2016

NEW ENGLAND STATES COMMITTEE ON ELECTRICITY

ANNUAL REPORT
NEW ENGLAND GOVERNORS

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2016
Year in Review

Beginning the Conversation: State Laws and Wholesale Competitive Markets

Since the late 1990s, the competitive wholesale markets have selected generating resources able to serve electricity consumers at the lowest cost without regard to resource type or fuel source. This is by design. Today, pursuant to the directive of state laws, some states are increasingly issuing competitive solicitations for specific fuel sources: renewable and other low- or no-carbon generating resources.

In 2016, the New England states, ISO New England and New England Power Pool (NEPOOL) and others began a collaborative conversation about whether the region's wholesale electricity markets and state laws might be harmonized. The challenges to doing so are many, and they are fundamental. They include complex jurisdictional questions, ensuring that consumers pay the cost of their own state's laws and not others', and achieving state law compliance at the lowest possible cost to consumers.

NESCOE appreciates NEPOOL's willingness to allocate time to exploring potential ways forward. NESCOE also thanks stakeholders who crafted proposals for consideration and made efforts to be responsive to early state feedback.

Given the level of clean energy contracts executed to date pursuant to state laws – totaling a few hundred megawatts – and the processes required before entities execute additional contracts, New England has time to sort through the issues in a way that is measured, holistic and makes economic sense over the long-term.

ISO New England, NEPOOL, and the states approaching these challenges together provides the highest likelihood of preserving the most often cited goals of competitive wholesale markets: placing risks of business decisions on investors rather than consumers and meeting consumers' needs and preferences with lowest costs, while not diminishing environmental quality, compromising energy efficiency, or jeopardizing reliability.[1] NESCOE looks forward to continuing conversations.

[1] *Electric Restructuring in New England, A Look Back*, December 2015, http://nescoe.com/wp-content/uploads/2015/12/RestructuringHistory_December2015.pdf.

THE OBJECTIVE

NESCOE's mission
is to represent the interests of the citizens
of the New England region by advancing policies that will
provide electricity at the lowest reasonable cost
over the long term, consistent with maintaining reliable
service and environmental quality.

SECTION I: GOVERNANCE

A Board of Directors representing the six New England states directs NESCOE's affairs and engagement in regional issues. Each Governor appoints a 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.

Nearly all NESCOE determinations have been unanimous, reflecting the New England states' efforts to achieve consensus on regional electricity matters. In circumstances where there may not be 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.

NESCOE MANAGERS

STATE OF CONNECTICUT
Katie Scharf Dykes
Chair
Connecticut Public Utility Regulatory Authority

Katie Scharf Dykes is the Chair of Connecticut's Public Utilities Regulatory Authority (PURA). She was nominated by Governor Dannel P. Malloy to serve as a PURA Commissioner on October 27, 2016.

Katie previously served as Deputy Commissioner for Energy at Connecticut's Department of Energy and Environmental Protection (CT DEEP). She had held that position since March 2012.

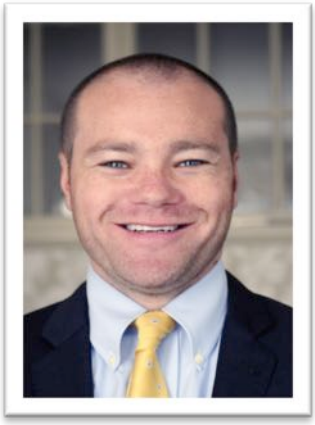
PURA, which operates under the leadership of three Commissioners, is statutorily charged with regulating the rates and services of Connecticut's investor owned electricity, natural gas, water and telecommunication companies and is the franchising authority for the state's cable television companies.

As PURA Chair, Katie plays an active role in helping to achieve the goal of Connecticut's energy agenda to bring cheaper, cleaner, and more reliable energy to the state's families and businesses.

Katie also serves as the Chair of the Board of Directors of the Regional Greenhouse Gas Initiative (RGGI), 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
Patrick Woodcock
Director, Governor's Energy Office



Patrick Woodcock directed Governor Paul LePage's Energy Office. In that capacity, he was responsible for planning and coordinating state energy policy and serves as the primary energy policy advisor to the Governor. Prior to assuming this positions, Woodcock worked for United States Senator Olympia Snowe. Woodcock ultimately held the position of Senior Advisor to the Senator on energy and environmental issues, in which he was responsible for developing Senator Snowe's legislative agenda including the "Cut Energy Bills at Home Act." Prior to his time in Washington, D.C., Woodcock led the Maine Senate Republicans, developing and facilitating campaign plans for multiple candidates, conducting comprehensive voter analysis throughout Maine and managing campaign budgets. Woodcock attended Bowdoin College and holds a Bachelor of Arts degree in Government and Economics and minored in economics.

In December 2016, Mark Vannoy, Chairman of the Maine Public Utilities Commission, was named Maine's NESCOE Manager

COMMONWEALTH OF MASSACHUSETTS
Angela O'Connor
Chairman, Department of Public Utilities

Angela M. O'Connor was appointed by the governor of Massachusetts as the Chairman of the Department of Public Utilities (DPU) in January 2015. Prior to being appointed by the governor, O'Connor was the executive director, based in Boston, of Technet for the northeast region. Technet is a national, bipartisan CEO-led trade association founded in 1997 by a group of Silicon Valley visionaries to create a bridge for the technology industry with state and federal policymakers. O'Connor joined Technet from the New England Power Generators Association (NEPGA) – the largest

trade association in the region representing electric power generators. As the organization's founding president, O'Connor provided strategic leadership to NEPGA and served as chief spokesperson for the owners and operators of the electric generating infrastructure in New England. O'Connor previously served as vice president of energy policy at Associated Industries of Massachusetts (A.I.M.), the commonwealth's principal statewide employer organization. In that capacity, she represented the energy interests of A.I.M.'s 7,600 members, including a wide range of public, legislative and regulatory activities. Before joining A.I.M., O'Connor was operations manager for the Massachusetts Health and Educational Facilities Authority's Poweroptions program, the largest energy purchasing consortium in New England consisting of colleges and universities, hospitals, other non-profits, and municipalities. Earlier in her career she worked in marketing for the Boston Celtics, served as an environmental assistant to the city of Boston's environmental department, and was a small business owner. She also served as chairman of the Board of Selectmen for the town of Rockport. O'Connor is a graduate of the University of Massachusetts - Boston.

