



David T. Doot
Secretary

September 30, 2021

VIA ELECTRONIC MAIL

TO: PARTICIPANTS COMMITTEE MEMBERS AND ALTERNATES

RE: Supplemental Notice of October 7, 2021 NEPOOL Participants Committee Meeting

Pursuant to Section 6.6 of the Second Restated New England Power Pool Agreement, supplemental notice is hereby given that the October meeting of the Participants Committee will be held **in person on Thursday, October 7, 2021, at 10:00 a.m. at the Colonnade Hotel, 120 Huntington Avenue, Boston, MA in the Huntington Ballroom** for the purposes set forth on the attached agenda and posted with the meeting materials at nepool.com/meetings/.

For your information, the October 7 meeting will be recorded. NEPOOL meetings, while not public, are open to all NEPOOL Participants, their authorized representatives and, except as otherwise limited for discussions in executive session, consumer advocates that are not members, federal and state officials and guests whose attendance has been cleared with the Committee Chair. All those in attendance or participating, either in person or by phone, are required to identify themselves and their affiliation at the meeting. Official records and minutes of meetings are posted publicly. No statements made in NEPOOL meetings are to be quoted or published publicly.

This will be our first in-person meeting since we moved to virtual meetings in response to the COVID-19 pandemic more than a year and a half ago. We have included here the safety protocols that will be in effect for in-person attendance at the October 7 Participants Committee meeting. In summary, only those who are fully vaccinated, and have provided in advance of the meeting verification of full vaccination, will be permitted to attend in person. Pursuant to the [City of Boston's mask mandate](#), all attendees must wear masks or face coverings at all times except when actively eating or drinking. Additional safety measures are outlined in the protocols. An e-mail regarding meeting registration and more detailed instructions for providing verification of vaccination will be sent under separate cover.

As with any in-person meeting, there will be COVID-related risks associated with in-person attendance at the October 7 Participants Committee meeting, but there are also substantial benefits from being together in-person. Efforts have been made to reduce the risks and to ensure that no unvaccinated people attend the meeting, but each of you will need to perform your own risk/benefit calculus in deciding whether to participate remotely or in-person. We look forward to seeing those who decide to attend in person as your elected officers work to maximize the value and benefit of the stakeholder process in the region.

FINAL AGENDA

1. To approve the draft minutes of the September 2, 2021 Participants Committee meeting. The draft preliminary minutes of that meeting, marked to show changes from the draft circulated with the initial notice, are included with this supplemental notice and posted with the meeting materials.
2. To adopt and approve the actions recommended by the Technical Committees set forth on the Consent Agenda included with this supplemental notice and posted with the meeting materials.
3. To receive an ISO Chief Executive Officer report. The October CEO report will be circulated and posted in advance of the meeting.
4. To receive a report from the ISO Chief Operating Officer on the following:
 - a. Operations Report Highlights.
 - b. Annual Work Plan
 - c. Operational Impact of Extreme Weather Events

Materials for these items will be circulated and posted in advance of the meeting.

5. To consider, and take action, as appropriate, on the following proposed budgets:
 - a. 2022 ISO-NE Operating and Capital Budgets; and
 - b. 2022 NESCOE Budget.

Background materials and draft resolutions are included with this supplemental notice and posted with the meeting materials.

6. To consider, and take action, as appropriate, on the removal of notarization requirements from Sections II.A.2 and II.A.3 of the Financial Assurance Policy. Background materials and a draft resolution are included with this supplemental notice and posted with the meeting materials.
7. To consider and take action, as appropriate, on changes to Attachment K to Section II of the Tariff related to the treatment of existing resources in transmission needs assessments and public policy transmission studies. Background materials and a draft resolution are included with this supplemental notice and posted with the meeting materials.

[continued on next page]

8. To consider, and take action, as appropriate, on draft NEPOOL comments to be submitted in response to the FERC's Transmission Planning & Allocation/Generation Interconnection Advanced Notice of Proposed Rulemaking. Background materials and a draft resolution are included with this supplemental notice and posted with the meeting materials.
9. To consider and take action, as appropriate, on recommendations by the Membership Subcommittee to adopt a definition of "Associate Non-Voting Participant" (deleting the definition of Fuels Industry Participant), determining each Fuels Industry Participant to be an Associate Non-Voting Participant, and delegating to the Subcommittee the authority to approve applications for membership, subject to the Standard Membership Conditions, Waivers and Reminders, received from gas industry participants or energy sector trade associations. Background materials and draft resolutions are included with this supplemental notice and posted with the meeting materials.
10. To receive a report on current contested matters before the FERC and the Federal Courts. The litigation report will be circulated and posted in advance of the meeting.
11. To receive reports from Committees, Subcommittees and other working groups:
 - Markets Committee
 - Reliability Committee
 - Transmission Committee
 - Budget & Finance Subcommittee
 - Others
12. Administrative matters.
13. To transact such other business as may properly come before the meeting.



Protocols for In-Person Attendance at NEPOOL Meetings During the Covid-19 Pandemic

These protocols for return to in-person NEPOOL meetings are effective as of the date above and may be modified from time to time as guidelines from the U.S. Centers for Disease Control (“CDC”), applicable state or local requirements, or circumstances change.

Background

The Protocols provided herein outline recommended and preventative measures to reduce the COVID-related risks associated with attendance in person at NEPOOL meetings.¹ Measures include safety precautions individuals must take while at in-person meetings. In-person attendance will follow and adhere to the latest CDC guidelines (as well as any additional, applicable state or local requirements that may be in place). As with any in-person meeting, there will be COVID-related risks associated with in-person attendance. **Each in-person attendee should perform their own risk/benefit calculus in deciding whether to participate in-person or remotely.**

Safety Precautions

Proof of Full Vaccination Required. To attend a NEPOOL meeting in person, each attendee must be fully vaccinated.² Proof of vaccination (e.g., a copy of a completed COVID-19 Vaccination Record/Card) must be provided to NEPOOL counsel (pmgerity@daypitney.com) in advance of the meeting.³ An attendee who is unable to provide a copy of a completed COVID-19 Vaccination Record may sign and provide a COVID-19 Vaccination Status Attestation as an alternate form of proof. All such records will be maintained by NEPOOL Counsel in a confidential file. Those who are not vaccinated, or who have not timely provided proof of vaccination, will not be permitted in the meeting room and will be encouraged to participate by teleconference/WebEx. An individual’s ability to attend a meeting in person will be restored following proof of vaccination.

¹ NEPOOL meetings, while not public, are open to all NEPOOL Participants, their authorized representatives and, except as otherwise limited for discussions in executive session, consumer advocates that are not members, federal and state officials and guests whose attendance has been cleared with the Committee Chair. All those in attendance or participating, either in person or by phone, are required to identify themselves and their affiliation at the meeting.

² A person is considered fully vaccinated: (i) 2 weeks after their second dose in a 2-dose series, such as the Pfizer or Moderna vaccines, or (ii) 2 weeks after a single-dose vaccine, such as Johnson & Johnson’s Janssen vaccine. If you don’t meet either of these criteria, regardless of age, you are NOT fully vaccinated.

³ Proof of vaccination of ISO employees or representatives, as a condition of their in-person attendance, will be confidentially (i) collected and maintained by the ISO and (ii) verified by an ISO committee officer with NEPOOL counsel in advance of attendance at a meeting.

Registration Required; Contact Tracing. Registration for in-person attendance will be required and the Committee Secretary will keep a separate record of all individuals in attendance in person for the purpose of later contact tracing. Specific contact tracing information is confidential and NEPOOL will not use this information for any other reason. Contact tracing information will be kept for 28 days and destroyed thereafter.

Attendance In-Person Not Permitted if Experiencing Covid-19 Indicative Symptoms. Individuals should not attend an in-person meeting if they are experiencing new or worsening symptoms of any of the following in the last 14 days:

- Fever of 100.4 °F (38.0 °C) or higher
- Chills
- Cough
- Shortness of breath or difficulty breathing
- Fatigue
- Muscle or body aches
- Headache
- New Loss of Taste or Smell
- Sore Throat
- Congestion or runny nose
- Nausea or vomiting
- Diarrhea

Attendance In-Person Not Permitted if Recent Exposure to Covid-19-Positive Individual. Individuals should not attend in-person meetings if they have had a likely exposure to a COVID-19 positive individual in the last 14 days.

Physical Distancing. The opportunity for physical distancing at meeting tables will be provided where and as possible, but will not be enforced. Attendees are encouraged, whenever otherwise possible, to separate themselves by 6 feet of distance. Seating at round tables should be limited to six or fewer.

Masks. If and as required by CDC guidelines or by the requirements of the state or locale in which the meeting is taking place, face coverings (“masks”) shall be worn. Where physical distancing cannot be maintained, it is recommended that attendees wear masks whenever they are not seated, including while in transit to or from their seat and while standing in lines or in the room.

Sanitizing. Hand sanitizer and wipes will be made available at each meeting. Additional arrangements will be implemented to facilitate sanitation measures. (e.g. All microphones will be positioned and sanitized prior to arrival. Microphones will also be sanitized at lunch and at the end of the day. Alcohol sanitizing wipes will be available for attendees to utilize during the meeting to sanitize the microphones between users.)

Reporting and Communicating a Positive COVID-19 Result

In the event of a COVID-19-positive test result, an individual that attended an in-person meeting within 14 days of that result should immediately contact NEPOOL Counsel (pmgerity@daypitney.com) to report their COVID-19 status. NEPOOL Counsel will maintain the individual's privacy while notifying those that attended the meeting in person of the positive test result. Please be advised that all health information is private and strictly confidential and will only be shared on a need-to-know basis to confirm and trace any contact with the positive tester at a NEPOOL in-person meeting and contact those who may have been exposed. Any notice of a COVID-19-positive test result will be kept for 28 days and destroyed thereafter.

Remote Participation

For those individuals who are otherwise authorized to attend a NEPOOL meeting, but choose not to, or because of safety measures are unable to, attend meetings in person, remote participation (i.e. by teleconference and/or by WebEx) will continue to be made available.

MEMORANDUM

TO: NEPOOL Participants Committee Members and Alternates
FROM: Pat Gerity, NEPOOL Counsel
DATE: September 23, 2021
RE: 2022 Participants Committee Officer Elections

In order to ensure that the selection process requirements in the Participants Committee Bylaws for 2022's Participants Committee officers can be timely completed, we need each Sector to indicate, no later than **Monday, November 1, 2021**, who the Sector has selected to serve as the Sector's Participants Committee officer. A description of the qualifications, responsibilities, and expectations of the Sector officers selected has been included with this memorandum. We urge each of you to work within your Sectors to select your Sector's 2022 Participants Committee officer.

By way of reminder, the Bylaws require that one voting member from each Sector be selected by a majority of all the voting members in its Sector (i) to serve as a nominee for Chair of the Participants Committee and (ii) if not elected Chair, to serve as a Committee Vice-Chair. A secret written balloting process will then be conducted to elect the 2022 Chair from among the Participants Committee officers selected by each of the Sectors. To allow time for that balloting process ahead of the December 2 Annual Meeting, as required by the Bylaws, we need the officers to be identified by November 1, 2021.

If any Sector needs assistance in conducting the vote for its Sector officer, please let us know (preferably no later than October 21). We would be pleased to help however we can. Also, if you have any questions, please contact me at pmgerity@daypitney.com or (860) 275-0533.

***Participants Committee Sector Officer
Qualifications, Responsibilities, and Expectations***

Qualifications: A Participants Committee Chair or Vice-Chair must be a voting member of the Participants Committee. Per the Participants Committee Bylaws, one voting member from each active Sector of the Participants Committee is to be selected to serve as the Vice-Chair of the Sector “by a majority of all the voting members in its Sector.” The Chair is selected from among the nominated Vice-Chairs using the balloting procedures in the Bylaws.

Responsibilities and Expectations of Participants Committee Sector Vice-Chairs:

1. Help to build and maintain a collegial and productive working relationship with other Committee officers and members, ISO management, and state officials participating in Committee activities.
2. Communicate routinely and effectively with other members of the Sector:
 - a. To help ensure that members have the information needed to support informed and active Committee participation;
 - b. To ensure that the officer has sufficient information to provide to the other officers, ISO management and staff, and state and federal officials a fair and objective report of Sector members’ positions and sensitivities on regional matters; and
 - c. To report objectively to Sector members information, questions, positions, perspectives, and sensitivities of or from the other Sectors, the ISO, and state officials that are provided to the Officer to be shared with the Sector.
3. Attend and lead or support planning for and participation in Participants Committee meetings, including (a) participation in pre-planning conference calls and in-person meetings to identify and confirm discussion and consent agenda topics and materials, meeting logistics and orderly flow of business at Committee meetings, and (b) serving as Chair if and as needed for a meeting or portions of a meeting at which the Chair is not able to preside.
4. Coordinate and organize Sector members when appropriate, including for meaningful participation by the Sector members in the semi-annual meetings with the ISO Board of Directors, state officials and FERC representatives.
5. Ensure that the Sector is fairly and objectively represented at other committee and working group meetings and meetings among Officers, ISO management and state officials, and that the Officer or representative is reasonably informed as to the perspectives and sensitivities of the Sector members.
6. With the other NPC Officers, review and comment on NEPOOL filings or pleadings, raising awareness of any Sector-specific sensitivities.
7. Serve, or designate an appropriate Sector member to serve, on the Joint Nominating Committee that recommends to the Participants Committee for endorsement a slate of candidates for membership on the ISO Board of Directors.

9/23/2021

PRELIMINARY

Pursuant to notice duly given, a meeting of the NEPOOL Participants Committee was held via teleconference beginning at 10:00 a.m. on Thursday, September 2, 2021. 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.

Mr. David Cavanaugh, Chair, presided and Mr. Sebastian Lombardi, Assistant Secretary, recorded.

APPROVAL OF JULY 21 AND AUGUST 5, 2021 MEETING MINUTES

Mr. Cavanaugh referred the Committee to the preliminary minutes of the July 21, 2021 morning meeting and the August 5, 2021 meeting, as circulated and posted in advance of the meeting. Following motion duly made and seconded, the preliminary minutes of those meetings were unanimously approved as circulated, with an abstention by Mr. Michael Kuser's alternate recorded.

CONSENT AGENDA

Mr. Cavanaugh referred the Committee to the Consent Agenda that was circulated and posted in advance of the meeting. Following motion duly made and seconded, the Consent Agenda was unanimously approved as circulated, with an abstention on behalf of Mr. Kuser's alternate recorded.

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

August 5, 2021 Participants Committee meeting, which had been circulated and posted in advance of the meeting. There were no questions or comments on the summaries.

In response to a more general question regarding the timeline and efforts for incorporating Effective Load Carrying Capability (ELCC) into the region's arrangements, Mr. van Welie noted that incorporating ELCC was a top priority for the ISO. He explained that, from the preliminary work plan and thinking under way, the project may be multi-stage and multi-year, particularly given resource complications and energy constraints. He expressed an initial preference for implementing a marginal, rather than an average, ELCC approach. He indicated the ISO had a goal of implementing ELCC beginning in FCA18 for certain resources identified to have the largest impact, which he explained were those whose capacity ratings were determined to be the most overstated in the qualification process. A member suggested that the ISO consider a more holistic approach that would allow for other market enhancements to be applied more broadly to the capacity accreditation process.

ISO COO REPORT

Dr. Vamsi Chadalavada, ISO Chief Operating Officer (COO), began by referring the Committee to his September report, which had been circulated and posted in advance of the meeting. Dr. Chadalavada noted that the data in the report was through August 25, 2021, unless otherwise noted. The report highlighted: (i) Energy Market value for August 2021 was \$534 million, up \$71 million from the updated July 2021 value of \$463 million and up \$229 million from August 2020; (ii) August 2021 average natural gas prices were 22% higher than July 2021 average prices; (iii) average Real-Time Hub Locational Marginal Prices (LMPs) for August (\$48.83/MWh) were 37% higher than July averages; (iv) average August 2021 natural gas prices

and Real-Time Hub LMPs over the period were up 161% and 105%, respectively, from August 2020 average prices; (v) average Day-Ahead cleared physical energy during peak hours as percent of forecasted load was 100.4% during August (down from 100.6% in July), with the minimum value for the month (95.9%) on August 6; and (vi) Daily Net Commitment Period Compensation (NCPC) payments for August totaled \$2.3 million, which was down \$0.5 million from July 2021 and down \$1.1 million from August 2020. August NCPC payments, which were 0.4% of total Energy Market value, were comprised of: (a) \$1.9 million in first contingency payments (down \$0.3 million from July); (b) \$35,000 in second contingency, and (c) \$355,000 in distribution payments.

Regarding transmission outages, Dr. Chadalavada noted the planned outage of ~~line~~ line 354 from Northfield to Ludlow, which would be out of service through September 8 and again from September 25 to October 24, and would limit imports from New York (NY) to 700 MW and exports to NY to 1,200 MW. He also noted a second construction-related structure outage, which would be on lines 312/393 from October 14 to October 24 and again from November 29 to mid-December, limiting transfers with NY in both directions to 700 MW.

Dr. Chadalavada reported that registration was open for the Regional System Plan Public Meeting to be held virtually on October 6.

Dr. Chadalavada than referenced the impacts on the bulk power system of tropical storm Henri, which were minimal in comparison to those expected had it been a hurricane with landfall in Connecticut. He said that the system performed well, with only two 115 kV lines impacted (both restored that same day) and approximately 125,000 customer outages (most occurring in Rhode Island, where Henri landed). He compared those limited impacts to those experienced the

year before in connection with Hurricane Isaias and those being experienced in Louisiana with Hurricane Ida.

In response to questions about the impacts of the storm, Dr. Chadalavada noted that nuclear units were not postured during the storm. The shutdown procedures for those units, given projected wind speeds and storm surge levels, made them unavailable for posturing. The units were not needed in any case because the generation cleared in the Day-Ahead Energy Market was more than sufficient to meet the low load levels experienced.

Dr. Chadalavada then contrasted the experience during Henri with conditions experienced on August 25 and 26. During that latter two-day period, load was in the 23,000-24,000 MW range, just above projections. Dr. Chadalavada highlighted for the Committee that despite higher LMPs and tight operating conditions during those days, no scarcity conditions occurred and there was no need for supplemental commitments. When prompted, he said that Day-Ahead prices for reserve products would likely have mitigated load sensitivity issues during this period. He confirmed that pay-for-performance conditions were not triggered during this period, and the region had not been close to violating any of its reserve requirements.

When asked about the timing for the Master/Local Control Center Procedure No. 2 (MLCC/2) declaration (which gives the ISO the permission to recall outages) made in anticipation of Henri, he explained the need for time to provide generation and transmission resources a reasonable opportunity to come back into service when needed should their outage be recalled. A member suggested that a revision to the procedure be considered to adjust the timing involved, allowing resources with shorter recall times to come back online closer to when needed.

More broadly, Dr. Chadalavada indicated that, in light of the events experienced over the prior year, particularly those in Texas and Louisiana, further discussion on preparation, recovery and the analysis of stress testing of markets would take place in connection with the planned discussion of the 2022 regional work plan at the October 7 Participants Committee meeting.

2022 ISO AND NESCOE BUDGETS

Mr. Robert Ludlow, ISO Vice President and Chief Financial & Compliance Officer, referred the Committee to the materials circulated and posted in advance of the meeting related to the proposed 2022 ISO Operating and Capital Budgets. He indicated that the materials ~~remain~~remained largely consistent with the more detailed presentation materials that were discussed with stakeholders and State officials in June. Mr. Ludlow highlighted that the key drivers of the 2022 budget increase included: (i) funding for an increase in the number of employees (particularly in the areas of markets development, system planning, modeling and information technology (IT)); (ii) contingency funding to allow for increased flexibility for additional studies or analyses as needed; and (iii) ~~and~~ capital costs associated with establishing a new platform as part of the region's transition to a cleaner grid.

Summarizing the process for budget review and approval, Mr. Ludlow said that the budgets had been reviewed with the Budget and Finance Subcommittee and State officials in August. Any additional comments from State officials on the budgets were due in approximately one week. The ISO would respond to any such comments and questions by late September. The ISO Board would review the budgets and all feedback received and the Participants Committee would be asked to vote on the final 2022 Budgets at its October 7 meeting. A FERC filing would then be made in mid-October.

In response to questions, Mr. Ludlow clarified how and in what areas the additional staff positions would be phased in. He also provided additional insight into how capital budgets were expected to be impacted over the subsequent five years, with Dr. Chadalavada reminding members of the market system platform replacement planned to take place during that timeframe. Mr. Ludlow noted that forecasts of the impact of depreciation costs in ~~[?]~~ future years were included with the detailed presentation materials for the June Summer Meeting.

Turning to the 2022 NESCOE Budget, Mr. Cavanaugh referred the Committee to the NESCOE Budget materials posted in advance of the meeting. He noted that Ms. Heather Hunt, NESCOE Executive Director, was available for questions or comments. There were no questions or comments. He asked that members reach out to Ms. Hunt directly prior to the October 7 vote if any questions or comments arose.

REQUEST BY STORED SOLAR FOR WAIVER OF GIS OPERATING RULES AND GIS AGREEMENT

Mr. Paul Belval, NEPOOL Counsel, referred the Committee to the memorandum circulated and posted in advance of the meeting related to a request by Stored Solar J&WE, LLC (Stored Solar) for waiver of the Generation Information System (GIS) Operating Rules and GIS Agreement with APX Inc. to address a reporting error which occurred in the months of February and March 2021. Mr. Belval provided a summary of the request, noting that Stored Solar incorrectly entered the production by fuel type for each month, such that the biomass output was entered as natural gas output, and the natural gas output was entered as biomass output. He then provided an overview of the applicable GIS Operating Rules and the options for proceeding. Following Participant comments and a process overview by Mr. Sebastian Lombardi, the

Committee agreed without opposition to defer further consideration of the matter to the October 7 meeting, to allow for additional review and consideration of the waiver request.

LITIGATION REPORT

Mr. Lombardi referred the Committee to the August 31 Litigation Report that had been circulated and posted the day before the meeting. He highlighted the following:

- (i) The first of two FERC technical conferences to discuss potential energy and ancillary services market reforms to be held on September 14;
- (ii) The August 20th deficiency letter issued by the FERC in connection with the joint filing by Participating Transmission Owners Administrative Committee (PTO AC) and the ISO of tariff revisions addressing the treatment of certain behind-the-meter generation. The deficiency letter directed additional information be filed by September 20, and ~~will~~the filing would re-set the FERC's 60-day deadline to act on the proposed tariff revisions; and
- (iii) The first meeting of the recently established Joint Federal-State Task Force on Electric Transmission ~~has~~had been scheduled for November 10, 2021 in connection with NARUC's annual meeting. ~~Members of the~~The Task Force, ~~are~~ comprised all of the FERC Commissioners and 10 state ~~regulators~~commissioners, including New England State Commissioners Riley Allen (VT PUC) and Matt Nelson (Chair, MA DPU).

COMMITTEE REPORTS

Markets Committee (MC). Mr. William Fowler, the MC Vice-Chair, reported that the next MC meeting would be held September 13-14. An additional MC meeting would also be held on September 29.

Reliability Committee (RC). Mr. Robert Stein, the RC Vice-Chair, reported that a joint MC/RC meeting was scheduled for the afternoon of September 17 to consider potential next steps/actions for the joint Committees based on results from the Future Grid Reliability Study that ~~will~~would be provided to stakeholders during a Planning Advisory Committee (PAC) meeting scheduled for the morning of the 17th. The regularly-scheduled ~~RC~~September meeting ~~is scheduled for~~of the RC, to be held September 21, ~~and~~-would include a vote on Installed Capability Requirements (ICR) for FCA16.

Transmission Committee (TC). Mr. José Rotger, the TC Vice-Chair, reported that the scheduled September 28 TC meeting would include: (i) a vote on two sets of ISO-proposed changes to Attachment K of the Open Access Transmission Tariff (OATT), one set to expand resources included in the needs assessment and other planning studies and the other set to implement changes to the competitive transmission RFP provisions based on the lessons learned following the recent Boston Transmission RFP process; and (ii) continued discussion on the stakeholder proposal to eliminate from Schedule 11 of the Tariff operating and maintenance (O&M) charges for network upgrades associated with new generation interconnections.

Budget & Finance Subcommittee. Mr. Thomas Kaslow, the B&F Subcommittee Chair, reported that the next meeting was scheduled for October 4.

Membership Subcommittee. Ms. Sarah Bresolin, the Membership Subcommittee Chair, noted that a second meeting to consider potential changes to the characterization of the Fuels Industry Participant membership category (which had expanded to include a few trade association members) was scheduled for September 10. Ms. Bresolin indicated that proposed

changes would be posted on the Subcommittee's NEPOOL website page, and would be further discussed at the September 10 meeting.

ADMINISTRATIVE MATTERS

Mr. Cavanaugh noted that the next Pathways Study meeting was scheduled for [the](#) afternoon of September 23 and would be held virtually. He reported that plans to begin meeting in person, beginning with the October 7 Participants Committee meeting, were proceeding. He thanked Participants for their responses to the questionnaire that had been circulated a few weeks before. He reported that more than 85% of NPC members and alternates who regularly attend meetings answered the questionnaire, all reporting that they were fully vaccinated, and more than 70% of the respondents indicating they would be comfortable attending in-person NEPOOL meetings in October, subject to various protocols. The information provided was informing efforts among ISO and NEPOOL Committee leadership to establish safety measures and protocols for a return to in-person meetings. Additional information regarding those measures would be shared in mid-September. Those interested in the aggregate questionnaire data were encouraged to contact Mr. Pat Gerity, NEPOOL counsel, directly.

Mr. Cavanaugh noted that the October 7 Participants Committee meeting would include, among other issues, a review of the 2022 work plan and votes on both the ISO and NESCOE 2022 budgets. Looking further ahead, he highlighted that the November Participants Committee meeting would be held on Wednesday, November 3, at the Hilton Boston Logan Airport and would be preceded by Sector meetings with ISO board members.

There being no other business, the meeting adjourned at 12:01 p.m.

