#### FINAL

Pursuant to notice duly given, a meeting of the NEPOOL Participants Committee was held via teleconference, beginning in executive session at 9:00 a.m. on Thursday, October 1, 2020. A quorum determined in accordance with the Second Restated NEPOOL Agreement was present and acting throughout the meeting. Attachment 1 identifies the members, alternates and temporary alternates who participated in the teleconference meeting.

Ms. Nancy Chafetz, Chair, presided and Mr. David Doot, Secretary, recorded.

## EXECUTIVE SESSION

The Committee began the meeting in executive session to consider two confidential items

- the extension and amendment of the GIS Administration Agreement and to ratify consulting

arrangements entered into in connection with ongoing efforts on the Future Grid Initiative.

# EXTENSION AND AMENDMENT OF GIS ADMINISTRATION AGREEMENT

Following discussion in executive session, the Committee considered and unanimously

approved the following motion:

RESOLVED, that the Participants Committee approves the Extension of and First Amendment to the Amended and Restated Generation Information System Administration Agreement between NEPOOL and APX, Inc., as circulated to the Committee and discussed at this meeting, together with any non-substantive changes as the Chairman of the GIS Agreement Working Group may approve.

# **RATIFICATION OF CONSULTING ARRANGEMENTS**

The Committee then considered, discussed in executive session and unanimously

approved in a single vote the following motions:

RESOLVED, that the NEPOOL Participants Committee ratifies, to the extent required, (a) the agreement of the Participants Committee officers to retain the services of Peter G. Flynn as a project administrator to perform the scope of services described more fully in the confidential document circulated in advance of the meeting entitled "Future Grid Study, Project Administrator – Scope, Tasks, Deliverables, Governance and Budget" (the Scope), and (b) the execution and delivery by the Chair or any Vice-Chair of this Committee of an agreement among the parties to that arrangement reflecting that Scope (together with such nonsubstantive changes as may be approved by the parties), in final form acceptable to the parties, and any other related agreements and documents as they may deem necessary or desirable.

RESOLVED, that the NEPOOL Participants Committee ratifies, to the extent required, (a) the agreement of the Participants Committee officers to retain the services of Dr. Frank Felder to perform the scope of services described more fully in the confidential document circulated in advance of the meeting entitled "Transition to the Future Grid--Facilitation of NEPOOL Discussions of Potential Future Pathways for New England--Proposed Outline of Consulting Engagement -- September through December 2020" (the Scope), and (b) the execution and delivery by the Chair or any Vice-Chair of this Committee of an agreement between the parties to that arrangement reflecting that Scope (together with such non-substantive changes as may be approved by the parties), in final form acceptable to the parties, and any other related agreements and documents as they may deem necessary or desirable.

## **GENERAL SESSION**

Following a short recess, the NEPOOL Participants Committee reconvened, beginning at 10:00 a.m. A quorum determined in accordance with the Second Restated NEPOOL Agreement was reconfirmed. Those members, alternates and temporary alternates who participated in both the executive and general session portions of the meeting are identified in *bold italics* in the Attachment 1 attendance list.

Ms. Chafetz began the general session by acknowledging the passing on September 25, 2020 of Mr. Eugene Litvinov, the ISO's chief technologist. She noted that Mr. Litvinov was known as the "genius behind the scenes" and, with legendary brilliance, had left his mark on virtually every aspect of the New England Markets. On behalf of NEPOOL and the NEPOOL Participants, she extended sincere condolences to his family and to colleagues at the ISO, noting that Eugene would be sorely missed. In tribute, a moment of silence was observed.

# **APPROVAL OF SEPTEMBER 3, 2020 MEETING MINUTES**

Ms. Chafetz then referred the Committee to the preliminary minutes of the September 3, 2020 meeting, as circulated and posted in advance of the meeting. Following motion duly made and seconded, the preliminary minutes of the September 3, 2020 meeting were unanimously approved as circulated, with an abstention by Mr. Michael Kuser's alternate, Mr. Jason York, noted.

# **REVISIONS TO OP-17 AND OP-21**

Ms. Chafetz referred the Committee to revisions to Operating Procedure (OP) 17 (Load

Power Factor and System Assessment), including changes to Appendices B and C (collectively,

OP-17) and to OP-21 (Operational Surveys, Energy Forecasting & Reporting and Actions

During An Energy Emergency), each as unanimously recommended by the Reliability

Committee (RC) at its September 23, 2020 meeting and described in materials circulated in

advance of the Participants Committee meeting. She said that the revisions to OP-17 and OP-21

would have been on the Consent Agenda but for the timing of the RC's consideration and vote.

The following motions were duly made, seconded, and unanimously approved in a single vote without comment, with an abstention noted by Mr. Kuser's alternate, Mr. York:

RESOLVED, that the Participants Committee supports the revisions to OP-17 (including changes to Appendices B & C), as recommended by the Reliability Committee, and as reflected in the materials distributed to the Participants Committee for its October 1, 2020 meeting, together with such non-substantive changes as may be agreed to after the meeting by the Chair and Vice-Chair of the Reliability Committee.

RESOLVED, that the Participants Committee supports the revisions to OP-21, as recommended by the Reliability Committee, and as reflected in the materials distributed to the Participants Committee for its October 1, 2020 meeting, together with such non-substantive changes as may be agreed to after the meeting by the Chair and Vice-Chair of the Reliability Committee.

# **ISO CEO REPORT**

Mr. Gordon van Welie, ISO Chief Executive Officer (CEO), referred the Committee to the summaries of the ISO Board and Board Committee meetings that had occurred since the September 3, 2020 meeting, which had been circulated and posted in advance of the meeting. He reported that, at its annual meeting on September 17, the ISO Board had elected Messrs. Brook Colangelo, Roberto Denis and Mark Vannoy as Directors for three-year terms, had elected Ms. Kathleen Abernathy as Chair, and had adopted the committee assignments identified in the summary. He also noted that, as stated in his comments for the FERC's technical conference on carbon pricing convened the day before, and as he would explain more fully later in the meeting, the Board had directed the ISO to prioritize analysis of two pathways under discussion in NEPOOL's "Pathways to the Future Grid" initiative -- net carbon pricing and a forward clean energy market (FCEM). He said that the Board wished to hear directly from stakeholders on those and the other various pathways under discussion when it meets with Sectors and NECPUC/NESCOE in November. He encouraged that the request to discuss the various pathways be taken into consideration as materials are prepared for those meetings. Mr. van Welie invited questions regarding the summaries. There were no questions or comments on those summaries.