STATE OF NEW HAMPSHIRE

Robert Scott

Commissioner, Public Utilities Commission

Commissioner Scott was appointed as Commissioner of the New Hampshire Public Utilities Commission in March 2012. He previously served with the New Hampshire Department of Environmental Services in the appointed position of Air Resources Division Director from 2003 to 2012. Prior to 2003 he served in various positions with the Department of Environmental Services. He worked as an engineer in private industry from 1990 to 1995 and as a munitions and aircraft maintenance officer in the United States Air Force from 1986 to 1990. Commissioner Scott currently serves on the Regional Greenhouse Gas Initiative, Inc. (RGGI) Board of Directors, and Co-Chairs the New England Conference of Public Utilities Commissioners (NECPUC) subcommittee on cyber security. Commissioner Scott is on the Board of Directors of the National Association of Regulatory Utility Commissioners (NARUC) and serves on the Committee on Critical Infrastructure as well as the Committee on Energy Resources and the Environment. Additionally, he formerly served as co-chair of the Northeast Energy Efficiency Partnerships (NEEP) Evaluation, Measurement and Verification Forum Steering Committee.

Commissioner Scott holds a B.S. in Mechanical Engineering from Lehigh University. In 2016 he retired from the Air National Guard after 30 years of Air Force service, serving as a cyber operations officer, commanding the 332nd Expeditionary Communications Squadron, the 243rd Engineering Installation Squadron, and finally the 265th Combat Communications Squadron of the Maine Air National Guard.

STATE OF RHODE ISLAND
Marion Gold, Ph.D
Commissioner, Office of Energy Resources

Governor Gina Raimondo appointed Marion Gold to be a Commissioner at the Rhode Island Public Utilities Commission in 2016. Prior to that appointment, Dr. Gold served as Commissioner of the Rhode Island Office of Energy Resources (OER) since August 2012. Dr. Gold is dedicated to working with public and private sector partners to provide sustainable, secure, and cost-effective energy services to all sectors of the community. Prior to joining the OER, she was the Director of the Outreach Center at the University of Rhode of Island (URI) where she established the URI Partnership for Energy and directed extension programs for communities and the public in energy, environmental horticulture, and urban agriculture. She served on the URI President's Council for Sustainability and on the Rhode Island Energy Efficiency and Resource Management Council.

Dr. Gold has been a leader in environmental issues throughout her decades of public service. Early in her career, she worked at the Rhode Island Department of Environmental Management and the state's Resource Recovery Corporation, where she was instrumental in launching the first statewide recycling program in the country. She continues to serve as an adjunct professor of Environmental and Resource Economics, and enjoys teaching courses on energy and energy economics; serving on graduate committees; and advising Energy Fellows. Dr. Gold holds a BS with honors in Natural Resource Science and Policy from the University of Michigan, a MS in Environmental Economics from Michigan State University, and a Ph.D. in Environmental Sciences from the University of Rhode Island.

Margaret Curran
Chairperson, Public Utilities Commission

Margaret Ellen (Meg) Curran was appointed to Chair the Commission by Governor Lincoln Chafee in June 2013.

Ms. Curran had served as United States Attorney (District of Rhode Island) from 1998 to 2003, previously serving as Assistant US Attorney. She was most recently a member of the Rhode Island Parole Board, and is currently Chair of the Rhode Island health benefits exchange Advisory Board. (HealthSource RI).

Chairperson Curran has a B.A. in Biology from the University of Pennsylvania and an M.S. in Anthropology from Purdue University. Ms. Curran received her J.D., with high honors, from the University of Connecticut School of Law. She was Editor-in-Chief of the Connecticut Law Review. After graduation, she clerked for the Honorable Bruce M. Selya, in the United States District Court for the District of RI. She subsequently clerked for the Honorable Thomas J. Meskill, who was then on the Court of Appeals for the Second Circuit. She has also been in private practice and served as Adjunct Professor of Law at the Roger Williams University School of Law, which would later award her an Honorary Doctor of Laws degree in 2003. In 2004, she received the John H. Chafee Memorial History Maker Award for Service.

Ms. Curran is a member of the American Law Institute and an advisor on the Model Penal Code: Sentencing Project. She is a member of the First Circuit Court of Appeals Rules Advisory Committee. She also belongs to the National Association of Former United States Attorneys and Bat Conservation International. Since 2008, Ms. Curran has also been a member of the Board of Directors of the Institute for the Study & Practice of Nonviolence.

In January 2017, Nicholas S. Ucci, Deputy Commissioner of Rhode Island's Office of Energy Resources, was named Rhode Island's NESCOE Manager.

STATE OF VERMONT
Christopher Recchia
Commissioner, Department of Public Service

Christopher (Chris) Recchia was named Commissioner of the Public Service Department by Governor Peter Shumlin in January 2013 and served in that position until January 2017. Prior to his appointment as Public Service Commissioner, Recchia served as Deputy Secretary for the Agency of Natural Resources, a position to which he was appointed in January 2011. Commissioner Recchia has almost 30 years of experience as an environmental leader in the development of state and federal environmental and energy policy and the implementation of programs managing natural and energy resources. In addition to serving in leadership roles in the private sector, Recchia also served as both Deputy Commissioner and Commissioner for the Vermont Department of Environmental Conservation from 1997 to 2003. He holds a bachelor's degree from the University of Vermont in biology, a master's degree in Environmental Law from Vermont Law School, as well as a master's degree in Natural Resource Policy and Management from Yale University.

In January 2017, Commissioner June Tierney, Commissioner of the Department of Public Service and Ed McNamara, Director of Regional Affairs at the Department of Public Service, were named Vermont's NESCOE Managers

SECTION II: STAFF & CONSULTANTS

The NESCOE staff team has diverse academic and professional backgrounds, including economics, accounting, engineering, and law and also have a cross section of private and public sector experience in New England. NESCOE's professional staff and technical consultants bring comprehensive and deep experience to analysis and filings with the Federal Energy Regulatory Commission (FERC), other federal agencies, federal courts, and ISO New England.

Jeff Bentz
Director of Analysis

Jeff Bentz, CPA was named NESCOE's Director of Analysis in 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 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. Since 2000, Dorothy was International Power's Director of Regulatory Affairs for NEPOOL and more recently for PJM. 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. Before that, 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 a MBA from the Amos Tuck School at Dartmouth and a BS in Chemical Engineering from Washington University in St. Louis.

Ben D'Antonio
Counsel & Analyst

Ben D'Antonio joined NESCOE in 2012 as Counsel and Analyst. Before that, Ben worked in the Regional and Federal Affairs Division of the Massachusetts DPU as an economist and legal counsel, with a focus on wholesale electricity market and transmission planning issues.

Previously, Ben was a Regulatory Assistance Project Energy and Environment Fellow, where he provided support to state utility commissions on clean energy policies. Earlier, Ben worked in financial services. Ben has a Juris Doctor, with honors, and Masters of Environmental Law, with honors, from Vermont Law School and a Bachelor of Arts in Economics from the University of Vermont.

