainian conflict.

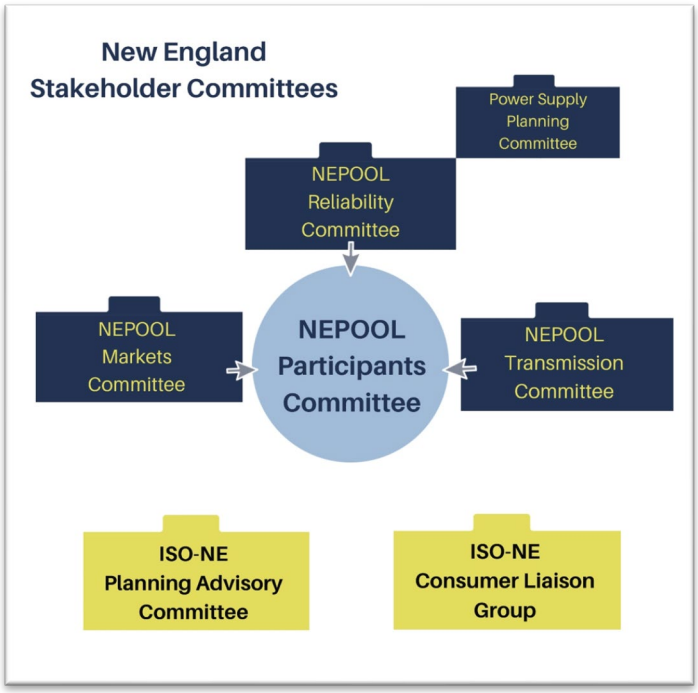


The plans and rules that determine the level and type of consumer investments in these markets are largley developed as part of a regional stakeholder process. Most proposals must ultimately be presented to FERC for its deliberation. Participating in these activities and the subsequent regulatory proceedings is resource-intensive but important: even "minor" revisions to market rules or planning approaches can mean significant changes and have material consumer cost implications.

After FERC approved NESCOE as New England's Regional State Committee, NESCOE commenced activity in 2009, consistent with a Memorandum of Understanding among NESCOE, ISO-NE, and NEPOOL.

FERC reviews ISO-NE's filings to determine whether market rules and other proposals are "just and reasonable" under the Federal Power Act. Provided that there is a certain super-majority level of stakeholder support for an alternative market rule proposal, ISO-NE must include with its proposed filing the alternative market rule. FERC considers the NEPOOL alternative on equal legal footing with ISO-NE's proposed rule. New England's transmission owners have legal authority to make certain filings with FERC in connection with transmission rates and cost allocation; FERC also reviews these filings under the Federal Power Act's "just and reasonable" standard. Like market participants and stakeholders, NESCOE expresses its perspective to FERC

on these various filings, which FERC will generally accept or reject.



Further, from time-to-time, NESCOE, market participants, and others seek federal court review of FERC decisions. These cases highlight the importance to consumers of NESCOE's informed, active, and timely engagement in regional stakeholder conversations leading to FERC filings and, as needed, vigorous advocacy before FERC and in federal court.

Throughout 2022, NESCOE represented the collective views of the New England states and regularly played an important role in substantive New England regional stakeholder forums. This role included regular participation in NEPOOL's Participants, Reliability, Transmission, and Markets Committee meetings. In those processes in 2022, NESCOE offered proposals in connection with planning and market rule changes to advance consumer interests and states' shared energy objectives as appropriate.

Additionally, NESCOE participated in ISO New England's Planning Advisory Committee (PAC) and the Power Supply Planning Committee and followed the Consumer Liaison Group's activities.

NESCOE also participated in various working groups that drive investment decisions, such as the Energy Efficiency Forecast Working Group, the Distributed Generation Forecast Working Group, and the Environmental Advisory Group.

CONTINUING PROGRESS ON THE STATES' VISION FOR THE 21ST CENTURY ELECTRIC SYSTEM

Throughout 2022, NESCOE worked to further progress made in 2021 on the New England states' vision for a clean, affordable, and reliable 21st century regional electric grid.

STUDIES TO INFORM THE FUTURE GRID

In 2022, ISO-NE made significant progress on a series of studies to inform future grid needs—***Pathways to a Future Grid***, ***Future Grid Reliability*** **Study** and the ***2050 Transmission Study***—the latter at NESCOE's request. Each study explores in detail a different aspect of a future grid that evolves in response to state energy and environmental laws. NESCOE provided a common scenario in each study that reflects the region's energy and environmental laws. Importantly, that common scenario will allow for comparisons across the three major future grid studies. Looking ahead, NESCOE will work with ISO-NE and other stakeholders to identify key themes that will inform next steps in market design, transmission investment, and other work to ensure that the markets and transmission system adapt to meet future demands.