## **ISO COO REPORT**

Dr. Vamsi Chadalavada, ISO Chief Operating Officer (COO), referred the Committee to his October report, which had been circulated and posted in advance of the meeting. He noted that the data in the report was through September 23. The report highlighted: (i) Energy Market value for September 2020 was \$158 million, down \$148 million from August 2020 and down \$53 million from September 2019; (ii) August 2020 average natural gas prices were 1.3 percent lower than August average values; (iii) the average Real-Time Hub Locational Marginal Prices (LMP) for August (\$20.47/MWh) were 14 percent lower than August averages; (iv) average August 2020 natural gas prices and Real-Time Hub LMPs over the period were down 25 percent and up 0.1 percent, respectively, from September 2019; (v) the average Day-Ahead cleared physical energy during peak hours as percent of forecasted load was 99.3 percent during September (down from 101.4 percent during August), with the minimum value for the month (93.6 percent) on September 16; and (vi) the Daily Net Commitment Period Compensation (NCPC) payments for August totaled \$1.9 million, which was down \$1.5 million from August 2020 and down \$0.4 million from September 2019. September NCPC, which was 1.2 percent of total Energy Market value, was comprised of (a) \$1.4 million in first contingency payments (down \$900,000 from August); (b) \$237,000 in second contingency payments (down \$601,000 from August); (c) \$262,000 in voltage payments (up from \$4,000 in August); and (d) \$6,000 in distribution payments (down \$199,000 from August).

Dr. Chadalavada responded to questions received following circulation and posting of the October report regarding load forecast performance on September 8, second contingency commitments during September, and posturing during a few days in the first part of that month. With respect to load forecast performance on September 8, he reported that loads exceeded forecast levels by more than nine percent (19,000 MW actual versus 17,400 MW forecast). He attributed the underforecast to hotter than expected weather, which increased air conditioning load, and the inability of modeling to predict the impact of the first day back in school during the ongoing pandemic. There were binding constraints in total Ten-Minute Spinning Reserve, total Thirty-Minute Operating Reserve and Ten-Minute Non-Spinning Reserve Requirements. Those constraints, he said, resulted in the out-of-market commitment and dispatch of fast-start internal combustion units and, ultimately, \$500,000 in first contingency uplift payments. He said the ISO was working to refine its modeling based on the experience.

Dr. Chadalavada then explained that second contingency commitments during the month of September resulted from a two-day planned outage of line 391 in Maine, which cost \$100,000, and, from a few days in the latter part of September (21-23), in which two planned transmission outages (of Line 343 and the Phase II line), together with heavy exports to New Brunswick, led to insufficient resources clearing in the Day-Ahead Energy Market in the eastern part of the Maine Load Zone.

He also explained that posturing on September 8-10 occurred because the available water to power a pumped storage unit had been depleted to less than one hours' worth of energy. That posturing, he said, was in accordance with long-standing procedures -- often used a few days a month -- to protect against or prepare for a response to a NERC Disturbance Control Standard violation (which requires area control error (ACE) to be within or returned to a specified range).

Dr. Chadalavada concluded his report by noting that, from October 19 to November 10, line 393-312 would be out of service for a planned outage, which would for that period of time reduce the transfer limits (import and export) between New York and New England to 600 MW.

## **2021 WORK PLAN**

Dr. Chadalavada then referred the Committee to, and provided a summary of, the presentation, circulated and posted in advance of the meeting, identifying objectives and highlights of the 2021 Work Plan. He noted initiatives focused on innovation for the cleanenergy transition across markets, planning, operations, and software structures. Those initiatives included Energy Security Initiatives (ESI)-related projects (market power assessment mitigation framework, seasonal Forward Reserve Market and conforming changes), the Future Grid Initiative, transmission planning for an evolving grid (initiated at the Planning Advisory Committee (PAC) in September), an evaluation of the impacts of shifting net peak loads (and effective load carrying capability (ELCC)), and efforts to be required to respond to the FERC's recent Order 2222 (the rulemaking order facilitating participation of distributed energy resource (DER) aggregations in ISO/RTO markets). Additional priorities for 2021 would include reviewing lessons learned from the first competitive transmission solicitation process, continuing improvements to operational and long-term planning forecasts, including consideration of COVID-19 impacts and other data-related enhancements, and moving the financial assurance for and settling of the Financial Transmission Rights (FTR) market to a clearinghouse. He noted plans to further enhance cybersecurity protections and implement upgrades to the nGEM Day-Ahead Market clearing software to improve system speed and efficiency. Dr. Chadalavada acknowledged the ongoing impacts and challenges presented by COVID-19, but committed the ISO to work collaboratively to complete the initiatives and projects in an effective and efficient manner.

Following his presentation, members expressed appreciation to the ISO for its efforts and responsiveness, both with respect to load forecasting and development of net ICR, particularly given impacts of COVD-19, as well as for its efforts to address financial assurance and settlement-related issues associated with long-term FTRs.

In response to questions, Dr. Chadalavada clarified that initial efforts were underway on a Market Power Assessment to identify the extent to which market power could be exercised with ESI Day-Ahead Ancillary Services. He explained that such an assessment could not be completed until after the FERC's order on ESI and consideration of any changes to the proposed design that might be required. The ISO currently planned, particularly given concerns raised in the ESI proceeding, to dedicate significant resources to the project so that the Market Power Assessment could be completed and filed in 2021. By contrast, the study and potential implementation or incorporation into the region's market design and systems of ELCC was likely to take a number of years to work through with stakeholders, with efforts continuing throughout 2021 and into 2022. He confirmed that the ISO still planned to meet its commitment previously made in April to look at, for FCA16, supply side adjustments for Energy Efficiency and the impacts of the current and projected shift in net peak load. Dr. Chadalavada also re-confirmed that the ISO remained committed to a seasonal forward market, though how work would progress in 2021 and beyond was not yet certain.