Respectfully submitted,

Sebastian Lombardi, Acting Secretary

PARTICIPANTS COMMITTEE MEMBERS AND ALTERNATES

PARTICIPATING IN
PARTICIPATING IN SEPTSEPTEMBER 2, 2021 TELECONFERENCE MEETING

PARTICIPANT NAME	SECTOR/ GROUP	MEMBER NAME	ALTERNATE NAME	PROXY
Actual Energy, Inc.	Supplier		John Driscoll	
Advanced Energy Economy	Fuels Industry Participant	Caitlin Marquis		
American Petroleum Institute	Fuels Industry Participant	Paul Powers		
AR Large Renewable Generation (RG) Group Member	AR-RG	Alex Worsley		
AR Small Load Response (LR) Group Member	AR-LR	Brad Swalwell		
Ashburnham Municipal Light Plant	Publicly Owned Entity		Brian Thomson	
Associated Industries of Massachusetts (AIM)	End User			Mary Smith
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		
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	
CLEARresult Consulting, Inc.	AR-DG	Tamera Oldfield		
Clearway Power Marketing LLC	Supplier			Pete Fuller
Concord Municipal Light Plant	Publicly Owned Entity		Dave Cavanaugh	
Connecticut Municipal Electric Energy Coop.	Publicly Owned Entity	Brian Forshaw		
Connecticut Office of Consumer Counsel (CT OCC)	End User		Dave Thompson	
Conservation Law Foundation (CLF)	End User	Phelps Turner		
Consolidated Edison Energy, Inc.	Supplier	Norman Mah		
CPV Towantic, LLC (CPV)	Generation	Joel Gordon		
Cross-Sound Cable Company (CSC)	Supplier		José Rotger	
Danvers Electric Division	Publicly Owned Entity		Dave Cavanaugh	
Dominion Energy Generation Marketing	Generation		Weezie Nuara	
DTE Energy Trading, Inc.	Supplier			José Rotger
Dynergy Marketing and Trade, LLC	Supplier	Andy Weinstein		Bill Fowler
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	Jollette Westbrook		
Eversource Energy	Transmission	James Daly	Dave Burnham	
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	
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 Guilbault	Bob Stein	
High Liner Foods (USA) Incorporated	End User		William P. Short III	
Hingham Municipal Lighting Plant	Publicly Owned Entity		Dave Cavanaugh	
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	
Ipswich Municipal Light Department	Publicly Owned Entity		Brian Thomson	

PARTICIPANTS COMMITTEE MEMBERS AND ALTERNATES

PARTICIPATING INPARTICIPATING IN SEPTSEPTEMBER 2, 2021 TELECONFERENCE MEETING

PARTICIPANT NAME	SECTOR/ GROUP	MEMBER NAME	ALTERNATE NAME	PROXY
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 LLC	Supplier	Jeff Jones		
Maine Public Advocate's Office	End User	Drew Landry		
Mansfield Municipal Electric Department	Publicly Owned Entity		Brian Thomson	
Maple Energy LLC	AR-LR			Doug Hurley
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	
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	
Nautilus Power, LLC	Generation		Bill Fowler	
New Hampshire Electric Cooperative	Publicly Owned Entity	Steve Kaminski		Brian Forshaw; Dave Cavanaugh; Brian Thomson
New England Power Generators Association (NEPGA)	Fuels Industry Participant	Bruce Anderson	Dan Dolan	
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		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	
Princeton Municipal Light Department	Publicly Owned Entity		Brian Thomson	
PSEG Energy Resources & Trade LLC (PSEG)	Supplier		Eric Stallings	
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	
Small RG Group Member	AR-RG	Erik Abend		
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
Taunton Municipal Lighting Plant	Publicly Owned Entity		Dave Cavanaugh	
Templeton Municipal Lighting Plant	Publicly Owned Entity		Brian Thomson	
The Energy Consortium	End User	Bob Espindola	Mary Smith	
Vermont Electric Cooperative	Publicly Owned Entity	Craig Kieny		
Vermont Electric Power Company (VELCO)	Transmission	Frank Etori		
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	
Vitol Inc.	Supplier	Joe Wadsworth		
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	

PARTICIPANTS COMMITTEE MEMBERS AND ALTERNATES

PARTICIPATING IN~~PARTICIPATING IN SEPT~~SEPTEMBER 2, 2021 TELECONFERENCE MEETING

PARTICIPANT NAME	SECTOR/ GROUP	MEMBER NAME	ALTERNATE NAME	PROXY
Westfield Gas & Electric Department	Publicly Owned Entity		Dave Cavanaugh	
Wheelabrator North Andover Inc.	AR-RG		Bill Fowler	

CONSENT AGENDA

Reliability Committee (RC)

From the previously-circulated notice of actions of the RC’s September 20, 2021 meeting (Revision 1), dated September 21, 2021.¹

1. FCA16 HQICC Values

Support the following Hydro-Québec Interconnection Capability Credit (HQICC) values for the sixteenth Forward Capacity Auction, which is associated with the 2025-2026 Capacity Commitment Period (FCA16), as recommended by the Reliability Committee at its September 21, 2021 meeting, with such further non-material changes as the Chair and Vice-Chair of the Reliability Committee may approve.

2025-2026 Capacity Commitment Period (CCP) Month	HQICC Values (MW)
June	923
July	923
August	923
September	923
October	923
November	923
December	923
January	923
February	923
March	923
April	923
May	923

The motion to recommend Participants Committee support was approved, with two oppositions in the Supplier Sector noted and nine abstentions (1 Generation, 6 Supplier, 2 Alternative Resource).

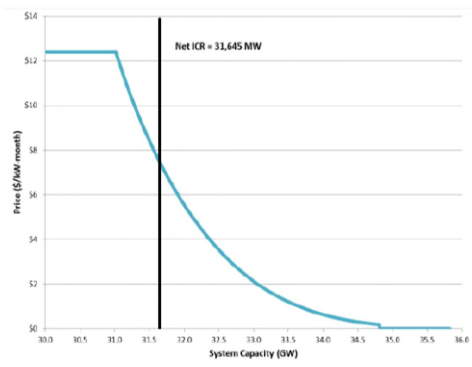
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¹ RC Notices of Actions are posted on the ISO-NE website at: [https://www.iso-ne.com/committees/reliability/reliability-committee/?document-type=Committee Actions](https://www.iso-ne.com/committees/reliability/reliability-committee/?document-type=Committee%20Actions).

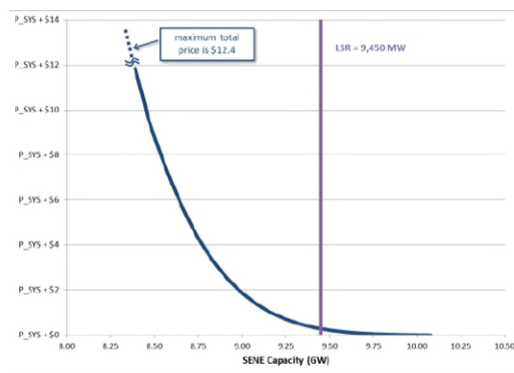
2. FCA16 ICR and Related Values

Support the following megawatt (MW) values that represent the New England Installed Capacity Requirement (ICR), Net Installed Capacity Requirement (Net ICR), Southeast New England Local Sourcing Requirement (LSR), Maine Maximum Capacity Limit (MCL), Northern New England MCL, and Capacity Demand Curves for the System and Capacity Zones based on the Marginal Reliability Impact (MRI) methodology for FCA16, as recommended by the RC at its September 21, 2021 meeting, together with such further non-material changes as the Chair and Vice-Chair of the RC may approve.

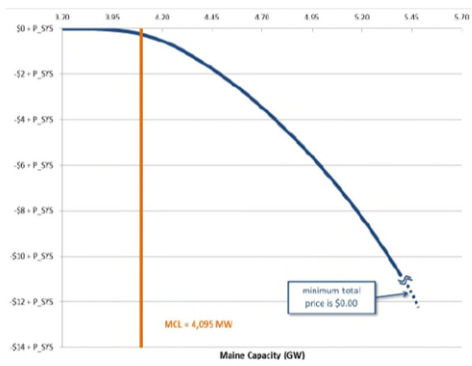
	2025-2026 CCP ICR Values (MW)
Installed Capacity Requirement	32,568
Net Installed Capacity Requirement	31,645
Southeast New England (SENE) Local Sourcing Requirement	9,450
Maine Maximum Capacity Limit	4,095
Northern New England (NNE) Maximum Capacity Limit	8,555



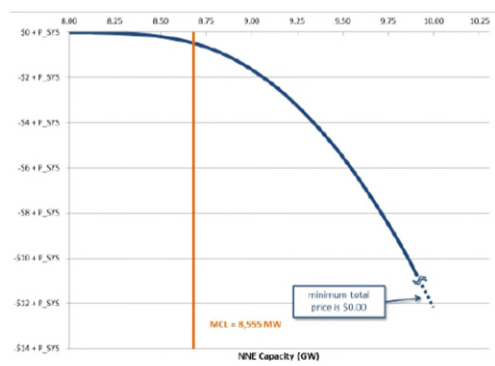
**Figure 1: System Demand Curve
 2025-2026 Capacity Commitment Period (CCP)**



**Figure 2: SENE Capacity Zone Demand Curve
 2025-2026 CCP**



**Figure 3: Maine Capacity Zone Demand Curve
 2025-2026 CCP**



**Figure 4: NNE Capacity Zone Demand Curve
 2025-2026 CCP**

The motion to recommend Participants Committee support was approved, with two oppositions in the Supplier Sector noted and eight abstentions (1 Generation, 5 Supplier, 2 Alternative Resource).

3. Changes to Appendix J to OP-16 (Periodic Review Changes)

Support revisions to Appendix J to ISO New England Operating Procedure (OP) No. 16 (OP16-J) (Transmission System Data, Instructions for Submission of Dynamics Data), which update the process for submittals of transmission system data, discontinue current transmission equipment user models for stability studies, update provisions of dynamic load modeling characteristics and add a requirement to provide “as built” characteristics for new equipment, all as recommended by the RC at its September 21, 2021 meeting, together with such further non-material changes as the Chair and Vice-Chair of the RC may approve.

The motion to recommend Participants Committee support was unanimously approved.

4. Changes to OP-21 (Generator Winter Readiness Survey Question Revisions)

Support revisions to OP-21 (Energy Inventory Accounting and Actions During an Emergency) which add and update Generator Winter Readiness Survey questions in order to enhance awareness of potential impacts of generator availability due to extreme cold weather and precipitation, as recommended by the RC at its September 21, 2021 meeting, together with such further non-material changes as the Chair and Vice-Chair of the RC may approve.

The motion to recommend Participants Committee support was unanimously approved.

5. Changes to OP-7 and Appendix A to OP-7 (Annual Review Changes)

Support annual review revisions to (i) OP-7 (Action in an Emergency), which modify instructions for current expectations and stipulate expectations for operator communications; and (ii) Appendix A to OP-7 (Instructions for Implementation of Manual Load Shedding), which enhance instructions to determine load to be shed and restored and update language in examples to illustrate enhanced instructions, all as recommended by the RC at its September 21, 2021 meeting, together with such further non-material changes as the Chair and Vice-Chair of the RC may approve.

The motion to recommend Participants Committee support was unanimously approved.

6. Changes to Appendix A to OP-2 (Biennial Review Changes)

Support revisions to Appendix A to OP-2 (Itemized Equipment), which include minor updates and edits to the itemized equipment list along with additional clarifications following a biennial review, as recommended by the RC at its September 21, 2021 meeting, together with such further non-material changes as the Chair and Vice-Chair of the RC may approve.

The motion to recommend Participants Committee support was unanimously approved.

7. Changes to OP- 19 (Annual Review Changes)

Support revisions to OP-19 (Transmission Operations), which include updates to the Reference section and formatting, attributions, grammar and composition changes, as recommended by the RC at its September 21, 2021 meeting, together with such further non-material changes as the Chair and Vice-Chair of the RC may approve.

The motion to recommend Participants Committee support was unanimously approved.

ISO New England's Draft 2022 Annual Work Plan

*For Discussion at the October 7, 2021,
NEPOOL Participants Committee Meeting*



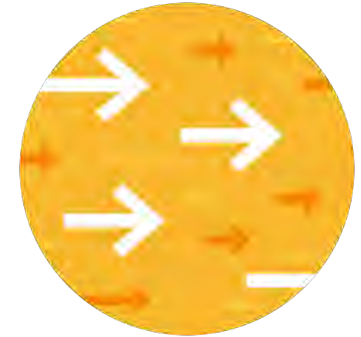
Vamsi Chadalavada

EXECUTIVE VICE PRESIDENT AND CHIEF OPERATING OFFICER



2022 Objectives and Highlights

Advancing a reliable clean-energy transition through innovation and collaboration



- **Anchor projects** require dedicated focus and a regional commitment to securing power system reliability while facilitating the integration of clean-energy and distributed resources
 - **Market Improvements for the Current and Future Grid**
 - **Resource Capacity Accreditation** to accurately reflect resource contributions to resource adequacy in the capacity market as the resource mix transforms
 - **Day-Ahead Ancillary Service Improvements** to create pricing incentives for specific energy and reserve capabilities needed for reliability as the resource mix and regional energy demand evolve
 - **Transmission Planning for the Future Grid**
 - **Extended-Term Transmission Planning** to support recurring assessments of a future system beyond the current ten-year transmission planning horizon by modifying the ISO Tariff
 - **2050 Transmission Study** to assess the amount, type, and high-level cost estimates of transmission infrastructure necessary to maintain reliability with prospective renewable and distributed energy expansions to meet states' energy policies
 - **Operational Impacts of Extreme Weather Events** to model and assess low-probability, high-impact weather risks under New England's changing power system
- **Notable initiatives underway** target innovation, advance efficiency, and help manage risks across markets, planning, operations, and software structures
- **Other potential projects** may emerge but not achievable for development in 2022

Project Timing and Effects of Shifting Priorities

The ISO strives to support the reliability and decarbonization goals of the region in a coordinated manner

● Project timing

- Because the planning/study phases of a number of projects are scheduled to be completed in early 2022, follow-on work, such as additional studies or design work, would need to be discussed at that time; this work is broadly identified here but may be clarified in the Spring 2022 Annual Work Plan Update



● Shifting priorities

- FERC actions (orders, notices of proposed rulemaking) and policy directives can shift regional priorities
- Increased or expanded stakeholder requests, regional policy interests, and new issues will affect project schedules of planned efforts
- Upfront agreement on priorities helps keep the region's anchor projects on track



ANCHOR PROJECTS

Market Improvements for the Current and Future Grid



Maintaining Resource Adequacy: Resource Capacity Accreditation (RCA) in the Forward Capacity Market (FCM)

Reforming the way resources are qualified in the FCM to support a reliable, clean-energy transition

- This major effort seeks to identify and implement methodologies that will more appropriately accredit resource contributions to resource adequacy as the resource mix transforms
 - It is critical to reliability and market efficiency that the methodologies are updated to reflect resources' capabilities and how those capabilities contribute to resource adequacy
- The ISO has begun assessing and discussing methodologies with stakeholders, including how Effective Load Carrying Capability (ELCC) techniques could be used in quantifying resource capacity contributions to regional resource adequacy
- After its assessment and in consultation with stakeholders during the project phase, the ISO will finalize its filing and implementation timeline
 - Currently contemplating a FERC filing by the end of 2022, targeting Forward Capacity Auction (FCA) 18, and a second filing by the end of 2023, targeting FCA 19



Day-Ahead Ancillary Services Improvements

Procuring and transparently pricing the ancillary service capabilities needed for a reliable next-day operating plan with an evolving generation fleet

- As the power system transforms, new and updated ancillary products and services are needed to procure and price:
 - 1) the “gap” between day-ahead physical energy supply awards and the ISO’s forecast real-time load, and
 - 2) day-ahead generation contingency response capabilities
- In 2022, the ISO will revisit efforts to co-optimize reserves in the day-ahead energy markets
 - This includes developing both the product design (focused on Energy Imbalance Reserve and Generation Contingency Reserve) and the mitigation design, as well as conforming market changes, including elimination of the Forward Reserve Market
- The ISO anticipates it will take until mid-late 2023 to complete (e.g., design, impact assessment, stakeholder process, and regulatory process)



ANCHOR PROJECTS

Operations and Planning Improvements for the Future Grid



Transmission Planning for the Future Grid

Providing transmission planning beyond a 10-year horizon that assesses a reliable, clean-energy future grid (initiated in response to the New England States' Energy Vision)



- **Extended-Term Transmission Planning:** The ISO is proposing changes to Attachment K of the Open Access Transmission Tariff to create a process that will allow the New England States to request, on a recurring basis, the ISO to perform extended-term planning analyses on the system beyond the current 10-year planning horizon
 - Beginning in 2022, the ISO also expects to discuss with stakeholders a second phase of Tariff changes to allow a process for states to consider potential options in addressing longer-term issues and cost allocation
 - Ongoing processes at FERC may further inform this effort
- **2050 Transmission Study:** The ISO is conducting a high-level transmission study for the years 2035, 2040, and 2050, that informs the region of the amount, type, and high-level cost estimates of transmission infrastructure that would be needed to cost-effectively incorporate clean-energy and distributed-energy resources and to meet state energy policy requirements and goals, including economy-wide decarbonization
 - The study looks well beyond the ISO's 10-year horizon for transmission planning to meet reliability needs so states can prepare for their future outlook
 - It is not a plan to build specific projects
 - The ISO anticipates sharing the scope, assumptions, and inputs requested by the states at the Planning Advisory Committee (PAC) in fall 2021

Modeling and Assessing Operational Impacts of Extreme Weather Events

Considering how to study New England's reliability risks from severe weather events



- The 2021 events in Texas have caused the ISO to further evaluate whether our region is adequately assessing and preparing for low-probability, high-impact reliability risks (tail risks)
- The ISO is initiating the project with discussion at the October 7, 2021, Participants Committee meeting; in Q1 2022 extending into 2023, the ISO and stakeholders will discuss approaches to modeling tail risks related to extreme weather events
- This process will:
 - Initially focus on understanding the modeling approaches to quantify such risks
 - Subsequently focus on understanding if and how the region should protect against the risks
- The ISO will work with Electric Power Research Institute on this project

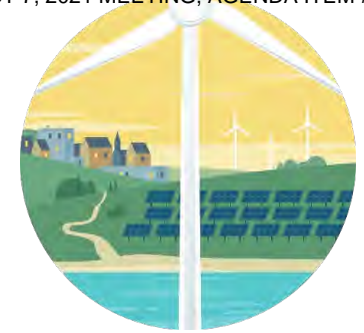
NOTABLE INITIATIVES UNDERWAY

Major Initiatives Already Identified for 2022



New England's Future Grid Initiative

Assessing the future of the regional power system in light of state energy and environmental laws



- **Future Grid Reliability Study (FGRS) Phase 1:** For its 2021 Economic Study, the ISO is conducting a series of engineering and economic analyses that use stakeholder-defined scenarios to identify grid reliability challenges that could occur in the year 2040 in light of state energy policies; the ISO will issue a report in March 2022
- **Pathways to the Future Grid:** The ISO is evaluating potential market frameworks for facilitating the evolution of New England's power grid that reflects state energy policies; the ISO will issue a report on the following three studies in April 2022
 - **Study 1:** Evaluate a forward clean-energy market
 - **Study 2:** Evaluate net carbon pricing
 - **Study 3:** Evaluate a hybrid option that incorporates elements of the above two frameworks, as well as unique design components

New England's Future Grid Initiative, cont'd

Next steps on both initiatives will be discussed after study results are published



- **FGRS Phase 2:** Identify products or services that may need to be obtained via the ISO-administered markets to address gaps to reliably operating the future power system identified in Phase 1 (may address balancing services/resource issues)
 - Use of a consultant to assess system security and revenue sufficiency in a gap analysis; results of and issues resolved through Phase 1 and other future-grid-related studies will be critical inputs to and create efficiencies in how the Phase 2 analyses may be shaped
- **Pathways to the Future Grid:** Consideration of a preferred pathway and next steps

Capacity Markets without a Minimum Offer Price Rule (MOPR)

Developing a proposal to remove this component for FCA 17 while seeking to preserve the FCM's ability to attract new entry

- The MOPR requires minimum offer prices for new resources in the Forward Capacity Market
- Significant concerns have been raised at both the regional and federal level that the MOPR precludes resources sponsored by the states from clearing in the FCM
 - The FERC has identified this matter as its priority
- The ISO intends to develop a proposal with input from stakeholders to address the dual objectives of allowing sponsored resources to clear and maintaining competitive capacity pricing that can attract merchant entry when needed to maintain resource adequacy
- Following a robust stakeholder process in 2021 and early 2022, the ISO will file a proposal for FCA 17 in February 2022



FERC Order No. 2222 Compliance

Allowing participation of DER aggregations in wholesale markets

- FERC issued Order No. 2222 on September 17, 2020, which requires ISOs/RTOs to allow distributed energy resources (DERs) to provide all wholesale services that they are technically capable of providing through an aggregation of resources
- The ISO is dedicating resources to create a responsive market design, develop the compliance proposal through an extensive and comprehensive stakeholder process, and implement changes in ISO systems
- The compliance filing of proposed tariff revisions is due February 2, 2022; regulatory processes to follow for an unknown duration
 - Work during the remainder of 2022 (conforming changes/implementation) will depend on the progression of the regulatory process



Solar DNE Design

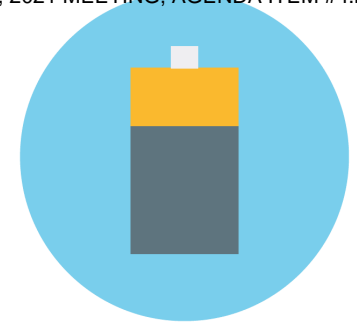
Enabling solar resources to be dispatched in the Real-Time Energy Market under the Do-Not-Exceed (DNE) model



- The quantity of front-of-meter solar generator assets in the New England region is expected to continue growing
- In 2022, the ISO will begin developing the rules, processes, forecasts, and tools necessary to enable these resources to take electronic dispatch instructions using the DNE model (as presently used with wind resources)
- Integrating these resources into the DNE dispatch process will help maximize the use of low-cost renewable energy, improve congestion management in constrained areas, and set appropriate price signals in the energy market
- The ISO expects to file changes with FERC in 2022 and implement the Solar DNE dispatch in Q3 2023

Additional Transmission Planning Enhancements for the Evolving Grid

Updated assumptions used in transmission planning studies will reflect future-grid trends and Tariff changes will allow storage to be considered as a transmission asset



- **Transmission Planning for the Clean-Energy Transition (CET):** The ISO, through the PAC process, has pilot tested a variety of transmission planning assumptions for 2030 (typical 10-year planning horizon); based on those results, the ISO will finalize and document new study conditions for load, solar generation, and wind generation to use going forward in its planning studies (e.g., Needs Assessments)
 - The ISO will continue further analyses into 2022 on renewable energy modeling and inter-area coordination of renewable energy integration— including detailed DER modeling, DER protection settings, and criteria for the acceptable level of DER tripping following transmission system events
- **Storage as a Transmission Solution:** Beginning in Q1 2022, the ISO will initiate discussions of proposed Tariff changes to consider storage as a transmission asset that meets transmission needs

Models and Tools to Support Future Grid Studies

Models, simulators, and other tools that are adaptive to evolving technologies and system conditions are needed to support future-grid studies



- **Inverter-Based Resource Integration and Modeling Assessment:** The ISO has begun a multi-year project (2021-2023) to assess and adopt advanced, innovative analysis techniques that capture the unique performance characteristics of inverter-based resources (e.g., solar and wind), critical to its studies beyond the 10-year horizon
 - By the end of 2021, the ISO will develop recommendations for the deployment of Electromagnetic Transient power system software and analytical methods that will enable efficient and reliable integration and modeling of rapidly-evolving inverter-based resources
 - In 2022, the ISO will begin to implement the recommendations to integrate hybrid-simulation processes and multi-core parallel capability into large-scale system studies, standardize the Electromagnetic Transient simulation workflow, and develop and deliver training to engineers
- **Integrated Market Simulator Development:** This is a multi-year project (2021-2023) to develop a new platform that will produce accurate, timely, long-term wholesale electricity market-simulation results through which the ISO can better and more cost-effectively quantify the potential outcomes of future market design changes, or potential changes in system supply and demand conditions, and aid in the ISO's research and development projects and cost impact studies
 - The ISO will complete the day-ahead portion of the market simulator in 2021 and will develop sub-hourly simulation and network analysis capability throughout 2022 and into 2023

nGEM Day-Ahead Market Clearing Engine Implementation

This is one project within the broader nGEM Program

- GE Solutions is modernizing its market application suite in a program called Next Generation Markets (nGEM), co-funded by GE, ISO-NE, MISO, PJM
 - The ISO's Market Management System (MMS) is based on the GE suite
 - This effort spans 2020-2027 and is broken into four phases
 - The ISO plans to update stakeholders on its nGEM program coincident with its Annual Work Plan presentation
- As part of this nGEM Phase 1 program, GE is developing a new market clearing engine (MCE) and implementation of the day-ahead version of this MCE will be a major focus in 2021 and 2022
 - In this timeframe, the ISO will be working on the complex processes for customizing and implementing the nGEM DA MCE software and infrastructure into the ISO's unique MMS
 - The DA MCE replaces the legacy MCE, and benefits include improved performance, flexibility, functionality, and scalability
 - The DA MCE is expected to be in-service Q1 2023



Enhance Cyber Security Tools

Upgrading monitoring, detection, and recovery tools to adapt to increasingly sophisticated threats and new attack vectors given ISO's heavy reliance on information technology