2050 Transmission Study	Identify a variety of potential infrastructure development pathways to meet the needs of the energy transition out to 2050 and high-level cost estimates
Future Grid Reliability Study	**Phase 1:** identify grid reliability challenges that could occur in 2040 in light of state energy mandates and policies **Phase 2:** identify products or services that may need to be obtained via the markets to address the challenges identified in Phase 1
Pathways to a Future Grid Analysis	Assess potential policy pathways to achieving state energy mandates (net carbon pricing, forward clean energy market, hybrid)

- **Pathways to a Future Grid.** NESCOE assessed the final results of the ***Pathways to a Future Grid*** study. NESCOE had earlier expressed interest in continuing to explore a Forward Clean Energy Market and has encouraged ISO-NE to continue focusing on a means to provide sufficient revenue to existing clean energy resources needed for reliability and to reduce reliance on capacity market revenues. NESCOE will provide input on acceptable governance structures to ISO-NE and stakeholders as work progresses.
- **Future Grid Reliability Study.** NESCOE assessed the final results of Phase 1 of the ***Future Grid Reliability Study***. ISO-NE observed challenges in Phase 1 related to energy adequacy and resource mix diversity, noting a need for increased resource and demand flexibility. NESCOE will continue to work with ISO-NE and stakeholders to develop a Phase 2 analysis that seeks possible solutions to the challenges observed in Phase 1.
- **2050 Transmission Study.** NESCOE assessed the preliminary results of the ***2050 Transmission Study***, which show significant potential transmission challenges that may arise as the region transitions to its clean energy future. NESCOE will continue to assess the results and potential solutions as work progresses in 2023.

ISO-NE GOVERNANCE ENHANCEMENTS

In furtherance of the 2021 *Advancing the Vision* report to the governors, in 2022, NESCOE worked to achieve enhancements to ISO-NE governance. These enhancements were aimed at improving transparency and accountability in light of the evolving power grid and the role of state laws and mandates in that evolution.

Among other enhancements, ISO-NE agreed to hold an annual meeting of its Board in public; to identify opportunities to host webinars for the public that feature recent reports and studies; to adopt a Resolution on Cost-Consciousness; to include additional information on ISO-NE Board consideration of wholesale costs in its publicly available Board reports; to include consideration of a state majority position in ISO-NE filings to the FERC; and, in matters where regional proposals seek to implement state energy or environmental policies, to develop and propose, in collaboration with states, designs that provide states with decision-making authority. Because governance should keep pace with changes in markets and planning necessary to accomplish state laws and mandates, NESCOE will continue to assess the need for further enhancements over time.

ADVOCATING FOR CONSUMER INTERESTS IN ISO-NE FORUMS AND IN FILINGS WITH FERC AND THE COURTS

In 2022, NESCOE participated in ISO-NE forums and federal-jurisdictional matters concerning resource adequacy and system planning-related issues with significant implications for New England consumers. Some proposed solutions followed years of analysis and discussion. Others emerged in reaction to more immediate circumstances. NESCOE's substantive positions and filings in 2022 continued to involve a diverse range of issues relating to New England's electric grid and its electricity markets, as they have in past years. NESCOE's common focus was to advocate for New England consumer interests and shared state objectives.

TRANSMISSION PLANNING FOR THE FUTURE

- **FERC's Proposed Rules on Transmission Planning, Cost Allocation, and Generation Interconnection.** In 2022, FERC took major steps toward implementing landmark changes to the way that transmission is planned and paid for, as well as the rules for interconnecting generating resources. These steps included potential reforms to ensure that longer-term transmission planning is conducted in a way that aligns with a changing resource mix and shifts in electric demand. NESCOE filed detailed comments with FERC in response to two notices of proposed rulemaking. In its comments, NESCOE highlighted the broad agreement amongst stakeholders that there is a need to plan for New England's transition to clean energy resource development. NESCOE's comments also emphasized (1) the need for regional flexibility, (2) the importance of a central role for states, and (3) the need for adequate consumer protection measures. On interconnection reform, NESCOE supported FERC's overarching objective to ensure that procedures and agreements provide a path for reliable, efficient, transparent, and timely interconnection. NESCOE also provided perspectives on many technical and policy issues that the proposed rules implicated.