## **2021 ISO AND NESCOE BUDGETS**

Ms. Michelle Gardner, Budget & Finance Subcommittee (B&F) Chair, referred the Committee to the materials circulated and posted in advance of the meeting related to the proposed 2021 ISO Capital and Operating Budgets and the 2021 NESCOE Budget. She described the review process followed to that point and that, with the benefit of those detailed reviews with NEPOOL, no member had raised any material concerns or objections with any of the Budgets in the NEPOOL process. She referred members to the questions and comments of certain New England state regulators and consumer advocates on the ISO Budgets, and the ISO responses, all of which had been posted. She also noted a change in NESCOE's presentation to the proposed Schedule V rate to reflect updated 2021 Network Load Factor information.

Without objection, and following two motions were duly made, seconded and unanimously approved together in a single vote, with an abstention noted by Mr. Kuser's Alternate:

RESOLVED, that the Participants Committee supports the Year **2021 ISO operating budget and capital budget** proposed by the ISO, as presented at this meeting.

RESOLVED, that the Participants Committee supports the Year **2021 NESCOE budget**, as proposed by NESCOE at this meeting, as the Year 2021 operating budget for NESCOE.

## HQICC AND ICR VALUES FOR 2024-25 (FCA15) CAPACITY COMMITMENT PERIOD

Ms. Emily Laine, Reliability Committee Chair, referred the Committee to materials circulated in advance of the meeting concerning the Hydro-Québec Interconnection Capability Credits (HQICC) Values and the Installed Capacity Requirement (ICR) values and the related demand curves (collectively, the ICR Values) to be used for the 2024-25 Capacity Commitment Period associated with FCA15. She reported that, following development by the ISO in consultation with the Power Supply Planning Committee, the Reliability Committee recommended at its September 23 meeting Participants Committee support for both the HQICC Values and the ICR Values.

# HQICC Values

The following motion was duly made and seconded:

RESOLVED, that the Participants Committee supports the *FCA15 HQICC Values*, as recommended by the Reliability Committee and as reflected in the materials distributed to the Participants Committee for its October 1, 2020 meeting, together with such non-substantive changes as may be agreed to after the meeting by the Chair and Vice-Chair of the Reliability Committee.

The CSC representative stated CSC would oppose resolutions being voted on both the

HQICCs and the ICR Values because the calculations failed to take into account the reliability benefits of the Cross-Sound Cable. The LIPA representative echoed CSC's comments and indicated LIPA would similarly oppose both resolutions. The Calpine representative stated Calpine would abstain on the HQICC motion, given Calpine's previously-articulated objection to the reliance by the region on non-capacity-backed tie benefits to satisfy regional capacity requirements.

The Committee considered and approved the motion on HQICCs, with opposition noted

by CSC and LIPA, and abstentions noted by Acadia Center, BP, Calpine, CLF, DTE,

Environmental Defense Fund, Exelon, MA AG, Mercuria, Michael Kuser, NRDC, Priogen, and the AR Sector Small RG Group Member.

#### **ICR Values**

The following motion was then duly made and seconded:

RESOLVED, that the Participants Committee supports the *FCA15 ICR Values*, as proposed by the ISO and recommended by the Reliability Committee and as reflected in the materials distributed to the Participants Committee for its October 1, 2020 meeting, together with such non-substantive changes as may be agreed to after the meeting by the Chair and Vice-Chair of the Reliability Committee

Without further discussion, the Committee approved the motion on the ICR Values, with opposition noted by CSC, Exelon and LIPA, and abstentions noted by Acadia Center, BP, Calpine, CLF, DTE, Environmental Defense Fund, MA AG, Mercuria, Michael Kuser, NRDC, Priogen, and the AR Sector Small RG Group Member.

# ISO PROPOSAL TO EXEMPT EE FROM PFP SETTLEMENT

Ms. Chafetz referred the Committee to the materials circulated and posted in advance of the meeting regarding proposed changes to the Market Rules to exempt energy efficiency resources (EE) in the Forward Capacity Market (FCM) from Pay-for-Performance (PFP) payments/penalties (the Proposal) and changes to the Financial Assurance Policy (FAP) that would support the implementation of the Proposal. She explained that the proposed Market Rule changes would be considered and voted separately from the FAP changes. She further explained that the vote on the FAP Changes was intended to allow those who oppose the Market Rule changes to register conditional support for the related FAP changes if the Market Rule changes were to be implemented without NEPOOL support.

# **Proposed Market Rule Changes**

Ms. Mariah Winkler, Markets Committee Chair, summarized the Market Rule changes and provided the procedural background for the Markets Committee's consideration of the changes. She reported that, at its September 8, 2020 meeting, the Markets Committee considered but did not recommend Participants Committee support for the changes, with a 55.57% Vote in favor.

The following motion was duly made and seconded:

RESOLVED, that the Participants Committee supports the Tariff revisions to exempt energy efficiency resources from Capacity Performance Payments, as proposed by ISO New England and circulated to this Committee in advance of this meeting, together with such non-substantive changes as may be approved by the Chair and Vice-Chair of the Markets Committee.

Rather than provide their detailed objections to the ISO's proposed changes, members referred to their positions articulated during the Markets Committee consideration, with some briefly summarizing those positions. An AR Sector member who opposed the Proposal explained how in his view the Proposal substantively provided the wrong incentives to EE (depriving EE of the potential for payments for reliable performance that could be used, directly or indirectly, to fund additional EE, in turn reducing the likelihood of future PFP events) and procedurally set a bad precedent (by so quickly undoing in part a piece of a comprehensive compromise reached in connection with revisions to Market Rule 1 recently filed and accepted that related to EE Capacity Supply Obligations (CSOs) during Scarcity Conditions).

A Generation Sector representative suggested that, should the Proposal be filed and approved, it would be appropriate thereafter to undertake a more comprehensive review of the treatment of other resource types that, like EE, may not be subject to Real-Time visibility, fiveminute performance data, or be capable of responding to Real-Time events. Others echoed the need for a broad review, particularly given the significance of the changes and impetus for more tailored treatment of resource types.

Those supporting the changes highlighted improvements in market design and the support for the changes by the ISO Internal and External Market Monitors.

The Committee then considered and did not approve the Market Rule Changes. The

motion, which required a 60% Vote to be approved by the Committee, failed to pass with a

58.35% Vote in favor (Generation Sector – 16.70%; Transmission Sector – 16.70%; Supplier

Sector – 16.70%; AR Sector – 8.25%; Publicly Owned Entity Sector – 0%; and End User Sector

-0%). (See Vote 1 on Attachment 2).