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, State Government Affairs, United Technologies Corporation and Group Director, then Vice President, Regulatory at Southern Connecticut Gas. Earlier, she was a Public Utility Commissioner in Maine and Connecticut 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 is a founder and president of Live On Organ Donation, Inc. and serves on the Living Donor Committee of the United Network for Organ Sharing.

Jason Marshall
General Counsel

Jason Marshall joined NESCOE in 2012 as Senior Counsel. Previously, he was Counsel with the Regional and Federal Affairs Division of the Massachusetts DPU. Before that, Jason was Legal Counsel to a Massachusetts State Senator. Earlier, Jason was an associate at the law firm Brown Rudnick and was 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.

In addition, NESCOE retains consultants to provide technical analysis in the areas of system planning and expansion and resource adequacy. NESCOE also retains consultants to conduct specific analysis to inform policymakers' consideration of current issues. In 2016, NESCOE worked with consultants such as **Wilson Energy Economics, Peter Flynn LLC, Reishus Consulting, LLC** and **London Economics International**.

NESCOE does not use litigation as a primary means to accomplish its objectives, and when it needs to, NESCOE staff produces the vast majority of legal pleadings. In 2016, NESCOE legal activity was to a significant degree in defense of New England consumers in response to litigation initiated by one or more New England power generators. NESCOE also continued to advocate in a first-time challenge in the D.C. Circuit Court of Appeals in connection with the public policy provisions of FERC's Order 1000.

When NESCOE required outside counsel in 2016, it worked primarily with **McCarter & English, LLP** in Washington D.C. From time to time, NESCOE also engages **Wilkinson, Barker Knauer LLP** in Washington D.C.

SECTION III: COORDINATION WITH REGIONAL STATE ENTITIES

NESCOE works to coordinate and communicate with state entities in the New England region, and to avoid duplication of efforts. Throughout 2016, as in past years, NESCOE communicated with NECPUC and the Coalition of Northeastern Governors (CONEG), regularly sharing information about matters on which it was working. NESCOE participated in NECPUC calls with ISO New England and in meetings between state officials and ISO New England's Board of Directors.

In addition, to maximize coordination among states and leverage the technical expertise that exists within state agencies, from time to time as needed, NESCOE facilitates dialogue with subject matter experts from state governments on various matters. For example, as a follow-up to prior years' work, NESCOE worked with a cross section of entities in 2016 to facilitate document preparation to enable multi-state coordinated clean energy procurement.

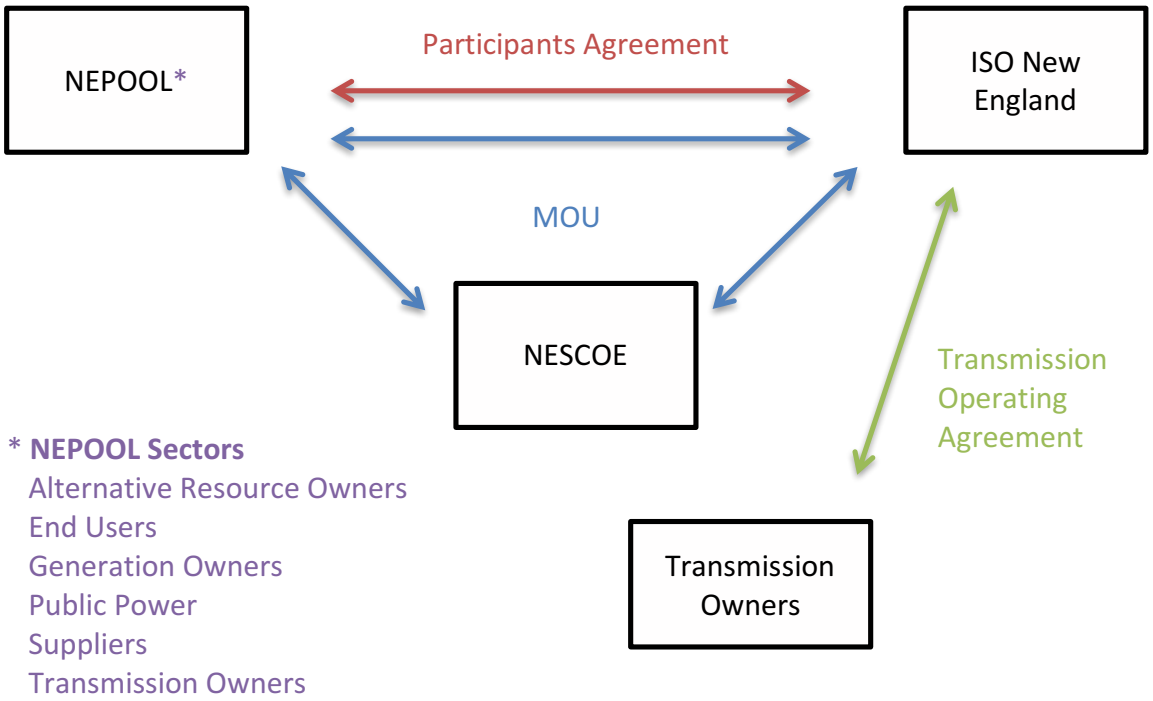
SECTION IV: 2016 ACTIVITY, FOCUS AREAS & ACCOMPLISHMENTS

Advocating for Consumer Interests in Regional Stakeholder Forums

New England consumers have invested over $8.0 billion in transmission infrastructure since 2002. There are plans for another $4.0 billion. New England consumers also fund the regional energy market, the cost of which ranged from $4.1 - $9.1 billion annually over the last three years, a $1.1 billion regional capacity market, and $0.2 billion regional ancillary services markets.

The plans and rules that determine the level and type of consumer investments are developed in regional stakeholder meetings. Most are then presented to the Federal Energy Regulatory Commission (FERC) for its deliberation. Participating in these activities and the subsequent regulatory proceedings are resource intensive but imperative: even small revisions to market rules or planning approaches can mean significant changes and implications in direction to consumer costs.

After FERC approved NESCOE as New England's Regional State Committee, NESCOE began activity in 2009 consistent with a Memorandum of Understanding by and among itself, ISO New England and NEPOOL. The operative relationships are governed as follows:



Of these entities, in all matters except transmission costs and transmission cost allocation, ISO New England's filings with FERC are considered to be "just and reasonable" under the Federal Power Act absent a finding by FERC to the contrary. NEPOOL may file alternative market rules provided there is a certain level of stakeholder support, and those filings may be considered by FERC on equal legal footing with ISO New England's proposed rules. In connection with transmission and cost allocation, Transmission Owners' filings are also considered to be "just and reasonable" unless FERC finds otherwise, and in some cases can pass transmission costs directly to consumers. In most situations, NESCOE's filings at FERC have no particular legal weight. Further, from time to time, market participants and others, most often certain generators, ask courts to modify outcomes over which they did not prevail in regional discussions and/or at FERC. This highlights the importance to consumers of NESCOE's informed, active, and timely engagement in regional stakeholder conversations leading to FERC filings and vigorous advocacy before FERC and courts, as needed.