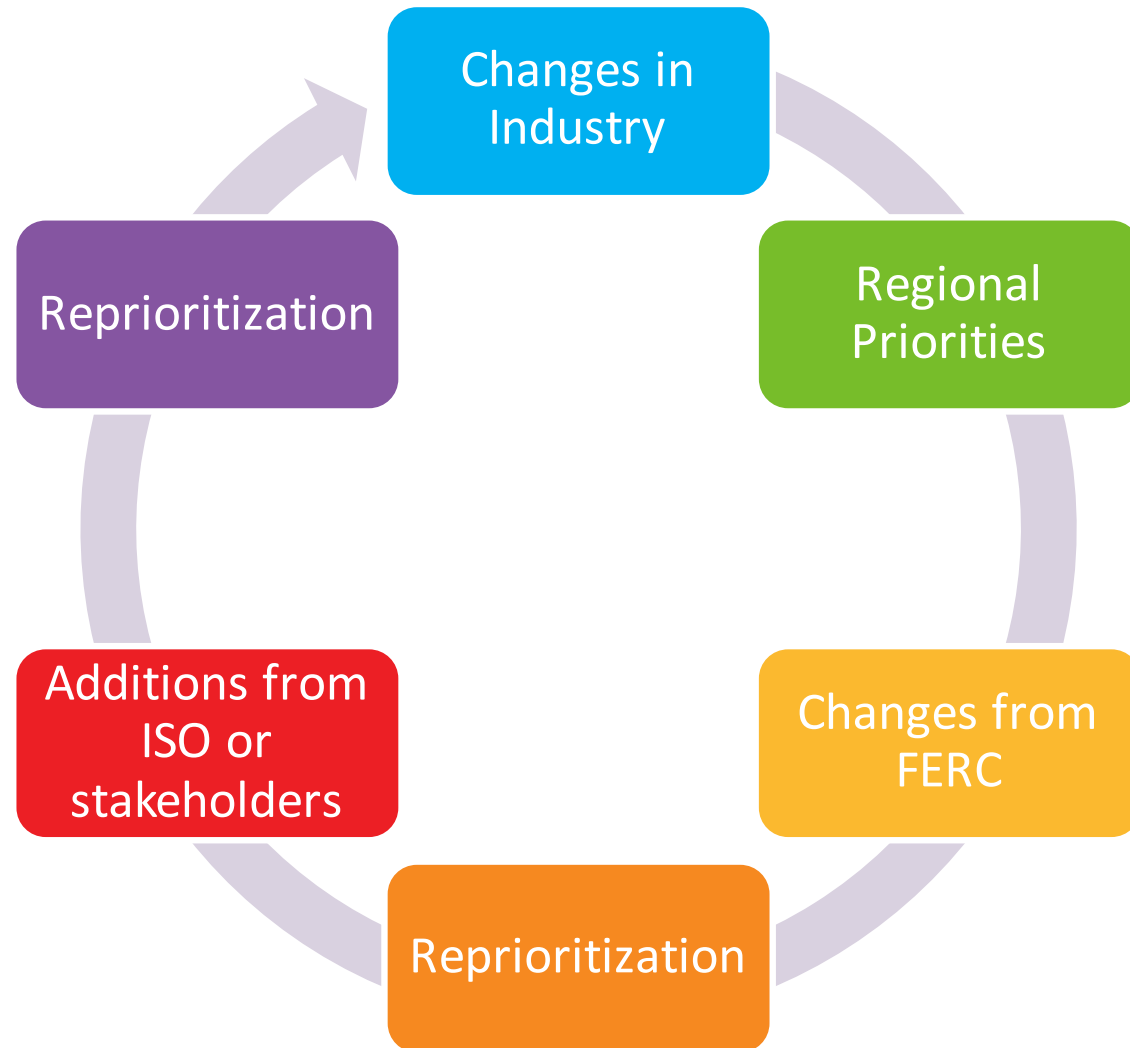
- **Identity & Access Management (IAM)** replaces the ISO's access rights application that records approval of users to thousands of ISO assets (e.g., applications, badged physical access, etc.)
 - IAM is the foundation of the ISO's cyber-security program: improves the functionality and security associated with logical and physical access management, and maintains compliance of these functions with NERC Critical Infrastructure Protection standards
 - Final phase to be completed by end of 2022
- **Security Information and Event Management (SIEM)** collects and correlates logs for monitoring and alerting on security events from hundreds of servers, network devices, and the applications running on them
 - ISO will implement new hardware by end of 2021 and software and related process changes by July 2022
- The **Cyber Security Improvements** project will refresh the hardware and software for the systems that support the collection of network traffic data that feeds the Network Intrusion Detection system and the Security Information and Event Management analysis system
 - The targeted completion date for this project is December 2022

WORK PLAN PRIORITIZATION

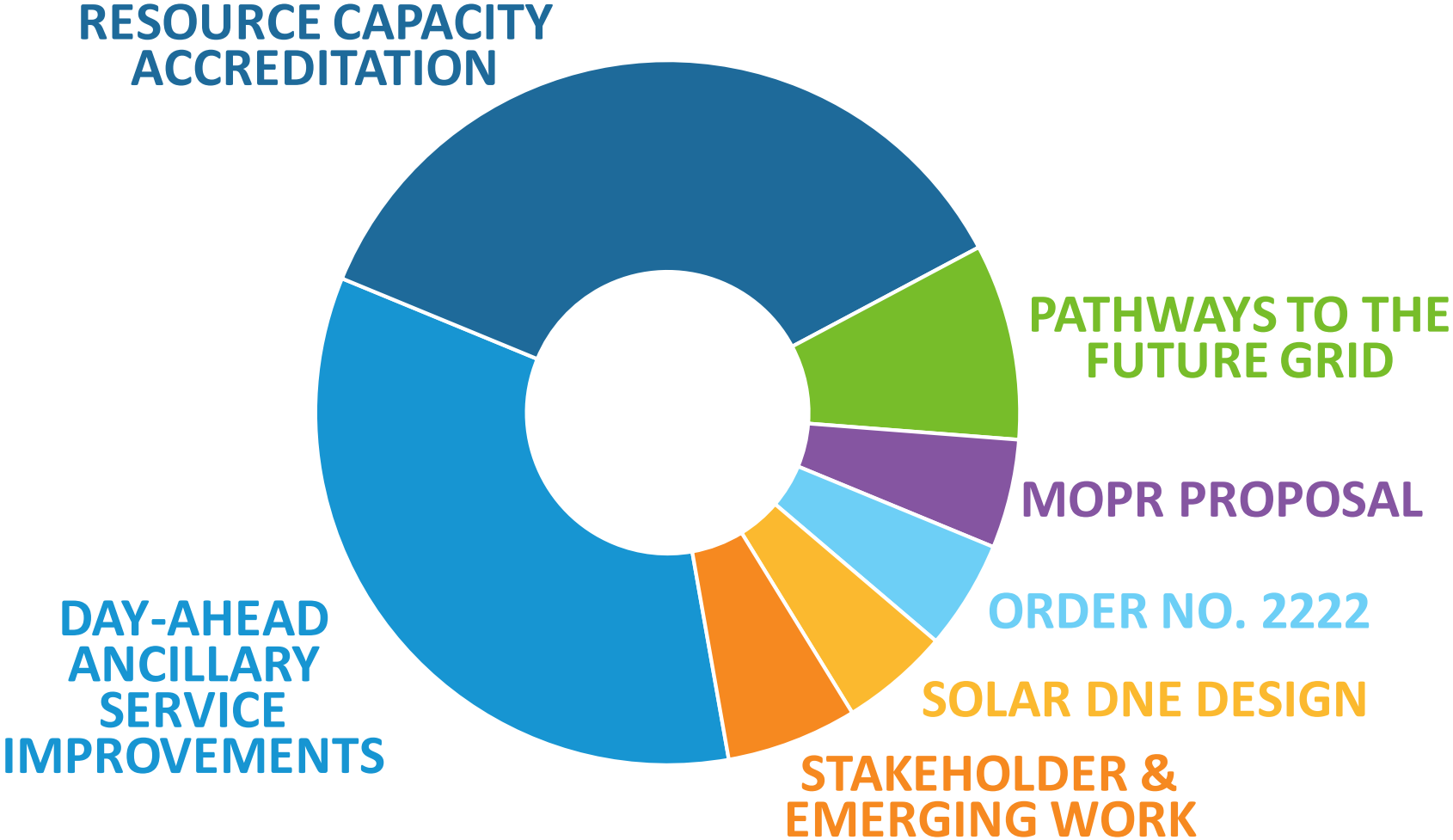


Prioritization Process

- The ISO adjusts its priorities as needed to best maintain reliable operations, robustly plan for a changing grid, and ensure competitive wholesale markets
- Planned projects are impacted as scopes shift or new projects emerge



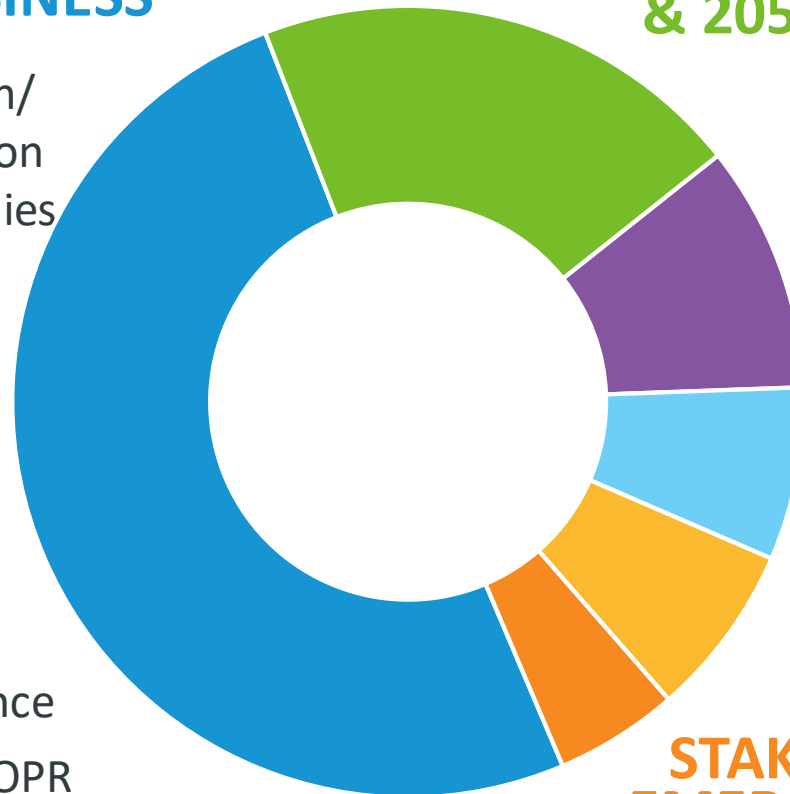
Markets-Related Priorities Include:



Planning/Operations Priorities Include:

CONTINUING BUSINESS

- Increased Generation/
Distributed Generation
Interconnection studies
due to increasing
number of
interconnection
requests
- Administer FCA #16
and FCM-related
modeling
- NERC/FERC Compliance
 - FERC ANOPR/NOPR
- 2022 Economic Study



**EXTENDED-TERM
TRANSMISSION PLANNING
& 2050 TRANSMISSION
STUDY**

**EXTREME WEATHER
MODELING**

**FGRS PHASE 1 (2021
Economic Study)**

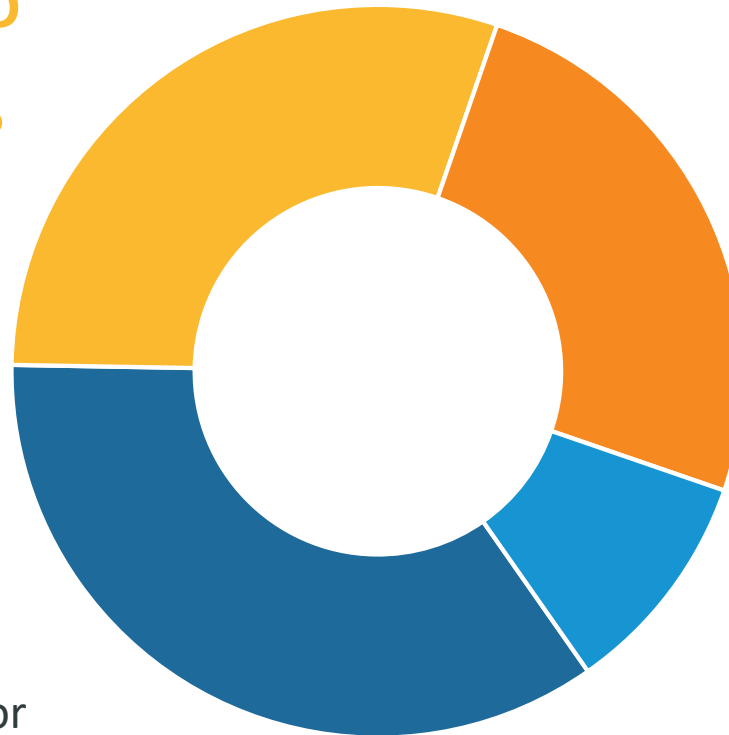
**CET & STORAGE AS
TRANSMISSION
SOLUTION**

**STAKEHOLDER &
EMERGING WORK**

Capital Project Priorities Include:

APPLICATION AND DATABASE ENHANCEMENTS

- FCTS
- IMM Data Analysis
- Integrated Market Simulator
- TranSMART
- FCM Accelerated Billing
- Issue Resolution
- Linear State Estimator
- Enterprise Application Integration
- TTC Calculator



nGEM DAY-AHEAD MARKET CLEARING ENGINE IMPLEMENTATION

CYBERSECURITY

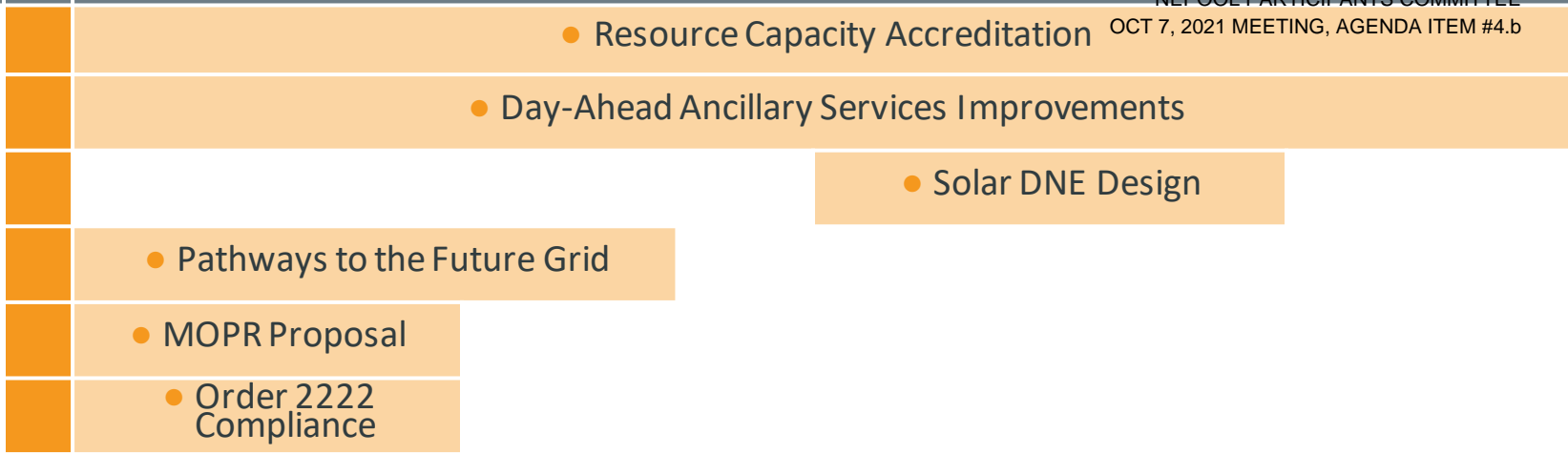
- IAM
- SIEM
- Critical Infrastructure Protection Electronic Security Perimeter

IT INFRASTRUCTURE ENHANCEMENTS

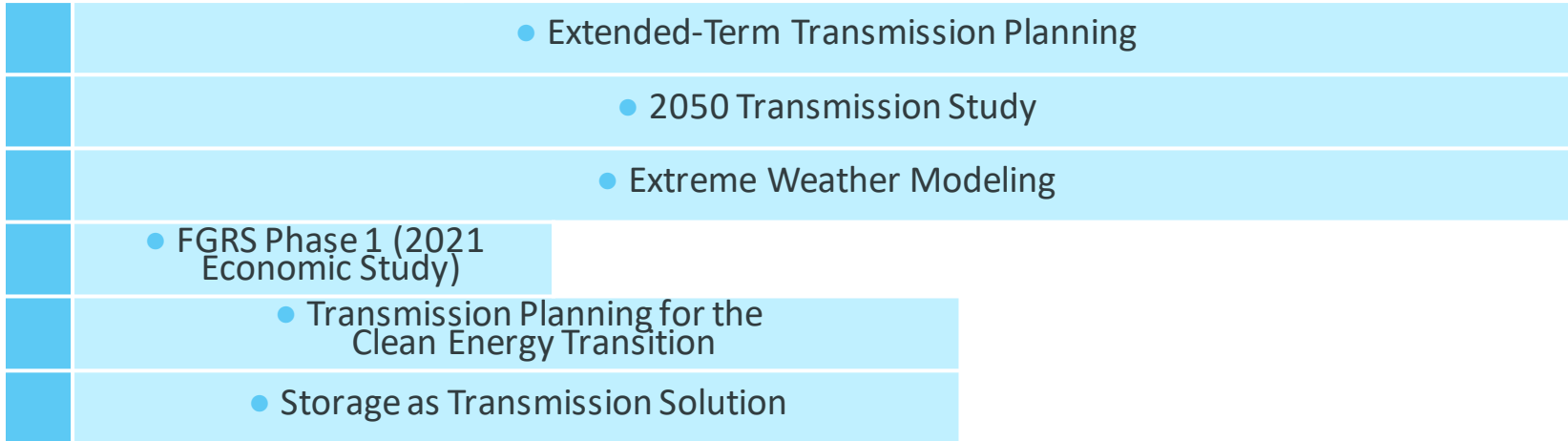
- LMP Monitor
- Amazon Web Services Cloud Foundation
- Website Migration to Cloud



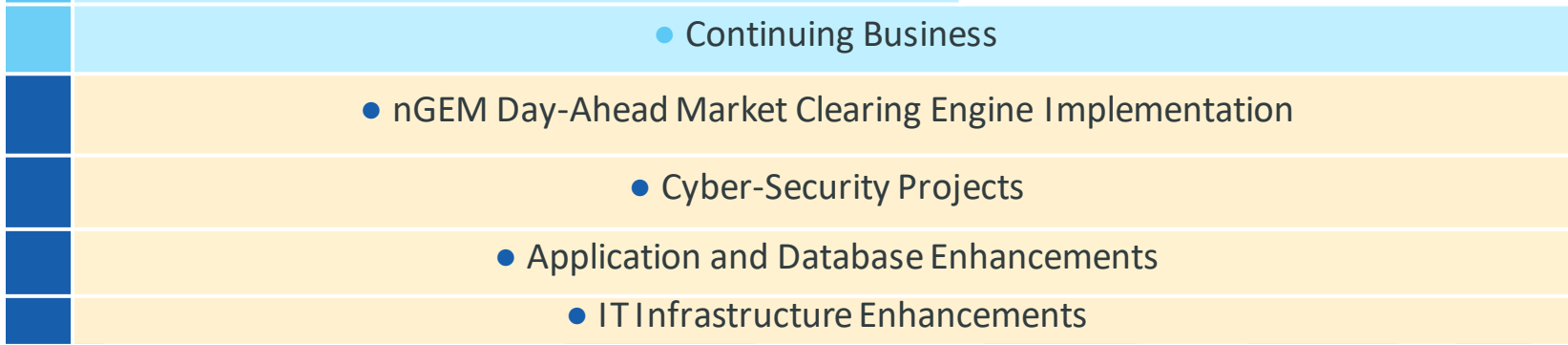
Markets Related



Operations/Planning



Capital Project Priorities



MEMORANDUM

TO: NEPOOL Participants Committee Members and Alternates

FROM: Paul Belval and Pat Gerity, NEPOOL Counsel

DATE: September 30, 2021

RE: ISO New England Inc. (“ISO”) 2022 Operating and Capital Budgets
New England States Committee on Electricity (“NESCOE”) 2022 Budget

At its October 7, 2021 meeting, the Participants Committee (the “NPC”) will be asked to vote on the ISO’s proposed 2022 operating and capital budgets (collectively, the “ISO Budgets”) and on NESCOE’s 2022 operating budget (the “NESCOE Budget”). We have included with this memorandum and will post with the composite for this meeting background materials regarding these budgets.

The ISO 2022 Budgets

The ISO Budgets were prepared according to the processes included in the Participants Agreement and in the Settlement Agreement with state agencies in FERC Dockets Nos. ER13-185 and ER13-192. The ISO presented its preliminary budgets to NECPUC in early June and at the June 24 NPC Meeting. The ISO next presented the ISO Budgets to the New England state agencies and attorneys general on August 6 and to the NEPOOL Budget and Finance Subcommittee (the “Subcommittee”) on August 9. Mr. Ludlow also provided a written overview of the ISO Budgets with the materials for the September 2 NPC meeting and offered to answer any questions that NPC members may have on the ISO Budgets. Questions on the ISO Budgets provided by certain New England state regulators and consumer advocates, as well as the ISO’s responses thereto, are posted on the ISO’s website and were included with the materials for the September 2 NPC meeting.

Included with this memorandum is a memorandum from Mr. Ludlow describing the changes that have been made to the ISO Budgets from the versions reviewed by the Subcommittee and provided previously to the NPC. That memorandum includes a link to the updated ISO Budgets presentation and a link to the comments from the New England state regulators and consumer advocates and the ISO’s response to those comments. The ISO’s September 24 memorandum regarding the allocation of its projected costs among the ISO Tariff Schedules is also included with this memorandum.¹

The 2022 ISO operating budget, prior to true-ups, reflects a 4.9 percent increase over the 2021 operating budget (which is \$100,000 lower than the draft operating budget last provided to the Subcommittee and to the NPC). After accounting for the true-up mechanism in the ISO Tariff, the

¹ The memo addressing the Projected 2022 Revenue Requirement, including the final true-up for 2020 and a comparison to the 2021 Revenue Requirement, a Draft 2022 Revenue Requirement by activity, and Draft 2022 Rate Components, was circulated by the ISO to Participants Committee members and alternates and Budget & Finance Subcommittee members on September 24.

revenue requirement to fund the 2022 operating budget (i.e., the amount collected under the ISO administrative cost tariff) will increase by 5.4 percent over the amount projected to be collected in 2021. The ISO capital budget for 2022 is \$32 million. This reflects a \$4 million increase over the amount of the 2021 capital budget.

The following form of resolution can be used by the NPC on this matter:

RESOLVED, that the Participants Committee supports the Year 2022 operating budget and capital budget proposed by the ISO, as presented at this meeting.

The NESCOE 2022 Budget

Ms. Heather Hunt, the Executive Director of NESCOE, joined the Subcommittee's August 9 meeting and informed the Subcommittee that NESCOE expected the NESCOE Budget for 2022 to be approximately \$2,485,156, less than the \$2,617,642 included in the five-year *pro forma* projections supported by the NPC in June 2017 and accepted by the FERC. NESCOE's August 9 presentation to the Subcommittee was included with the materials for the September 2 NPC meeting and Ms. Hunt offered to answer any questions that NPC members may have on the NESCOE Budget. A revised summary presentation regarding the NESCOE Budget, which reflects the actual 2022 Schedule 5 Rate as calculated by the ISO (\$0.00736 per kW-mo.), rather than an estimate rate, is included with this memorandum. The revised presentation is identical to the NESCOE August 9, 2021 presentation, with only slide 12 updated and marked to reflect the final 2022 Network Load factor and final Schedule 5 Rate.

The following form of resolution can be used by the NPC in its consideration of the proposed 2022 NESCOE Budget:

RESOLVED, that the Participants Committee supports the 2022 NESCOE budget, as proposed by NESCOE at this meeting, as the Year 2022 operating budget for NESCOE.

cc: R. Ludlow
C. Arnold
H. Hunt
NEPOOL Budget and Finance Subcommittee



memo

To: NEPOOL Participants Committee
From: Robert C. Ludlow, VP & CFO
Date: September 29, 2021
Subject: ISO New England's 2022 Proposed Operating and Capital Budgets

This 2022 operating and capital budgets (the "Budgets") update is intended to provide the NEPOOL Participants Committee with information regarding the changes that have been made to the ISO's 2022 proposed Budgets since the last review of the Budgets at the September 2, 2021 NEPOOL Participants Committee ("NPC") meeting.

Summary of Changes

The 2022 operating budget, including depreciation and excluding the true-up has been reduced to \$215.1M, which is a decrease of \$0.1M from the operating budget presented to the NEPOOL Budget and Finance ("B&F") Subcommittee in August and to the NPC in September. Updates have been made for final medical renewal and NERC dues amounts, which resulted in lower than estimated costs, and an increase in consulting work for the development of a market monitoring dashboard for which previous estimates have now been finalized. In addition, the Compensation and Human Resources Committee of the ISO's Board of Directors approved the 2022 proposed compensation increases, which are included in the operating budget (this approval did not change the proposed Budgets).

In summary, the 2022 operating budget, excluding the true-up, is an increase of 4.9% or \$10.1M as compared to the 2021 operating budget. The 2022 operating budget, including the true-up, results in a 5.4% increase to the Revenue Requirement compared to 2021.

The 2022 overall capital budget of \$32.0M has not changed from the amount presented at the August and September B&F and NPC meetings, respectively. Although the total capital budget for 2022 remains the same, there were changes to the following capital projects: the E-Mail List Server Technology Refresh and Total Transfer Capability Calculator Redesign projects have moved from the planning phase to chartered and have changes in the 2022 and the overall project budgets; there is a reallocation of costs between 2021 and 2022 or other immaterial adjustments for the nGEM Software Development Part II, Security Information and Event Management Log Monitoring Replacement, Integrated Market Simulator Phase I, TranSMART Technical Architecture Update, and Replacement of Locational Marginal Price Monitor projects. The 2022 Other Emerging Work balance was adjusted to reflect the funding changes to the foregoing projects. In addition, adjustments were made to the 2021 and overall project budgets for the Amazon Web Services Cloud Foundation and Linear State Estimator projects with no changes for 2022 estimated costs.

Budget materials have also been updated to clarify that the gross 2022 full-time equivalent ("FTE") positions are 622.5, with funding included for 593.0 FTEs. The 593 is based on the recruitment of 14 additional 2022 positions but only full funding of 9 FTEs because onboarding is expected to occur throughout the year. All other positions are budgeted with an estimated 4.0% vacancy.

Finally, we have made updates to clarify the content on a number of pages and the ISO/RTO Financial Summary for 2020 was updated. Changes by category and slide page number are identified below.