# Proposed Financial Assurance Policy Changes

Ms. Gardner described the FAP changes, which would support the implementation of the Proposal by excluding Capacity Supply Obligations associated with EE from the calculation of FCM Delivery Financial Assurance requirements. She reported that the B&F Subcommittee had reviewed the FAP changes at its August 3 and 21, 2020 meetings. There were no objections raised during that review.

The following motion was duly made and seconded:

RESOLVED, that, if the Tariff revisions to exempt energy efficiency resources from Capacity Performance Payments proceed as proposed by the ISO, the Participants Committee supports revisions to Section VII.A of the ISO New England Financial Assurance Policy to exclude Capacity Supply Obligations associated with Energy Efficiency measures from the calculation of FCM Delivery Financial Assurance requirements, as circulated to this Committee in advance of this meeting, together with such non-substantive changes as may be approved by the Chair of the Budget and Finance Subcommittee.

Without discussion, the motion to support the FAP changes, which required a 66.67%

Vote to be approved by the Committee, was approved with a 79.47% Vote in favor (Generation

Sector – 16.70%; Transmission Sector – 16.70%; Supplier Sector – 16.70%; AR Sector – 11%;

Publicly Owned Entity Sector – 16.70%; and End User Sector – 1.67%). (See Vote 2 on

Attachment 2).

In response to questions to the ISO regarding how it planned to proceed given the input

received, the ISO indicated plans to file the Proposal as a package. Further, the ISO explained

that, given other regulatory developments and obligations, that filing would likely be delayed until after the first of the year, with a requested effective date at least 60 days from the date of the filing. A member suggested the ISO consider requesting an effective date that coincides with the start of a commitment period (e.g., June 1, 2021).

# LITIGATION REPORT

Mr. Doot referred the Committee to the September 29 Litigation Report that had been circulated and posted in advance of the meeting. He then highlighted the following items:

#### (1) FCM Pricing Rules (7-year Price Lock) Complaint Remand Proceeding –

Briefing had been completed in late September and the matter was back before the FERC.

(2) *Mystic 8/9 Cost of Service (COS) Agreement* – The orders in the Mystic 8/9 COS Agreement proceeding had been appealed to the DC Circuit, with appearances and initial submissions in the consolidated case due in October. Separately, initial briefs in the Return on Equity (ROE) paper hearing had been filed, with responses due in late October.

(3) *CIP IROL Cost Recovery Rules* – the FERC had issued an order further clarifying and addressing arguments raised by the IROL-Critical Facility Owners in their request for rehearing (which had earlier been denied by operation of law).

(4) Order 2222 (Distributed Energy Resource (DER) Participation in ISO/RTO Markets) - the FERC had issued a final rule adopting reforms to the rules for the participation of DER aggregations in the RTO/ISO markets. Order 2222 required each RTO/ISO to revise its tariff to ensure that its market rules facilitate the participation of DER aggregations. ISO-NE was still in the process of evaluating what might be required in response to that Order.

(5) **NEPGA Exelon Complaint** – pleadings addressing challenges to the rate in the Mystic COS Agreement (given new information about Exelon's two new queue positions and

Exelon's intention to continue to operate the Everett LNG Terminal beyond the term of the Mystic COS Agreement) were submitted and before the FERC.

(6) *Further Order 841 Compliance Filings* – The FERC had granted revisions to the compliance deadlines it had established in its August 4 order that NEPOOL and ISO had jointly requested. As a result, the Participants Committee would receive and be asked to consider a full set of compliance changes at its December meeting, for filing shortly thereafter.

#### **COMMITTEE REPORTS**

*Markets Committee (MC)*. Mr. Bill Fowler, MC Vice-Chair, reported that the MC was next scheduled to meet for three days, from October 6-8, with key items to include a vote to sunset the Forward Reserve Market on June 1, 2025 and on the Dynamic De-List Bid Thresholds to be in effect for FCA16-18. Voting on Net Cone items had been pushed back to the November Markets Committee meeting. He referred members to a process memo issued by the ISO a few days earlier for more information.

*Transmission Committee (TC)*. Mr. José Rotger, TC Vice-Chair, reported that the TC was scheduled to meet on October 27, when it was expected to vote on the portion of the further Order 841 compliance filing changes that were properly subject to consideration by the TC.

**B&F Subcommittee.** Ms. Gardner noted that the next meeting of the Subcommittee was scheduled for October 5, at which the Subcommittee would discuss the ISO's proposed "Know Your Customer" (KYC) changes to the Financial Assurance Policy. All interested persons were urged to attend.

# POTENTIAL FUTURE MARKET FRAMEWORKS IN LIGHT OF EXPECTED CHANGES TO NEW ENGLAND'S GRID

After a brief recess, the meeting resumed via WebEx. Ms. Chafetz introduced the discussion by identifying the three topics to be covered -(1) an overview of a new potential

pathway – an "Integrated Clean Capacity Market" (ICCM); (2) preliminary observations and discussion on the tradeoffs of the first two potential pathways explored (a forward clean energy market (FCEM) and carbon pricing); and (3) a report from Mr. van Welie on the guidance provided by the ISO Board and expected process on those first two pathways.

#### Integrated Clean Capacity Market

Ms. Chafetz introduced Ms. Kathleen Spees, Principal of The Brattle Group, who provided an overview of an ICCM, which she described as a three-year forward market to attract the optimal resource mix for reliability and state policy goals. She explained that the ICCM would maintain key elements from the current FCM structure, but would be a fit-for-purpose market for achieving an 80-100% clean electricity future. Resources would clear the ICCM market based on combined bids for their capacity and the clean energy attributes based on the number of clean energy attribute certificates (CEAC) they could produce (with each certificate representing one MWh of clean energy). After explaining the framework, she compared the ICCM to other pathways/frameworks under consideration. She also reviewed the supply, demand and co-optimized auction clearing concepts of an ICCM.