NESCOE participated – and regularly played an important role – in substantive New England regional stakeholder forums throughout 2016. NESCOE continued its regular participation in the NEPOOL Participants, Reliability, Transmission and Markets and Power Supply Planning Committee meetings. Together, those five committees met on sixty-five business days in 2016. In those forums, NESCOE represented the collective views of the New England states. NESCOE also offered proposals to ensure appropriate planning and market rule changes and to achieve common energy policy objectives.

Additionally, NESCOE participated in ISO New England's monthly Planning Advisory Committee (PAC) and its occasional Consumer Liaison Group meetings. NESCOE appreciates the opportunity ISO New England provides at PAC meetings for NESCOE to update stakeholders periodically regarding its activities.

NESCOE also participated in various working groups and *ad hoc* subject matter forums convened for specific purposes, such as Integrating Markets and Public Policies (IMAPP), the Energy Efficiency Forecast Working Group, and the Distributed Generation Forecast Working Group. These groups and activities facilitate NESCOE's understanding of diverse stakeholder perspectives and provide an opportunity for NESCOE to communicate the collective views of the six New England states.

Together, the various committees and work groups met on well over 100 business days in 2016.

In 2016, NESCOE continued to monitor the Eastern Interconnection States Planning Council (EISPC), National Council on Energy Policy (NCEP), and Eastern Interconnection Planning Collaborative (EIPC) meetings relating to interregional coordination, resource and infrastructure planning studies, and the interconnection-wide transmission scenario analysis for hypothetical future year 2025.

In 2017, NESCOE will participate in regional stakeholder forums to advance the collective objectives of the six New England states, and engage in meetings outside of the region as appropriate on issues related to resource adequacy and system planning and expansion.

Presenting Consumer Interests and Implications in Filings with Federal Agencies and ISO-New England

NESCOE's interactions with federal regulators, agencies, and ISO New England reflected another year of significant regional and federal activity with important implications for New England consumers in the areas of resource adequacy and system planning and expansion.

The *Resource Center* at www.nescoe.com enables searchable access to NESCOE documents by name or general subject matter. NESCOE also provides notice of and distributes its filings and comments through a twitter account, @nescoestates, to facilitate information sharing.

A representative sample of NESCOE's substantive filings in 2016 includes:

- ***Renewables Exemption***: The Renewable Technology Resource Exemption is a narrowly tailored mechanism to accommodate the requirements of state laws into regional wholesale markets. ISO New England, NEPOOL and NESCOE all supported the exemption. Some New England generators, however, have opposed and litigated the exemption for years.

  Leading into 2016, FERC asked for and was granted a voluntary remand from the D.C. Circuit Court of Appeals. This enabled FERC to further consider electric generators' challenge to this limited renewable resource exemption to the Minimum Offer Price Rule in the Forward Capacity Market. In April 2016, FERC issued an order affirming the legality of the exemption that NESCOE helped to develop and

integrate into a package of Forward Capacity Market reforms. Through 2016, NESCOE continued to defend the exemption against continued litigation. FERC issued an order in early 2017 affirming the exemption again.

In 2017, NESCOE is hopeful that those New England generators that have litigated this matter over the years will redirect legal and other resources to constructive analysis on ways forward in the IMAPP processes, discussed further below. Indeed, even if generators were "successful" in litigation, it would not cause states to violate the requirements of state statutes, to repeal laws, or to allow a circumstance to persist where consumers pay for renewable power pursuant to state laws and to pay other power generators through regional markets as if the renewable power did not exist.

- ***Demand Curve Design***: NESCOE worked closely with ISO New England and market participants to develop a comprehensive and broadly supported redesign of the demand curves in the Forward Capacity Market and advocated in support of those changes before FERC. NESCOE's close work with a group of generators resulted in modifications to the ISO New England design in a way that garnered strong stakeholder support. These design changes are expected to benefit consumers by ensuring that ISO New England procures the appropriate amount of capacity - and not more - to meet both system-wide and zonal reliability needs. These changes ultimately address consumer concerns about price volatility and the ability of suppliers to exercise market power.

- ***Solar PV Forecast***: As New England consumer investment in solar PV resources has increased substantially over time, it has become critical that ISO New England account for those resources as it identifies the need for other resources to maintain reliable system operation.

Forecasting Solar PV investment and applying that forecast to resource need determinations saved New England consumers millions of dollars in 2016.

The Installed Capacity Requirement (ICR) is the amount of resources ISO New England needs to meet demands for power. ISO New England procures these resources through the Forward Capacity Market. For the first time, as part of the tenth Forward Capacity Auction, ISO New England adjusted the region's ICR downward based on a load forecast that included expected investments in solar resources - the Solar PV Forecast.

NESCOE strongly encouraged ISO-NE to adjust the ICR by taking into account states' investments in solar resources, asserting that such adjustment is needed to reflect current system conditions and to ensure that ISO New England does not over-procure capacity. NESCOE led discussions in this area in both the regional

stakeholder process and in comments filed at FERC. For FCA 10, the Solar PV Forecast reduced the ICR by 390 MW. This significant adjustment prevented ISO New England from purchasing redundant capacity, saving consumers millions of dollars. In 2016, NESCOE defended the application of the Solar PV Forecast to the ICR against a supplier's sustained attack. FERC dismissed this attack and upheld ISO New England's methodology for reflecting the Solar PV Forecast in the ICR.

Advocacy in Courts In Support of New England Consumer Interests

NESCOE does not use litigation as a primary means to achieve its objectives. Most of its legal activity is in defense of consumer interests when other entities, most often owners of generating facilities in New England, use litigation to challenge outcomes of regional stakeholder processes or FERC orders.

In 2016, NESCOE participated actively in federal appeals in support of New England consumers. This involved a petition to the D. C. Circuit Court of Appeals that NESCOE initiated, joined by five states, in response to FERC's expansion of its Order 1000 mandates in New England. One of NESCOE's primary objectives is to ensure that any so-called "public policy project" selected in New England pursuant to Order 1000 is consistent with state officials' identification of the means and costs to satisfy the requirements of their state laws. A decision from the Court is pending. Going forward, NESCOE is hopeful that an Order 1000 process can be structured as a useful tool that respects state authority over decisions around the execution of state laws.

NESCOE participated in two other cases at the D.C. Circuit in order to provide the consumer counterpoint to electric generators' petitions for rule changes that could impose substantial unjustified costs on New England consumers.