- **An Incremental Step on Storage as a Transmission-Only Asset.** Following the region's first competitive transmission solicitation process, ISO-NE initiated discussion about "lessons learned." NESCOE advocated for ISO-NE to modify its tariff to allow electric storage facilities to be included as a transmission-only asset in competitive solicitations and incumbent solutions studies. In response to NESCOE's and other stakeholders' requests, ISO-NE developed and filed such tariff revisions, which should ultimately result in more cost-effective transmission solutions and benefits to consumers. This step was incremental—but an important one—towards considering how to more fully leverage storage to provide enhanced system benefits and cost-effective solutions to solve regional needs.

ALIGNING MARKETS WITH STATE REQUIREMENTS

- **Resource Capacity Accreditation and Day-Ahead Ancillary Services.** In 2022, ISO-NE began the stakeholder process on these two material market changes. Resource Capacity Accreditation will identify and implement changes to more accurately reflect resources' contributions to resource adequancy. Day Ahead Ancillary Services will provide a new market design for procuring and pricing operating reserves in the day-ahead market. NESCOE will continue its analysis of each in 2023.

- **Eliminating the Minimum Offer Price Rule.** In 2022, ISO-NE filed with FERC market rule changes to eliminate the minimum offer price rule (MOPR). The MOPR, a rule which NESCOE had sought to reform for a decade, has been a barrier for clean energy resources that wish to participate in the capacity market. ISO-NE's filing was the culmination of a lengthy stakeholder process and included a limited two-

year transition to full MOPR removal, which NESCOE did not oppose. Over many years, NESCOE had repeatedly expressed that a market that maintained barriers to clean energy resources would not be sustainable over the long term. NESCOE strongly supported eliminating the MOPR (with New Hampshire not joining), while recognizing ISO-NE's preference for a transition proposal to reduce the potential for short-term reliability risks and cost impacts pending the MOPR's full elimination. FERC accepted ISO-NE's proposal to phase out the MOPR.

PROTECTING CONSUMER INTERESTS IN COST-OF-SERVICE CONTRACT

- **Consumer Cost Protection in an Out-of-Market Power Generator Contract**. Like past years, in 2022, NESCOE dedicated substantial time to advocating for New England consumer interests in connection with a unique cost-of-service contract for two retiring generating units located just outside of Boston.

  After a multi-year appellate process, the D.C. Circuit Court of Appeals acted favorably on every issue on which NESCOE had petitioned the Court for review—with millions of dollars in cost implications. NESCOE worked closely with other state parties in the appeal.

  Separately, earlier in 2022, FERC granted in part NESCOE's challenges to the generating owner's attempt to recover from consumers capital expenditures and other costs for the initial period of the contract that NESCOE did not believe were justified. FERC referred those issues to hearing and settlement judge procedures, and NESCOE actively engaged in that process with other intervenors through the balance of the year. NESCOE participated in a Commission-ordered hearing in late 2022, which resulted in a NESCOE-supported settlement agreement.

  Additionally, NESCOE filed new challenges to claimed costs for the next period of the contract term.

WINTER AND EXTREME WEATHER SYSTEM RELIABILITY

- **Annual Winter Analysis.** NESCOE, along with other stakeholders, asked ISO-NE for analysis and its recommendation as to whether a winter reliability program—as ISO-NE had pursued in the prior years—or other incremental action was necessary to address potential winter reliability challenges. In mid-2022, ISO-NE shared its analysis and recommended that New England not pursue a winter program for winter 2022/2023. NESCOE encouraged ISO-NE, as the reliability coordinator with access to confidential information about fuel supplies, resource availability, and overall system conditions, to share its analysis and confidential information with FERC, given the commission's regulatory role.

- **Mandatory Reliability Standards and Extreme Weather Events.** NESCOE filed comments with FERC generally supporting a proposed rule that would direct the North American Electric Reliability Corporation (NERC) to revise its mandatory reliability standards to improve transmission system planning to account for extreme heat or cold weather events impacting the reliable operation of the grid. NESCOE expressed that the reforms that FERC proposed would help provide visibility into the potential implications of extreme hot and cold weather on reliable system operations and, in turn, the approaches available to transmission planners, planning coordinators, and operators to address the potential for cascading outages and other impacts on electric power facilities. NESCOE commented on "corrective action plans"—the actions that transmission providers would take if performance requirements go unmet—given the potential impact of those actions on system reliability and cost.