In response to questions and discussion throughout her presentation, Ms. Spees clarified a number of aspects of the ICCM concept and identified areas that could be fine-tuned or would need to be finalized. She confirmed that state participation would be optional (though states could mandate constituent participation), and that state self-supply could be accommodated. She explained how ICCM would allow states to use competitive markets to achieve their goals, with the greatest benefits (lowest cost procurement) to states that opted for resource-neutral requirements. She clarified that Competitive Auctions with Sponsored Policy Resources (CASPR), which was designed to accommodate resources required by state laws, would not exist as part of the contemplated ICCM construct. The ICCM could be designed to reflect various

carve outs that were not resource neutral in order to address certain state-specific requirements, but those carve-outs would reduce, and carve outs collectively could eventually eliminate, the benefits of competition. She recommended that resource requirements or preferences be expressed in units of measure (e.g., MW for capacity and MWh for CEACs) which, while not substitutable, would allow for solutions to be identified through advanced product definitions (e.g., CEACs for storage resources) and could be implemented in a way that allows for more flexible and desirable cooptimization.

Ms. Spees confirmed that, given the unbundled nature of the ICCM, existing or new resources could participate (and receive payments) just for their capacity, or as appropriate, participate just for CEAC, but would have to clear for both products if both were offered. Addressing allocation of procurement costs, she explained that costs for the capacity product would be allocated by peak load; clean energy costs would be allocated back to the customers seeking that product (either back to customers in a particular state that created the demand for that product as represented by the CEAC or to buyers that volunteered to procure that clean energy). She confirmed that it was possible for some portion of demand to be left unserved if the auction were to clear at a price higher than demand bid/was willing to pay.

ICCM aspects that could be fine-tuned or would require choices to be made included, for example, how CEACs would be valued (whether equally at all hours as are Renewable Energy Credits (RECs) or with dynamic or de-carbonization values layered in), the length of the forward period (three-year forward as modelled after the current FCM) or shorter or longer depending on the balance struck between maximizing resource participation and mitigating consumer risk borne with longer forward periods), how to ensure durability of demand (whether legislatively or some other way), the length of any price lock included in the design for new resources, and the role and parameters of any minimum offer price rule (MOPR). Ms. Spees walked through an example of an ICCM auction clearing, including how demand curves would be used for each product, how resources would offer, how prices would be set, and what resources would clear, to illustrate how an ICCM could guide an energy transition. In response to questions, she suggested that market power, particularly on the capacity side of the market, would have to be closely monitored. She explained why unbundling clearing prices on the two sides of the market would result in higher prices but could be accommodated. She described the consequences to a Market Participant of producing both less and more of the product for which it received an obligation.

She concluded her presentation by reviewing advantages and challenges to consider if an ICCM is pursued. She confirmed the ability of existing and new resources to coexist in the ICCM construct, and expressed confidence that the attendant investment risk, whether or not mitigated through a price lock mechanism, could and would be assumed by the private sector.

# Future Pathways - Round 1 Preliminary Observations: Focus on FCEM and Carbon Pricing

Ms. Chafetz then introduced Dr. Frank Felder, PhD, Director of the Center for Energy, Economic and Environmental Policy at Rutgers University and Director of the Rutgers Energy Institute who, as discussed earlier in the meeting, had been engaged to facilitate NEPOOL discussions of potential future pathways for New England. Dr. Felder stated that, by the end of December, he hoped to help build a common understanding among stakeholders of those pathways and their variations, and to produce a report that analyzes, with input from stakeholders, the tradeoffs associated with those pathways and variations. He said that his analysis would consider and compare whether and to what extent each of the pathways discussed (1) support the clean energy policies of the New England States and (2) garner efficiency of New England's markets. Dr. Felder then proceeded to summarize and review slides, which had been circulated and posted in advance of the meeting, that reflected his preliminary observations on FCEM and carbon pricing concepts, including variations associated with each of those identified pathways. He noted that many of his points on the FCEM pathway had been addressed in the questions and discussion of the ICCM construct.

During his summary, members responded with initial questions, observations and requests. Members asked Dr. Felder to consider in his analysis how his conclusions might vary if carbon pricing was limited to the electric sector versus implemented economy-wide. He was also asked to consider in his analysis whether the impacts of carbon pricing on energy market pricing might suggest the need for other changes to the energy market design. Dr. Felder was asked further to identify how he saw the net carbon pricing option described by the ISO fitting in or aligning with the categories of carbon pricing concepts reflected in his presentation materials.

Dr. Felder expressed appreciation for the questions and suggestions and committed to consider them in his analysis. He concluded his presentation by encouraging Participants to provide written feedback and comments on this (or future) presentations. He asked that any such feedback be sent to Mr. Sebastian Lombardi, NEPOOL Counsel (<u>slombardi@daypitney.com</u>). It was noted that all comments received would be posted on the NEPOOL website (<u>http://nepool.com/Fut\_Grid\_Poten\_Pathways.php</u>).

#### ISO's Planned Evaluation of FCEM and Net Carbon Pricing Concepts

Mr. van Welie referred back to the direction from the ISO Board that he had summarized earlier in the meeting -- that the ISO further study two of the potential pathways that had emerged in the Future Grid pathways process (FCEM and net carbon pricing). He proceeded to provide additional context, address the proposed process for undertaking that further assessment of the FCEM and net carbon pricing frameworks and answer Participant questions concerning his thoughts on the study or studies to be undertaken and the process to be utilized in connection that work on the pathways.

He identified three requirements in order to facilitate a clean energy transition in New England: (1) transmission; (2) financial support for and ensuring there would be sufficient clean energy resources; and (3) financial support for and ensuring the availability of sufficient balancing resources required to ensure reliability. Focusing on the latter two, he opined that both FCEM and net carbon pricing concepts would ensure the sufficiency of and payments for clean energy resources; while only net carbon pricing (and not FCEM) was likely to help, at least in part, with the sufficiency of and payments for balancing resources. He explained in response to questions that balancing resources, a term intended to be neutral, and viewed with a multi-day, rather than an operating day perspective, were those often low-capacity resources that would produce substitute or "fill in" energy for lost renewable resource output (e.g. when the wind is not blowing or the sun is not shining). He indicated that such resources would need to recover their costs in the market (increasingly in the capacity and not the energy market).