The Requirements of State Laws and Regional Markets: Discussing a Way Forward

Over a decade ago, New England transitioned to wholesale competitive markets to serve consumers in a way that is fuel neutral and at the lowest cost.[2] The New England states have demonstrated continuing support for competitive wholesale markets through, for example, endorsing reforms that would improve the efficiency and operation of those markets - even when it did not mean the lowest possible immediate prices for consumers but would provide consumers expected optimal market-driven results over the longer-term.

The challenges are many and they are fundamental, from jurisdictional imperatives, to ensuring that consumers pay the cost of their own state's laws and not others', and state law compliance at the lowest possible cost to consumers.

Over the last several years, NESCOE has communicated the viewpoint that New England-wide system planning and wholesale competitive markets will only be sustainable if they reasonably account for and accommodate state energy and environmental laws.

In 2016, New England states, ISO New England and NEPOOL began constructive conversations about potential ways forward in the context of an initiative referred to as IMAPP. NESCOE appreciates NEPOOL undertaking this solution-oriented effort. NESCOE also appreciates stakeholders' serious efforts to advance solution frameworks. This is a far better use of resources - which consumers ultimately fund - than litigation brought by certain generators that has defined prior years' discussion about the requirements of state laws and their interaction with wholesale markets. State, stakeholder and ISO New England engagement is critical if New England is to find a way to maintain and satisfy the purpose of wholesale competitive markets: identifying resources that can provide reliable service at the lowest cost and placing the risk of investment and technology changes appropriately within the marketplace.

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2 For more information regarding New England's electricity industry restructuring, see *Electric Restructuring in New England – A Look Back* (December 2015), available at http://nescoe.com/wp-content/uploads/2015/12/RestructuringHistory_December2015.pdf.

In 2017 and beyond, NESCOE will assess and/or advance as appropriate proposals that have the potential to allow regional wholesale markets to exist side by side with the requirements of some states' laws. These may include, but are not limited to, state renewable energy requirements, implementation of micro-grids and other means to enhance grid reliability, sustained aggressive investment in energy efficiency and small local generation resources, and continued progress to reduce the region's reliance on higher emitting fuel sources. The pace of state procurements – just a few hundred megawatts to date – and state processes around further procurements, leave New England with ample time to consider and analyze potential solutions and implications holistically and thoroughly. To the extent stakeholder processes or continued litigation suggests it is not practical to continue working on ways to harmonize regional markets and state laws, NESCOE is positioned to produce information and analysis for states about alternative ways forward.

New England is fortunate that the modest level of resources states have procured to date and the processes required before states may execute contracts with more afford the region time to sort through the complexities of potential long-term IMAPP solutions and the future shape of the regional markets holistically and methodically.

FERC Order 1000 Implementation: Preserving Appropriate Federal-State Roles in Policy-Driven Planning and Promoting Competition and Cost Containment

Public Policies in Transmission Planning. As referenced briefly above, consistent with efforts over the last several years, NESCOE pursued its appeal in federal court regarding a critical aspect of FERC's orders on ISO New England's compliance with Order 1000. NESCOE and state agencies from five New England states filed in 2015 a petition with the D.C. Circuit Court of Appeals, challenging what appeared to be a new requirement that exceeded Order 1000. Specifically, in the compliance phase of Order 1000, FERC appeared to require that ISO New England *select* a policy-driven transmission project as part of the planning process. Any such project selected by ISO New England, which may have been intended to satisfy state policy objectives, would be placed in ISO New England's Regional System Plan. The costs associated with that project could be allocated across all New England states under a default allocation method. All states would assume cost responsibility for such

transmission whether or not a state official concludes that the transmission project is the appropriate means to satisfy a particular state law and irrespective of whether a state has a law that requires such transmission.

NESCOE argued in its appeal that Order 1000 required ISO New England to conduct *process and analysis*, with any new mandate to *select* a project intruding into state authorities. By the end of 2016, the case at the D.C. Circuit had been fully briefed and an oral argument date was held in January 2017.

Through 2017, NESCOE will monitor the outcome of the appeal and, depending on the Court's ruling, may seek to revisit tariff provisions with ISO New England and FERC. In 2017, NESCOE will also participate in the region's first process under Order 1000 for examining any requirements of federal and state law that drive transmission needs.

Competitive Transmission. Since the rulemaking preceding Order 1000, NESCOE has supported FERC's proposal to introduce competitive dynamics into transmission development. Meaningful competition in transmission development can help New England meet transmission needs at the lowest reasonable overall cost.

In 2016, NESCOE continued consideration of the range of complicated issues that arise in a transition to a competitive transmission framework. These included, for example, the relationship between cost containment and competitive transmission development and how to integrate cost control and cost discipline into the regional process.

NESCOE participated in a 2016 FERC Technical Conference on competitive transmission development. NESCOE underscored that cost control mechanisms would provide consumers with confidence in the transmission planning process and guard against escalating costs. At the same time, NESCOE recognized that cost containment is complex, that various approaches could have unintended consequences, and that serious consideration should be given to implementation details. NESCOE also highlighted the challenge in New England in initiating competitive processes against the backdrop of projects identified as near-term reliability needs, as well as how to achieve cost discipline where projects are exempt from competition.

The coming year is expected to focus on a number of Order 1000-related implementation details in New England, including the public policy planning process and discussion of a potential solicitation for market efficiency projects. NESCOE will work with ISO New England and stakeholders in 2017 on these and other Order 1000 activities, including continuing work on integrating cost containment in the transmission development process.

Improving Transparency and Consistency in Planning for Transmission Needed for Reliability

New England consumers have invested more than $8.0 billion in transmission infrastructure for reliability needs since 2002 and another $4.0 billion is planned. According to data that Regional Transmission Operators, such as ISO New England, provided to FERC, between 2010 and 2014, New England wholesale electric consumers paid more for transmission infrastructure relative to other bill components than did consumers in other regions.[3] It is often suggested that these investments were needed to make up for prior years' underinvestment in transmission projects to meet reliability needs. In addition to making the system more reliable, New England's investment in transmission infrastructure has essentially eliminated costly congestion in the region.

The absolute and relative level of transmission costs underscore how important ISO New England transmission planning approaches are to New England consumers. Further, accurate transmission project cost estimates followed by controls to keep actual costs in line with estimates are essential to enable a fair comparison of transmission vis á vis other potential means to meet a need.

- ***Transmission Methodology Planning Survey.*** In early 2016, NESCOE concluded a broad-based transmission planning survey. The point of the survey was to collect objective, fact-based information that enabled comparison of other Regional Transmission Organization methods to ISO New England's planning methods. Its purpose was to inform continuing conversations about ISO New England's approach to identifying transmission "needs" in New England.