- **Gas-Electric System Interplay**. NESCOE was active in a New England Gas-Electric Forum that FERC hosted in Vermont in September 2022, and NESCOE Managers participated in the forum itself. NESCOE filed comments with FERC that included a request that ISO-NE submit annual reports to FERC on winter

reliability until a long-term, durable solution is in place, and also recommended that ISO-NE develop market-based solutions to address winter challenges, which would include exploring the possibility of creating a seasonal capacity market.

FORECASTING AND THE EFFECT ON BOTTOM LINES

New England consumers invest substantially in solar photovoltaics and energy efficiency as a result of state laws and programs that encourage resources located close to where consumers use power. The level of investment affects wholesale electric energy demand and peak demand. Energy efficiency investments have had an impact on transmission planning, for example, as they have saved hundreds of millions of dollars for consumers in the form of transmission project deferrals.

At the same time, several state laws and programs advance electrification of the transportation and building sectors of the economy. These initiatives are expected to increase demand for electricity over time as customers increasingly adopt electric vehicles and use electricity for heat. For a sense of scale, over ISO-NE's study horizon, electric vehicle demand is projected to increase the summer peak by over 1,500 megawatts by 2030. Together, these investments and transitions affect the level of resources and infrastructure that the region plans for, and consumers pay for, such as transmission lines or power plants.

- In 2022, NESCOE continued to support and assess ISO-NE's accounting for local resources and new loads in regional planning in the context of the Distributed Generation Forecast, the Energy Efficiency Forecast, both of which originated at NESCOE's request, and the Heating and Transportation Electrification Forecast.

SECTION V: PRIORITIES 2023 AND 2024

NESCOE carries into 2023 several priority matters that require significant attention. At the direction of Managers, NESCOE will continue to identify areas for proactive engagement related to resource adequacy and system planning and expansion. Where needed, NESCOE will conduct independent technical analyses to inform Managers' decisions.

In 2023 and 2024, NESCOE will participate actively in NEPOOL stakeholder forums, exchange ideas with ISO-NE and market participants, and represent the collective interests of New England states at FERC and, where appropriate, before other federal agencies and the courts. In addition to addressing issues as they arise, NESCOE anticipates focus on the following areas:

TRANSMISSION PLANNING

- **Transmission Planning for Reliability.** NESCOE will review and provide input on ISO-NE's plans and planning processes, including its Regional System Plans, forecasting, and certain transmission needs assessments and solution studies; provide feedback on ISO-NE's planning assumptions and approach to planning; and continue to consider opportunities to influence major NERC-related policy activities when they have the potential for significant cost implications for New England electricity consumers.

- **Asset Condition Project Replacement Process Change.** NESCOE will seek reforms to transmission owners' asset condition project replacement processes to increase foresight, visibility, review, and scrutiny of these significant consumer investments, and consequently, to enable the region to maximize efficient investment by considering potential investments in the context of holistic transmission system needs.

- **Transmission analysis over a longer-term horizon based on state laws and mandates and means for states to elect to operationalize.** NESCOE will continue to work with ISO-NE and stakeholders on a second phase of tariff changes to enable states to operationalize longer-term public policy-related transmission analysis; advance a cost allocation mechanism for associated transmission improvements; and explore means, through appropriate state-centric roles, to integrate consideration of state public policy-driven transmission options with ISO-NE's existing reliability-based transmission planning process and transmission owners' asset condition replacement processes.

- **Reforms to Transmission Planning, Cost Allocation, and Generator Interconnection.** NESCOE will engage in FERC's efforts to reform transmission planning, generator interconnection, and cost allocation processes. NESCOE will also continue to advocate for consumers and for states to have an appropriately central role in public-policy transmission planning and cost allocation.

- **Transmission Cost Oversight, Estimation and Tracking.** NESCOE will also continue to advocate for enhanced transmission cost oversight, including an independent transmission monitor. NESCOE will continue to track transmission project costs, including for transmission owners' asset replacement projects. When there are cost overruns, which may suggest alternative means would have been a better choice for consumers to satisfy the identified need, NESCOE will seek changes to cost estimating practices and/or means to mitigate escalation.

- **2050 Transmission Study.** NESCOE will continue to assess the results of the 2050 Transmission Study, including the estimated costs for different potential infrastructure development pathways.

