

Statement of Samuel A. Newell of The Brattle Group on Behalf of NextEra Energy Resources

For the Staff-led Public Meeting regarding ISO New England's Long-Term Fuel Security Proposal (Docket Nos. EL18-182-000 *et al.*) at the Federal Energy Regulatory Commission on July 15, 2019

The objective of this effort is to meet ISO New England, Inc.'s (ISO-NE) energy security needs competitively and efficiently in-market, rather than relying on out-of-market solutions that are inefficient and undermine the viability of in-market resources.¹ Developing market-based solutions is critical as many existing energy-secure resources consider retiring, others consider their fuel procurement strategies, and a great variety of new resources consider entering—at a time when the region risks not meeting winter energy security needs, according to ISO-NE's statements, its Operational Fuel Security Assessment (OFSA), and Mystic Reliability Must-Run (RMR) filing. ISO-NE has not explicitly defined the needs, but it implies a need to be prepared for various scenarios regarding the loss of energy-secure supplies during severe cold conditions, particularly those that result in depleting fuel inventories across multiple days (referred to below as “energy security contingencies”).

ISO-NE's proposal would likely provide *some* improvement: a voluntary multi-day-ahead market (MDAM) will help coordinate the market's management of fuel procurement and scarce inventories across multiple days. In addition, ISO-NE proposed package of new day-ahead ancillary services will help ISO-NE to commit enough megawatts in-market to meet its day-ahead forecast. The proposed financial options may somewhat increase sellers' incentives to secure energy to the extent that: (1) the resource would have enough time to respond if needed in real-time, such that having secure fuel would make a difference; and either (2) selling an option causes suppliers to optimize their preparedness against what expected spot prices would be absent their resource rather than the lower price that would prevail with their own lumpy entry; or (3) suppliers may be slightly more conservative about being prepared to cover a short position (*i.e.*, not selling a “naked option”) vs. capturing a long position absent the option.

However, ISO-NE's proposal likely fails to accomplish its objective to incent preparedness for a variety of energy security contingencies. The instruments that ISO-NE proposes are financial, not physical (in terms of secure MWh). They would settle at real-time market prices based on the same real-time market design and demand

¹ In its Phase 2 filing, the Inventoried Energy Program, ISO-NE's describes its long-term goal as developing “a market-based solution to the region's energy security challenges.” *ISO New England, Inc.*, Transmittal Letter, Docket No. ER19-1428, p. 1 (Mar. 25, 2019).

for energy + operating reserves as today.² As a result, ISO-NE's proposal would not substantially increase incentives for suppliers to secure their energy, except to the extent that the assumptions noted above apply. Suppliers would still basically optimize their physical investments and fuel procurement decisions around *expected* spot prices for meeting the *same* energy and operating reserves, not the energy security contingencies ISO-NE aims to protect against. If contingencies are unlikely, expected spot prices will barely account for them, even if they are deemed important from a reliability perspective (as suggested by the OFSA). Although ISO-NE's proposed new day-ahead ancillary services sound contingency-oriented, they do not actually provide much incremental incentive to prepare for contingencies that are unlikely (since investing or procuring fuel is justified only if the expected payoff is positive). We would pose the following question for ISO-NE: to what extent would its proposal lead to different investment assumptions and fuel procurement assumptions in the next OFSA or RMR request, and thus obviate the need for RMRs?

We are offering an alternative proposal in the NEPOOL process that can meet ISO-NE's objectives by actually increasing the in-market demand for energy plus reserves consistent with the amount of preparedness for energy security contingencies ISO-NE seeks.³ It does so by introducing a new Strategic Operating Reserve (SOR) of secure energy-backed megawatts, in both the day-ahead and real-time markets. SOR provides a revenue mechanism for energy-secure resources that may not clear for energy but could be needed in the energy security contingencies ISO-NE aims to protect against. Through the co-optimization of energy and ancillary services, SOR also appropriately translates into higher energy and OR prices when energy secure reserves become tight relative to ISO-NE's demand for energy plus reserves, supporting reliable operations.

Moreover, resulting price signals translate backward into the procurement and investment timeframes. If the SOR quantity procured (through a demand curve) is high enough, it could increase the market equilibrium amount of preparedness for energy security contingencies enough to obviate the need for any additional RMR agreements.

Our proposed SOR is an alternative to ISO-NE's "replacement energy reserves." However, it is highly compatible with ISO-NE's proposed MDAM. It could also complement a variant of ISO-NE's proposed "energy imbalance reserves" and "generation contingency reserves," although we would define those as forward contracts to provide physical real-time reserves (*i.e.*, traditional day-ahead reserves similar to other regions), rather than financial call options.

² Furthermore, by encouraging preparedness yet not increasing real-time demand, this design could actually depress real-time prices. This could send the wrong signals and/or cause misalignment between real-time energy prices and forward prices that account for ISO-NE's proposed new day-ahead products.

³ The Brattle Group/NextEra Energy Resources' proposal is described in last week's presentation to the NEPOOL Markets Committee: "ISO-NE Long Term Market Reforms Fuel Security," presented by Michelle Gardner of NextEra Energy Resources, July 10, 2019; presentation available here: <https://www.iso-ne.com/event-details?eventId=137579>. In addition, the proposal has been translated into a mathematical formulation that has been recently shared with ISO-NE.