# NEPOOL Power Supply Planning Committee (PSPC)

*Meeting No. 331*
*July 26, 2018*
*DoubleTree by Hilton Boston-Westborough*
*Westborough, MA*

| Attendee Name | Affiliation |
|---|---|
| Melanie Buell (Secretary) | ISO New England Inc. |
| Margo Caley | ISO New England Inc. |
| Dorothy Capra | NESCOE |
| Dave Cavanaugh* | NRG Power Marketing LLC |
| Quan Chen | ISO New England Inc. |
| Jeff Dannels* | Consolidated Edison |
| David Errichetti | Eversource Energy |
| Frank Ettori* | VELCO |
| Brian Forshaw | CMEEC |
| Bill Fowler | Sigma Consulting |
| Nick Gangi | Eversource Energy |
| Jeff Iafrati* | Customized Energy Solutions |
| Eric Jacobi | FERC |
| Tom Kaslow* | FirstLight Power Resources Management LLC |
| Manasa Kotha | ISO New England Inc. |
| Brett Kruse* | Calpine Energy |
| Bruce McKinnon* | Norwood and South Hadley Municipals |
| Susan Muller* | Boreas Renewables |
| Michael Purdie* | Dominion Energy Marketing |
| Maria Scibelli (Chair) | ISO New England Inc. |
| Bob Stein* | Signal Hill Consulting Group, LLC for H.Q. Energy Services (US) Inc. |
| Peter Wong | ISO New England Inc. |
| Fei Zeng | ISO New England Inc. |

* *Indicates attendance by phone*

# 1 Administrative

### 1.1 Chair Report

Chairwoman Scibelli reported on the schedule for the Reliability Committee (RC) review of Installed Capacity Requirement (ICR) assumptions, noting that the impacts of the proposed assumption changes will be discussed today and, with that, the PSPC technical review of the proposed changes will be considered completed.

### 1.2 Draft Minutes of Meeting No. 330

Chairwoman Scibelli announced the draft version of the May meeting minutes were undergoing final review and would be posted the following week.

# 2 Impact of Proposed Assumption Changes on ICR Values

Mr. Wong and Mr. Zeng presented the analysis of the impacts resulting from the proposed assumptions changes on the ICR and other related values. These assumptions included a change from 200 MW to 700 MW of minimum Operating Reserve, a change from 1.5% to 1% load relief assumed obtainable from 5% voltage reduction, and using Equivalent Forced Outage Rate demand (EFORd) for peaking resource unavailability instead of the 20% derate in the Transmission Security Analysis (TSA).

Mr. McKinnon asked if the Annual Reconfiguration Auctions (ARAs) minimum Operating Reserve assumption for ICR calculations is also being changed to 700 MW. Mr. Wong replied that all ICR and associated values for the 13th Forward Capacity Auction (FCA 13) and ARAs occurring in 2019 will be calculated using the proposed 700 MW of minimum Operating Reserve assumption.

Mr. Dannels questioned if the minimum Operating Reserves requirement referred to 10-minute spinning reserves. Mr. Wong explained the ISO needs only to specify the 700 MW of minimum Operating Reserves.

Ms. Capra stated that increasing the operating reserve by 500 MW is adding an extra 500 MW amount of capacity to what consumers have to pay for when it has not been shown that this is needed. She does not believe that this is appropriate for planning purposes. Chairwoman Scibelli explained that the 200 MW operating reserve was an assumption from 1980. The increase of 500 MW was to accommodate for changes in the system over the past 30 years. Mr. Wong went on to explain that the 700 MW that ISO Operations is trying to maintain is for other contingencies such as maintaining tie line flow and frequency control.

Ms. Capra asked if any benchmarking had been done against other systems with high penetrations of renewables to gauge their requirements for minimum Operating Reserves. Mr. Wong replied that the question brought out a good point and that the ISO will investigate future control room experiences.

Mr. Forshaw agreed that the 700 MW minimum Operating Reserve assumption protects against various contingencies, but he shares concerns that the value may be too high.