NEPOOL Participants Committee
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Materials

The August 9, 2021 budget presentation (the “Budget Presentation”) presented to the NEPOOL B&F Subcommittee has been updated to reflect the changes described above. The updated Budget Presentation can be found at the following link: https://www.iso-ne.com/static-assets/documents/2021/09/06_isonewengland_proposed_2022_op_ca_budget_update_09_29_2021.pdf

The 2022 state agencies’ written comments and the accompanying response can be found at the following link: https://www.iso-ne.com/static-assets/documents/2021/09/06_states_2022_budget_comments_isonewengland_response.pdf

Budget Presentation Slide Changes

The following pages have been updated in the Budget Presentation for the changes noted.

Operating Budget Slide page changes:

- To reflect budget changes, as noted above, for final medical renewal amounts, final NERC dues amounts, and for the development of a market monitoring dashboard: 15, 17, 19, 21, 23, 26, 50, 52, 53, 54, 58, 59, 60, 61, 62, 63, 64, 79, 91, 93, 102, 104, 105, 108, 109, 152
- To reflect gross headcount of 622.5 FTEs: 80, 92, 94, 97, 100, 106, 111
- To reflect updated compensation survey data: 70
- Other clarifying or miscellaneous changes: 24, 86

Capital Budget Slide page changes: 41, 42, 43, 119, 121, 128, 129, 144, 146

In addition, Slide 158 (ISO/RTO Financial Summary for 2020) was updated to add ERCOT financial information that is now available.

Please let me know if you have any questions in advance of our meeting. I look forward to our discussion.



memo

To: NEPOOL Budget & Finance Subcommittee and Participants Committee
From: Bob Ludlow and Cheryl Arnold
Date: September 24, 2021
Subject: Projected 2022 Revenue Requirement for ISO New England Administrative Cost Tariff Schedules

To help our Participants prepare their 2022 budgets and consistent with information provided in previous years, this memo includes a preliminary indication of ISO-NE’s 2022 costs and related tariff schedules. Specifically, the memo includes (1) the estimated 2022 Revenue Requirement, including the final true-up for 2020 and a comparison to the 2021 Revenue Requirement (see Exhibit 1 below), (2) the Draft 2022 Revenue Requirement by activity (see Exhibit 2), and (3) the Draft 2022 Rate Components (see Exhibit 3). Both Exhibits 2 and 3 are attached and, in their final form, will be part of the ISO’s budget filing with FERC. The cost assignment and allocation mechanisms that were utilized in the Draft 2022 tariff schedules were established as part of the settlement that has been in effect for the last twenty years.

Overall Change in Revenue Requirement

As shown in Exhibit 1 below, the overall Revenue Requirement has increased by \$11.0 million year-over-year, from \$205.1M for 2021 to \$216.1M for 2022.¹ The change includes a \$10.1 million increase in the revenue requirement before taking into account the change in prior year true-ups. Prior year true-ups resulted in an increase of \$0.9M. The 2021 tariff included a \$0.2M revenue requirement increase for the final 2019 true-up, while the 2022 tariff will include an increase of \$1.1M as a result of the final 2020 true-up.

Draft Exhibit 1				
ISO New England Revenue Requirement By Tariff Schedule 2022 Estimated Amount vs. 2021 Filed Amount				
	Sch 1	Sch 2	Sch 3	Total
2022 Revenue Requirement Before Prior Year True Ups	\$ 45,082,953	\$ 105,115,206	\$ 64,872,524	\$ 215,070,683
2021 Revenue Requirement Before Prior Year True Ups	43,558,799	99,301,285	62,103,185	204,963,269
\$ Increase/(Decrease) from 2021 to 2022	1,524,154	5,813,921	2,769,339	10,107,414
% Increase/(Decrease) from 2021 to 2022	3.5%	5.9%	4.5%	4.9%
2022 Revenue Requirement Prior Year True Ups-Under/(Over) Collect	\$ (701,273)	\$ 1,037,876	\$ 734,687	\$ 1,071,290
2021 Revenue Requirement Prior Year True Ups-Under/(Over) Collect	(1,447,780)	759,504	839,312	151,036
\$ Increase/(Decrease) from 2021 to 2022	746,507	278,372	(104,625)	920,254
2022 Revenue Requirement Including Prior Year True-Ups	\$ 44,381,680	\$ 106,153,082	\$ 65,607,211	\$ 216,141,973
2021 Revenue Requirement Including Prior Year True-Ups	42,111,019	100,060,789	62,942,497	205,114,305
\$ Increase/(Decrease) from 2021 to 2022	2,270,661	6,092,293	2,664,714	11,027,668
% Increase/(Decrease) from 2021 to 2022	5.4%	6.1%	4.2%	5.4%

¹ Minor variances may appear due to rounding among the various presentations and schedules for the 2022 Budgets.

Change in Revenue Requirement by Schedule

Before true-ups in 2022 and 2021, the 2022 Revenue Requirement reflects an overall increase of \$10.1M or 4.9% over the 2021 Revenue Requirement. By tariff schedule, the changes are: Schedule 1, a \$1.5M or 3.5% *increase*; Schedule 2, a \$5.8M or 5.9% *increase*; and Schedule 3, a \$2.8M or 4.5% *increase*.

The Tariff Schedule 1 increase of \$1.5M is attributable to:

- Increases that impact all three schedules, including for compensation and employee benefit costs, computer services and systems support, cyber security systems and resources, power system modeling, and an increase in the operating contingency for targeted areas of importance to the region (the uses of the operating contingency are still in planning and it is unpredictable as to the exact level of funding that will be required).
- For Legal and Transmission Planning resources to facilitate studying the states' long term goals of transitioning to a carbon free power system and to provide information beyond a 10-year planning horizon in alignment with the states' long term vision.
- Partially offsetting the increases were decreases that impact all three schedules, including lower employee salary rates, lower Post-Retirement Medical Plan funding and reduced Pension Benefit Guarantee Corporation Premiums, and software licensing costs for replaced technology.

The Tariff Schedule 2 increase of \$5.8M is attributable to:

- Funding for items that impact all three schedules, partially offset by decreases that impact all three schedules, as noted above in the explanation for Schedule 1.
- Funding for items that impact Schedules 2 and 3, including resources to address Pathways to the Future Grid work, to integrate distributed resources into the wholesale energy market in compliance with FERC Order 2222, and for Resource Capacity Accreditation.
- Funding for Legal and Market Development resources to support workload levels for the implementation of energy market design changes.

The Tariff Schedule 3 increase of \$2.8M is attributable to:

- Funding for items that impact all three schedules, partially offset by decreases that impact all three schedules, as noted above in the explanation for Schedule 1.
- Funding for items that impact Schedules 2 and 3, as noted above in the explanation for Schedule 2.
- Funding for work related to changes in the Minimum Offer Price Rule for the Forward Capacity Market, and for increased dues for the North American Electric Reliability Corporation and the Northeast Power Coordinating Council.
- Partially offsetting the Schedule 3 increases is a reduction of funding for the updating of Cost of New Entry (CONE), Net CONE, and Offer Review Trigger Price in the Forward Capacity Market that was completed in 2021.

The ISO 2022 Revenue Requirement will be reviewed and voted on at the October 7, 2021 NPC meeting. Should you have any questions regarding the information provided in this memo, do not hesitate to contact us.

Exhibit 2
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Line No.	Activity Code		Allocation Factor (1)	Self-Funding Tariff			
	No. (a)	Description (b)		Total (2) (d)	Schedule 1 (e)	Schedule 2 (f)	Schedule 3 (g)
1		Administration-CEO					
2	12651	Indirect Administrative Support	Total Dir Labor	\$ 10,233,161	\$ 2,205,246	\$ 5,295,661	\$ 2,732,254
3	12652	NEPOOL Committee Support	Total Dir Labor	3,000	647	1,553	801
4	12654	National Committee Support	Total Dir Labor	1,950	420	1,009	521
5	12657	Indirect Administrative Support for BCC	Total Dir Labor	1,084,227	233,651	561,088	289,489
6		Total		11,322,338	2,439,964	5,859,310	3,023,064
7							
8		Finance					
9	11601	Payroll Administration	Total Dir Labor	536,908	115,704	277,850	143,355
10	11701	Accounts Payable	Total Dir Labor	345,813	74,523	178,958	92,332
11	11702	Procurement	Total Dir Labor	475,782	102,531	246,217	127,034
12	11901	Settle for Power Transactions	Total Dir Labor	86,353	18,609	44,688	23,056
13	12001	Budgeting and Forecasting	Total Dir Labor	561,296	120,959	290,471	149,866
14	12005	Credit Administration	Total Dir Labor	474,943	102,350	245,783	126,810
15	12101	Ledger Closing, Financial Statements and Tax Reporting	Total Dir Labor	561,296	120,959	290,471	149,866
16	12201	Treasury and Cash Management	Total Dir Labor	2,420,481	521,614	1,252,599	646,269
17	92004	Depreciation Expense 2004 Assets	Alloc-Fixed	43,160	8,988	22,535	11,637
18	92005	Depreciation Expense 2005 Assets	Alloc-Fixed	773,169	163,467	402,126	207,577
19	92006	Depreciation Expense 2006 Assets	Total Dir Labor	568,947	122,608	294,430	151,909
20	92007	Depreciation Expense 2007 Assets	Total Dir Labor	156,825	33,796	81,157	41,872
21	92008	Depreciation Expense 2008 Assets	Total Dir Labor	2,677	577	1,385	715
22	92009	Depreciation Expense 2009 Assets	Total Dir Labor	1,535	331	794	410
23	92010	Depreciation Expense 2010 Assets	Total Dir Labor	2,380	513	1,232	635
24	92011	Depreciation Expense 2011 Assets	Total Dir Labor	-	-	-	-
25	92012	Depreciation Expense 2012 Assets	Total Dir Labor	82,399	17,757	42,641	22,001
26	92013	Depreciation Expense 2013 Assets	Total Dir Labor	859,069	185,129	444,568	229,371
27	92014	Depreciation Expense 2014 Assets	Alloc-Fixed	164,367	29,995	97,209	37,163
28	92015	Depreciation Expense 2015 Assets	Alloc-Fixed	36,437	7,852	18,856	9,729
29	92016	Depreciation Expense 2016 Assets	Alloc-Fixed	197,121	46,958	121,004	29,160
30	92017	Depreciation Expense 2017 Assets	Alloc-Fixed	480,742	108,618	292,393	79,731
31	92018	Depreciation Expense 2018 Assets	Alloc-Fixed	2,259,745	432,822	1,185,762	641,161
32	92019	Depreciation Expense 2019 Assets	Alloc-Fixed	7,202,973	1,215,829	3,980,684	2,006,460
33	92020	Depreciation Expense 2020 Assets	Alloc-Fixed	6,846,161	977,596	3,600,862	2,267,704
34	92021	Depreciation Expense 2021 Assets	Alloc-Fixed	5,195,737	821,641	2,753,730	1,620,366
35	92022	Depreciation Expense 2022 Assets	Alloc-Fixed	1,040,569	219,189	527,703	293,677
35	99707	Amortization of Land Recovery	Alloc-Fixed	39,300	2,460	24,170	12,670
36	99995	NPCC/NERC Dues	Alloc-Fixed	6,445,517	-	-	6,445,517
37	99996	Operating Contingency	Total Dir Labor	700,000	150,850	362,250	186,900
38	99996	Operating Contingency	Total Dir Labor	2,000,000	431,000	1,035,000	534,000
39	99998	Payroll & Other Accruals	Total Dir Labor	14,171,513	3,053,961	7,333,758	3,783,794
40		Total		54,733,216	9,209,185	25,451,285	20,072,745
41							
42		Facilities & Security					
43	12664	Building Maintenance	Total Dir Labor	3,275,302	705,828	1,694,969	874,506
44		Total		3,275,302	705,828	1,694,969	874,506
45							
46		Enterprise Risk Management					
47	22704	Record Retention Services	Alloc-Fixed	52,631	17,526	17,526	17,579
48	22705	Corporate Scorecard	Alloc-Fixed	55,473	18,473	18,473	18,528
49	22706	Document Management Services	Alloc-Fixed	158,495	63,398	47,549	47,549
50	22709	Management	Total Dir Labor	23,774	5,123	12,303	6,348
51	22710	Employee Development	Total Dir Labor	4,514	973	2,336	1,205
52	22714	Analysis	Total Dir Labor	345,413	74,436	178,751	92,225
53	22721	Corp Strategic Risk	Total Dir Labor	298,683	64,366	154,569	79,748
54	22726	Project Risk Mngmt Meeting	Total Dir Labor	15,850	3,416	8,202	4,232
55	23006	Business Continuity Planning	Total Dir Labor	224,939	48,474	116,406	60,059
56	25011	Corrective Action/Preventive Action	Alloc-Fixed	289,054	96,255	96,255	96,544
57	25014	EtQ Tools Dev & Support	Total Dir Labor	43,757	9,430	22,644	11,683
58	25015	Coord Tariff Chg Comm (TCC)	Total Dir Labor	3,962	854	2,051	1,058
59		Total		1,516,546	402,724	677,064	436,758
60							
61		Human Resources					
62	12661	Employee Affairs (Recreation Committee)	Total Dir Labor	55,419	11,943	28,679	14,797
63	12701	Recruiting/Interviewing	Total Dir Labor	695,841	149,954	360,098	185,790
64	12702	Intern Expense	Total Dir Labor	376,979	81,239	195,087	100,654
65	12801	Employee Relations	Total Dir Labor	2,513	541	1,300	671
66	12901	Benefit Administration	Total Dir Labor	1,324,945	285,526	685,659	353,760
67	12951	Compensation	Total Dir Labor	575,781	124,081	297,967	153,734
68	12961	HR - General	Total Dir Labor	1,287,486	277,453	666,274	343,759
69	12962	HR - Training	Total Dir Labor	1,334,797	287,649	690,758	356,391
70	13301	HR - Labor Relations	Total Dir Labor	600	129	311	160
71	13410	Power Training & Development	Total Dir Labor	1,735,968	374,101	898,364	463,504
72	13411	Markets Training & Development	Total Dir Labor	64,323	13,862	33,287	17,174
73	13412	People Training & Development	Total Dir Labor	435,352	93,818	225,295	116,239
74	13413	Business Skills Training & Development	Total Dir Labor	215,594	46,461	111,570	57,564
75	13414	Technology Training & Development	Total Dir Labor	1,368,390	294,888	708,142	365,360
76		Total		9,473,989	2,041,645	4,902,789	2,529,555

Exhibit 2
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Line No.	Activity Code		Allocation Factor (1)	Self-Funding Tariff			
	No. (a)	Description (b)		Total (2) (d)	Schedule 1 (e)	Schedule 2 (f)	Schedule 3 (g)
1		Legal Department					
2	12422	Interconnection Queue	Alloc-Fixed	122,972	-	-	122,972
3	12502	Board of Directors	Total Dir Labor	185,609	39,999	96,053	49,558
4	12508	Energy Markets / Complaints / Rule Changes	Alloc-Fixed	2,107,995	-	2,107,995	-
5	12513	Miscellaneous Labor Matters	Total Dir Labor	137,500	29,631	71,156	36,713
6	12514	NEPOOL Participants Committee	Total Dir Labor	93,202	20,085	48,232	24,885
7	12517	Administrative and Clerical Support	Total Dir Labor	614,861	132,503	318,191	164,168
8	12543	Independent Market Advisor	Alloc-Fixed	1,100,000	-	770,000	330,000
9	12559	General Corporate	Total Dir Labor	1,702,836	366,961	881,218	454,657
10	12584	Installed Capacity Requirements	Total Dir Labor	20,495	-	-	20,495
11	12587	Capacity Market Development	Alloc-Fixed	529,209	-	-	529,209
12	12588	Web Content Management	Total Dir Labor	754,545	162,605	390,477	201,464
13	12606	GC - NERC	Alloc-Fixed	600	270	60	270
14	12619	Compliance	Alloc-Fixed	122,972	49,189	49,189	24,594
15	12622	Open Access Transmission Tariff	Alloc-Fixed	359,483	359,483	-	-
16	12623	Reliability Standards	Alloc-Fixed	20,495	-	4,099	16,396
17	12663	Public Information	Total Dir Labor	1,547,756	333,542	800,964	413,251
18	12669	Government Affairs	Total Dir Labor	1,778,121	383,185	920,177	474,758
19		Total		11,198,652	1,877,452	6,457,811	2,863,390
20							
21		Internal Audit					
22	15001	Indirect Management Duties	Total Dir Labor	149,540	32,226	77,387	39,927
23	15002	Personnel Management	Total Dir Labor	35,762	7,707	18,507	9,548
24	15003	Budget & Forecasting	Total Dir Labor	35,762	7,707	18,507	9,548
25	15004	Audit Follow-up Activities	Total Dir Labor	59,603	12,845	30,845	15,914
26	15005	Audit & Finance Committee	Total Dir Labor	89,739	19,339	46,440	23,960
27	15006	Internal Audit Business Process Update	Total Dir Labor	11,921	2,569	6,169	3,183
28	15007	Annual Audit Work Plan	Total Dir Labor	125,501	27,046	64,947	33,509
29	15011	Internal Audit Meetings	Total Dir Labor	11,921	2,569	6,169	3,183
30	15013	Indirect Administrative Support	Total Dir Labor	53,977	11,632	27,933	14,412
31	15014	GRC Tool Admin and Development	Total Dir Labor	239,021	51,509	123,694	63,819
32	15021	Performance Measurements	Total Dir Labor	23,841	5,138	12,338	6,366
33	15022	Vendor Contracts	Total Dir Labor	11,921	2,569	6,169	3,183
34	15023	Wire Transfers	Total Dir Labor	11,921	2,569	6,169	3,183
35	15029	Payroll	Total Dir Labor	11,921	2,569	6,169	3,183
36	15031	Employee Expense Reporting	Total Dir Labor	11,921	2,569	6,169	3,183
37	15040	Operations	Total Dir Labor	190,731	41,102	98,703	50,925
38	15085	Information Technology	Total Dir Labor	229,921	49,548	118,984	61,389
39	15110	Systems Development Reviews	Total Dir Labor	71,524	15,413	37,014	19,097
40	15133	Satellite Operations Reviews	Total Dir Labor	24,765	5,337	12,816	6,612
41	15137	Satellite IT Reviews	Total Dir Labor	925	199	479	247
42	15161	External Audit- Pension Audit	Total Dir Labor	72,036	15,524	37,279	19,234
43	15162	External Audit- Financial Audit	Total Dir Labor	132,528	28,560	68,583	35,385
44	15166	External Audit -Pricing Module Certification	Alloc-Fixed	10,041	-	10,041	-
45	15176	External Audit - ISO Internet Vulnerability Assessment	Total Dir Labor	10,040	2,164	5,196	2,681
46	15186	External Audit - SSAE 18 Direct Support	Total Dir Labor	59,603	12,845	30,845	15,914
47	15192	Data Mining - Audit Command Language Implementation	Total Dir Labor	45,450	9,794	23,520	12,135
48	25702	External Audit - SSAE 18 Direct Management	Alloc-Fixed	577,993	-	577,993	-
49	28005	Fraud, Waste & Abuse Program	Total Dir Labor	11,921	2,569	6,169	3,183
50	28007	Contractor/Consultant Review	Total Dir Labor	24,041	5,181	12,441	6,419
51	28159	Audit - Oracle Licensing Compl	Total Dir Labor	99,990	21,548	51,745	26,697
52	28162	Audit-Virtual Desktop Infrastr	Total Dir Labor	99,990	21,548	51,745	26,697
53	28178	Third Party Cyber Risk Management Process Review	Total Dir Labor	18,181	3,918	9,409	4,854
54		Total		2,563,952	425,810	1,610,572	527,570
55							
56		COO-Adm					
57	19001	NEPOOL Committee Support	Total OPS Labor	209,358	56,108	100,387	52,863
58	19005	Indirect Supervision/Clerical Support	Total OPS Labor	2,315,098	620,446	1,110,089	584,562
59	19009	Renewable Resource Integration	Alloc-Fixed	149,936	-	-	149,936
60		Total		2,674,391	676,554	1,210,476	787,361
61							
62		System Operations & Market Administration					
63	14404	NEPOOL Committee Support	SOA Labor	18,232	6,297	8,463	3,471
64	14405	Indirect Supervision/Clerical Support	SOA Labor	472,310	163,136	219,246	89,928
65	14407	Regional Committee Support	SOA Labor	13,674	4,723	6,348	2,604
66	14408	National Committee Support	SOA Labor	38,674	13,358	17,953	7,364
67	19101	NEPOOL Committee Support	MOA Labor	73,080	-	51,156	21,924
68		Total		615,971	187,515	303,166	125,290

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Line No.	Activity Code		Allocation Factor (1)	Self-Funding Tariff			
	No. (a)	Description (b)		Total (2) (d)	Schedule 1 (e)	Schedule 2 (f)	Schedule 3 (g)
1		Operations					
2	14001	Generation Dispatch	Alloc-Fixed	3,424,779	-	2,876,814	547,965
3	14002	Transmission Operations	Alloc-Fixed	3,424,779	2,739,823	171,239	513,717
4	14304	Advanced Scheduling and Forecasting	Alloc-Fixed	2,382,848	119,142	1,882,450	381,256
5	14402	Operations Training	Alloc-Fixed	3,331,413	1,332,565	1,332,565	666,283
6	14413	Operations Support Training & Development	Alloc-Fixed	135,000	54,000	54,000	27,000
7	14563	National Committee Support	OPS Labor	17,109	4,784	9,471	2,854
8	14564	Indirect Supervision/Clerical Support	OPS Labor	1,358,140	379,736	751,866	226,538
9	14565	Employee Development	OPS Labor	50,718	14,181	28,077	8,460
10	14702	Procedure Documentation	Alloc-Fixed	73,172	29,269	29,269	14,634
11		Total		14,197,956	4,673,499	7,135,752	2,388,705
12							
13		Reliability and Operations Compliance					
14	14803	Regional Committee Support	OS Labor	77,532	38,766	-	38,766
15	14804	National Committee Support	OS Labor	101,732	50,866	-	50,866
16	14806	Employee Development	Alloc-Fixed	48,781	27,098	9,429	12,254
17	14807	NERC RSAW Update and Audit Prep	Alloc-Fixed	147,330	73,665	-	73,665
18	14808	Change Management	Alloc-Fixed	24,391	10,976	2,439	10,976
19	14809	Tariff Compliance	Alloc-Fixed	182,930	54,879	109,758	18,293
20	14812	NPCC MP Referral	Alloc-Fixed	60,977	24,391	24,391	12,195
21	14815	Identifications and Description of Internal Controls	Total Dir Labor	487,814	105,124	252,444	130,246
22	14816	Support NE Compliance Groups	Total Dir Labor	60,977	13,140	31,555	16,281
23	14817	AskISO Customer or Internal Inquiries	Total Dir Labor	60,977	13,140	31,555	16,281
24		Total		1,253,441	412,046	461,572	379,823
25							
26		Operations Support Services					
27	14301	Contract Administration and Scheduling	Alloc-Fixed	(60,000)	(6,000)	(42,000)	(12,000)
28	14453	National Committee Support	TSO Labor	338,408	109,543	161,793	67,072
29	14454	Indirect Supervision/Clerical Support	TSO Labor	20,610	6,671	9,854	4,085
30	14467	Nuclear Plant Liaison	Alloc-Fixed	17,109	-	-	17,109
31	14477	Participant project and outage coordination support	Alloc-Fixed	17,109	8,554	-	8,554
32	14765	GRIDEX - Grid Exercise	Alloc-Fixed	51,774	25,887	-	25,887
33	18361	Transmission Studies, Operations, OASIS Support	Alloc-Fixed	2,796,340	2,237,072	139,817	419,451
34	18381	Transmission Outage Application - Short Term	Alloc-Fixed	1,134,930	907,944	56,746	170,239
35	18382	Transmission Outage Application - Long Term	Alloc-Fixed	734,930	-	-	734,930
36		Total		5,051,209	3,289,671	326,210	1,435,327
37							
38		Market Monitoring					
39	16101	Market Power Monitoring and Mitigation	Alloc-Fixed	4,896,768	-	3,427,737	1,469,030
40	16115	Analysis & Internal Reports	Alloc-Fixed	324,705	-	227,294	97,412
41	16121	FCM Market Monitoring	Alloc-Fixed	17,878	-	-	17,878
42		Total		5,239,351	-	3,655,031	1,584,320
43							
44		Market & Resource Administration					
45	21901	Day Ahead Market Administration	Alloc-Fixed	309,325	-	309,325	-
46	21902	Real Time Price Verification	Alloc-Fixed	309,325	-	309,325	-
47	21904	NEPOOL Committee Support	MA Labor	1,036	-	1,003	33
48	21907	Indirect Supervision/Clerical Support	MA Labor	580,511	-	562,166	18,344
49	21908	Employee Development	MA Labor	116,000	-	112,334	3,666
50	21909	Customer Support	MA Labor	510	-	494	16
51	21913	Data Collection/Report Writing	Alloc-Fixed	231,994	-	231,994	-
52	21915	FTR/Auction Administration	Alloc-Fixed	347,991	173,995	173,995	-
53	21916	Forward Reserve Market - Administration	Alloc-Fixed	38,666	-	-	38,666
54	21917	Real Time Price Finalization	Alloc-Fixed	231,994	-	231,994	-
55	21951	FCM Annual Reconfiguration Auction Administration	Alloc-Fixed	77,331	-	-	77,331
56	21953	FCM Monthly Administration	Alloc-Fixed	115,997	-	-	115,997
57		Total		2,360,679	173,995	1,932,631	254,052

