

To: NEPOOL Participants and Markets Committees

From: Vamsi Chadalavada, Executive Vice President and Chief Operating Officer

Date: September 30, 2019

Subject: Proposed Energy Security Improvements Work Plan

In light of the FERC's recent extension of time in Docket No. EL18-182-000, this memo summarizes the ISO's proposed work plan on the Energy Security Improvements (ESI) project from October 2019 until April 2020. The ISO has indicated four distinct areas where it anticipates market-design progress.

1. Core day-ahead ancillary services design
2. Impact assessment of day-ahead ancillary services
3. Conceptual framework for mitigation of day-ahead ancillary services
4. Forward market construct

This memo indicates likely accomplishments within these areas over the six months remaining before the requested technical committee vote. As previously noted, additional work (e.g., changes to Net Commitment Period Compensation rules) will be needed beyond the initial filing to enhance our efforts.

1. Core day-ahead ancillary services design

With the additional time, the ISO has multiple objectives it would like to achieve. First, we need to spend more time on our technical assessment of the design by translating the proposal into mathematical formulas to ensure it can be captured accurately in our market software. If any refinements to the design result from that effort, we will discuss them with stakeholders. Second, in order to help stakeholders better understand the ISO proposal, our staff will provide additional information and examples. We will also provide more clarity on how the ISO proposal meets our stated objectives and specifically relates to fuel security. Finally, if stakeholders offer proposals that modify or refine the ISO's core design, the ISO will need time to analyze and discuss those items as they develop.

While the bulk of the assessment work is anticipated to take place internally, we anticipate external presentations related to these efforts would occur from November – February, at which time Tariff language would again be presented for review.

2. Impact assessment

The FERC extension allows the ISO and the Analysis Group to enhance its production-cost model and complete a number of additional scenario simulations requested by stakeholders. This work will include

efforts to extend the model to capture expected impacts beyond the winter months, which we know is an area of interest.

The ISO plans to discuss potential modeling enhancements with stakeholders over the next two months and then will review additional results with stakeholders through February. We anticipate having a draft impact analysis report available for stakeholders in February, with a final report completed before the April filing.

3. Conceptual framework for mitigation

Assessing potential market power conditions under the proposed design is an important area of discussion with stakeholders. The ISO anticipates further information from both the external and internal market monitors will be helpful in this regard. The External Market Monitor's experience with day-ahead ancillary services in other regions allows Dr. Patton to provide his perspectives on a conceptual framework for mitigation compatible with the ISO's ESI proposal. The ISO can then apply data modeling to identify if there are anticipated market power conditions under the design. By the end of the year, the ISO should have information about modeling tools to scope out plans for conducting a market power assessment.

To achieve this, Dr. Patton will share his conceptual design approach and engage in discussions with stakeholders starting in January. Information on the market power assessment would follow. Using this process, the ISO should be in a position to assess and develop a detailed mitigation design and market rules for a later filing, while also providing stakeholders with information about the prospective mitigation design approach before April 2020.

4. Forward Market Construct

The ISO understands that many stakeholders are interested in discussing whether a forward market construct also would improve the region's energy security needs. The ISO plans to make as much progress as feasible in this area before the April filing.

A forward market design is a significant undertaking that involves the development of a problem statement, design principles and objectives, a conceptual design, detailed design elements, and tariff language. Over the months leading up to the April filing, the ISO will conduct an initial assessment of the forward market options reviewed with the stakeholders earlier this month. Because this will be occurring at the same time we are working on the other ESI areas mentioned above, our detailed review will not be complete. However, we anticipate discussing the problem statement, design principles and objectives, and a conceptual framework with our stakeholders before the April filing. We believe this will provide sufficient information to signal to our stakeholders, and to FERC as part of the April filing, whether or not the ISO is committed to implementing a forward market.

We recognize that the extension granted by FERC provides some needed breathing room for the ISO and our stakeholders to take a deeper dive into a number of areas related to energy security improvements. We think addressing the areas above provides a good starting point for many of the issues, and look forward to productive discussions with all stakeholders.