Ms. Capra commented that the states have spent a lot of time and money to decrease New England load using Energy Efficiency and other options, but the ISO finds ways to keep ICR high through planning assumptions. Chairwoman Scibelli recognized Ms. Capra's concerns, but given the general support of the

PSPC for the 700 MW, she noted that the ISO will move forward with use of the 700 MW Operating Reserve for FCA 13 and ARA ICR calculations.

Mr. Errichetti asked Mr. Zeng if the fact that the Local Resource Adequacy Requirement (LRA) in Southeast New England (SENE) increased means that this is because the rest of pool is not able to help SENE. Mr. Zeng replied that this is not the case. The LRA increased in SENE only because it has a large share of the system load and the 700 MW of minimum Operating Reserve is modeled as increased load in the subareas.

Mr. Errichetti asked if Mr. Zeng had consulted the rules when preparing the demand curves because he did not believe "the shelf" should shift to the right. Mr. Zeng replied that the program that produces the curves automatically produces "the shelf" according to the current rules.

Mr. Stein questioned if tie benefits decreased with the 700 MW minimum Operating Reserve and 1% assumed load relief from voltage reduction assumptions because the system would need these actions less. Mr. Zeng replied that with these assumption changes there is a need for more internal resources and as such there is less need for tie benefits in emergency operating procedures.

Mr. Dannels asked if the demand curve for FCA 13 will have a different shape than the FCA 12 benchmarked curves presented today. Mr. Zeng replied that the shape of the curve is relatively stable and he does not expect any changes in the shape relative to Net ICR since the curve is calculated as the derivative (or change) in expected energy not served (EENS) which does not change much.

In response to the benchmarked decrease in projected reserve deficiency hours from approximately 11 to approximately 3 when modeling 700 MW of minimum Operating Reserve and 1% assumed relief from voltage reduction, the PSPC had questions on how to capture the impact of operational capacity issues in this study. Mr. Wong agreed that this analysis does not capture day to day operational impacts. Mr. Stein replied that Shortage Hours are usually due to a trip of a large generating unit and not resource adequacy, and agreed that buying more capacity in the FCA would not address fuel security issues. Mr. Dannels suggested that perhaps increasing resource outage rates to address fuel security issues would be appropriate. Mr. Wong reiterated that fuel security is not an installed capacity requirement issue but rather an operational capacity issue, especially since this issue is winter related.

## 3 Remaining Issues on the 2018 Reliability Committee Review of ICR Assumptions

Chairwoman Scibelli introduced Agenda Item 3.0 noting that two questions were brought forward at the May 29th PSPC meeting and this presentation will address these questions. In addition, at the end of the presentation she will gather final PSPC comments regarding the RC review of ICR assumptions for a report to the RC at their July 31, 2018 meeting.

Mr. Wong stated that the first question was a request for the annual system-wide EFORd values for the New England generating resources over the period that makes up the 5-year rolling average EFORd used in the ICR model. Mr. Wong presented these values and the PSPC thanked him for the information.

The other question asked how the ISO could propose an assumption of 700 MW of minimum Operating Reserve in ICR calculations when other analyses are showing that shedding even one MW of Operating

Reserve is a violation. Mr. Wong noted that with the new proposed multipronged fuel security analysis trigger including any hour of 10-Minute Operating Reserve depletion below 700 MW in more than one scenario, the two analyses are more aligned.

Mr. Kaslow agreed that with the newly proposed fuel security triggers, the analyses are more aligned but added that Stakeholders will be proposing other possibly more appropriate triggers and commented that there are still more issues to be discussed around fuel security. Ms. Capra reminded him that fuel security is a different issue than ICR and is still under discussion at the RC. Mr. Kaslow stated that while one analysis is determining resource adequacy and the other addresses lack of fuel; the ICR is an annual product that give resources an obligation to be available whenever needed, including the winter, so the two analyses cannot be completely divorced.

Mr. McKinnon expressed his belief that the 200 MW minimum Operating Reserve assumptions was no longer adequate but he went on to say that he was apprehensive about the 700 MW assumption being too high. He was, however, in support of the change.