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3 For more information, see NESCOE's summary of the 2015 ISO/RTO Metrics Report (November 2015), at slide 10, available at http://nescoe.com/wp-content/uploads/2015/11/ISO-RTO_Metrics_25Nov2015.pdf.

- ***ISO New England Transmission Planning Guides.*** In response to states' request about transmission planning issues that arose across a number of state siting proceedings, ISO New England developed Planning Guides on the regional planning process and assumptions. The Planning Guides increase transparency about – and confidence in – elements of the planning process that are often questioned in the New England stakeholder process and during state siting proceedings. This includes, for example, how ISO New England models transmission system conditions in identifying a system "need." In 2016, NESCOE continued to provide input on the evolving Planning Guides.

- ***The Use of Probabilities in Transmission Planning.*** In prior years, NESCOE advanced the concept of utilizing probabilities in system planning. The use of probabilities can be a more analytically sound approach to developing planning assumptions, enhancing transparency, and achieving consistency across planning studies. In 2015, ISO New England began exploring in earnest load modeling and unit availability assumptions for use in base case development. NESCOE provided input in 2016 as ISO-NE continued to investigate methods to incorporate probabilities into transmission planning.

A common objective across various transmission-related efforts is to enhance transparency. Increased transparency in the planning process increases confidence in its outcomes and in the reasonableness of its costs to consumers.

- ***FERC Transmission Formula Rate Protocols and the Formula Rate.*** In 2015, consumer representatives from across the region and NESCOE began discussing with New England Transmission Owners the development and implementation of protocols to increase transparency and accessibility of information regarding transmission rate recovery. This category of costs is not subjected to traditional contested regulatory scrutiny by FERC before they are passed through to consumers. Conversations about the protocols and other means to enhance the transparency and mechanics of the formula rate continued throughout 2016 in the context of a FERC Settlement Proceeding, and will continue into 2017.

Accounting for Distributed Generation and Energy Efficiency in Load Forecasting and Planning for Resource Needs

Pursuant to state laws and programs to encourage certain resources located close to where customers use power, New England consumers have increasingly invested in technologies such as solar PV and energy efficiency. In fact, as a whole, the New England states spend more on these resources than do states in other organized regional markets. The effect is to reduce the level of resources New England needs to plan for or buy through regional processes, such as transmission infrastructure or central power plants. Achieving these savings depends on ISO New England accounting for local resources in regional planning.

Distributed Generation Forecast. Several years ago, NESCOE requested that ISO New England produce a Distributed Generation (DG) Forecast to account for the exponential increase of distributed resources expected to interconnect to the power system in the next ten years. NESCOE and state DG experts worked with ISO New England and stakeholders to develop the forecast. In 2015, ISO New England first applied the Solar PV Forecast to the Installed Capacity Requirement. New England consumers were required to buy about 390 MW less capacity in the 2016 Forward Capacity Auction, which is roughly half the size of new large-scale fossil generation unit. In 2017, NESCOE will continue to assist ISO New England in the update of the Solar PV Forecast based on new data, policies and funding and defend the use of it against any sustained generators' challenges.

Going forward, New England will need to work through the operational challenges that will result from a power system with substantially higher penetrations of solar and other distributed resources than exist today. This may include forecasting, modifications to state

interconnection standards, and market adjustments (from the potential for new mechanisms under discussion in IMAPP to a holistic review of ancillary services markets).

Energy Efficiency Forecast. The New England states' sustained efforts to obtain from ISO New England greater integration of energy efficiency savings in the regional load forecast and in system planning has achieved continuing results for consumers through ISO New England's Energy Efficiency Forecast. The forecast reflects projected annual reductions in electric energy use, including peak demand, related to the New England states' investments in energy efficiency measures. From 2020 to 2025, ISO New England estimates that the New England states will collectively invest over $6.6 billion in energy efficiency, reducing peak load use by 1,284 MW over that period.

The Energy Efficiency Forecast helps to capture for consumers the full value of public dollars committed to state energy efficiency programs. Implementation of the Energy Efficiency Forecast has already translated into hundreds of millions of dollars of savings for consumers in the form of transmission project deferrals.

In 2017, NESCOE will continue to participate in ISO New England's Energy Efficiency Forecast Working Group and work with states and stakeholders as the forecasts are refined in light of experience gained over the initial forecast years.

Ensuring Power System Reliability and Associated Market Matters

New England regularly seeks to implement integrated market solutions to current and

emerging risks to the New England power system. The challenges range from increased reliance on natural gas-fired units at a time of natural gas constraints, to the integration of variable resources, such as wind power, to the potential retirement of generation units.

In 2016, the region focused on market design changes to address these challenges and to improve the function and competitiveness of various markets. Some proposed changes follow years of analysis and discussion. Others emerged in reaction to current circumstances. NESCOE advanced and contributed to the development of a series of market mechanisms related to these challenges and the adequacy of the region's power system resources. Some examples are as follows:

- *Sloped Demand Curve:* Earlier in time, FERC directed ISO-NE to file a sloped zonal demand curve proposal beginning with Forward Capacity Auction (FCA) 11. In 2016, NESCOE worked closely stakeholders to comprehensively redesign demand curves in the FCA in a way that ensured consumers incur reasonable costs for capacity over the long-term. This included a material change to ISO New England's new methodology for zonal sloped demand curves and a mechanism to allow a transition to ISO-NE's new methodology for the system-wide sloped demand curve. The collaborative efforts with ISO-NE and market participants resulted in a broadly supported package of demand curve changes, which FERC subsequently approved.

- *Energy Price Formation:* Proper price formation and signals about the cost of operating the power system is central to the efficient operation of New England's multi-billion dollar energy market. Efficient real-time pricing motivates investors to make cost-effective investments, which is in consumers' interest over the long-term. In 2016, NESCOE supported proposals to improve price formation by (1) settling energy markets sub-hourly, at the same time interval as energy dispatch intervals, rather than the current hourly real-time settlements and (2) increasing the number of resources that are economically dispatchable in Real-Time.

In 2017, NESCOE will continue to work to improve the region's wholesale markets in ways that provide consumers with reliable service at the lowest possible cost over the long-term while maintaining environmental quality. Given ISO New England's expression of need for time to implement prior market changes, the pace of new market proposals is expected to be slower in 2017 than in past years.

This affords NESCOE and others time to consider the future shape of the New England power system and appropriate rule changes to meet consumer, operating reliability, and investor needs. Some of these longer-term issues include consideration of potential mechanisms to enable competitive wholesale markets and the requirements of state laws to function together in a way that protect and serve New England consumers' interests. There

are fundamental questions that may warrant reexamination or further analysis, such as whether a Minimum Price Offer Rule still makes sense, and the extent and timing of changes to ancillary services to meet the "grid of the future" requirements.