Line No.	Activity Code		Allocation Factor (1)	Self-Funding Tariff			
	No. (a)	Description (b)		Total (2) (d)	Schedule 1 (e)	Schedule 2 (f)	Schedule 3 (g)
1		Market Analysis & Settlements					
2	1701	Billing Statements - Energy	Alloc-Fixed	91,582	-	91,582	-
3	1702	Billing Statements - Transmission	Alloc-Fixed	109,458	109,458	-	-
4	1713	Billing Statements - ISO Tariff	Total Dir Labor	12,978	2,797	6,716	3,465
5	1714	Billable Tariff Re-billings	Total Dir Labor	1,224	1,224	-	-
6	2047	Score Card	STLM Labor	3,183	471	1,551	1,162
7	2048	FCM	Alloc-Fixed	270,094	-	-	270,094
8	2049	Product Testing	Alloc-Fixed	16,651	-	13,321	3,330
9	2051	Legal Support	Alloc-Fixed	7,101	-	3,551	3,551
10	2005	Customer Service	STLM Labor	184,455	27,281	89,848	67,326
11	2007	Admin support - NEPOOL Committees	STLM Labor	1,135	168	553	414
12	2009	Indirect Supervision/Clerical Support	STLM Labor	845,320	125,023	411,755	308,542
13	2010	Employee Development	STLM Labor	182,696	27,021	88,991	66,684
14	2013	FTR Administration	Alloc-Fixed	35,996	-	35,996	-
15	2014	Billing Statements - NCPD	Alloc-Fixed	376,369	-	188,184	188,184
16	2020	Billing Disputes	Total Dir Labor	19,345	4,169	10,011	5,165
17	2021	Analysis & Reporting	Total Dir Labor	414,206	89,261	214,352	110,593
18	2024	ASM Regulation	Alloc-Fixed	27,915	-	-	27,915
19	2025	ASM Locational Forward Reserve	Alloc-Fixed	107,989	-	-	107,989
20	2026	Batch Processing	Total Dir Labor	33,792	7,282	17,488	9,023
21	2032	Billing	STLM Labor	41,139	6,084	20,039	15,016
22	2033	Market Analysis	Alloc-Fixed	141,597	-	141,597	-
23		Total		2,924,226	400,239	1,335,534	1,188,453
24							
25		Market Operations Support Services					
26	3000	Hourly Settlements Support	Alloc-Fixed	264,675	-	132,338	132,338
27	3002	Monthly Settlements Support	Alloc-Fixed	145,663	72,832	-	72,832
28	3003	Market Analysis Support	Alloc-Fixed	203	-	203	-
29	3004	Generation & Load Admin Support	Alloc-Fixed	21,158	-	21,158	-
30	3006	Customer Service	Alloc-Fixed	111,282	-	111,282	-
31	3008	Admin Support	Alloc-Fixed	244,094	-	244,094	-
32	3009	Indirect Supervision (Principal Analysts only)	Alloc-Fixed	144,646	-	144,646	-
33	3010	Employee Development	Alloc-Fixed	19,327	-	19,327	-
34	3012	FERC Data Request	Alloc-Fixed	3,865	-	3,865	-
35	3015	Market Administration Support	Alloc-Fixed	814	-	814	-
36	3016	Market Monitoring Assistance	Alloc-Fixed	1,831	-	1,831	-
37	3017	Project MAS (Market Analysis & Settlements)	Alloc-Fixed	289,495	72,374	72,374	144,748
38	3018	Project MRA (Market and Resource Administration)	Alloc-Fixed	2,848	-	2,848	-
39		Total		1,249,901	145,205	754,779	349,917
40							
41		Market Services					
42	16001	Participant/membership support	Alloc-Fixed	45,493	-	22,747	22,747
43	16006	Call Support (Ask ISO)	Alloc-Fixed	1,340,787	348,605	884,919	107,263
44	16414	Direct Customer Contact	MS Labor	48,387	-	43,548	4,839
45	16419	Asset Registration Implemented	Alloc-Fixed	309,325	-	309,325	-
46	16420	Asset Registration Review	Alloc-Fixed	154,663	-	154,663	-
47	16422	Claimed Capability Audits	Alloc-Fixed	541,319	-	541,319	-
48	16425	DR Registration Implemented	Alloc-Fixed	38,666	-	38,666	-
49	16432	New Generation Coordination and Registration	Alloc-Fixed	193,328	-	193,328	-
50	16434	QMS/CAPA Process and Procedure Updates	Total Dir Labor	270,659	58,327	140,066	72,266
51		Total		2,942,627	406,932	2,328,581	207,114
52							
53		Participant Training Services					
54	16021	Training Development	Alloc-Fixed	657,651	-	328,825	328,825
55	16024	Training Delivery	Alloc-Fixed	2,697	-	1,348	1,348
56	16436	Mkt Trng/Cus Serv Indirect Supervision	Total Dir Labor	371,725	-	371,725	-
57		Total		1,032,072	-	701,898	330,174
58							
59		Planning Services					
60	14313	National Committee Support	PSR Labor	125,894	13,685	6,345	105,865
61	17101	Analysis	Alloc-Fixed	478,234	-	334,764	143,470
62	17131	Calculate Objective Capability	Alloc-Fixed	328,786	-	-	328,786
63	17231	PSR Regulatory Filings	Alloc-Fixed	29,890	-	-	29,890
64	17251	Regional Bulk Power System Assessment	Alloc-Fixed	29,890	14,945	14,945	-
65	17331	NEPOOL Committee Support	PSR Labor	59,782	6,498	3,013	50,270
66	17361	Regional Committee Support	PSR Labor	29,890	3,249	1,506	25,134
67	17401	Indirect Supervisory Activities	PSR Labor	179,340	19,494	9,039	150,807
68	17403	TCA Application Review	Alloc-Fixed	93,279	-	-	93,279
69	17405	Energy Efficiency Forecast	Alloc-Fixed	119,561	-	-	119,561
70	17408	MA - Energy Efficiency Advisory Council	Total Dir Labor	336	73	174	90
71	17409	Environmental/Emissions Supp	Total Dir Labor	29,890	-	-	29,890
72	17501	FCA - Evaluate Existing Resource De-list Bids	Alloc-Fixed	98,675	-	-	98,675
73	17502	FCA - Preliminary Review of Show of Interest Applications	Alloc-Fixed	46,644	-	-	46,644
74	17503	FCA - New Resource Qualification Support	Alloc-Fixed	851,984	-	-	851,984
75	17504	FCA - Perform Transmission / Topology Assessments	Alloc-Fixed	46,644	-	-	46,644
76	17505	FCA - Perform Existing Resource Qualification	Alloc-Fixed	46,644	-	-	46,644
77	17507	FCA - Auctions & Filings	Alloc-Fixed	1,067,625	-	-	1,067,625
78	17508	FCA - Annual Reconfiguration Auction Support/Reliability Reviews	Alloc-Fixed	69,963	-	-	69,963
79	18101	Develop Load Forecast	Alloc-Fixed	499,560	99,912	99,912	299,736
80	18121	Operations Forecast Support	Alloc-Fixed	89,669	17,934	17,934	53,801
81	18133	Solar Load Forecast Development	Alloc-Fixed	89,672	17,934	17,934	53,803
82		Total		4,411,851	193,724	505,566	3,712,561

Line No.	Activity Code		Allocation Factor (1)	Self-Funding Tariff			
	No. (a)	Description (b)		Total (2) (d)	Schedule 1 (e)	Schedule 2 (f)	Schedule 3 (g)
1		System Planning					
2	18150	Regional Transmission Expansion Plan	Alloc-Fixed	224,814	168,610	56,203	-
3	18148	NEPOOL Committee Support	Alloc-Fixed	19,397	-	19,397	-
4	18152	States Requests	Alloc-Fixed	32,878	16,439	8,220	8,220
5	18401	Regional Activities	Alloc-Fixed	32,332	32,332	-	-
6	18402	Transmission Planning/Economic Studies Initiative	Alloc-Fixed	312,559	-	156,280	156,280
7	18531	Indirect Supervision/Clerical Support	SP Labor	125,901	31,261	22,322	72,317
8	18562	Project Management	Alloc-Fixed	61,450	61,450	-	-
9		Total		809,332	310,093	262,422	236,817
10							
11		Transmission Planning					
12	14715	Non DOE Funded/Unallowable	Alloc-Fixed	114,226	-	-	114,226
13	18201	Transmission System Assessment	Alloc-Fixed	2,979,705	2,979,705	-	-
14	18301	NEPOOL Administrative Support - Schedule 1 Tariff	Alloc-Fixed	46,887	46,887	-	-
15	18333	General SIS/FS	Alloc-Fixed	978,843	978,843	-	-
16	18334	Indirect Supervision/Clerical Support	Alloc-Fixed	354,634	354,634	-	-
17	18335	Regulatory Activities - NPCC	Alloc-Fixed	248,366	248,366	-	-
18	18336	National Activities	Alloc-Fixed	233,311	233,311	-	-
19	18343	FERC Order 1000	Alloc-Fixed	52,036	-	-	52,036
20	18346	OATT and Oper. Agreement Dev., Adm. and Support	Alloc-Fixed	233,196	233,196	-	-
21	18350	States Future Planning Studies	Alloc-Fixed	92,175	92,175	-	-
22		Total		5,333,380	5,167,118	-	166,262
23							
24		Program Management					
25	801	Program Management - Administration	Total Dir Labor	632,804	136,369	327,476	168,959
26	1661	ISO Program Management	Alloc-Fixed	444,855	-	311,398	133,456
27	26051	Gov, Risk Mgt and Compl Stwr	Total Dir Labor	11,999	2,586	6,209	3,204
28		Total		1,089,657	138,955	645,084	305,619
29							
30		Advanced Technology Solutions					
31	21201	Advanced Technology Solutions	Total Dir Labor	3,251,012	700,593	1,682,398	868,020
32	21203	Employee Development	Total Dir Labor	34,709	7,480	17,962	9,267
33		Total		3,285,720	708,073	1,700,360	877,287
34							
35		Market Development & Settlements Admin.					
36	16607	National Committee Support	Total Dir Labor	71,988	15,513	37,254	19,221
37	21001	Market Development	Alloc-Fixed	1,039,234	-	519,617	519,617
38	21002	Administration	Total Dir Labor	383,983	82,748	198,711	102,523
39	21003	Employee Development	Total Dir Labor	92,599	19,955	47,920	24,724
40	21007	Budget/Forecast Support	Total Dir Labor	265,771	57,274	137,537	70,961
41	21011	Capacity Market	Alloc-Fixed	1,833,578	-	-	1,833,578
42	22402	Working Group Meetings and Support	Alloc-Fixed	30,182	-	15,091	15,091
43	22656	Energy, Reserve, and Regulation Markets	Alloc-Fixed	1,277,250	-	957,937	319,312
44	22660	Energy Security	Alloc-Fixed	841,987	-	420,994	420,994
45	22661	Project: DER Participation	Alloc-Fixed	470,478	-	235,239	235,239
46		Total		6,307,050	175,491	2,570,300	3,561,260
47							
48		NEPOOL Relations					
49	22602	NEPOOL Committee Meetings & Support	Alloc-Fixed	355,674	-	177,837	177,837
50	22607	NEPOOL Committee Administration	Total Dir Labor	962,195	207,353	497,936	256,906
51	22612	Future Grid Study and Modeling	Total Dir Labor	1,359,772	-	543,909	815,863
52		Total		2,677,641	207,353	1,219,682	1,250,606
53							
54		IT Management					
55	6517	Employee Development - Hardware/Software	Total Dir Labor	26,878	5,792	13,909	7,176
56	6519	Indirect Supervision and Clerical Support	Total Dir Labor	5,315,902	1,145,577	2,750,979	1,419,346
57	6552	Security	Total Dir Labor	459,826	99,093	237,960	122,774
58	6556	Budget Preparation, Tracking & Forecast	Total Dir Labor	100,911	21,746	52,221	26,943
59	6557	Information Technology Committee	Total Dir Labor	87,794	18,920	45,433	23,441
60	22501	Change Management Support	Alloc-Fixed	381,504	171,677	171,677	38,150
61	22505	Administrative	Alloc-Fixed	362,121	123,121	119,500	119,500
62		Total		6,734,936	1,585,925	3,391,680	1,757,330
63							
64		IT Infrastructure Support					
65	6510	Desktop Support - Hardware	Total Dir Labor	666,423	143,614	344,874	177,935
66	6511	Desktop Support - Software	Total Dir Labor	908,579	195,799	470,190	242,591
67	6512	Host Computer - Hardware	Alloc-Fixed	3,386,724	-	2,540,043	846,681
68	6513	Host Computer - Software	Alloc-Fixed	4,306,122	-	3,229,591	1,076,530
69	6514	Networking - Hardware	Total Dir Labor	1,339,360	288,632	693,119	357,609
70	6516	Communications	Total Dir Labor	2,548,799	549,266	1,319,004	680,529
71	6602	Help Desk Support	Total Dir Labor	273,862	59,017	141,723	73,121
72	6615	Host Computer Monitoring	Alloc-Fixed	1,237,463	-	618,731	618,731
73	6616	Desktop Support	Total Dir Labor	381,253	82,160	197,298	101,794
74	6617	System Administration - Unix	Total Dir Labor	751,959	162,047	389,139	200,773
75	6618	System Administration - Windows	Total Dir Labor	810,336	174,627	419,349	216,360
76	6621	Network Support	Total Dir Labor	649,211	139,905	335,967	173,339
77	6622	CIP & Systems Compliance	Total Dir Labor	1,582,650	341,061	819,022	422,568
78	6623	Asset Management	Total Dir Labor	1,103,091	237,716	570,849	294,525
79	6624	Infrastructure Review & Planning	Total Dir Labor	200,605	43,230	103,813	53,562
80	6625	Infrastructure Patch & Vulnerability Mitigation	Total Dir Labor	114,675	24,712	59,344	30,618
81		Total		20,261,110	2,441,788	12,252,056	5,567,267

Exhibit 2
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Line No.	Activity Code		Allocation Factor (1)	Self-Funding Tariff			
	No. (a)	Description (b)		Total (2) (d)	Schedule 1 (e)	Schedule 2 (f)	Schedule 3 (g)
1		<u>IT Cyber Security</u>					
2	6540	Security Compliance and Reporting	Total Dir Labor	2,528,571	544,907	1,308,536	675,128
3	6540A	Controls Assessment	Total Dir Labor	51,776	11,158	26,794	13,824
4	6540B	Virus/Malware Reporting and Response	Total Dir Labor	1,035,482	223,146	535,862	276,474
5	6540D	Intrusion Monitoring and Response	Total Dir Labor	339,284	73,116	175,579	90,589
6	6540E	System Compliance Enhancement	Total Dir Labor	63,565	13,698	32,895	16,972
7	6541	Security SW Tools Program	Total Dir Labor	127,318	27,437	65,887	33,994
8	6543	Critical Infrastructure Protection WG (NERC)	Total Dir Labor	27,511	5,929	14,237	7,345
9	6546	IT Audit Support	Total Dir Labor	253,835	54,701	131,360	67,774
10	6548	CIP Compliance & Monitoring	Total Dir Labor	274,499	59,155	142,053	73,291
11		Total		4,701,841	1,013,247	2,433,203	1,255,391
12							
13		<u>IT Database & Analytics</u>					
14	6571	DBA Support - MOPS	Total Dir Labor	2,457,123	529,510	1,271,561	656,052
15	6581	IT Bridge Support	Total Dir Labor	46,225	9,962	23,921	12,342
16	6591	Data Architect - MOPS	Total Dir Labor	387,900	83,592	200,738	103,569
17	6594	IT Data Analyst	Total Dir Labor	511,918	110,318	264,918	136,682
18	6595	IT WEB Application Support	Total Dir Labor	601,191	129,557	311,116	160,518
19	6596	IT Data Governance	Total Dir Labor	386,008	83,185	199,759	103,064
20	21706	Enterprise Software Support	Total Dir Labor	1,187,269	255,856	614,412	317,001
21	21801	Software Support - Settlements	Alloc-Fixed	601,194	-	480,955	120,239
22	21802	Software Support - Publishing	Alloc-Fixed	59,274	-	47,419	11,855
23	21803	Software Support - Finance	Alloc-Fixed	450,282	-	360,225	90,056
24	21804	Software Support - Mitigation	Alloc-Fixed	1,040,423	-	832,338	208,085
25	21805	Software Support - TSO	Total Dir Labor	547,866	118,065	283,521	146,280
26	21806	Software Support - Enterprise	Total Dir Labor	417,193	89,905	215,898	111,391
27	21807	Software Support - Planning	Alloc-Fixed	414,663	-	331,731	82,933
28	21808	Training Delivery to NON-IT	Alloc-Fixed	256,173	-	204,939	51,235
29	21809	IT Markets Software Maintenance	Alloc-Fixed	30,817	-	24,653	6,163
30	21811	Single Sign On Support	Alloc-Fixed	106,092	-	84,874	21,218
31	21812	GADS Support	Alloc-Fixed	119,549	-	95,639	23,910
32	21816	CMS Support	Total Dir Labor	167,368	36,068	86,613	44,687
33	21818	Discoverer Support	Total Dir Labor	98,595	21,247	51,023	26,325
34	21819	Ceridian Support	Total Dir Labor	70,728	15,242	36,602	18,884
35	21820	Service Desk Support	Total Dir Labor	47,820	10,305	24,747	12,768
36	21824	FCTS Support	Alloc-Fixed	836,842	-	-	836,842
37	21825	eTariff Support	Alloc-Fixed	47,820	-	38,256	9,564
38	21830	Annual Software Maintenance for Enterprise Wide Software	Total Dir Labor	186,152	40,116	96,334	49,703
39		Total		11,076,485	1,532,928	6,182,191	3,361,365
40							
41		<u>IT Energy Management Systems</u>					
42	21600	Indirect Supervision and Administration	Total Dir Labor	220,258	47,466	113,983	58,809
43	21602	Applications Support	Total Dir Labor	113,638	24,489	58,808	30,341
44	21603	EMS Power System Applications Support	Total Dir Labor	659,381	142,097	341,230	176,055
45	21604	Dispatcher Training Simulatory Support	Alloc-Fixed	2,054,656	1,643,725	410,931	-
46	21605	DAM FTR/ARR Support	Alloc-Fixed	1,760,276	352,055	1,056,166	352,055
47	21606	Real-time Market Support	Alloc-Fixed	2,732,144	546,429	1,639,286	546,429
48	21607	Forecast Support	Alloc-Fixed	323,912	64,782	194,347	64,782
49		Total		7,864,266	2,821,043	3,814,752	1,228,472
50							
51		<u>IT Enterprise Applications Development</u>					
52	6518	Employee Development - Software	Total Dir Labor	32,139	6,926	16,632	8,581
53	21701	IT Settlement Application Support	Alloc-Fixed	12,856	-	10,285	2,571
54	21707	Application Analysis and Conceptual Design	Alloc-Fixed	187,424	-	149,939	37,485
55	21708	Application Design Evaluation and Selection	Alloc-Fixed	656,782	-	525,426	131,356
56	21709	Technology Evaluation and Selection	Alloc-Fixed	719,927	-	575,942	143,985
57	21710	Indirect Supervision and Administration	Alloc-Fixed	748,700	-	598,960	149,740
58	21711	EWR and CAPA Analysis	Alloc-Fixed	142,210	-	113,768	28,442
59		Total		2,500,039	6,926	1,990,952	502,161
60							
61		<u>IT Power System Modeling Management</u>					
62	21650	Indirect Supervision and Administration	Total Dir Labor	146,268	31,521	75,694	39,053
63	21651	Power System Modeling	Alloc-Fixed	1,265,192	506,077	506,077	253,038
64	21652	System Application Support	Alloc-Fixed	259,998	103,999	103,999	52,000
65	21654	NX9 Administration	Alloc-Fixed	495,251	198,100	198,100	99,050
66	21655	ICCP Support	Alloc-Fixed	1,119,415	447,766	447,766	223,883
67	21656	Transmission Project Management	Alloc-Fixed	14,450	11,560	2,890	-
68	21657	Model On Demand Admin	Alloc-Fixed	931,887	-	-	931,887
69	21658	Model on Demand Case Requests	Alloc-Fixed	61,387	-	-	61,387
70	21659	Synchrophasor Applications	Alloc-Fixed	86,688	13,003	13,003	60,682
71	21661	MAS Software Dev and Support	Alloc-Fixed	11,021	-	-	11,021
72		Total		4,391,556	1,312,026	1,347,529	1,732,001
73							
74							
75		Total ISO		\$ 215,070,683	\$ 45,082,953	\$ 105,115,206	\$ 64,872,524

Exhibit 3

Draft 2022 Rate Components (1)

Tariff Schedule	Jan. 1, 2022
(a)	(b)
Schedule 1	
Network Load (per kW-hour)	\$0.00026
Schedule 2	
TU Bids (Virtual Inc/Dec)	
Submitted	\$0.00500
Cleared	\$0.06000
FTR Bids	
Submitted	\$2.13776
Cleared	\$3.87993
TU's	
Block 1 - 1st 12,500	\$0.70614
Block 2 - Next 27,000	\$0.64195
Block 3 - Over 39,500	\$0.57775
Volumetric	
Block 1 - 1st 250,000	\$0.39639
Block 2 - Next 1,250,000	\$0.36035
Block 3 - Over 1,500,000	\$0.32432
Schedule 3	
R-T NCP Load Obligation	\$0.24962
Export Rate	\$0.53000

(1) From Exh 3, RCL-7, Sch 3.

New England States Committee on Electricity

2022 Budget Presentation

NEPOOL Budget & Finance Subcommittee

August 9, 2021

REVISED October 2021 PC

Change only to p. 12 to reflect actual network load

The logo for NESCE (New England States Committee on Electricity) is displayed in a white circle. The text "NESCE" is written in a bold, yellow, sans-serif font with a slight shadow effect.

Background: Budget Review

Term Sheet Provision: “... the annual review of its [NESCOE’s] proposed budgets by at least the NEPOOL Participants Committee will be limited to considerations of accounting and reconciliation, so long as spending remains within the boundaries established by those frameworks..... NESCOE will develop an operating budget recommendation for each year in consultation with NEPOOL, the PTO Administrative Committee and ISO-NE within the boundaries of the then-approved five year budget framework ...”

- ⑩ Proposed 2022 budget conforms to:
 - ⑩ Boundaries of previously reviewed 5-year pro forma (2018 - 2022) supported by NEPOOL in June 2017 & accepted by FERC in August 2017
 - ⑩ NESCOE commitment not to seek an increase over pro forma budget of more than 10% in any 1 year: 2022 proposed budget is less than 2022 5-year pro forma budget
- ⑩ Following calendar year 2020, independent auditor concluded NESCOE books conform to generally accepted accounting principles

Background: Policy Priorities

Term Sheet Provision Governing Identification of Policy Priorities:

“Each year NESCOE will produce a ***Report to the New England Governors*** that will document its accomplishments from the preceding year and its projected policy priorities for the coming two years. This report will include a full accounting of spending by NESCOE during the preceding year and proposed budgets for each of the upcoming two years.”

Consistent with Term Sheet, 2020 *Report to the New England Governors*:

- ✓ Reviewed work in 2020
- ✓ Projected policy priorities
- ✓ Provided spending from prior year
- ✓ Projected budget information for upcoming two years

Projected Policy Priorities

- ✓ NESCOE provided to the Governors the **2020 Annual Report to New England Governors**
- ✓ Report simultaneously released to NEPOOL & ISO-NE & circulated to the Participants Committee
- ✓ NESCOE identified forward looking policy priorities at Section V, pages 17

Report in “Resource Center”

www.nescoe.com



Projected Policy Priorities, update

- ✓ Support state officials in furthering the recommendations identified in the “*Advancing the Vision*” Report to the New England Governors in April 2021.
- ✓ Participate actively in ISO-NE’s project to remove the Minimum Price Offer Rule from the capacity market design and advocate for consumer cost implications to be chief in the assessment of any associated proposal.
- ✓ Actively engage in FERC’s Advance Notice of Proposed Rulemaking on “*Building for the Future Through Electric Regional Transmission Planning and Cost Allocation and Generator Interconnection*”.
- ✓ Participate in ISO-NE’s effort to quantify risks to reliable system operation and to assess potential operational implications of low probability/high impact extreme weather events and to identify a cost-effective approach to any mitigation that may be appropriate.

NESCOE Organization & Misc.

Employees

- ⑩ Diversity in academic training, skills; blend of private & public sector experience
- ⑩ Return to employee level of 5 on September 1, 2021 with addition of Sheila Keane to NESCOE staff as Director of Analysis

Office Space

- ⑩ 4 Bellows Road, Westborough, MA
 - ⑩ Current lease through November 30, 2021; anticipate renewal
 - ⑩ Provides small group meeting space needs
- ⑩ Terminated lease of small room in Portsmouth, New Hampshire

Other Organization Matters

Technical Consultants

Technical consultants assist NESCOE in the regular course of business in analyzing ISO-NE studies and data.

Continue work with technical consultants to conduct independent analysis to inform state officials' decisions on key issues, including, for example:

- ✓ Exeter Associates, Inc.
- ✓ Wilson Energy Economics
- ✓ PeterGFlynn, LLC
- ✓ NewGen
- ✓ Bob Laurita
- ✓ Supplement with other expertise, as needed

Legal Counsel

Litigation is not the primary means by which NESCOE seeks to accomplish its objectives & thus, greater resource and focus has historically, and thus far in 2021, been on technical consulting. Further, while NESCOE produces most legal pleadings and analysis internally, the frequency and type of litigation brought by others influences the extent to which NESCOE engages outside counsel.

- ✓ FERC Counsel: Phyllis G. Kimmel Law Office PLLC

5-Year Pro Forma

Proposed 2022 budget conforms to 2022 budget in 5-year Pro Forma Framework

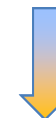
- ✓ 2022 Projected Budget in 5-Year Pro Forma: \$2,617,642
 - ✓ 2022 Proposed Budget: \$2,485,156
 - ✓ 2021 Budget, for reference: \$2,428,300
-

In relation to 2022 5-year Pro Forma, 2022 Proposed Budget reflects:

- ✓ Continued rebalance of technical consulting and legal spending in light of range of proceedings, some of which remain pending
- ✓ Reductions in assumed travel anticipating some continued reliance on remote meeting
- ✓ Reduction in rent (eliminate room in New Hampshire)

5-Year Pro Forma, for reference

NESCOE
PRO FORMA BUDGET 2018-2022*



Expense Category	Year 11 (2018)	Year 12 (2019)	Year 13 (2020)	Year 14 (2021)	Year 15 (2022)
Salaries and Wages					
Salaries	983,020	1,012,510	1,042,886	1,074,172	1,106,397
Payroll Taxes	98,302	101,251	104,289	107,417	110,640
Health and Other Benefits	84,975	87,524	90,150	92,854	95,640
Retirement §401(k)	39,321	40,501	41,716	42,967	44,256
Total, Salaries and Wages	1,205,618	1,241,787	1,279,040	1,317,411	1,356,934
Direct Expenses - Consulting					
Technical Analysis	517,734	533,266	549,264	565,742	582,714
Legal (FERC)	140,689	144,909	149,257	153,734	158,346
Total, Direct Expenses, Consulting	658,422	678,175	698,520	719,476	741,060
General and Administrative					
Rent	26,523	27,318	28,138	28,982	29,851
Utilities	5,305	5,464	5,628	5,796	5,970
Office and Administrative Expenses	43,497	44,802	46,146	47,530	48,956
Professional Services	78,126	80,469	82,883	85,370	87,931
Travel/Lodging/Meetings	91,155	93,890	96,706	99,608	102,596
Total General and Administrative	244,604	251,943	259,501	267,286	275,304
Capital Expenditures & Contingencies					
Computer Equipment	5,665	5,835	6,010	6,190	6,376
Contingencies	211,431	217,774	224,307	231,037	237,968
Capital Expenditures & Contingencies	217,096	223,609	230,317	237,227	244,344
TOTAL EXPENSES**	2,325,741	2,395,513	2,467,379	2,541,400	2,617,642

*Based on projected 3% annual adjustment. Line items and categories subject to increase greater than, or decreases from, amounts projected.