Mr. Cavanagh was concerned about costs to consumers with the increased 700 MW of minimum Operating Reserve assumption. He added that while he agreed with Mr. Dannels that EFORd needs to be evaluated in the fuel security analysis, he agrees this is a winter issue and not related to ICR.

Mr. Stein stated that he was happy to see the minimum Operating Reserve assumption in ICR calculations go up to 700 MW. He added that he thought it should be higher. He was not in agreement with regards to the application of fuel security related outages to the EFORd in ICR because he did not believe the two were meant to be factored together and added that buying more capacity due to winter fuel security issues is incorrect.

## 4 Assumption for Calculating ICR Values for FCA 13 (2022-23)

### 4.1 Tie Benefits Study Results

Mr. Chen reviewed the tie benefits study results for Capacity Commitment Period (CCP) 2022-2023 (FCA 13).

Chairwoman Scibelli noted that in a conversation with Mr. Jose Rotger of Cross-Sound Cable Company LLC earlier in the week, she was asked to note in the minutes his objection to the lack of a reliability contribution assigned to the Cross-Sound Cable.

Mr. McKinnon asked how the new tie in Nova Scotia was handled in this study. Mr. Zeng replied that the new tie had not been reflected in this study because the data provided from the Northeast Power Coordinating Council (NPCC) did not reflect the tie. Mr. McKinnon stated that the tie line is in operation so he does not understand why it is not in the data. Mr. Wong followed that, in a presentation to the North American Electric Reliability Corporation (NERC) Reliability Assessment Subcommittee that he was part of, the observation was that the tie had minimal impact from a capacity standpoint. He promised to send Mr. McKinnon a copy of the presentation.

### 4.2 Assumptions for Calculating the ICR Values

Ms. Kotha reviewed the assumption for the development of the ICR and related values as well as the Committee review and Federal Energy Regulatory Commission (FERC) filing schedule. She noted that this version of the presentation captured unconditional retirements and terminations that have occurred since the May presentation.

Mr. Dannels questioned if the demand curves for FCA 13 will be stretched due to the higher auction starting price versus FCA 12. Mr. Zeng replied that he does not believe it will have this impact since the curve is shifting to the left due to the increased minimum Operating Reserve assumption.

Mr. McKinnon asked if the Mystic 8 and 9 generating units are included with the Existing resources. Ms. Kotha replied that they are included because the FERC Order has allowed the owners until January 2019 to make final decisions on retirement. Mr. Dannels questioned if a resource has elected an unconditional retirement prior to June 6, 2018, they would not be included in the Existing resources. Ms. Kotha clarified that this is correct.

### 4.3 TSA Assumptions

Ms. Kotha went through the assumptions for calculating the TSA Requirements for the SENE import-constrained Capacity Zone for FCA 13. Mr. Errichetti questioned if the Local Sourcing Requirement (LSR) will be set by the LRA since the TSA will be lower. Ms. Kotha reminded the PSPC that the change from the 20% derate for peaking resources in the TSA to EFORd will not be applicable until the 14$^{th}$ FCA (FCA 14) so the TSA Requirement for FCA 13 will not be lower due to that assumption change.

## 5 Assumption for Calculating ICR Values for 2019 ARA3, 2020 ARA2, 2021 ARA1

### 5.1 Tie Benefits Study Assumptions

Mr. Chen reviewed the assumptions and process for calculating tie benefit values from neighboring Control Areas to New England for ARA 3 for the 2019-2020 CCP.

### 5.2 & 5.3 Assumptions for the ICR Values Calculations

Ms. Kotha reviewed the ICR and related values assumptions, development schedule, NEPOOL committee review, and the FERC filing schedules for the ARAs for CCP 2019-2020 through CCP 2021-2022.

## 6 Next Meeting

The next meeting will be held in Westborough, MA on Thursday August 30, 2018.

Respectfully Submitted,
H. Melanie Buell
NEPOOL Power Supply Planning Committee