Providing Context and Analysis to Inform Decisions – Renewable and Clean Energy Scenario Analysis and Mechanisms 2.0 Study

In 2016, NESCOE began a two-phase study of regional wholesale energy market dynamics and mechanisms to support public policies. The Phase I Report shows the potential implications of various hypothetical renewable and clean energy futures on existing and new resources in New England, and ultimately on the consumers who pay for them. Phase II will examine various mechanisms that states could use to achieve certain policy objectives and the associated consumer costs. Together, Phases I and II are intended to inform policymakers' consideration of potential mechanisms through which states could execute energy and environmental laws and their consumer cost implications. The study demonstrates market-based impacts from a range of hypothetical renewable and clean energy resource and infrastructure scenarios.

In 2017, NESCOE will conduct Phase II of the study. Specifically, based on the Phase I modeling results, Phase II will analyze various mechanisms such as a Renewable Portfolio Standard (RPS), a Clean Energy Standard, Long-Term Renewable Energy Certificate Contracts, Centralized Auction-Based Procurement, and Strategic Transmission Investments. Phase II will compare and contrast examples of various approaches through which states

might choose to provide economic support to these resources above and beyond the revenue they are forecasted to receive from the energy and capacity markets.

Examining New England Consumer Interests in the Eastern Interconnection Planning Collaborative

In 2016, NESCOE continued to provide technical support to states as needed in connection with the Eastern Internconnection Planning Collaborative (EIPC). The EIPC was formed in 2010 to develop and analyze hypothetical future scenarios for the bulk power system throughout the eastern interconnection. The eastern interconnection includes 39 states, extending from the foot of the Rocky Mountains to the Atlantic seaboard and part of Canada. The EIPC produces engineering analysis of the transmission system on a two-year cycle. Consumers fund EIPC work conducted by Regional Transmission Organizations such as ISO New England and through state participation. The New England states have worked to ensure that analyses performed in the EIPC process reflect - to the fullest extent - the states' implementation of energy and environmental goals and that they provide objective data to inform future policy decisions.

In 2017, NESCOE will review and provide feedback where appropriate on studies and whitepapers developed through the EIPC and monitor the Planning Authorities' work on further studies to ensure New England consumers' interests are fully and fairly reflected.

Presentations

In 2016, various organizations invited NESCOE representatives to make presentations on current issues. NESCOE appreciates the opportunities to share information and the states' collective perspective and to receive feedback. The following is a representative sample of meetings at which NESCOE presented:

- The Northeast Energy and Commerce Association Power Markets Conference: *Integrating Markets and Public Policy (IMAPP) Initiative: What is it? Where is it headed?*
- U.S./Canada Cross Border Power Summit, *Implications of Power Plant Retirements for Market Fuel Prices, Regional Reliability, and Clean Energy Goals*
- 11th Annual Platts Northeast Power & Gas Markets Conference, *FERC's Order 1000*

SECTION V: PRIORITIES FOR 2017 AND 2018

NESCOE carries into 2017 several priority projects that will require significant attention. At the direction of Managers, NESCOE will also continue to identify areas for proactive engagement related to resource adequacy and system planning and expansion and conduct independent technical analyses to inform policymakers' decisions.

NESCOE looks forward to continuing to participate actively in NEPOOL stakeholder forums, exchanging ideas with ISO New England and market participants, and representing the collective interests of New England states at FERC and, where appropriate, before other federal agencies and the courts.

In addition to addressing new issues that will require attention, NESCOE anticipates focus on the following areas in 2017 and 2018:

- **Transmission Planning for Reliability:** Review and provide input on ISO New England's plans and planning processes, including but not limited to Regional System Plans, forecasting, and certain needs assessments and solution studies; provide feedback on ISO New England's reexamination of appropriate planning assumptions, including load modeling and unit availability assumptions.

- **Transmission Planning for Public Policy:** Work with states and ISO New England to ensure that ISO New England's implementation of FERC's Order 1000 appropriately reflects state laws and regulations, if and as determined by state officials, that would benefit from transmission analysis; ensure that the public policy components of Order 1000 are implemented in a way that makes sense for consumers; evaluate the (pending) D.C. Circuit Court of Appeals decision and participate in next steps, whether continued litigation or implementation of adjustments to the New England Order 1000 process.

- **Competitive Transmission and Cost Containment:** Transmission project cost estimation and containment practices must be revisited as New England implements FERC's Order 1000, in which transmission developers offer competing transmission proposals to satisfy the same need and projected costs influence project selection. Certain approaches to cost containment have the potential to create consumer risk, however. So too can running costly competitive transmission processes when the consumer benefits of competition are not apparent. NESCOE will work with ISO New England and stakeholders on the details of Order 1000 competitive transmission implementation, recommend adjustments as appropriate, and advocate for criteria in competitive transmission evaluation processes that advance reliable service at the lowest cost to consumers over the long-term and avoid unintended consequences.

- **Transmission Cost Estimation, Transparency and Tracking:**
  - Continue tracking transmission project costs, monitoring cost overruns, and advancing changes to cost estimating practices or requirements.
  - To the extent improved project cost estimating and tracking reveal cost overruns, which, among other issues, suggest alternative means would have been a better choice for consumers to satisfy the identified need, work with ISO New England and transmission companies to modify cost estimating practices and/or mitigate cost escalation.
  - Continue active participation in the development of so-called transmission formula rate protocols and other related consumer protections that will increase transparency of and confidence in the rates New England Transmission Owners file with FERC for approval that are not as a matter of course subject to review in traditional regulatory proceedings; once implemented, continue to monitor the information transmission owners submit to FERC for cost recovery.

- **Resource Reliability Requirements:** Provide input as appropriate on ISO New England's recommended ICR and associated issues, with particular attention to ensuring that the ICR appropriately reflects New England consumers' increasing investment in local distributed generation and other clean energy resources and the improved generator performance New England consumers will pay for through ISO New England's Pay-for-Performance modifications to the Forward Capacity Market.

- **Resource Adequacy and Reliability Over the Long-Term**: Work with stakeholders and ISO New England to ensure that any 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. Additionally, to inform policy-makers' consideration of proposed solutions, provide state policymakers with analyses where appropriate to confirm the nature of identified risks, and to understand the range of potential cost-effective solutions, including whether the costs of proposed solutions have a reasonable relationship to asserted risks.

- **New England States' Energy and Environmental Laws/Regulations and Regional Wholesale Markets:** Advocate to ensure reasonable harmonization as needed in the regional electricity market of state energy and environmental requirements of New England states' laws. This includes, but is not limited to, policies and/or programs related to carbon reduction, storage, and distributed generation. Commence holistic conversations about the design of the future grid and associated market rules, including, for example, the relative size and proper form of the ancillary service markets and whether the Minimum Price Offer Rule in the Forward Capacity Market still makes sense.