Addressing process, he expected that the ISO would pick up from and build off the efforts of Dr. Felder. The ISO planned to work with stakeholders to establish the scope and assumptions to be used in its studies, producing and working through iterations of the results. He expected that the ISO would eventually be in a position to produce a qualitative assessment of FCEM and, for net carbon pricing, whose eventual market design was more clear to the ISO, to build a model to show the expected net impact on wholesale consumers. He clarified in response to questions that the ISO would evaluate any broadly-supported pathway that would be able to facilitate a clean energy transition (particularly those that would eliminate the MOPR and provide revenues for balancing resources). He emphasized that the ISO was not committing at this time to filing a market design based on either pathway, but rather would define in more

detail what was going to be studied, distill the pathways for study, narrow variants, and then do a deeper dive. Some members encouraged the ISO to undertake its efforts sooner rather than later. Mr. van Welie expected the studies to take six to nine months, depending on the scope established in the stakeholder process, with results available no earlier than mid-2021.

In response to questions, Mr. van Welie indicated that the ISO had considered in its initial discussions the development of some form of residual capacity market, but had ultimately concluded that such a market was not likely to be efficient or effective. In response to questions on carbon pricing specifically, he noted two challenges that would need to be addressed – the fear that carbon pricing might result in significant increases in the wholesale price of electricity and jurisdictional challenges. He was hopeful that the studies would show that net carbon pricing would result in moderate, rather than significant, price increases and, when coupled with an ISO-implemented vehicle through which the states would set prices (presuming RGGI itself is unable alone to produce an adequate price to achieve desired outcomes), would produce tangible and desirable regional benefits, thereby allowing the states to support rather than oppose net carbon pricing. He acknowledged that the net carbon pricing construct could be implemented with some sub-set of the New England states participating, but that variant would require careful consideration and agreement with those states on revenue disbursement issues.

#### Next Steps

Ms. Chafetz indicated that anyone wishing to explore additional potential pathways should let her or NEPOOL Counsel know as soon as possible but no later than Friday, October 16. Time would be set aside at the November 5 Participants Committee meeting should any other potential pathways/market constructs be so identified. Dr. Felder will be at the November 5 meeting to present his preliminary observations on the remaining pathways presented in September and October. Dr. Felder would then update his observations and analysis based on further information and stakeholder feedback, and finalize a written report reflecting his efforts.

There being no further business, the meeting adjourned at 4:53 p.m.

Respectfully submitted,

David Doot, Secretary

# PARTICIPANTS COMMITTEE MEMBERS AND ALTERNATES PARTICIPATING IN OCTOBER 1, 2020 TELECONFERENCE MEETING

PARTICIPANT NAME	SECTOR/ GROUP	MEMBER NAME	ALTERNATE NAME	PROXY
Acadia Center	End User	Deborah Donovan		Phelps Turner
Advanced Energy Economy	Fuels Industry Participant	Caitlin Marquis		
American PowerNet Management	Supplier			Mary Smith
AR Small Load Response (LR) Group Member	AR-LR	Doug Hurley	Brad Swalwell	
AR Small Renewable Generation (RG) Group Member	AR-RG	Erik Abend		
Ashburnham Municipal Light Plant	Publicly Owned Entity		Brian Thomson	
Associated Industries of Massachusetts (AIM)	End User			Roger Borghesani
AVANGRID: CMP/UI	Transmission		Alan Trotta	
Belmont Municipal Light Department	Publicly Owned Entity		Dave Cavanaugh	
Block Island Utility District	Publicly Owned Entity	Dave Cavanaugh		
Borrego Solar Systems Inc.	AR-DG	Liz Delaney		Michael Macrae
Boylston Municipal Light Department	Publicly Owned Entity		Brian Thomson	
BP Energy Company	Supplier			José Rotger
Braintree Electric Light Department	Publicly Owned Entity			Dave Cavanaugh
Brookfield Renewable Trading and Marketing	Supplier	Aleks Mitreski		
Calpine Energy Services, LP	Supplier	Brett Kruse		Bill Fowler
Castleton Commodities Merchant Trading	Supplier			Bob Stein
Central Rivers Power	AR-RG		Dan Allegretti	
Chester Municipal Light Department	Publicly Owned Entity		Dave Cavanaugh	
Chicopee Municipal Lighting Plant	Publicly Owned Entity		Brian Thomson	
CLEAResult Consulting, Inc.	AR-DG	Tamera Oldfield		
Concord Municipal Light Plant	Publicly Owned Entity		Dave Cavanaugh	
Connecticut Municipal Electric Energy Coop.	Publicly Owned Entity	Brian Forshaw		
Connecticut Office of Consumer Counsel	End User		Dave Thompson	
Conservation Law Foundation (CLF)	End User	Phelps Turner		
Cross-Sound Cable Company (CSC)	Supplier	-	José Rotger	
Danvers Electric Division	Publicly Owned Entity		Dave Cavanaugh	
Direct Energy Business, LLC	Supplier	Nancy Chafetz		
Dominion Energy Generation Marketing, Inc.	Generation	Mike Purdie	Weezie Nuara	
DTE Energy Trading, Inc.	Supplier			José Rotger
Dynegy Marketing and Trade, LLC	Supplier	Andy Weinstein		
Emera Energy Services	Supplier			Bill Fowler
Enel X North America, Inc.	AR-LR	Michael Macrae		
ENGIE Energy Marketing NA, Inc.	AR-RG	Sarah Bresolin		
Environmental Defense Fund	End User	Jolette Westbrook		
Eversource Energy	Transmission	James Daly	Dave Burnham	Vandan Divatia
Exelon Generation Company	Supplier	Steve Kirk	Bill Fowler	
FirstLight Power Management, LLC	Generation	Tom Kaslow		
Galt Power, Inc.	Supplier	José Rotger		
Generation Group Member	Generation	Dennis Duffy	Abby Krich	Alex. Worsley
Georgetown Municipal Light Department	Publicly Owned Entity		Dave Cavanaugh	
Great River Hydro	AR-RG			Bill Fowler
Groton Electric Light Department	Publicly Owned Entity		Brian Thomson	
Groveland Electric Light Department	Publicly Owned Entity		Dave Cavanaugh	
H.Q. Energy Services (U.S.) Inc. (HQUS)	Supplier	Louis Guibault	Bob Stein	
Harvard Dedicated Energy Limited	End User	Mary Smith	Joyceline Chow	Roger Borghesani
High Liner Foods (USA) Incorporated	End User		William P. Short III	
Hingham Municipal Lighting Plant	Publicly Owned Entity		Dave Cavanaugh	