FUTURE REGIONAL RELIABILITY NEEDS

- **Winter and Energy Security.** NESCOE will (1) participate actively on core issues related to market-based mechanisms that value the contribution of resources needed for regional energy security and winter reliability; (2) provide analysis as needed to support state evaluations, proposals, and/or amendments; and (3) ensure that consumer interests are considered when proposals are evaluated and that all potential solutions are illuminated by cost-effectiveness analysis to enable assessment of whether the consumer costs of proposed solutions have a reasonable relationship to asserted risks. NESCOE will continue to participate in analysis and assess outcomes of going-forward study work to identify winter risks related to extreme weather, New England-typical weather, and the effects from changes in both gas and electric infrastructure.

- **Extreme Weather Assessment and Energy Needs.** NESCOE will assess ISO-NE's now regular analysis of the risk and implications of extreme weather events and contingencies. NESCOE will also engage in discussions about whether, and to what extent, any such risk requires market adjustments or other near-term mitigation.

- **Reliability Cost-of-Service Contracts.** NESCOE will (1) advocate for consumer interests in the cost, terms, and conditions of any energy security or reliability cost-of-service contracts that ISO-NE has entered into or may seek to enter into with power generators or other resources; (2) continue to be a strong consumer voice on a cost-of-service contract related to retiring units located just outside of Boston; and (3) ensure that the costs to be recovered under the contract are appropriate.

- **Resource Reliability or Installed Capacity Requirements.** NESCOE will provide input on ISO-NE's recommended Installed Capacity Requirements and associated assumptions, with attention to ensuring that the Installed Capacity Requirements appropriately reflects New England consumers' investment in distributed generation, investment in other clean energy resources, and the improved generator performance driven through ISO-NE's market modifications to the Forward Capacity Market.

- **Future Grid Reliability Study.** NESCOE will collaborate with ISO-NE and stakeholders in connection with the contemplated Phase 2 analysis to assess revenue sufficiency and system security in a gap analysis**.**

REGIONAL MARKET REFORMS

- **Wholesale Market Reforms.** NESCOE will (1) engage with ISO-NE and stakeholders on means to modernize New England's wholesale electricity markets to support achievement of clean energy laws and other state law objectives while maintaining system reliability and (2) participate in the design of associated market rules and governance. This participation includes market matters such as resource capacity accreditation, retirement reforms, and day-ahead ancillary service improvements, as well as those to support energy storage and distributed generation.

- **Resource Adequacy and Reliability Over the Long-Term**. In connection with ISO-NE's initiatives related to resource capacity accreditation and pricing reserves in the day-ahead market, NESCOE will work with ISO-NE and stakeholders to ensure that these—and any other proposed modifications to the Forward Capacity Market or other market rules—provide consumers with reliable service at the lowest possible cost over the long-term while maintaining environmental quality. To help inform proposed solutions, NESCOE will provide analyses where appropriate both to better understand any identified risks and to explore the full range of potential cost-effective solutions, including whether the costs of proposed solutions have a reasonable relationship to asserted risks. In any proposed modifications, NESCOE will ask ISO-NE to weigh consumer cost impacts appropriately among other objectives, such as interest in theoretical market purity (e.g., minimal application of adjustments or use of judgment).

CONSUMER PROTECTION

- **Advocate on behalf of Consumer Interests in Litigation Advanced by New England Market Participants.** NESCOE will continue to advocate as appropriate in litigation implicating the interests of New England's electricity consumers and, where necessary to safeguard consumer and states' interests, intervene or bring matters to courts.

- **Reasonable Decision-Making Processes and Metrics that Enable Full and Fair Consideration of Consumer Cost Implications.** NESCOE will advocate for decision-making processes that provide (1) reasonable notice; (2) an opportunity to consider fully the consumer implications of proposed rule changes; and (3) an opportunity for states and ISO-NE to explore the lowest cost means to achieve identified objectives. When appropriate, NESCOE will advance states' perspectives on objectives, on the metrics that ISO-NE and others should use to evaluate potential solutions, and/or the balance between market pricing and consumer cost implications.

- **ISO-NE "Major Initiatives" Assessments.** NESCOE will advance consumer interests in connection with ISO-NE's required quantitative and qualitative analysis of major market initiatives, and NESCOE will ensure that the consumer cost implications of proposed initiatives, and any alternatives, are understood and considered in decision-making.

- **Generator Out-of-Market Cost Recovery.** NESCOE will protect consumer interests in connection with the recovery of certain compliance costs associated with ISO-NE's designation of facilities as medium impact cyber systems under mandatory reliability standards.