- **Analysis of Renewable and Clean Energy Mechanisms**: In 2017, NESCOE will complete Phase II of the *Renewable and Clean Energy Scenario Analysis and Mechanisms 2.0 Study*. The study will provide qualitative and quantitative information about a range of potential clean energy mechanisms that states may consider using in future years, after, for example, Renewable Portfolio Standards hit their current targets in some states and after ongoing work on long-term contracts satisfy other current needs. The study will be one of many pieces of information that may assist consideration of how wholesale competitive markets and state public policies might best move forward together.

- **Defense of Consumers in Litigation Advanced by New England Market Participants:** To the extent New England power generators and other market participants continue to litigate matters related to mechanisms that allow the wholesale markets' and state laws to coexist or other matters with consumer cost implications, defend consumers' economic and other interests. This includes continued advocacy on behalf of consumers in ongoing settlement discussions at FERC related to the Peak Energy Rent mechanism.

- **Fuel Source Security and Power System Reliability:** To the extent ISO New England continues to characterize New England's power system as "precarious" due to lack of consistently adequate fuel supplies and explores solutions to bolster reliability, assess and/or advance proposals as appropriate to ensure that any solution(s) make the most economic sense for consumers and the environmental requirements of various states' laws. Assess the early results of ISO New England's Pay for Performance program, which will provide incentives for resource performance upon the conclusion of ISO New England's Winter Reliability Programs.

- **State Input into and Perspectives on ISO New England's Clean Energy-related Studies**
  - ISO New England's 2016 economic study of public policies and markets, as requested by NEPOOL, includes analysis of capacity market impacts, potential demand for ancillary services, and natural gas system interactions. In 2017, NESCOE will continue to monitor the study's progress, provide inputs into the study as needed, and offer the states' perspective about its details and outcomes.

  - ISO New England has indicated that in 2017 it will continue to work on strategic transmission studies and produce by the end of the year analysis about relieving transmission constraints in the State of Maine that have prevented clean power resources located in that state from interconnecting to the system and thus reaching New England's load centers in southern New England. This will include some high-level cost estimates and hypothetical transmission upgrades. NESCOE will monitor this work and offer collective state views about the study as needed.

- **Advocate for Reasonable Decision-Making Processes that Enable Full Consideration of Economic Implications on Consumers:** Ensure that decision-making processes provide reasonable notice and opportunity to consider fully the consumer implications of proposed rule changes and opportunities for states – and stakeholders – to explore the lowest cost means to achieve identified objectives.

- **Energy Efficiency in Planning:** Support refinement of ISO New England's Energy Efficiency Forecast to ensure that the transmission planning process continues to accurately reflect consumers' significant investments in energy efficiency resources and the resulting reduction to the region's energy use.

- **Distributed Generation Forecast:** To ensure that consumers receive the full benefit of state policies and consumer investments in all forms of power generation technologies, continue working with ISO New England and stakeholders to appropriately capture in the load forecast the increased penetration of solar energy, and to ensure the application of this forecast to the transmission planning process and resource adequacy determinations. NESCOE will work with states and ISO New England to refine and improve the distributed generation forecast based on early experience.

- **Interconnecting Resources Efficiently:** Participate in any deliberation about proposed changes, advanced by ISO New England or others, to New England's generation interconnection process to ensure that any changes decrease, rather than increase, the time and costs to move proposed projects through the queue in absolute terms and in relation to other Regional Transmission Organizations.

- **Eastern Interconnection Planning Collaborative:** Monitor and analyze interconnection-wide study activities conducted by EIPC to ensure that New England consumers' interests are appropriately represented and that system planning determinations that have economic implications for New England ratepayers remain a function of regional decision-making; and work to ensure that any customer-supported interconnection-wide studies provide value to New England customers.

- **NERC Standards and Consumer Cost Implications:** Continue to track and comment on major NERC policy activities when they have the potential for significant cost implications for New England electricity consumers, and seek to ensure that reliability standards development and other NERC activities appropriately consider the costs relative to potential incremental reliability gains and take regional differences into account.

- **ISO New England "Major Initiatives" Assessment:** Advance consumer interests in connection with ISO New England's approach to and execution of the required quantitative and qualitative analysis of major market initiatives. In this context, NESCOE's focus is on ensuring the consumer cost implications of proposed initiatives, and any alternatives, are understood and considered in decision-making.

VI. 2016 EXPENDITURES

NESCOE operations are funded by a FERC-approved charge collected through Schedule 5 of Section IV.A of ISO New England's tariff.

In 2016, an independent audit of NESCOE's books for the year-end December 31, 2015, 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 2016 Statement of Spending is at page 36.

NESCOE

Statement of Spending
December 31, 2016

Expenses	
Direct Expenses, Consulting	
Legal (FERC) Services	169,718
Technical Consulting	239,670
Total Direct Expenses, Consulting	409,388
Employment and Benefits	
Disability	9,792
Employee Health Insurance	30,309
Life Insurance	990
Payroll Taxes	49,258
Pension Contributions	29,504
Salaries & Wages	793,382
Total Employment and Benefits	913,235
General and Administrative	
Dues and Subscriptions	6,555
Depreciation	4,516
Insurance	6,754
Office Expenses	3,073
Professional Services	22,886
Rent, Parking & Utilities	23,907
Telephone & Communications	9,805
Travel and Meetings	37,156
Total General and Administrative	114,651
Total Expenses	**1,437,274**

VII. BUDGET 2017 & PRELIMINARY BUDGET 2018

NESCOE's 2017 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 October 2016. The 2017 NESCOE budget was submitted to the FERC, also in October, and was accepted in December 2016.

The 2017 and preliminary 2018 budgets are at page 38.

NESCOE
Actual 2017 Budget and Preliminary 2018 Budget

	2017	2018
Salaries and Wages		
Salaries	954,388	983,019
Payroll Taxes	95,439	98,302
Health and Other Benefits	82,500	84,975
Retirement §401(k)	38,176	39,321
Total, Salaries and Wages	**1,170,502**	**1,205,617**
Direct Expenses - Consulting		
Technical Analysis	502,654	517,734
Legal (FERC)	136,591	140,689
Total, Direct Expenses, Consulting	**639,246**	**658,423**
General and Administrative		
Rent	25,750	26,523
Utilities	5,150	5,305
Office and Administrative Expenses	42,230	43,497
Professional Services	75,850	78,126
Travel/Lodging/Meetings	88,500	91,155
Total General and Administrative	**237,480**	**244,604**
Capital Expend. & Contingencies		
Computer Equipment	5,500	5,665
Contingencies	205,273	211,431
Capital Expend. & Contingencies	**210,773**	**217,096**
TOTAL EXPENSES	**2,258,001**	**2,325,741**