# PARTICIPANTS COMMITTEE MEMBERS AND ALTERNATES PARTICIPATING IN OCTOBER 1, 2020 TELECONFERENCE MEETING

PARTICIPANT NAME	SECTOR/ GROUP	MEMBER NAME	ALTERNATE NAME	PROXY
Holden Municipal Light Department	Publicly Owned Entity		Brian Thomson	
Holyoke Gas & Electric Department	Publicly Owned Entity		Brian Thomson	
Hull Municipal Lighting Plant	Publicly Owned Entity		Brian Thomson	
Industrial Energy Consumer Group	End User	Kevin Penders		
Ipswich Municipal Light Department	Publicly Owned Entity		Brian Thomson	
Jericho Power LLC (Jericho)	AR-RG	Mark Spencer		
Littleton (MA) Electric Light and Water Department	Publicly Owned Entity	_	Dave Cavanaugh	
Littleton (NH) Water & Light Department	Publicly Owned Entity		Craig Kieny	
Long Island Power Authority (LIPA)	Supplier		Bill Killgoar	
Maine Power	Supplier	Jeff Jones		
Maine Public Advocate's Office	End User	Drew Landry		Erin Camp
Maine Skiing, Inc.	End User	Kevin Penders		
Mansfield Municipal Electric Department	Publicly Owned Entity		Brian Thomson	
Maple Energy LLC	AR-LR		Luke Fishback	Doug Hurley
Marble River, LLC	Supplier		John Brodbeck	
Marblehead Municipal Light Department	Publicly Owned Entity		Brian Thomson	
Mass. Attorney General's Office (MA AG)	End User	Tina Belew	Ben Griffiths	
Mass. Bay Transportation Authority	Publicly Owned Entity		Dave Cavanaugh	
Mass. Municipal Wholesale Electric Company	Publicly Owned Entity	Brian Thomson		
Mercuria Energy America, LLC	Supplier			José Rotger
Merrimac Municipal Light Department	Publicly Owned Entity		Dave Cavanaugh	
Michael Kuser	End User		Jason York	Rich Heidorn
Middleborough Gas & Electric Department	Publicly Owned Entity		Dave Cavanaugh	
Middleton Municipal Electric Department	Publicly Owned Entity		Dave Cavanaugh	
National Grid	Transmission	Tim Brennan	Tim Martin	
Natural Resources Defense Council (NRDC)	End User	Bruce Ho		
Nautilus Power, LLC	Generation		William Fowler	
New Hampshire Electric Cooperative	Publicly Owned Entity	Steve Kaminski		Brian. Forshaw; Dave Cavanaugh; Brian Thomson
New Hampshire Office of Consumer Advocate (NHOCA)	End User		Erin Camp	
NextEra Energy Resources, LLC	Generation	Michelle Gardner		
North Attleborough Electric Department	Publicly Owned Entity		Dave Cavanaugh	
Norwood Municipal Light Department	Publicly Owned Entity		Dave Cavanaugh	
NRG Power Marketing LLC	Generation		Pete Fuller	
Pascoag Utility District	Publicly Owned Entity		Dave Cavanaugh	
Paxton Municipal Light Department	Publicly Owned Entity		Brian Thomson	
Peabody Municipal Light Department	Publicly Owned Entity		Brian Thomson	
PowerOptions, Inc.	End User			Erin Camp
Princeton Municipal Light Department	Publicly Owned Entity		Brian Thomson	
Priogen Power LLC	Supplier	Michel Soucy		
PSEG Energy Resources & Trade LLC	Supplier	Joel Gordon		Mark Spencer
Reading Municipal Light Department	Publicly Owned Entity		Dave Cavanaugh	
Rowley Municipal Lighting Plant	Publicly Owned Entity		Dave Cavanaugh	
Russell Municipal Light Dept.	Publicly Owned Entity		Brian Thomson	
Shrewsbury Electric & Cable Operations	Publicly Owned Entity		Brian Thomson	
South Hadley Electric Light Department	Publicly Owned Entity		Brian Thomson	
Sterling Municipal Electric Light Department	Publicly Owned Entity		Brian Thomson	
Stowe Electric Department	Publicly Owned Entity		Dave Cavanaugh	
Sunrun Inc.	AR-DG			Pete Fuller

# PARTICIPANTS COMMITTEE MEMBERS AND ALTERNATES PARTICIPATING IN OCTOBER 1, 2020 TELECONFERENCE MEETING

PARTICIPANT NAME	SECTOR/ GROUP	MEMBER NAME	ALTERNATE NAME	PROXY
Taunton Municipal Lighting Plant	Publicly Owned Entity		Dave Cavanaugh	
Templeton Municipal Lighting Plant	Publicly Owned Entity		Brian Thomson	
The Energy Consortium	End User	Roger Borghesani	Mary Smith	
Vermont Electric Cooperative	Publicly Owned Entity	Craig Kieny		
Vermont Electric Power Co. (VELCO)	Transmission	Frank Ettori		
Vermont Energy Investment Corp (VEIC)	AR-LR		Doug Hurley	
Vermont Public Power Supply Authority	Publicly Owned Entity			Brian Forshaw
Versant Power	Transmission	Lisa Martin		
Village of Hyde Park (VT) Electric Department	Publicly Owned Entity		Dave Cavanaugh	
Wakefield Municipal Gas & Light Department	Publicly Owned Entity		Brian Thomson	
Wallingford DPU Electric Division	Publicly Owned Entity		Dave Cavanaugh	
Wellesley Municipal Light Plant	Publicly Owned Entity		Dave Cavanaugh	
West Boylston Municipal Lighting Plant	Publicly Owned Entity		Brian Thomson	
Westfield Gas & Electric Department	Publicly Owned Entity		Dave Cavanaugh	
Wheelabrator North Andover Inc.	AR-RG		Bill Fowler	

# VOTE TAKEN AT OCTOBER 1, 2020 PARTICIPANTS COMMITTEE MEETING

#### TOTAL

Sector	Vote 1	Vote 2
GENERATION	16.70	16.70
TRANSMISSION	16.70	16.70
SUPPLIER	16.70	16.70
ALTERNATIVE RESOURCES	8.25	11.00
PUBLICLY OWNED ENTITY	0.00	16.70
END USER	0.00	<u>1.67</u>
% IN FAVOR	58.35	79.47