Any such changes will be subject to review, input, and recommendations by the NEPOOL Participants Committee (and/or its designees).

**At no time during this 5-year period will NESCOE seek a budget increase of more than 10% in any 1 year or more than 30% on a cumulative basis.

**2022
 Proposed Budget**

**NESCOE Pro Forma Budget
 Proposed 2022**

	2022
Salaries and Wages	
Salaries	1,106,398
Payroll Taxes	110,640
Health and Other Benefits	92,855
Retirement §401(k)	<u>44,256</u>
Total, Salaries and Wages	<u>1,354,149</u>
Direct Expenses - Consulting	
Technical Analysis	362,070
Legal (FERC)	<u>362,071</u>
Total, Direct Expenses, Consulting	<u>724,141</u>
General and Administrative	
Rent	24,000
Utilities	5,971
Office and Administrative Expenses	47,530
Professional Services	40,000
Travel/Lodging/Meetings	<u>55,000</u>
Total General and Administrative	<u>172,501</u>
Capital Expend. & Contingencies	
Computer Equipment	8,442
Contingencies	<u>225,923</u>
Capital Expend. & Contingencies	<u>234,365</u>
TOTAL EXPENSES	<u><u>2,485,156</u></u>
BUDGET	2,617,642

2020 & 2021 Spending & Implications for 2022

Unspent funds in any year credited toward future year

2020 Total Spending: \$1,565,585*

2021 Spending to end of June: \$741,049

2021 Projected Year End: \$1,642,659*

* Cumulative prior years' true up, including 2019, was reflected in the 2021 revenue requirement and rates. The 2020 true up will be reflected in the 2022 revenue requirement and rates (see next slide). Any 2021 true up will be reflected in the 2023 revenue requirements and rates.

2022 Projected Billing Rate

With thanks to ISO-NE for calculations

**August estimate in ~~strikethrough~~
October PC final in red**

2022 Budget: \$2,485,156

Less 2020 True Up: (\$781,042)

Total Revenue Recovery: \$1,704,114

Divided by Total Network Load: ~~217,262,589~~ **231,453,876**

(total network load from 2021 ISO-NE tariff; no escalation or reduction used in calculation)

2022 Schedule 5 ~~Estimated~~ Rate ~~\$0.00784~~ **.00736 per kW-month**

Thank you.

Questions?

The logo for NESCOE, featuring the word "NESCOE" in a bold, orange, sans-serif font. The letter "O" is replaced by a stylized lightning bolt icon. The logo is centered within a white circle that is partially overlaid by a blue vertical bar on the right side of the slide.

NESCOE

MEMORANDUM

TO: NEPOOL Participants Committee Members and Alternates

FROM: Paul Belval, NEPOOL Counsel

DATE: September 30, 2021

RE: Changes to ISO-NE Financial Assurance Policy – Removal of Notarization Requirement

At its October 7, 2021 meeting, the Participants Committee will be asked to consider removing the notarization requirement for certain documents to be provided under the ISO New England Financial Assurance Policy (“FAP”). The proposed changes are included in Attachment 1 to this memorandum, and this memorandum summarizes those changes.

Currently, the FAP requires that the following initial and annual certifications by Market Participants and applicants (as applicable) be notarized:

- *Attachment 3* – Minimum Criteria for Market Participation Officer Certification
- *Attachment 4* – Additional Eligibility Requirements Certification
- *Attachment 5* – Certificate Regarding Changes to Submitted Risk Management Policies for FTR Participation

Soon after the start of the COVID pandemic, the FERC issued a temporary order waiving the notarization requirements in FERC tariffs (currently extended through January 1, 2022), so the ISO has not been enforcing those requirements. The ISO now proposes to replace the notarization requirements on those forms with an acknowledgement stating that the signing officer has reviewed the applicable FAP provisions and that the information provided is true, complete and correct. The changes would become effective on January 1, 2022, ensuring that there will be no interim period before the effective date when notarization would be required under the FAP.

The ISO discussed the proposed changes to the FAP with the NEPOOL Budget and Finance Subcommittee (the “Subcommittee”) at its August 26 teleconference. During that discussion, the ISO pointed out that notarization only confirms the identity of the signatory and does not address the truthfulness of the statements in the document, meaning that notarization does not hold material value in this context because only the content of the document is used to evaluate credit risk. The ISO also noted that other RTOs do not require notarization on their analogous forms and that eliminating the notarization requirement will result in both cost and time savings for participants and applicants. No one attending the Subcommittee teleconference objected to the FAP changes.

The following form of resolution may be used for Participants Committee action on the FAP changes:

RESOLVED, that the Participants Committee supports the elimination of the notarization requirements under the ISO New England Financial Assurance Policy, as proposed by the ISO and as circulated to this Committee with the September 30, 2021 supplemental notice, together with [any changes agreed to by the Participants Committee at this meeting and] such non-substantive changes as may be approved by the Chair of the Budget and Finance Subcommittee.

EXHIBIT IA

ISO NEW ENGLAND FINANCIAL ASSURANCE POLICY

Table of Contents

Overview

- I. GROUPS REGARDED AS SINGLE MARKET PARTICIPANTS
- II. MARKET PARTICIPANTS' REVIEW AND CREDIT LIMITS
 - A. Minimum Criteria for Market Participation
 - 1. Information Disclosure
 - 2. Risk Management
 - 3. Communications
 - 4. Capitalization
 - 5. Additional Eligibility Requirements
 - 6. Prior Uncured Defaults
 - B. Proof of Financial Viability for Applicants
 - C. Ongoing Review and Credit Ratings
 - 1. Rated and Credit Qualifying Market Participants
 - 2. Unrated Market Participants
 - 3. Information Reporting Requirements for Market Participants
 - D. Market Credit Limits
 - 1. Market Credit Limit for Non-Municipal Market Participants
 - a. Market Credit Limit for Rated Non-Municipal Market Participants
 - b. Market Credit Limit for Unrated Non-Municipal Market Participants
 - 2. Market Credit Limit for Municipal Market Participants
 - E. Transmission Credit Limits
 - 1. Transmission Credit Limit for Rated Non-Municipal Market Participants
 - 2. Transmission Credit Limit for Unrated Non-Municipal Market Participants
 - 3. Transmission Credit Limit for Municipal Market Participants
 - F. Credit Limits for FTR-Only Customers
 - G. Total Credit Limit
- III. MARKET PARTICIPANTS' REQUIREMENTS

the RNA, be deemed to refer to the group of members as a whole, and any financial assurance provided under the ISO New England Financial Assurance Policy will be credited to the account of the group member with the customer identification at the ISO.

II. MARKET PARTICIPANTS' REVIEW AND CREDIT LIMITS

Solely for purposes of the ISO New England Financial Assurance Policy: a "Municipal Market Participant" is any Market Participant that is either (a) a Publicly Owned Entity except for an electric cooperative or an organization including one or more electric cooperatives as used in Section 1 of the RNA or (b) a municipality, an agency thereof, a body politic or a public corporation (i) that is created under the authority of any state or province that is adjacent to one of the New England states, (ii) that is authorized to own, lease and operate electric generation, transmission or distribution facilities and (iii) that has been approved for treatment as a Municipal Market Participant by the ISO after consultation with the NEPOOL Budget and Finance Subcommittee. Market Participants that are not Municipal Market Participants are referred to as "Non-Municipal Market Participants."

A. Minimum Criteria for Market Participation

Any entity participating or seeking to participate in the New England Markets shall comply with the requirements of this Section II.A. For purposes of this Section II.A, the term "customer" shall refer to both Market Participants and Non-Market Participant Transmission Customers and the word "applicant" shall refer to both applicants for Market Participant status and applicants for transmission service from the ISO.

1. Information Disclosure

- (a) Each customer and applicant, on an annual basis (by April 30 each year) shall submit a completed information form in the form of (with only minor, non-material changes) and with the information required by Attachment 6 to the ISO New England Financial Assurance Policy. Customer or applicant shall not be required to disclose information required by Attachment 6 if such disclosure is prohibited by law; provided, however, if the disclosure of any information required by Attachment 6 is prohibited by law, then customer or applicant shall use reasonable efforts to obtain permission to make such disclosure. This information shall be treated as Confidential Information, but its disclosure pursuant to subsection (b) below is expressly permitted in accordance with the

a customer) of participation in the New England Markets, then the ISO shall be required to make an informational filing with the Commission as soon as reasonably practicable after taking such action. If the ISO chooses to prohibit (in the case of an applicant) or terminate (in the case of a customer) participation in the New England Markets, then the ISO must file for Commission approval of such action, and the prohibition or termination shall become effective only upon final Commission ruling. No action by the ISO pursuant to this subsection (b) shall limit in any way the ISO's rights or authority under any other provisions of the ISO New England Financial Assurance Policy or the ISO New England Billing Policy.

2. Risk Management

- (a) Each customer and applicant shall submit, on an annual basis (by April 30 each year), a certificate in the form of Attachment 3 to the ISO New England Financial Assurance Policy stating that the customer or applicant has: (i) either established or contracted for risk management procedures that are applicable to participation in the New England Markets; and (ii) has established or contracted for appropriate training of relevant personnel that is applicable to its participation in the New England Markets. The certificate must be signed on behalf of the customer or applicant by a Senior Officer of the customer or applicant ~~and must be notarized~~. An applicant that fails to provide this certificate will be prohibited from participating in the New England Markets until the deficiency is rectified. If a customer fails to provide this certificate by end of business on April 30, then the ISO shall issue a notice of such failure to the customer on the next Business Day and, if the customer does not provide the certificate to the ISO within 5 Business Days after issuance of such notice, then the customer will be suspended as described in Section III.B.3 of the ISO New England Financial Assurance Policy until the deficiency is rectified.
- (b) Each applicant prior to commencing activity in the FTR market shall submit to the ISO or its designee the written risk management policies, procedures, and controls, including, if requested by the ISO in its sole discretion, supporting documentation (which may include an organizational chart (or portion thereof) or equivalent information) that demonstrates the segregation of duties within such risk policies, procedures, and controls of the such

deficiencies within 55 days after issuance of such notice. (If April 30 falls within that 55 day window, the ISO may choose not to require a separate submission on April 30 as described in subsection (b) above.) If an applicant's revised written policies, procedures, and controls do not adequately address the deficiencies identified in the notice, then the applicant will be prohibited from participating in the New England Markets. If a customer's revised written policies, procedures, and controls do not adequately address the deficiencies identified in the notice, then the customer will be suspended (as described in Section III.B of the ISO New England Financial Assurance Policy).

3. Communications

Each customer and applicant shall submit, on an annual basis (by April 30 each year), a certificate in the form of Attachment 3 to the ISO New England Financial Assurance Policy stating that the customer or applicant has either established or contracted to establish procedures to effectively communicate with and respond to the ISO with respect to matters relating to the ISO New England Financial Assurance Policy and the ISO New England Billing Policy. Such procedures must ensure, at a minimum, that at least one person with the ability and authority to address matters related to the ISO New England Financial Assurance Policy and the ISO New England Billing Policy on behalf of the customer or applicant, including the ability and authority to respond to requests for information and to arrange for additional financial assurance as necessary, is available from 9:00 a.m. to 5:00 p.m. Eastern Time on Business Days. Such procedures must also ensure that the ISO is kept informed about the current contact information (including phone numbers and e-mail addresses) for the person or people described above. The certificate must be signed on behalf of the customer or applicant by a Senior Officer of the customer or applicant ~~and must be notarized~~. An applicant that fails to provide this certificate will be prohibited from participating in the New England Markets until the deficiency is rectified. If a customer fails to provide this certificate by end of business on April 30, then the ISO shall issue a notice of such failure to the customer on the next Business Day and, if the customer does not provide the certificate to the ISO within 5 Business Days after issuance of such notice, then the customer will be suspended as described in Section III.B.3 of the ISO New England Financial Assurance Policy until the deficiency is rectified.

- (i) Where a customer or applicant fails to meet the capitalization requirements, the customer or applicant will be required to provide an additional amount of financial assurance in one of the forms described in Section X of the ISO New England Financial Assurance Policy in an amount equal to 25 percent of the customer's or applicant's total financial assurance requirement (excluding FTR Financial Assurance Requirements).
- (ii) An applicant that fails to provide the full amount of additional financial assurance required as described in subsection (i) above will be prohibited from participating in the New England Markets until the deficiency is rectified. For a customer, failure to provide the full amount of additional financial assurance required as described in subsection (i) above will have the same effect and will trigger the same consequences as exceeding the "100 Percent Test" as described in Section III.B.2.c of the ISO New England Financial Assurance Policy.
- (iii) Any additional financial assurance provided pursuant to this Section II.A.4(c) shall not be counted toward satisfaction of the total financial assurance requirements as calculated pursuant to the ISO New England Financial Assurance Policy.

5. Additional Eligibility Requirements

All customers and applicants shall at all times be:

- (a) An "appropriate person," as defined in sections 4(c)(3)(A) through (J) of the Commodity Exchange Act (7 U.S.C. § 1 *et seq.*);
- (b) An "eligible contract participant," as defined in section 1a(18)(A) of the Commodity Exchange Act and in 17 CFR § 1.3(m); or
- (c) A "person who actively participates in the generation, transmission, or distribution of electric energy," as defined in the Final Order of the Commodity Futures Trading Commission published at 78 FR 19880 (April 2, 2013).

Each customer must demonstrate compliance with the requirements of this Section II.A.5 by submitting to the ISO on or before September 15, 2013 a certificate in the form of Attachment 4 to the ISO New England Financial Assurance Policy that (i) certifies that

the customer is now and in good faith will seek to remain in compliance with the requirements of this Section II.A.5 and (ii) further certifies that if it no longer satisfies these requirements it shall immediately notify the ISO in writing and shall immediately cease all participation in the New England Markets. If the customer is relying on section 4(c)(3)(F) of the Commodity Exchange Act, it shall accompany the certification with supporting documentation reasonably acceptable to the ISO, provided that letters of credit shall be in the form of Attachment 2 to the ISO New England Financial Assurance Policy and shall be in an amount equal to the difference between five million dollars and the customer's total assets. Any such supporting documentation shall serve to establish eligibility under this Section II.A.5 and shall not be counted toward satisfaction of the total financial assurance requirements as calculated pursuant to the ISO New England Financial Assurance Policy. The certificate must be signed on behalf of the customer by a Senior Officer of the customer ~~and must be notarized~~. A customer that fails to provide this certificate by September 15, 2013 shall be immediately suspended and the ISO shall initiate termination proceedings against the customer.

Each applicant must submit with its membership application a certificate in the form of Attachment 4 to the ISO New England Financial Assurance Policy that (i) certifies that the applicant is now and in good faith will seek to remain in compliance with the requirements of this Section II.A.5 and (ii) further certifies that if it no longer satisfies these requirements it shall immediately notify the ISO in writing and shall immediately cease all participation in the New England Markets. If the applicant is relying on section 4(c)(3)(F) of the Commodity Exchange Act, it shall accompany the certification with supporting documentation reasonably acceptable to the ISO, provided that letters of credit shall be in the form of Attachment 2 to the ISO New England Financial Assurance Policy and shall be in an amount equal to the difference between five million dollars and the applicant's total assets. Any such supporting documentation shall serve to establish eligibility under this Section II.A.5 and shall not be counted toward satisfaction of the total financial assurance requirements as calculated pursuant to the ISO New England Financial Assurance Policy. The certificate must be signed on behalf of the applicant by a Senior Officer of the applicant ~~and must be notarized~~.

The ISO, at its sole discretion, may require any applicant or customer to submit to the ISO documentation in support of the certification provided pursuant to this Section

ATTACHMENT 3

ISO NEW ENGLAND MINIMUM CRITERIA FOR MARKET PARTICIPATION OFFICER
CERTIFICATION FORM

Certifying Entity:	
---------------------------	--

I, _____, a duly authorized Senior Officer of _____ (“Certifying Entity”), understanding that ISO New England Inc. is relying on this certification as evidence that Certifying Entity meets the minimum criteria for market participation requirements set forth in Sections II.A.2 and II.A.3 of the ISO New England Financial Assurance Policy (Exhibit IA to Section I of the ISO New England Transmission, Markets and Services Tariff) (the “Policy”), hereby certify that I have full authority to bind Certifying Entity and further certify as follows:

1. Certifying Entity has established or contracted for written policies, procedures, and controls applicable to participation in the New England Markets, approved by Certifying Entity’s independent risk management function¹, which provide an appropriate, comprehensive risk management framework that, at a minimum, clearly identifies and documents the range of risks to which Certifying Entity is exposed, including, but not limited to, credit risk, liquidity risk, concentration risk, default risk, operation risk, and market risk.
2. Certifying Entity has established or contracted for appropriate training of relevant personnel that is applicable to its participation in the New England Markets.
3. Certifying Entity has appropriate operating procedures and technical abilities to promptly and effectively respond to all ISO New England communications and directions.

I acknowledge that I have read and understand the provisions of the Policy, including those provisions describing ISO New England’s minimum criteria for market participation requirements and the remedies available to ISO New England in the event of a customer or applicant not satisfying those requirements. I acknowledge that the information provided herein true, complete, and correct and is not misleading or incomplete for any reason, including by reason of omission.

Date: _____ (Signature)

Print Name: _____
Title: _____

¹ As used in this certification, a Certifying Entity’s “risk management function” can include appropriate corporate persons or bodies that are independent of the Certifying Entity’s trading functions, such as a risk management committee, a risk officer, a Certifying Entity’s board or board committee, or a board or committee of the Certifying Entity’s parent company.

Subscribed and sworn before me _____, a notary public of the State of _____, in and for the County of _____, this _____ day of _____, 20_____.

(Notary Public Signature)

My commission expires: _____ / _____ / _____

ATTACHMENT 4

ISO NEW ENGLAND ADDITIONAL ELIGIBILITY REQUIREMENTS
CERTIFICATION FORM

Certifying Entity:	
---------------------------	--

I, _____, a duly authorized Senior Officer of _____ (“Certifying Entity”), understanding that ISO New England Inc. is relying on this certification as evidence that Certifying Entity meets the additional eligibility requirements set forth in Section II.A.5 of the ISO New England Financial Assurance Policy (Exhibit IA to Section I of the ISO New England Inc. Transmission, Markets and Services Tariff) (the “Policy”), hereby certify that I have full authority to bind Certifying Entity and further certify as follows:

1. Certifying Entity is now and in good faith will seek to remain (check applicable box(es)):
 - an “appropriate person,” as defined in section(s) [_____] of the Commodity Exchange Act (7 U.S.C. § 1 *et seq.*) (specify which section(s) of Commodity Exchange Act sections 4(c)(3)(A) through (J) apply) (if Certifying Entity is relying on section 4(c)(3)(F), it shall accompany this certification with supporting documentation reasonably acceptable to the ISO, provided that letters of credit shall be in the form of Attachment 2 to the ISO New England Financial Assurance Policy and shall be in an amount equal to the difference between five million dollars and the Certifying Entity’s total assets. Any such supporting documentation shall serve to establish eligibility under this Section II.A.5 and shall not be counted toward satisfaction of the total financial assurance requirements as calculated pursuant to the ISO New England Financial Assurance Policy);
 - an “eligible contract participant,” as defined in section 1a(18)(A) of the Commodity Exchange Act and in 17 CFR § 1.3(m); or
 - a “person who actively participates in the generation, transmission, or distribution of electric energy,” as defined in the Final Order of the Commodity Futures Trading Commission published at 78 FR 19880 (April 2, 2013).
2. If at any time Certifying Entity no longer satisfies the criteria in paragraph 1 above, Certifying Entity will immediately notify ISO New England in writing and will immediately cease all participation in the New England Markets.

I acknowledge that I have read and understand the provisions of the Policy, including those provisions describing ISO New England’s additional eligibility requirements and the remedies available to ISO New England in the event of a customer or applicant not satisfying those requirements. I acknowledge that the information provided herein true, complete, and correct and is not misleading or incomplete for any reason, including by reason of omission.

(Signature)

Print Name: _____

Title: _____

Date: _____

Subscribed and sworn before me _____, a notary public of the State of _____, in and for the County of _____, this _____ day of _____, 20_____.

(Notary Public Signature)

My commission expires: _____ / _____ / _____

ATTACHMENT 5

ISO NEW ENGLAND CERTIFICATE REGARDING CHANGES TO SUBMITTED RISK
MANAGEMENT POLICIES FOR FTR PARTICIPATION

Certifying Entity:	
---------------------------	--

I, _____, a duly authorized Senior Officer of _____ (“Certifying Entity”), understanding that ISO New England Inc. is relying on this certification as evidence that Certifying Entity meets the annual certification requirement for FTR market participation regarding its risk management policies, procedures, and controls set forth in Section II.A.2(b) of the ISO New England Financial Assurance Policy (Exhibit IA to Section I of the ISO New England Inc. Transmission, Markets and Services Tariff) (the “Policy”), hereby certify that I have full authority to bind Certifying Entity and further certify as follows (check applicable box):

- 1. There have been no changes to the previously submitted written risk management policies, procedures, and controls (and any supporting documentation, if applicable) applicable to the Certifying Entity’s participation in the FTR market.

OR

- 2. There have been changes to the previously submitted written risk management policies, procedures, and controls (and any supporting documentation, if applicable) applicable to the Certifying Entity’s participation in the FTR market and such changes are clearly identified and attached hereto.*

I acknowledge that I have read and understand the provisions of the Policy, including those provisions describing ISO New England’s risk management policy requirements for FTR market participants and the remedies available to ISO New England in the event of a customer or applicant not satisfying those requirements. I acknowledge that the information provided herein true, complete, and correct and is not misleading or incomplete for any reason, including by reason of omission.

(Signature)

Print Name: _____

Title: _____

Date: _____

Subscribed and sworn before me _____, a notary public of the State of _____, in and for the County of _____, this _____

day of _____, 20_____.

(Notary Public Signature)

My commission expires: _____ / _____ / _____

* As used in this certificate, “clearly identified” changes may include a redline comparing the current written risk management policies, procedures, and controls and the previously submitted written risk management policies, procedures, and controls; or resubmission of the written risk management policies, procedures, and controls with a bulleted list of all changes, including section and/or page numbers.

MEMORANDUM

TO: NEPOOL Participants Committee
FROM: Eric Runge, NEPOOL Counsel
DATE: September 29, 2021
RE: OATT Attachment K Revisions for Resource Assumptions

At the October 7, 2021 meeting of the Participants Committee you will be asked to vote on revisions to Section II, Attachment K, of the ISO-NE Tariff regarding certain resource assumptions used in planning (“Resource Assumption Revisions”). ISO-NE has proposed the Resource Assumption Revisions to allow ISO-NE to expand the resources that can be relied on to address system concerns to include all existing resources, and to provide clarification on the current language. The proposed Resource Assumption Revisions are further described in the materials from ISO-NE included with this cover memo.

The Transmission Committee considered the Resource Assumption Revisions over the course of three meetings. At its September 28 meeting the Transmission Committee unanimously recommended Participants Committee support for the proposal. This item would have been on the Consent Agenda but for the timing of the meetings.

The following resolution can be used for Participants Committee action:

Resolved, that the Participants Committee supports the Resource Assumption Revisions as recommended by the Transmission Committee and as distributed to the Participants Committee for its October 7, 2021 meeting, together with [any changes agreed to at the meeting, and]any non-substantive changes agreed to be by the Chair and Vice-Chair of the Transmission Committee after the meeting.



memo

To: NEPOOL Transmission Committee

From: Brent Oberlin, Director, Transmission Planning

Date: September 22, 2021

Subject: Attachment K Revisions: Resource Assumptions

The ISO is requesting a vote on the Attachment K Revisions: Resource Assumptions proposal. This proposal will allow the ISO to expand the resources that can be relied on to address system concerns, and to provide clarification on the current language. Many resources are being operated independently of any obligation to do so, yet Attachment K doesn't allow the ISO to utilize these generators in the Needs Assessment studies or Public Policy and Transmission Studies. This proposal remedies that, and will help ensure that system needs identified in subsequent solutions development recognize existing resources and do not inadvertently overbuild in the absence of that recognition.

The specific proposal for the committee's consideration at its September 28th meeting has been presented in the meeting dates outlined below.

- July 14, 2021, agenda item #5 <https://www.iso-ne.com/event-details?eventId=144201>
- August 24, 2021, agenda item #4 <https://www.iso-ne.com/event-details?eventId=144086>
- September 28, agenda item #4 <https://www.iso-ne.com/event-details?eventId=144088>

Attachment K, Section 4.1:

(f) Treatment of Market Responses in Needs Assessments

The ISO shall reflect proposed market responses in the regional system planning process. Market responses may include, but are not limited to, resources (e.g., demand-side projects and distributed generation), and Elective Transmission Upgrades.

