

To: ISO-NE
From: NESCOE
Date: July 9, 2018
Subject: Operationally-oriented Questions on Fuel Security and Problem Statement

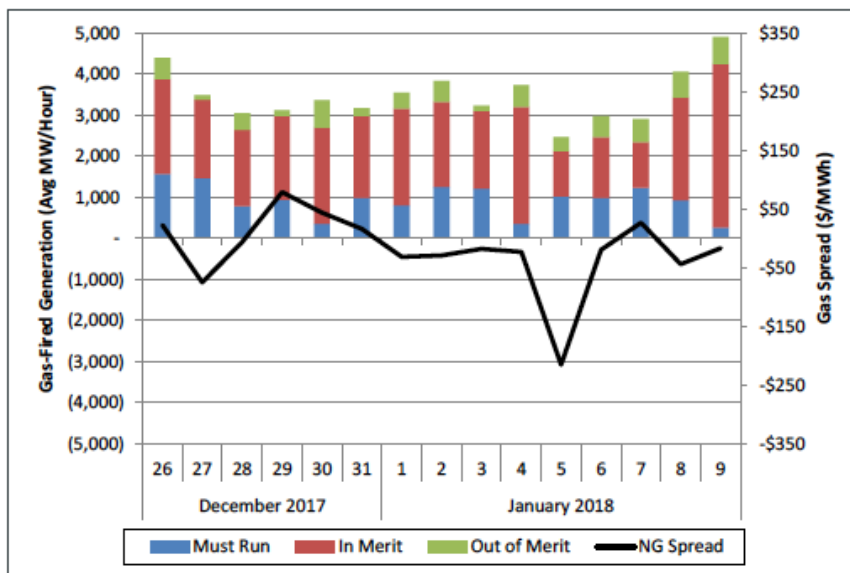
State officials' discussions with NEPOOL Sectors at the June 2018 NEPOOL Participants Committee meeting highlighted questions related to ISO-NE's fuel security concerns and the need to better understand ISO-NE's operational concerns prior to exploring potential market solutions. NESCOE would appreciate ISO-NE providing information in response to related questions below.

Similarly, state officials' discussions with NEPOOL Sectors underscored the continuing need for ISO-NE to issue, based on its operational and market experience and analysis, the specific long-term fuel security problem that ISO-NE believes New England needs to solve.

NESCOE understands that ISO-NE intends to defer stakeholder meetings on the long-term ("Chapter 3") project in order to meet the August 31, 2018 timeframe FERC directed in its Mystic 8/9 Waiver Order (Docket Nos. ER18-1509 and EL18-182). ISO-NE noted in its July 3, 2018 communication to states and stakeholders that it remains open to receiving stakeholder feedback on Chapter 3 until ISO-NE resumes those stakeholder meetings. We agree that while the near-term stakeholder meetings need to focus on the August 31, 2018 compliance filing, the region is best served by everyone continuing to think about the potential range of long-term solutions that may satisfy power system needs, state jurisdictional and otherwise. To enable states to make productive use of time between now and the resumption of discussions about potential long-term solutions that may satisfy ISO-NE's concerns about winter power system reliability, NESCOE requests that ISO-NE release its problem definition at this time or alternatively, explain why that is not possible.

We believe that a period of time to consider ISO-NE's long-term problem statement and the operationally-oriented information requested below will help states, stakeholders and ISO-NE continue our collaborative approach to solution development and we appreciate ISO-NE's assistance to this end.

Figure 4-9: Real-Time Gas-Fired Generation by Commitment/Dispatch Type



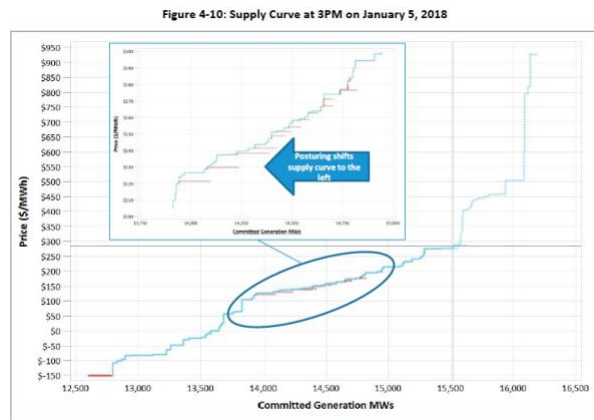
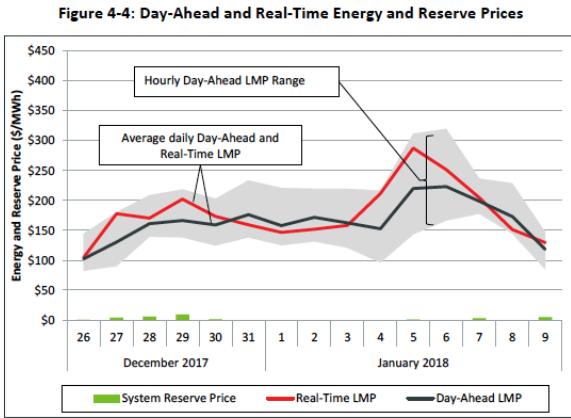
Source: ISO-NE 2018 Winter Quarterly Markets Report

The states heard various market participants’ perception that when fuel security issues arise, ISO-NE system operations intervene and inadvertently distort energy and reserve market prices. Please refer to the graph above for an illustration.

If this perception is supported by facts, market participants are concerned that 1) energy market price formation is understated and 2) the shortage event concept underlying the Pay-for-Performance (PfP) market design will trigger far less frequently than expected at the time of program adoption, if at all. To that end, states, and we believe based on discussions many stakeholders, would benefit from better understanding the types of actions taken by ISO-NE system operations during fuel insecure periods, especially the recent cold snap last winter. (To be clear, questions about ISO-NE system operators’ management of the power system during tight power conditions are entirely about understanding the problem; they are not and should not be interpreted as judgment.)

1. What specific out-of-market / non-economic actions did System Operations take during the cold snap?
2. How many hours were affected by such actions?
3. Please describe the standards by which ISO-NE system operations decide to intervene, with particular focus on those actions that tend to affect prices or would likely limit PfP shortage events?
4. The graphics from the recent cold snap below illustrate potential market impacts associated with system operator actions to reinforce fuel security. Are energy and reserve

prices reflecting the regional fuel security value of operators' posturing resources and/or fuel-focused commitments?



Source: ISO-NE 2018 Winter Quarterly Markets Report

Any market-based solution to the region's fuel security challenges requires ISO-NE to estimate the amount of fuel security (or "energy secure infrastructure", a term ISO-NE coined at the June 2018 fuel security meeting and agreed to define) to be procured by the market. To the extent ISO-NE uses *historical* weather, loads, and electricity market results in New England to inform potential regional fuel security procurement quantity estimates going forward, states and stakeholders would benefit from better understanding how ISO-NE will use that information. Specifically, the question is how ISO-NE will compare information from different time periods with different wholesale market incentives (e.g., before the winter program, during the winter programs, after Pfp implementation) and the likelihood of past conditions being reasonably accurate predictors of future conditions.

5. Please explain how previous years' winter weather and energy security metrics – with Winter Program incentives and without Pay for Performance incentives – are indicative of upcoming winters' energy security needs?