#### **GENERATION SECTOR**

Participant Name	Vote 1	Vote 2
Dominion Energy Generation Mktg.	F	F
FirstLight Power Resources Mgmt.	F	F
Generation Group Member	А	F
Nautilus Power, LLC	F	F
NextEra Energy Resources, LLC	F	F
NRG Power Marketing, LLC	F	F
IN FAVOR (F)	5	6
OPPOSED (O)	0	0
TOTAL VOTES	5	6
ABSTENTIONS ( A)	1	0

#### TRANSMISSION SECTOR

Participant Name	Vote 1	Vote 2
Avangrid (CMP/UI)	А	А
Eversource Energy	F	F
National Grid	F	F
Versant Power	F	Α
IN FAVOR (F)	3	2
OPPOSED	0	0
TOTAL VOTES	3	2
ABSTENTIONS (A)	1	2

#### SUPPLIER SECTOR

Participant Name	Vote 1	Vote 2
BP Energy Company	F	F
Brookfield Renewable Trading & Mktg	F	F
Calpine Energy Services, LP	F	F
Castleton Comm. Merchant Trading	F	F
Cross-Sound Cable Company	А	А
Direct Energy Business, LLC	F	F
DTE Energy Trading, Inc.	F	F
Dynegy Marketing and Trade, LLC	F	F
Emera Energy Companies	А	А
Exelon Generation Company	А	F
Galt Power, Inc.	F	F
H.Q. Energy Services (U.S.) Inc.	F	F
LIPA	А	А
Marble River, LLC	А	А
Mercuria Energy America, Inc	F	F
Priogen Power LLC	А	А
PSEG Energy Resources & Trade	F	F
IN FAVOR (F)	11	12
OPPOSED	0	0
TOTAL VOTES	11	12
ABSTENTIONS (A)	6	5

#### ALTERNATIVE RESOURCES SECTOR

Participant Name	Vote 1	Vote 2
Renewable Generation Sub-Sector		
Central Rivers Power	F	F
ENGIE Energy Marketing NA	А	F
Great River Hydro	F	F
Jericho Power	F	F
Wheelabrator/Macquarie	F	F
Small RG Group Member	А	Α
Distributed Gen. Sub-Sector		
Borrego Solar Systems Inc.	А	
CLEAResult Consulting, Inc.	А	Α
Sunrun Inc.	0	0
Load Response Sub-Sector		
Enel X North America, Inc.	А	Α
Maple Energy	0	0
Vermont Energy Investment Corp.	0	0
Small LR Group Member	0	0
IN FAVOR (F)	4	5
OPPOSED	4	3
TOTAL VOTES	8	8
ABSTENTIONS (A)	5	4

# VOTE TAKEN AT OCTOBER 1, 2020 PARTICIPANTS COMMITTEE MEETING

#### END USER SECTOR

Participant Name	Vote 1	Vote 2
Acadia Center	0	0
Associated Industries of Mass.	0	А
Conn. Office of Consumer Counsel	0	0
Conservation Law Foundation	0	0
Environmental Defense Fund	0	
Harvard Dedicated Energy Limited	0	А
High Liner Foods (USA) Inc.	0	F
Industrial Energy Consumer Group	0	А
Michael Kuser	А	А
Maine Public Advocate Office	0	0
Maine Skiing, Inc.	0	А
Mass. Attorney General's Office	0	0
Natural Resources Defense Council	0	0
NH Office of Consumer Advocate	0	0
PowerOptions, Inc.	0	0
The Energy Consortium	0	0
IN FAVOR (F)	0	1
OPPOSED	15	9
TOTAL VOTES	15	10
ABSTENTIONS (A)	1	5

#### PUBLICLY OWNED ENTITY SECTOR

Participant Name	Vote 1	Vote 2
Ashburnham Municipal Light Plant	Α	F
Belmont Municipal Light Dept.	А	F
Block Island Utility District	А	F
Boylston Municipal Light Dept.	А	F
Braintree Electric Light Dept.	А	F
Chester Municipal Light Dept.	А	F
Chicopee Municipal Lighting Plant	А	F
Concord Municipal Light Plant	А	F
Conn. Mun. Electric Energy Coop.	А	F
Danvers Electric Division	А	F
Georgetown Municipal Light Dept.	Α	F
Groton Electric Light Dept.	А	F
Groveland Electric Light Dept.	А	F
Hingham Municipal Lighting Plant	А	F
Holden Municipal Light Dept.	А	F
Holyoke Gas & Electric Dept.	Α	F
Hull Municipal Lighting Plant	А	F

# PUBLICLY OWNED ENTITY SECTOR (cont.)

Participant Name	Vote 1	Vote 2
Ipswich Municipal Light Dept.	А	F
Littleton (MA) Electric Light Dept.	Α	F
Mansfield Municipal Electric Dept.	А	F
Marblehead Municipal Light Dept.	А	F
Mass. Bay Transportation Authority	Α	F
Mass. Mun. Wholesale Electric Co.	Α	F
Merrimac Municipal Light Dept.	Α	F
Middleborough Gas and Elec. Dept.	Α	F
Middleton Municipal Electric Dept.	Α	F
New Hampshire Electric Cooperative	Α	F
North Attleborough Electric Dept.	А	F
Norwood Municipal Light Dept.	Α	F
Pascoag Utility District	Α	F
Paxton Municipal Light Dept.	А	F
Peabody Municipal Light Plant	Α	F
Princeton Municipal Light Dept.	А	F
Reading Municipal Light Dept.	А	F
Rowley Municipal Lighting Plant	Α	F
Russell Municipal Light Dept.	Α	F
Shrewsbury's Elec. & Cable Ops.	А	F
South Hadley Electric Light Dept.	А	F
Sterling Municipal Electric Light Dept.	А	F
Stowe (VT) Electric Dept.	А	F
Taunton Municipal Lighting Plant	А	F
Templeton Municipal Lighting Plant	А	F
Village of Hyde Park (VT) Elec. Dept.	Α	F
VT Public Power Supply Authority	Α	F
Wakefield Mun. Gas and Light Dept.	Α	F
Wallingford, Town of	Α	F
Wellesley Municipal Light Plant	А	F
West Boylston Mun. Lighting Plant	Α	F
Westfield Gas & Electric Light Dept.	Α	F
IN FAVOR (F)	0	49
OPPOSED	0	0
TOTAL VOTES	0	49
ABSTENTIONS (A)	49	0