In performing Needs Assessments, the ISO shall rely on certain resources to prevent the identification of system needs. Specifically, the ISO shall incorporate or update information regarding future resources, with the exception of imports across external tie lines, in Needs Assessments that have been proposed and

(i) have cleared in a Forward Capacity Auction pursuant to Market Rule 1 of the ISO Tariff, (ii) have been selected in, and are contractually bound by, a state-sponsored ~~Request request~~ For for Proposals proposals, ~~or~~ (iii) have a financially binding obligation pursuant to a contract, or (iv) have been forecast in the ISO's Forecast Report of Capacity, Energy, Loads and Transmission. The ISO shall also incorporate or update information regarding all existing resources, with the exception of imports across external tie lines, in Needs Assessments. Imports across future or existing external tie lines will not be relied upon unless such imports (i) have a Capacity Supply Obligation corresponding to the year of study (ii) have been selected in, and are contractually bound by, a state-sponsored request for proposals, (iii) have a financially binding obligation pursuant to a contract, or (iv) may be represented by a minimum flow based on HQ Interconnection Capability Credits. The ISO will model out-of-service all submitted Retirement De-List Bids, submitted Permanent De-List Bids, and demand bids that have cleared in a substitution auction, and may model out-of-service rejected-for-reliability Static De-List Bids and rejected-for-reliability Dynamic De-List Bids from the most recent Forward Capacity Auction. With respect to having been selected in, and being contractually bound by a state-sponsored request for proposals, or having a financially binding obligation pursuant to a contract (ii) or (iii) above,

demonstration of such contracts is accomplished through submittal for ISO review of an order or other similar authorization from the appropriate state regulatory agency, along with a copy of the contract, that together demonstrate the contractual requirements. These documents may be submitted by: the Project Sponsor; the state regulatory agency authorizing the contract; a transmission company that is a counterparty to the contract; or by a third-party organization representing the interests of the New England states regarding energy related issues, such as NESCOE. The ISO shall incorporate or update information regarding a proposed Elective Transmission Upgrade in a Needs Assessment at a time after the studies corresponding to the Elective Transmission Upgrade are completed (including receipt of approval under Section I.3.9 of the Tariff), a commercial operation date has been ascertained, and for which the certification has been accepted in accordance with Section III.12 of the Tariff. In the case

where the Elective Transmission Upgrades are proposed in conjunction with the interconnection of a resource, these Elective Transmission Upgrades shall be considered at the same time as the proposed resource is considered in the Needs Assessment provided that the studies corresponding to the Elective Transmission Upgrade are completed (including receipt of approval under Section I.3.9 of the Tariff), a commercial operation date has been ascertained, and for which the certification has been accepted in accordance with Section III.12 of the Tariff.

Attachment K, Section 4A.3:

(b) Treatment of Market Solutions in Public Policy Transmission Studies

The ISO shall reflect proposed market responses in the Public Policy Transmission Study. Market responses may include, but are not limited to, resources (e.g., demand-side projects and distributed generation), Merchant Transmission Facilities and Elective Transmission Upgrades.

In performing Public Policy Transmission Studies, the ISO shall rely on certain resources to prevent the identification of transmission needs driven by Public Policy Requirements.

Specifically, the ISO shall incorporate in the Public Policy Transmission Study information regarding future resources, with the exception of imports across external tie lines, that have been proposed and (i) have cleared in a Forward Capacity Auction pursuant to Market Rule 1 of the ISO Tariff, (ii) have been selected in, and are contractually bound by, a state-sponsored ~~Request~~ request For-for Proposalsproposals, or (iii) have a financially binding obligation pursuant to a contract, or (iv) have been forecast in the ISO's Forecast Report of Capacity, Energy, Loads and Transmission. The ISO shall also incorporate or update information regarding all existing resources, with the exception of imports across external tie lines, in Public Policy Transmission Studies. Imports across future or existing external tie lines will not be relied upon unless such imports (i) have been selected in, and are contractually bound by, a state-sponsored request for proposals, (ii) have a financially binding obligation pursuant to a contract, or (iii) are represented by a minimum flow based on HQ Interconnection Capability Credits. . The ISO will model out-of-service all submitted Retirement De-List Bids, submitted Permanent De-List Bids, and demand bids that have cleared in a substitution auction, and may model out-of-service rejected-for-reliability Static De-List Bids and rejected-for-reliability Dynamic De-List Bids from the most recent Forward Capacity Auction. With respect to having been selected in, and being contractually bound by a state-sponsored request for proposals, or having a financially binding obligation pursuant to a contract(ii) or (iii) above, demonstration of such contracts is accomplished through submittal for ISO review of an order or other similar authorization from the appropriate state regulatory agency, along with a copy of the contract, that together demonstrate the contractual requirements. These documents may be submitted by: the Project Sponsor; the state regulatory agency authorizing the contract; a transmission company that is a counterparty to the contract; or by a third-party organization representing the interests of the New England states regarding energy related issues, such as NESCOE. The ISO shall incorporate information regarding a proposed Merchant Transmission Facility or Elective Transmission Upgrade in a Needs Assessment at a time after the studies corresponding to the Merchant

Transmission Facility or Elective Transmission Upgrade are completed (including receipt of approval under Section I.3.9 of the Tariff), and a commercial operation date has been ascertained, with the exception of Elective Transmission Upgrades that are proposed in conjunction with the interconnection of a resource, which shall be considered at the same time as the proposed resource is considered in the Public Policy Transmission Study.

Attachment K Revisions: Resource Assumptions

Third Presentation



Brent Oberlin

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Project Title: Attachment K Resource Assumptions

Proposed Effective Date: January 2022

- Attachment K of the OATT limits resources that can be relied upon in Needs Assessments (NA) and Public Policy Transmission Studies (PPTS) to those that have an obligation through the Forward Capacity Market, are contractually bound by a state RFP, or have a financially binding obligation pursuant to a contract
- Many resources are being operated independently of any obligation to do so, yet Attachment K doesn't allow the ISO to utilize these generators to address system concerns in NA and PPTS
- Changes to Attachment K are being considered to allow the ISO to expand the resources that can be relied on to address system concerns, and to provide clarification to the current language
- This is the third meeting at the Transmission Committee to discuss these changes, which are anticipated to be filed with FERC later this year

Problem Statement

- The system is undergoing changes in the generation mix, causing the need to review the Attachment K provisions on resources that can be relied on to address system concerns in NA and PPTS
- The current language in Attachment K does not allow the ISO to rely on certain resources in NA or PPTS which are operational
 - This may cause the identification of system needs and subsequent solution development for issues that can be addressed by recognizing existing resources
- Some clarification to the current language in Attachment K will also be beneficial



SUMMARY OF PROPOSED CHANGES



Changes to the Current Rules

- Existing Resources*
 - The ISO is proposing to revise Attachment K so that **all existing** resources can be relied on in NA and PPTS
 - This includes those that do not meet the criteria in the current language found in Attachment K Section 4.1(f) and 4.A.3(b)
 - Current Attachment K language related to de-list bids will remain
 - The specific language in Attachment K is as follows: “The ISO will model out-of-service all submitted Retirement De-List Bids, submitted Permanent De-List Bids, and demand bids that have cleared in a substitution auction, and may model out-of-service rejected-for-reliability Static De-List Bids and rejected-for-reliability Dynamic De-List Bids from the most recent Forward Capacity Auction.”
- Future Resources*
 - No changes are being proposed to the handling of future resources that can be relied on in NA and PPTS

* Does not include imports across external tie lines. These are addressed separately, later in the presentation.



Clarifications to the Current Rules

- While changes are being made to Attachment K, the ISO would like to clarify the language to specifically call out forecasted resources that are contained in the CELT
- While the term “resources” in Attachment K has included imports across external tie lines, this should be explicitly stated and further clarification is needed



FEEDBACK DELIVERED DURING THE AUGUST TRANSMISSION COMMITTEE MEETING



Responses to Stakeholder Feedback

- At the August meeting, the ISO stated that the changes to Attachment K would not change outage scheduling requirements for resources, but wanted to confirm. This information has been verified to be correct



Changes since the August TC meeting

- During the August TC meeting, the ISO responded to stakeholder questions
- Those questions were taken into consideration but did not result in changes to the draft Tariff revisions in Attachment K that were provided in August



Conclusion

- The ISO is proposing that all existing resources be relied upon in Needs Assessments and PPTS, taking advantage of known resources to potentially reduce the need for additional transmission infrastructure
- The ISO is also seeking to clarify the handling of imports and forecasted resources
- There have been no changes since the August TC

Stakeholder Schedule for Attachment K

Proposed Effective Date – Mid-December 2021

Stakeholder Committee and Date	Scheduled Project Milestone
July 14, 2021	Discussion of concepts, introduction to Attachment K revisions and review of proposed redlines
August 24, 2021	Respond to stakeholder questions from previous meeting and continued review of proposed redlines
September 28, 2021	Vote on the proposed Attachment K revisions
Participants Committee October 7, 2021	Vote

Questions

Brent Oberlin

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APPENDIX A

Current Attachment K Language



Current Attachment K language, Section 4.1(f) and 4A.3(b)

- “Specifically, the ISO shall incorporate or update information regarding resources in Needs Assessments that have been proposed and (i) have cleared in a Forward Capacity Auction pursuant to Market Rule 1 of the ISO Tariff, (ii) have been selected in, and are contractually bound by, a state-sponsored Request For Proposals, or (iii) have a financially binding obligation pursuant to a contract. The ISO will model out-of-service all submitted Retirement De-List Bids, submitted Permanent De-List Bids, and demand bids that have cleared in a substitution auction, and may model out-of-service rejected-for-reliability Static De-List Bids and rejected-for-reliability Dynamic De-List Bids from the most recent Forward Capacity Auction.”

APPENDIX B

Red-lined Attachment K Language



Proposed Tariff Changes: Attachment K

Tariff Section	Tariff Change	Reason for Change
<p>Attachment K, Section 4.1(f)</p>	<p><u>In performing Needs Assessments, the ISO shall rely on certain resources to prevent the identification of system needs.</u> Specifically, the ISO shall incorporate or update information regarding <u>future resources, with the exception of imports across external tie lines,</u> in Needs Assessments that have been proposed and (i) have cleared in a Forward Capacity Auction pursuant to Market Rule 1 of the ISO Tariff, (ii) have been selected in, and are contractually bound by, a state-sponsored Request-request For-for <u>Proposalsproposals,</u> or (iii) have a financially binding obligation pursuant to a contract, <u>or (iv) have been forecast in the ISO’s Forecast Report of Capacity, Energy, Loads and Transmission. The ISO shall also incorporate or update information regarding all existing resources, with the exception of imports across external tie lines, in Needs Assessments. Imports across future or existing external tie lines will not be relied upon unless such imports (i) have a Capacity Supply Obligation corresponding to the year of study (ii) have been selected in, and are contractually bound by, a state-sponsored request for proposals, (iii) have a financially binding obligation pursuant to a contract, or (iv) may be represented by a minimum flow based on HQ Interconnection Capability Credits.</u> The ISO will model out-of-service all submitted Retirement De-List Bids, submitted Permanent De-List Bids, and demand bids that have cleared in a substitution auction, and may model out-of-service rejected-for-reliability Static De-List Bids and rejected-for-reliability Dynamic De-List Bids from the most recent Forward Capacity Auction. With respect to <u>having been selected in, and being contractually bound by a state-sponsored request for proposals, or having a financially binding obligation pursuant to a contract(ii) or (iii) above,</u> demonstration of such contracts is accomplished through submittal for ISO review of an order or other similar authorization from the appropriate state regulatory agency, along with a copy of the contract, that</p>	<p>Allow <u>existing</u> resources to be relied on in NA and PPTS; clarify the handling of imports; clarify the inclusion of resources in the CELT</p>

MEMORANDUM

TO: NEPOOL Participants Committee

FROM: Eric Runge, NEPOOL Counsel

DATE: September 29, 2021

RE: **NEPOOL Initial Comments on:** FERC Advance Notice of Proposed Rulemaking regarding “Building for the Future Through Electric Regional Transmission Planning and Cost Allocation and Generator Interconnection”

On July 15, 2021 the Federal Energy Regulatory Commission (the “Commission”) issued an Advance Notice of Proposed Rulemaking in Docket No. RM21-17-000 on “Building for the Future Through Electric Regional Transmission Planning and Cost Allocation and Generator Interconnection” (the “ANOPR”).¹ The Commission opened this rulemaking proceeding pursuant to its authority under Section 206 of the Federal Power Act (“FPA”) to consider the potential need for reforms to improve the electric regional transmission planning and cost allocation and generator interconnection processes. The initial comment deadline remains **October 12, 2021**, despite requests for extension of time to December 1, 2021.²

Given the Commission’s decision to not extend the initial comment deadline, at the request of the Transmission Committee Vice-Chair, NEPOOL counsel prepared a set of initial comments (“NEPOOL Initial Comments”) for review and input by the NEPOOL officers. A copy of the draft NEPOOL Initial Comments reflecting your officers’ comments and input has been included with the materials for the Participants Committee’s October 7 meeting. The NEPOOL Initial Comments describe past and current New England activities that NEPOOL is engaged in that are relevant to the ANOPR topics.

The NEPOOL Initial Comments do not take any new positions, but instead make the following points: (1) the Commission should **provide regional flexibility** in compliance with any final rule; (2) the Commission should **respect existing stakeholder processes**, such as the NEPOOL process; (3) the Commission should **allow adequate time to respond to any final rule**; and (4) New England has experienced and is experiencing some of the issues identified in the ANOPR regarding integration of renewables.

¹ The ANOPR, together with a NEPOOL counsel memo and presentation related to it can be accessed with the materials for the August 24, 2021 and the September 28, 2021 meetings of the NEPOOL Transmission Committee here: <https://www.iso-ne.com/committees/transmission/transmission-committee/>.

² In an order issued on September 3, the Commission denied the requests to extend the initial comment deadline past October 12 but did extend the reply comment deadline from November 9 to November 30.

The NEPOOL Initial Comments, with the input and preliminary sign-off by the NEPOOL officers, was reviewed with the Transmission Committee at its September 28 meeting and no objections were raised. One minor edit was suggested and made.

The NEPOOL Initial Comments discuss actions and positions that have already been approved by NEPOOL and do not take new substantive positions; therefore, officer review and sign-off on the Comments is sufficient and no NEPOOL vote is required unless requested by a Participant. If a vote is requested, the following resolution can be used to vote on this item:

Resolved, that the Participants Committee approves the NEPOOL Initial Comments on the ANOPR, as distributed to the committee for its October 7, 2021 meeting, together with any changes agreed to at the meeting, and any non-substantive changes agreed to be by the Chair and Vice-Chair of the Transmission Committee after the meeting.

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**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

Building for the Future Through)
Electric Regional Transmission Planning)
and Cost Allocation and) RM21-17-000
Generator Interconnection)

**INITIAL COMMENTS OF THE
NEW ENGLAND POWER POOL PARTICIPANTS COMMITTEE**

(October 12, 2021)

Pursuant to the Federal Energy Regulatory Commission’s (“Commission”) Advance Notice of Proposed Rulemaking issued on July 15, 2021 in the above-captioned proceeding,¹ the signatories to the New England Power Pool Agreement (“NEPOOL”), acting through the Participants Committee,² hereby submits these Comments.³ NEPOOL is the principal stakeholder organization in the New England Regional Transmission Organization (“RTO”)

¹ *Building for the Future Through Electric Regional Transmission Planning and Cost Allocation and Generator Interconnection*, 176 FERC ¶ 61,024 at P 183 (2021) (“ANOPR”).

² Capitalized terms not defined herein have the meanings ascribed thereto in the Second Restated NEPOOL Agreement, Participants Agreement, or the ISO New England Inc. (“ISO-NE”) Transmission, Markets and Services Tariff (“ISO-NE Tariff” or the “Tariff”).

³ The New England Power Pool Agreement was initially entered into in 1971 and the number of signatories to that agreement as it has evolved over time has grown to include over 500 members. Those signatories are referred to both as “members” and “Participants” and they are referred to collectively as “NEPOOL.” The Participants include all of the electric utilities rendering or receiving services under the ISO-NE Tariff, as well as independent power generators, marketers, load aggregators, brokers, consumer-owned utility systems, demand response providers, developers, end users and a merchant transmission provider. Pursuant to revised governance provisions accepted by the Commission in *ISO New England Inc. et al.*, 109 FERC ¶ 61,147 (2004), the Participants act through the NEPOOL Participants Committee. The NEPOOL Participants Committee is authorized by Section 6.1 of the Second Restated NEPOOL Agreement and Section 8.1.3(c) of the Participants Agreement to represent NEPOOL in proceedings before the Commission. NEPOOL is the principal stakeholder organization for the New England Regional Transmission Organization (“RTO”).

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through a Commission-approved contractual association with ISO New England Inc. (“ISO-NE” or the “ISO”).⁴

Prior to the formation of the New England RTO in 2005, and since 1997, the NEPOOL Participants Committee held the Federal Power Act (“FPA”) Section 205 filing rights for the regional Open Access Transmission Tariff (“OATT”). Both before and since the RTO formation NEPOOL has been and continues to be actively involved in the primary subject matter of the ANOPR: namely, transmission planning, cost allocation and generator interconnection. Further, NEPOOL is actively involved in the design and development of the competitive wholesale ISO-NE markets. NEPOOL’s members include all of the sectors of those markets in New England, including, as particularly relevant to the ANOPR, transmission owners, developers of new renewable generation and interconnection customers of all kinds. Since the 1996 restructuring of the NEPOOL arrangements and the establishment of the ISO in 1997, NEPOOL has been committed to a markets-based approach to meet system needs⁵, to the extent practicable.

NEPOOL submits these initial Comments to: (i) provide some New England background on the subject matter of the ANOPR and current relevant activities in which NEPOOL and its

⁴ The Participants Agreement is the Commission-approved contract between NEPOOL and ISO-NE that sets forth the stakeholder processes for all changes to the ISO-NE Tariff and related rules and procedures. The Participants Agreement is a fundamental element of the RTO arrangements for New England. Through the Participants Agreement, NEPOOL is assured the opportunity for meaningful and timely stakeholder input and vote on virtually all changes sought to FERC jurisdictional transmission or market services as the principal stakeholder organization in the New England RTO. The Participants Agreement can be found here: https://www.iso-ne.com/static-assets/documents/2015/10/parts_agree.pdf

⁵ A markets-based approach to system needs allows markets to determine what supply resources will come forward to meet system needs and where they will be located, as opposed to an integrated resource planning approach. Additionally, under a markets-based approach, market solutions to transmission system needs, such as generation built at particular locations, take priority and can displace transmission solutions to meet those same needs, where practicable.

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members are participating: (ii) request that the Commission allow for regional variations and flexibility in the development and implementation of any final rule(s) that might come out of this proceeding; (iii) request that the Commission allow for adequate time to respond to any final rule that calls for fundamental changes, particularly given existing priorities and stakeholder processes for such changes; and (iv) urge the Commission to respect the existing RTO arrangements for stakeholder processes in the regions, particularly those processes that have been established and used successfully in New England through the Participants Agreement.

NEPOOL has not yet developed an organizational position on many of the substantive concepts and exploratory proposals that are presented in the ANOPR, but plans to provide its input on that substance as both the NEPOOL positions and the Commission's substantive proposals are further developed and defined in the rulemaking process.

I. BACKGROUND

NEPOOL has a long history of working among its members in the various industry sectors⁶ to proactively address regional system planning, cost allocation and interconnection matters. In so doing, NEPOOL has worked with others, including ISO-NE, the Participating Transmission Owners Administrative Committee ("PTO AC") and the six New England States, acting individually and collectively through both the New England States Committee on

⁶ All sectors of the wholesale electric industry in New England are represented in the six sectors of NEPOOL's governance structure, including: Transmission, Generation, Suppliers, Publicly Owned Entities, Alternative Resources, and End Users. NEPOOL's governance provisions allocate voting shares equally among these sectors. NEPOOL positions are established through votes of the Participants Committee, typically based on recommendations from the principal NEPOOL Technical Committees (Markets, Committee, Reliability Committee and Transmission Committee), which also vote to establish recommendations. Most votes in NEPOOL require a minimum two-thirds vote to pass, with the exception of votes on changes to the Market Rules, which have a sixty percent threshold to pass.

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Electricity (“NESCOE”) and the New England Conference of Public Utilities Commissioners, to effectively address these subjects.⁷

Past Activities:

The summary below provides a few of the more relevant examples of NEPOOL proactively addressing transmission planning, cost allocation and interconnection matters, and briefly describes some of those major efforts:

- *Regional System Planning:* In 2000 ISO-NE filed a comprehensive regional system planning proposal, developed with NEPOOL input, seven years before the issuance of Order No. 890, based on processes already underway in New England. The Commission accepted this proposal and the related tariff revisions,⁸ and ISO-NE began issuing Regional System Plans (“RSPs”) in 2002. The RSP process became the basis for planning major transmission infrastructure upgrades in New England to address reliability issues, and relieve transmission constraints on the system, thereby enabling new generation to reach load and eliminating or greatly reducing expensive congestion on the system. A fundamental premise of transmission planning in New England under the planning provisions of the ISO-NE Tariff is that market solutions (e.g., generation or storage assets) to system needs are preferred and that transmission solutions are planned and built only when market solutions do not address identified needs. To date, NEPOOL has consistently supported this markets-focused approach to planning over other approaches, such as integrated resource planning.
- *Transmission Cost Allocation:* In 2003 NEPOOL, and ISO-NE filed a comprehensive transmission cost allocation proposal (supported by the PTO AC) with clear rules for the allocation of costs for regional transmission facilities identified as needed for reliability or market efficiency. The Commission accepted this proposal and the related Tariff revisions, which have been the basis for approximately \$12 billion dollars of transmission investment and cost allocation in the region since 2004.⁹

⁷ The PTO AC, as the administrative committee representing the Participating Transmission Owners, and NESCOE, as the regional state committee, are both fundamental organizations to the RTO arrangements for New England, along with NEPOOL and ISO-NE.

⁸ See *ISO New England Inc.*, 91 FERC ¶ 61,311 at 62,076-77 (2000). See also, *ISO New England Inc. and New England Power Pool*, 95 FERC ¶ 61,384 (2001) (authorizing ISO-NE to oversee regional transmission planning); *ISO New England Inc., et al.*, 106 FERC ¶ 61,280 (2004) (approving ISO-NE’s regional system planning process in the context of the Commission’s approval of ISO-NE’s RTO status subject to fulfillment of requirements and establishing hearing and settlement judge procedures).

⁹ See *New England Power Pool and ISO New England Inc.*, 105 FERC ¶ 61,300 (2003).

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- *Coordinating/Co-optimizing Interconnection Processes and Forward Capacity Market:* In 2008 ISO-NE, NEPOOL and the PTO AC jointly filed a proposal and related Tariff revisions to effect a closer alignment and co-optimization of the interconnection process and the Commission-approved Forward Capacity Market (“FCM”), including a “first-cleared, first-served” approach for capacity resources. The Commission accepted this proposal and the related Tariff revisions.¹⁰ Under this approach, the allocation of interconnection capacity service and the associated obligations are based on the results of the FCM. This approach provides a mechanism to discipline multiple capacity Interconnection Requests when they are pending in the interconnection queue – the first cleared resource moves forward and the remaining resources decide whether to participate in a subsequent auction or withdraw.
- *Clustering Interconnection Projects Needing Common Transmission Infrastructure:* In 2017 ISO-NE, NEPOOL and the PTO AC jointly filed an interconnection clustering proposal to address interconnection queue backlogs, primarily resulting from the influx of proposed renewable clean energy projects seeking to interconnect from focused locations in New England. The Commission accepted this proposal and the related Tariff revisions.¹¹ Those provisions have now been used twice: first, to address a backlog of approximately 6,000 MW of onshore wind projects located in Western and Northern Maine behind a constrained transmission interface to load centers in Southern New England; and, second, to seek to address the interconnection of several thousand MW of offshore wind generation currently being developed in federal waters off the coast of Massachusetts and Rhode Island seeking to interconnect in the transmission constrained area of Cape Cod.

Current Activities:

NEPOOL also is actively engaged now with ISO-NE, representatives of all six New England states, and other stakeholders on several studies and processes that are directly relevant to the subject matter of the ANOPR. The summary below describes some of those major efforts:

- *NEPOOL Future Grid Reliability Study (“FGRS”):* In 2020 and early 2021 NEPOOL developed a proposal for a study of the future grid (circa 2040) and its anticipated reliability needs.¹² A main purpose of the FGRS is to identify gaps in markets or

¹⁰ See *ISO New England Inc. and New England Power Pool*, 126 FERC ¶ 61,080 (2009).

¹¹ *ISO New England Inc.*, 161 FERC ¶ 61,123 (2017).

¹² Concurrently, NEPOOL is evaluating potential market design pathways to further decarbonization of the New England energy supply mix through ISO-NE administered clean energy procurement markets or carbon pricing markets.

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infrastructure and then to work through how to address those gaps in the collaborative New England stakeholder process. The FGRS will examine what changes are needed to enable New England's power system to reliably operate in 2040 while meeting current New England States' energy and environmental policies. The FGRS assumes that the requirements in existing clean energy and environmental laws in the six New England States will be met, resulting in major changes to the resource mix and load. The FGRS is proceeding in two phases, with Phase I currently under way as an Economic Study under ISO-NE's Order No. 890 Attachment K process, and Phase II to be further developed in 2022. Phase I is focusing on multiple long-range (2040) scenarios and analyzing them through production cost simulation, ancillary services simulation, a resource adequacy screen, and probabilistic resource availability analysis. Phase II is expected to focus on particular scenarios of interest and analyze them through revenue sufficiency and select system security analyses and any other analyses NEPOOL deems appropriate at the time of commencing Phase II.

- *2050 Transmission Study*: At the request of the New England States, ISO-NE has begun a transmission study to inform the States and all stakeholders of the amount and type of transmission infrastructure needed to cost-effectively integrate large-scale clean energy resources and distributed energy resources (“DERs”) across the region. More specifically, the States have requested the following (as quoted below from the New England States Vision Statement¹³):
 1. Initiate a regional transmission planning effort that provides a high-level transmission system plan to meet the needs of States' energy transition, with participation and input by State officials,
 2. Use the scenarios that have been developed and used in various States' analyses of pathways to decarbonization as a starting point for developing multiple future resource scenarios (e.g., 3-4) as the basis for assessing future regional transmission needs, and conduct a conceptual regional transmission system plan for the select future scenarios for identified timeframes (e.g., 2030, 2040 and 2050),
 3. Provide needed transmission system planning information to the region, including high-level cost estimates,
 4. From the conceptual system plan, conduct detailed analyses for specific scenarios, with the objective being to understand future conditions and needs, including: (1) Onshore system upgrades, including specific areas that need strengthening, (2) Offshore systems that may be needed to support offshore wind resources, (3) Potential options that should be explored, including non-transmission alternatives, and (4) The impact of DERs (both distributed generation and flexible load sources) on transmission needs,

¹³ See New England States Vision Statement here: <https://nescoe.com/resource-center/vision-stmt-oct2020/>

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5. With the insights gained from the scenarios used in the long-term system planning, conduct stakeholder meetings to discuss the potential use of transmission to integrate all of the necessary energy resources in the region at the lowest cost possible, and
6. Informed by States' direction, conduct detailed planning processes to maximize the use of existing transmission, build new transmission only where absolutely necessary, and use competitive processes to minimize costs to consumers.

