

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

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ISO New England Inc.	)	Docket Nos. EL18-182-000
	)	ER18-2364-000
	)	ER19-1428-000
	)	ER13-2266-004
Constellation Mystic Power, LLC	)	ER18-1639-000
	)	ER18-1639-002
	)	ER18-1639-003

**Statement of Brett Kruse  
Vice President of Market Design  
Calpine Corporation  
July 15, 2019 Staff-Led Public Meeting**

**NEPOOL Panel**

Thank you for the opportunity to participate on this panel and provide Calpine’s perspective on the current state of designing a long-term market-based solution for fuel security in the ISO-NE region. We appreciate the Commission’s directive to ISO-NE to resolve the fuel security issues in a manner that will allow resources to compete and markets to produce a cost efficient solution for winter fuel security.

I am Brett Kruse, Vice President of Market Design with Calpine Corporation. Calpine is an independent merchant generator with nearly 26,000 MW of generation capacity from 77 power plants located across the United States. Calpine is an active participant in most of the wholesale regional markets, and we also sell directly to retail customers in 25 states. We own three natural gas power plants in the ISO-NE region that produce approximately 2,000 MW of electricity.

As a merchant generator, Calpine relies entirely on the competitive wholesale markets for revenue. Out-of-market actions such as the RMR contract awarded to the Mystic 8 & 9 units to ensure fuel security in the region undermine competitive market outcomes and can result in the need for further out-of-market actions in order to ensure grid reliability. It is therefore imperative that a long-term, market-based solution be developed and implemented as soon as possible to ensure that the region is fuel secure in the future and the competitive markets are free from further interference.

Over the past several years, ISO-NE markets have been phenomenally successful in lowering wholesale prices and reducing emissions, while at the same time generally improving reliability. Today, nearly 50 percent of the region's generating capacity is fueled by clean burning natural gas. Natural gas generation is flexible and fast, allowing it to provide needed energy when renewable sources of energy are unavailable because the wind is not blowing or the sun is not shining, but also provides the grid-stability and reliability services that renewables cannot provide.<sup>1</sup> A key component of the market structure has been the Forward Capacity Market ("FCM") which procures enough capacity to meet a summer peak, plus an adequate reserve margin. Yet, as became clear when the Mystic 8 & 9 units threatened to retire, there is a growing reliability concern during extended cold weather periods when demand for natural gas could surpass the natural gas pipeline capacity in the New England region.

We believe it is essential that ISO-NE develop a non-discriminatory market mechanism for ensuring winter reliability going forward. This need has become abundantly clear with ISO-NE's election to again RMR the Mystic units for FCA 14. This decision was justified by various assumptions including a key assumption that there would be no LNG imports to the Northeast

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<sup>1</sup> See 2019 *Regional Electricity Outlook ISO New England*, at pg. 17.

Gateway Deepwater Port facility, despite its record peak day deliveries this past winter. Calpine purchased flexible LNG into this facility for this past winter, and we certainly believed that we could enter into similar agreements for the delivery years for FCA 13 and 14. In fact, we believe many other alternatives (including additional oil backup) would have been available to ISO-NE at less than half the cost of the Mystic RMR contract, if only ISO-NE would have opened their fuel security efforts to competition.

In order to avoid the need for future RMR contracts for Mystic or any other fuel secure facility, Calpine has been developing a fuel security proposal that runs concurrently with the three-year ahead FCM. We believe the fuel security procurement process should be done in the same timeframe as the FCM for two reasons: first, so that ISO-NE knows it has sufficient fuel-based winter reliability in the planning timeline so that it can avoid future RMR designations; and second, so that resource owners have enough time to make new investments that allow increased fuel security, such as building new back up fuel oil tanks, or contracting forward with LNG suppliers.

Before providing more details on Calpine's proposal, I would like to address the proposed set of operating reserve enhancements ISO-NE believes will solve the long-term fuel security problem. We don't believe they will. These are simply operational enhancements that do nothing to address the long-term fuel security issue. However, as operational enhancements, we are generally supportive of ISO-NE's plan to co-optimize reserves in the day-ahead market as an improvement to energy market price formation, with one caveat – these enhancements must ensure that the reserve commitments in the day-ahead market become physical commitments to provide the service in real-time. The current ISO-NE proposal does not do this. Reserves committed in the day-ahead market can essentially buy out of their position in real-time, making

the commitment financial, not physical. As a result, we do not believe real-time physical operations will improve from today's structure. To be clear, however, even if implemented correctly, ISO-NE's proposal is simply an operational enhancement and will not address the long-term fuel security issue. A forward product is needed.

### **Calpine's Forward Enhanced Reserves Market**

Calpine has been developing a new product, referred to as the Forward Enhanced Reserves Market ("FERM") to better align a market design with the identified problem. FERM is designed to procure fuel-secure MWhs for three winter months three years prior to the obligation year. ISO-NE would qualify resources based on their ability to contract for stored fuel or readily use stored energy. Suppliers would submit offers into the auction for a minimum or maximum amount of MWhs they commit to offer from stored fuel during an ISO-NE defined "Operating Procedure 21 Energy Emergency Event" during the commitment period. Suppliers that clear the market would be given a FERM obligation which would require them to offer into the energy market and generate when dispatched during an Emergency Event. Failure to operate would subject FERM suppliers to penalty.

FERM strives to bridge a gap in today's existing products by providing the ISO-NE operations team with the appropriate *in market* tools to manage grid reliably around forecasted fuel system constraints. By holding the auction three years ahead of the delivery year, ISO-NE will be sending a forward price signal to the market to appropriately invest and manage risk around fuel supply arrangements.

The Commission was clear in its prior orders that ISO-NE must implement a workable market-based approach to address winter fuel security. We believe a forward market component is critical to achieving this goal. ISO-NE assures stakeholders that its operating reserves

enhancements proposal sufficiently solves the fuel security problem the region faces in 2025 and also addresses the forecasted problem in 2030 from a high penetration of intermittent resources. While Calpine believes ISO-NE's reserves enhancements proposal could improve the energy market if a real-time component is required, we do not believe it will ensure adequate fuel security in future years and could very likely lead to additional RMR contracting in order to prevent other fuel secure resources from retiring. We have an opportunity to get the market design right with a forward product, and we urge the Commission to give careful consideration to the need for such a mechanism.

### **Conclusion**

Ensuring adequate fuel supplies in future winter seasons requires development of a forward, physical product such as FERM, and we urge ISO-NE to incorporate this type of product into its proposal.

Thank you for the opportunity to participate in this technical conference. I look forward to answering your questions and exploring these issues in more detail.