REGIONAL DATA AND ANALYSES

- **Forecasting.** NESCOE will (1) continue to analyze and advocate for appropriate accounting of energy efficiency resources so that consumers receive the full benefit of state policies and consumer investments; (2) continue to work to ensure that ISO-NE's load forecasts in its plans and resource determinations appropriately capture the increased penetration of solar PV and other distributed energy resources and to ensure that these forecasts are considered in transmission planning process and resource adequacy determinations; and (3) continue to examine and monitor the assumptions and methods used in ISO-NE's heating and transportation electrification forecasts.

- **Distributed Resources Penetration**. As the region continues to connect distributed resources to distribution systems across New England that affect the transmission system, NESCOE will continue to assess jurisdictional and procedural issues associated with the increased penetration.

- **ISO-NE's Economic Studies.** NESCOE will monitor ISO-NE Economic Studies and, as appropriate, provide input into their development, particularly with respect to assumptions about state laws and policies. NESCOE will offer states' observations about outcomes for context.

GOVERNANCE AND ACCESSIBILITY

- **ISO-NE Governance and Accessibility.** NESCOE will continue to interact with ISO-NE to improve governance and will advocate for communications tools that enhance public accessibility and participation, such as plain language material and presentations designed for a non-technical audience of key analysis about grid transformation. NESCOE will also monitor effectiveness of enhancements ISO-NE implements to inform continuing discussions.

SECTION VI. 2022 EXPENDITURES

NESCOE operations are funded by a FERC-approved charge collected through Schedule 5 of Section IV.A of ISO New England's tariff. An independent audit of NESCOE's books for the year-end December 31, 2022, was completed and presented to the NESCOE Managers. The independent auditor opined that the organization's books conform to generally accepted accounting principles and issued an unqualified opinion letter. A 2022 Statement of Spending is as follows:

NESCOE
Statement of Spending
December 31, 2022

Expenses	
Direct Expenses, Consulting	
Legal (FERC) Services	249,624
Technical Consulting	71,276
Total Direct Expenses, Consulting	320,899
Employment and Benefits	
Disability, Health & Life Ins	46,292
Payroll Taxes	62,506
Pension Contributions	35,460
Salaries & Wages	977,285
Total Employment and Benefits	1,121,543
General and Administrative	
Dues and Subscriptions	8,396
Depreciation	2,157
Insurance	7,274
Office Expenses	6,620
Professional Services	35,543
Rent, Parking & Utilities	2,477
Telephone & Communications	7,850
Travel and Meetings	35,427
Total General and Administrative	105,744
Total Expenses	**1,548,186**

SECTION VII. BUDGET 2023 & PRELIMINARY BUDGET 2024

NESCOE's 2023 budget, which is consistent with the current five-year *pro-forma* approved by NEPOOL and accepted by FERC, was presented to and affirmed by NEPOOL in 2022. The 2023 NESCOE budget was submitted to the FERC and accepted in December 2022. The 2023 budget is as follows:

	2023
Salaries and Wages	
Salaries	1,311,718
Payroll Taxes	131,172
Health and Other Benefits	110,098
Retirement §401(k)	52,469
Total, Salaries and Wages	**1,605,457**
Direct Expenses - Consulting	
Technical Analysis	342,932
Legal (FERC)	342,933
Total, Direct Expenses, Consulting	**685,865**
General and Administrative	
Rent	-
Utilities	-
Office and Administrative Expenses	48,956
Professional Services	41,200
Travel/Lodging/Meetings	56,650
Total General and Administrative	**146,806**
Capital Expend. & Contingencies	
Computer Equipment	8,695
Contingencies	244,682
Capital Expend. & Contingencies	**253,377**
TOTAL EXPENSES	**2,691,505**
BUDGET	***2,696,171***

NESCOE's Preliminary 2024 Budget

	2024
Salaries and Wages	
Salaries	1,351,070
Payroll Taxes	135,107
Health and Other Benefits	113,401
Retirement §401(k)	54,043
Total, Salaries and Wages	**1,653,621**
Direct Expenses - Consulting	
Technical Analysis	353,220
Legal (FERC)	353,221
Total, Direct Expenses, Consulting	**706,441**
General and Administrative	
Rent	-
Utilities	-
Office and Administrative Expenses	50,425
Professional Services	42,436
Travel/Lodging/Meetings	58,350
Total General and Administrative	**151,210**
Capital Expend. & Contingencies	
Computer Equipment	8,956
Contingencies	252,023
Capital Expend. & Contingencies	**260,979**
TOTAL EXPENSES	**2,772,251**
BUDGET	***2,791,556***