Currently, the NEPOOL Transmission Committee is considering an ISO-NE Tariff revision that would help implement part of what the New England States are seeking in this proposal by authorizing ISO-NE to engage in longer-range (out to 2050), scenario based planning studies.¹⁴

- *Clean Energy Transition Study*: Transmission Planning for the Clean Energy Transition is an ISO-NE transmission planning study to analyze operational issues and constraints that may arise on a future grid with significantly greater amounts of distributed energy resources, a greater amount of renewables, and different operational characteristics than today's grid.¹⁵ The study was prompted by trends in New England that the ISO anticipates will accelerate in the future, including shifting demand, rapid deployment of distributed energy resources and large-scale renewable clean energy development, and increased energy imports from neighboring systems. This study is currently being discussed and refined at the ISO-NE Planning Advisory Committee with input from NEPOOL Participants and other interested stakeholders.

II. COMMENTS

- A. **In any final rule that comes out of this rulemaking proceeding the Commission should *allow for regional variations and flexibility in compliance for RTO/ISO regions, such as New England.***

To the extent the Commission is considering generic rule changes that might be applied across the country, NEPOOL urges that the Commission fully consider and account for differences across the many regions of the country. Each region of the country has different

¹⁴ See July 14, 2021 ISO-NE presentation to Transmission Committee, Slide 6, here: https://www.iso-ne.com/static-assets/documents/2021/07/a05_tc_2021_07_14_overview.pdf

¹⁵ See recent ISO-NE presentation on the Clean Energy Transition Study here: https://www.iso-ne.com/static-assets/documents/2021/08/a3_transmission_planning_for_the_clean_energy_transition_pilot_study_results_and_assumption_changes.pdf

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factors that apply in the transmission planning, cost allocation and interconnection contexts, including such factors as: existing rules and processes for these subjects, market design differences, various stakeholder processes and RTO arrangements, whether the regions are made up of multiple or single states, different requirements from the states affecting wholesale markets, resource mix and transmission, and other important factors that call for regional variations.

In the New England region, ISO-NE and NEPOOL have a long history of working together proactively to identify reliability, transmission or market needs and developing appropriate solutions to them. As described above, this history includes proactive initiatives to develop solutions such as: (i) a regional system planning process in 2000; (ii) a comprehensive transmission cost allocation method in 2003; (iii) an integration of the Forward Capacity Market with the interconnection rules in 2008; and (iv) an interconnection clustering methodology in 2017 to remove bottlenecks in the ISO-NE interconnection queue and advance the integration of large-scale renewable generation on the system. Often those solutions have features that are specifically tailored to work best for the bulk electric system or wholesale market design that is already in place, or to account for other unique features of the six-state New England regional system.

The Commission should allow ISO-NE, NEPOOL, the PTOs and the New England States to continue to have the flexibility to develop solutions in planning, cost allocation and generator interconnection that work best for New England, consistent with both past practice and Commission policy and precedent. As a multi-state region that has functioned effectively as a centrally dispatched, tight power pool for more than fifty years, New England's challenges in these areas may be quite different than challenges faced by other regions, and New England

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solutions are best tailored to the specific facts and circumstances in New England rather than through generic directives to the industry. This point is especially applicable to market-based solutions, which need to work together with other market design features that are unique to the region.

B. Any changes to stakeholder processes coming out of this rulemaking should respect existing stakeholder RTO arrangements, such as the Participants Agreement and NEPOOL stakeholder processes for New England.

The ANOPR emphasizes the desirability and importance of transmission planning processes that are transparent and consider the needs and views of all interested entities.¹⁶ New England recognized the advantages transparent regional planning processes and, beginning in 2000 and then more formally in the formation of the New England RTO in 2004-2005 established the Planning Advisory Committee (“PAC”). The PAC meets at least monthly and is open to all interested persons, including representatives from the States, market participants, and any other interested persons (subject in some cases to meeting Critical Energy Infrastructure Information clearance requirements). In addition, the RTO arrangements provide NEPOOL a contractual right to review, discuss, provide input and take advisory votes on all proposed changes to the Tariff, including those related to transmission planning, regional transmission cost allocation and interconnection to the ISO-NE administered transmission system.

Under the Participants Agreement, ISO-NE must bring any proposed changes to the ISO-NE Tariff and its related rules and procedures to NEPOOL for consideration and vote. Similarly,

¹⁶ E.g., ANOPR at PP 52, 60.

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the PTOs are required under the RTO arrangements to bring certain regional transmission rate-related proposals to NEPOOL for consideration and vote.¹⁷

The NEPOOL Participants develop, own and operate the assets or facilities, or represent the buyers and sellers and customers, that will be directly impacted by any ISO-NE rule changes. They often have the most expertise about, and experience with, the subject matter, and can provide the most informed commercial insight into the feasibility and consequences of a proposed rule change. Fully engaging the Participants before completing and filing proposed changes helps assure that they have a chance to fully understand proposed changes, and an opportunity to suggest and explore alternatives. It also helps ensure that the ISO fully understands how the proposal will impact Participants and the ISO-NE markets, and provides the opportunity to resolve or narrow any issues.

Typically, the stakeholder processes under the Participants Agreement for considering transmission-related changes to the ISO-NE Tariff and related rules produce outcomes that are broadly supported by ISO-NE, NEPOOL, the PTO AC and the New England States. When they do not produce consensus on changes to those arrangements, they more precisely define areas of disagreement. In some instances NEPOOL Participants make alternative proposals that, if supported by NEPOOL, are filed with the Commission as an alternative to the ISO's proposal.¹⁸

¹⁷ The Participating Transmission Owners and ISO-NE are parties to the Transmission Operating Agreement (“TOA”). Section 3.04 sets forth certain legal rights and obligations of the parties with respect to tariff changes, and Section 3.04(l) obligates the PTOs to observe certain stakeholder processes for regional rate filings.

¹⁸ To the extent these alternative changes relate to market rules rather than transmission provisions of the ISO-NE Tariff, Section 11.1.5 of the Participants Agreement provides for a “jump ball” pursuant to which NEPOOL-supported changes are to be submitted on equal footing with ISO-NE proposals, with both proposals to be considered as alternative Section 205 filings under the Federal Power Act.

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Such processes provide the Commission far better and more complete information to ensure that rates, terms and conditions of jurisdictional service in New England are just and reasonable.

The NEPOOL stakeholder process is essential to obtain the full set of stakeholder perspectives, a prerequisite to yield the solutions that work best for New England. This full set of perspectives includes those of ISO-NE, the NEPOOL Participants, the PTOs, and the New England States.¹⁹ Thus, NEPOOL has a special stakeholder advisory role in the context of proposed tariff changes in the New England RTO, while the PAC provides an opportunity for all voices to be heard regarding regional system planning related matters.

NEPOOL urges that any rule that comes out of this rulemaking process should respect existing stakeholder processes and avoid compromising the Commission-approved New England regional system planning process and the proven NEPOOL stakeholder process.

C. The Commission should *allow adequate time* for ISO-NE and NEPOOL to work together on solutions that work best for New England.

The ANOPR is silent on how quickly the Commission might act on the issues and potential reforms it has identified. NEPOOL urges that any such Commission reforms provide sufficient time to ensure that changes can be worked out fully in the existing RTO stakeholder processes. As noted above, ISO-NE, NEPOOL and other stakeholders are currently engaged in several regional studies that could suggest changes to the rules and processes for system planning. For example, the Future Grid Reliability Study is intended to identify, among other things, gaps that will need to be closed to maintain a reliable future grid.

¹⁹ The New England States participate in NEPOOL meetings through NESCOE as well as through individual participation by representatives for the New England States that elect to participate directly.

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In the past, when New England has identified needs for change in the areas of regional system planning, transmission cost allocation and generator and transmission interconnection, NEPOOL, ISO-NE, the PTO AC and the New England States have worked collaboratively and proactively to develop and implement proposals to address those needs. This collaborative approach to change often takes more time than a top-down forced approach but it can yield better results with less subsequent complications in the long run. Some of the proposed changes in the ANOPR would fundamentally change New England's current structures and market-focused approaches and shift them to more of an integrated resource planning approach. The Commission should allow sufficient time for regions, such as New England, to assess the implications of such changes and develop proposals that work for the region in the context of current structures and processes and applicable state policies driving the future grid transformation.

D. NEPOOL has observed and is experiencing in New England some of the issues identified in the ANOPR regarding the integration of renewables.

Section IV.A of the ANOPR is focused largely on planning for the integration of renewable energy resources into the grid. This topic has been a focus of New England for several years. While NEPOOL does not have an organizational position on a solution for transmission infrastructure to integrate these resources, it notes that to date these projects are driven by state policies and procurements, and that the States have the ability to procure transmission that would enable the desired clean energy to reach its intended customers through an ISO-NE Tariff mechanism currently in place, Elective Transmission Upgrades ("ETU"). For

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example, currently the State of Maine is exploring such a procurement and the use of the ETU mechanism.²⁰

The New England grid is undergoing a major transformation, largely driven by State energy and environmental policies, coupled with technology developments and decreasing costs of solar and wind energy generation. Solar generation has been mostly in the form of distributed energy resources interconnecting to the distribution system though utility scale development has been increasing recently. Thus far transmission upgrade needs for solar generation have been identified only in limited circumstances, while sub-transmission and distribution system upgrades have been identified more often.

For wind generation, NEPOOL has observed two major influxes of such projects in the interconnection queue at focused locations in New England. Beginning especially around 2015/2016 in anticipation of state renewable energy procurements, large amounts of onshore wind entered the ISO-NE interconnection queue, with proposed points of interconnection in Northern and Western Maine, two favorable areas for onshore wind from a land and wind perspective. While some of these onshore wind projects have been interconnected, others have remained in the study queue for an extended period of time or been withdrawn from it because of: (i) backlogs in the queue (which have been partly addressed through the clustering revisions to the ISO-NE Tariff), or (ii) the need for expensive, major upgrades to the transmission system

²⁰ See e.g., ME H. 123 *An Act Pertaining to Transmission Lines Not Needed for Reliability or Local Generation* (2021); ME H. 1494 *An Act to Establish Requirements for the Construction of Elective Transmission Lines by Transmission and Distribution Utilities* (2020). Massachusetts legislators have also introduced bills in recent years to allow for such procurement. See e.g., S.2477-1, *Proposed Amendment on Planned Transmission* (2019); S.2092-13, *Proposed Amendment on Energy Sector Compliance with the Global Warming Solutions Act* (2016); H.4377-12 *Proposed Amendment on Transmission Solicitation* (2016).

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to remove constraints that otherwise limit this energy from flowing to load centers in Southern New England.

Similarly, and more recently, NEPOOL is observing the influx of thousands of megawatts of offshore wind projects in federal waters off the coast of Southern New England.²¹ These projects often seek to come ashore with the maximum amount of capacity that can be included in a single interconnection request (1,200 MW). Several of these projects currently seeking to interconnect on Cape Cod have triggered the ISO-NE clustering interconnection process, which has led to studies showing the need for major new transmission infrastructure to allow interconnection on Cape Cod and for the energy to flow from there to the rest of the region.²²

NEPOOL and its individual members are and will remain actively engaged with ISO-NE, the Commission, the New England States and other stakeholders in the region to consider appropriate paths forward for the further integration of renewable clean energy resources and the planning of related transmission infrastructure.

²¹ See ISO-NE June 14, 2021 presentation to the Interregional Planning Stakeholder Advisory Committee here: https://www.iso-ne.com/static-assets/documents/2021/06/a04_2_2021-06-04_ipsac_iso-ne_osw_development_update_final.pdf.

²² See *Id.* at Slide 10.

MEMORANDUM

TO: NEPOOL Participants Committee Members and Alternates

FROM: Pat Gerity, NEPOOL Counsel

DATE: September 30, 2021

RE: Membership Subcommittee Recommendation Regarding Associate Non-Voting Participant (ANVP) Proposal

You will be asked at the October 7 meeting to consider limited amendments to the Second Restated NEPOOL Agreement (RNA) to replace the definition of, and reference to, Fuels Industry Participant with “Associate Non-Voting Participant” (the Amendments), as well as certain related actions to reflect and implement those Amendments. This memorandum briefly summarizes the background and substance of the Subcommittee’s recommendations and includes forms of resolution for Participants Committee action. Included with this memorandum is a draft 134th Agreement to reflect the Amendments and a copy of the Subcommittee’s September 10 Notice of Actions.

The Amendments are proposed to address a suggestion, raised most recently at the June 3, 2021 meeting when NEPGA was determined to be a Fuels Industry Participant, that some further consideration be given to the description and arrangements for this category in light of the evolution of the kinds of Participants determined to be and participating as Fuels Industry Participants.¹

Following consideration of the Fuels Industry Participant arrangements over the course of three Subcommittee meetings, there was general agreement that no change be made to the non-Sector, non-voting status to which such Participants are subject, nor to the fees for such participation.² However, there was agreement that the name for this category of Participant be changed, with “Associate Non-Voting Participant” identified to distinguish and better characterize the group of gas industry participants and energy sector trade associations that have become Participants under these arrangements. The Subcommittee also agreed to a simplified definition of this category of Participant. Finally, to support the simplified definition, the Subcommittee agreed to recommend that each of the current Fuels Industry Participants be determined to be Associate Non-Voting Participants and that the Subcommittee be delegated authority to approve for membership, subject to the Standard Membership Conditions, Waivers

¹ Current Fuels Industry Participants are:

gas industry participants

Algonquin Gas Transmission
Excelerate Energy
Repsol Energy North America

energy sector trade associations

Advanced Energy Economy (AEE)
American Petroleum Institute (API)
New England Power Generators Assoc. (NEPGA)

² Associate Non-Voting Participants will receive notice of, materials for, and be permitted to attend as Participants, any Principal Committee meeting. Application and annual fees for the status will continue to be \$5,000. No additional contributions to Participant Expenses nor any additional financial assurance will be required.

and Reminders (SCWRs), Entities that are gas industry participants (as currently defined in the RNA) and energy sector trade associations (like AEE, API and NEPGA). The additional delegation with respect to energy sector trade associations (the Subcommittee has had the authority for gas industry participants based on definition that has been included in the RNA) is consistent with the NPC approvals of the AEE, API and NEPGA, does not impact the eligibility of End User Organizations, and will avoid the requirement for future NPC action each time an application is received from an energy sector trade association. Other Entities that do not meet the definition of either gas industry participant or energy sector trade association could be determined to be a Non-Voting Associate Member, but the responsibility for that determination would remain with the Participants Committee unless or until later delegated.

Accordingly, the following forms of resolution, either voted separately or together if that is the will of the Committee, could be used to act on the Subcommittee's recommendations:

RESOLVED, that the Participants Committee authorizes and directs the Balloting Agent (as defined in the Second Restated NEPOOL Agreement) to circulate ballots for the approval of changes to the Second Restated NEPOOL Agreement (that replace the definition of, and reference to, Fuels Industry Participant with "Associate Non-Voting Participant") (the Amendments), but with such non-material changes therein as the Chair of the Membership Subcommittee may approve, to each Participant for execution by its voting member or alternate on this Committee or such Participant's duly authorized officer.

RESOLVED, that, subject to Participants Committee approval in balloting and FERC acceptance of the Amendments, each of the following are determined as permitted by those amendments to be a "Associate Non-Voting Participant": Algonquin Gas Transmission, Excelerate Energy, Repsol Energy North America, Advanced Energy Economy, American Petroleum Institute, and The New England Power Generators Association.

RESOLVED, that the Participants Committee, pursuant to Sections 8.1.3(f) and (g) of the Participants Agreement, hereby delegates to the Membership Subcommittee the authority to approve an applicant to be an Associate Non-Voting Participant, subject to acceptance of the Standard Conditions, Waivers and Reminders, if the Subcommittee determines that the applicant is either:

(i) a **gas industry participant** (i.e. an Entity that meets all four of the following criteria: (a) the Participant is engaged in the production, gathering, processing, marketing, or transmission of natural gas for sale at wholesale or retail in one or more of the New England states; and (b) the Participant does not participate directly in the New England Markets; and (c) the Participant is not eligible to join or designate a voting member of a Sector (other than the End User Sector); and (d) the Participant elects to be a treated as an Associate Non-Voting Participant before its membership application is approved by NEPOOL); or

(ii) an **energy sector trade association** (i.e. an organization of Entities engaging in the storage, production, supply, transportation, or distribution of energy, organized to promote and improve business conditions in the energy sector and not to engage in a regular business of a kind ordinarily carried on for profit, and no part of the net earnings of which inures to the benefit of any of its members).

If you have any questions ahead of the October 7 meeting, please contact me at pmgerity@daypitney.com or (860) 275-0533.

**ONE HUNDRED THIRTY-FOURTH AGREEMENT AMENDING
NEW ENGLAND POWER POOL AGREEMENT
(Associate Non-Voting Participant)**

THIS ONE HUNDRED THIRTY-FOURTH AGREEMENT AMENDING NEW ENGLAND POWER POOL AGREEMENT, dated as of October 7, 2021 (“134th Agreement”), amends the New England Power Pool Agreement (the “NEPOOL Agreement”).

WHEREAS, effective February 1, 2005 the NEPOOL Agreement was amended by the One Hundred Seventh Agreement Amending New England Power Pool Agreement and restated as the Second Restated NEPOOL Agreement, and has subsequently been amended numerous times; and

WHEREAS, the Participants desire to amend further the Second Restated NEPOOL Agreement to reflect the revisions detailed herein.

NOW, THEREFORE, upon approval of this 134th Agreement by the NEPOOL Participants Committee in accordance with the procedures set forth in the Second Restated NEPOOL Agreement, the Participants agree as follows:

**SECTION 1
AMENDMENTS**

- 1.1 Addition of Definition. The following definition is added to Section 1 of the Second Restated NEPOOL Agreement and inserted in the appropriate alphabetical order:

Associate Non-Voting Participant is a Participant that is determined by the Participants Committee or its designee to be an Associate Non-Voting Participant. Notwithstanding any other provision of this Agreement, an Associate Non-Voting Participant shall not have the right to join, or be or vote as a member of, a Sector. An Associate Non-Voting Participant, which is not a Related Person of another Participant, shall have the right however, to appoint to each Principal Committee a non-voting member, and an alternate to that member. Such a non-voting member and alternate shall have all of the rights of any other member of a Principal Committee except the right to vote or to serve as an officer of a Principal Committee.

- 1.2 Deletion of Definition. The definition of Fuels Industry Participant is deleted from Section 1 of the Second Restated NEPOOL Agreement in its entirety.

- 1.3 Amendment to Section 6.2. The first sentence of the last paragraph of Section 6.2 is amended to read as follows:

All Participants (other than Data-Only Participants, Associate Non-Voting Participants, GIS-Only Participants, and Provisional Members) have the right to join and be a member of a Sector.

**SECTION 2
MISCELLANEOUS**

- 2.1 This 134th Agreement shall become effective January 1, 2022, or on such other date as the Commission shall provide that the amendment reflected herein shall become effective.
- 2.2 Capitalized terms used in this 134th Agreement that are not defined herein shall have the meanings ascribed to them in the Second Restated NEPOOL Agreement.

~~1.28~~1.9A ~~Fuels Industry~~Associate Non-Voting Participant is a Participant that either (i) ~~meets all four of the following criteria: (a) the Participant is engaged in the production, gathering, processing, marketing, or transmission of natural gas for sale at wholesale or retail in one or more of the New England states; and (b) the Participant does not participate directly in the New England Markets; and (c) the Participant is not eligible to join or designate a voting member of a Sector (other than the End User Sector); and (d) the Participant elects to be a treated as a Fuels Industry Participant before its membership application is approved by NEPOOL; or (ii) is determined by the Participants Committee~~ to be a Fuels Industry or its designee to be an Associate Non-Voting Participant. Notwithstanding any other provision of this Agreement, ~~a Fuels Industry~~an Associate Non-Voting Participant shall not have the right to join, or be or vote as a member of, a Sector. ~~A Fuels Industry~~ An Associate Non-Voting Participant, which is not a Related Person of another Participant, shall have the right however, to appoint to each Principal Committee a non-voting member, and an alternate to that member. Such a non-voting member and alternate shall have all of the rights of any other member of a Principal Committee except the right to vote or to serve as an officer of a Principal Committee.



TO: NEPOOL Participants Committee Members and Alternates
FROM: NEPOOL Membership Subcommittee
DATE: September 10, 2021
SUBJECT: **ACTIONS OF THE NEPOOL MEMBERSHIP SUBCOMMITTEE**

This memorandum is notification that the NEPOOL Membership Subcommittee took the following actions at its meeting today:

1. New Member Applications Approved. Approved the application for membership in NEPOOL of each of the following Entities, subject to the following routine conditions: (i) that the applicant sign and return the Standard Membership Conditions, Waivers and Reminders acceptance letter; (ii) that the ISO and NEPOOL Counsel find the application complete; and (iii) that the applicant execute an Indemnification Agreement (requested effective date in parentheses):

- J.P. Morgan Ventures Energy Corp. (Oct 1, 2021) Supplier Sector
- Granite Apollo, LLC (Oct 1, 2021) AR Sector, RG Sub-Sector, Large Group Member
- Oxford Energy Center, LLC (Oct 1, 2021) Provisional Member

2. Recommendation Regarding Associate Non-Voting Participant (ANVP) Proposal. The Subcommittee recommended that the Participants Committee approve the ANVP proposal by (i) approving for balloting an agreement to amend the Second Restated NEPOOL Agreement to replace the definition of Fuels Industry Participant with a definition for Associate Non-Voting Participant; (ii) approving a resolution that, to effect an orderly transition, determines that each existing Fuels Industry Participant is an Associate Non-Voting Participant; and (iii) delegating to the Membership Subcommittee the determination that a gas industry participant or an energy sector trade association is an Associate Non-Voting Participant (retaining for itself such determination for Entities that are not either a gas industry participant or an energy sector trade association as defined in the ANVP Proposal). A copy of the ANVP proposal is attached to this notice of actions.

The Participants Committee (NPC) will be asked to take action on this recommendation at the October 7, 2021 NPC meeting. Additional information and background material will be circulated with the materials for that meeting.

Next *regularly*-scheduled Subcommittee meeting: **Tuesday, October 12, 2021 10:00 a.m**

Subcommittee Activity since Jan 1, 2021

Number of Meetings	New Member Applications	Terminations	Other Actions
11	27	16	2 <ul style="list-style-type: none"> • (NEPGA recommendation) • (Associate Non-Voting Participant Proposal recommendation)

2021 NEPOOL Membership Totals (as of September 10, 2021)

New Members	Terminations				Gen	TO	Supplier	POE	AR	End User	Other
28	16	Total Members	522		66	20	216	62	88	45	25
		Voting Members	288		12	5	136	59	24	38	14

Membership Subcommittee-Recommended ANVP Proposal (2021.09.10)

A. Delete definition of Fuels Industry Participant¹ and replace with the following definition of “Associate Non-Voting Participant”:

1.9A Associate Non-Voting Participant is a Participant that is determined by the Participants Committee or its designee to be an Associate Non-Voting Participant. Notwithstanding any other provision of this Agreement, an Associate Non-Voting Participant shall not have the right to join, or be or vote as a member of, a Sector. An Associate Non-Voting Participant, which is not a Related Person of another Participant, shall have the right however, to appoint to each Principal Committee a non-voting member, and an alternate to that member. Such a non-voting member and alternate shall have all of the rights of any other member of a Principal Committee except the right to vote or to serve as an officer of a Principal Committee.

B. Participants Committee resolutions to be approved concurrently with the balloting of the Agreement to approve the changes in A. above:

1. Determination that each Fuels Industry Participant² is an Associate Non-Voting Participant.
2. Delegation of Authority to the Membership Subcommittee to determine an Applicant to be an Associate Non-Voting Participant if it is either:

¹ 1.28A Fuels Industry Participant is a Participant that either (i) meets all four of the following criteria: (a) the Participant is engaged in the production, gathering, processing, marketing, or transmission of natural gas for sale at wholesale or retail in one or more of the New England states; and (b) the Participant does not participate directly in the New England Markets; and (c) the Participant is not eligible to join or designate a voting member of a Sector (other than the End User Sector); and (d) the Participant elects to be treated as a Fuels Industry Participant before its membership application is approved by NEPOOL; or (ii) is determined by the Participants Committee to be a Fuels Industry Participant. Notwithstanding any other provision of this Agreement, a Fuels Industry Participant shall not have the right to join, or be or vote as a member of, a Sector. A Fuels Industry Participant, which is not a Related Person of another Participant, shall have the right however, to appoint to each Principal Committee a nonvoting member, and an alternate to that member. Such a non-voting member and alternate shall have all of the rights of any other member of a Principal Committee except the right to vote or to serve as an officer of a Principal Committee.

2 Current Fuels Industry Participants are:

gas industry participants

Algonquin Gas Transmission
Excelerate Energy
Repsol Energy North America

energy sector trade associations

Advanced Energy Economy (AEE)
American Petroleum Institute (API)
NEPGA

(i) a gas industry participant (i.e. an Entity that meets all four of the following criteria: (a) the Participant is engaged in the production, gathering, processing, marketing, or transmission of natural gas for sale at wholesale or retail in one or more of the New England states; and (b) the Participant does not participate directly in the New England Markets; and (c) the Participant is not eligible to join or designate a voting member of a Sector (other than the End User Sector); and (d) the Participant elects to be treated as an Associate Non-Voting Participant before its membership application is approved by NEPOOL); or

(ii) an energy sector trade association (i.e. an organization of Entities engaging in the storage, production, supply, transportation, or distribution of energy, organized to promote and improve business conditions in the energy sector and not to engage in a regular business of a kind ordinarily carried on for profit, and no part of the net earnings of which inures to the benefit of any of its members).

Applicants not meeting these definitions must, absent later delegation to the Membership Subcommittee, be determined by the Participants Committee to be an Associate Non-Voting Participant.