

**TO:** NYISO

**FROM:** Marc D. Montalvo (on behalf of the New York State Utility Intervention Unit)

**DATE:** July 1, 2019

**SUBJECT:** Comments on “Reliability and Market Considerations for a Grid in Transition”

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The New York State, Department of State, Division of Consumer Protection, Utility Intervention Unit (“UIU”) appreciates the opportunity to comment on the whitepaper “Reliability and Market Considerations for a Grid in Transition” (“the whitepaper”). The context for the Whitepaper is the growing complexity and uncertainty around how the NYISO will reliably operate the bulk power system and administer an efficient market going forward given the number of changes happening simultaneously and quickly: large quantities of intermittent resources, battery storage technologies, distributed energy resources, to name a few. The whitepaper provides helpful insights into the way the NYISO considers these challenges and develops an array of possible design changes.

The NYISO sets out two guiding principles: “(1) all aspects of grid reliability must be maintained; and (2) competitive markets should continue to maximize economic efficiency and minimize the cost of maintaining reliability. (p. 5)” These principles are broadly consistent with the UIU’s objective. From the UIU’s perspective, the NYISO’s objective should be to pursue only those changes necessary to ensure consumers retain access to reliable and efficiently priced electricity. We recommend that the NYISO evaluate the need critically and consider design changes incrementally, with a rebuttal presumption that the existing market design is sufficient, and only offer changes when a design feature is shown to be (preferably through analysis and modeling) deficient.

In the whitepaper, the NYISO makes several statements that the UIU cautions may be too strongly worded and which consequently may inadvertently foreclose on beneficial lines of inquiry and possible solutions.

*“The key is to anticipate the needs for existing and new grid reliability services and proactively evolve the wholesale market design to accomplish those needs. (p.5)”*

*“... the grid will likely need more load-following capability, and possibly more fast response and flexible resources that provide operating reserves to address expected and unexpected changes in net load. The grid will also need a substantial amount of installed reserve capacity that is available to serve load when wind and/or solar generation output is insufficient for periods that may range from minutes to several days. (pp. 5-6)”*

*“In a future without market design enhancements, the wholesale market revenues will not support the investment of new flexible generation needed to maintain grid reliability. (p. 7)”*

The UIU suggests that it is not practical to “anticipate” all needs and that attempting to do so is as likely as not to put the NYISO on a development path that addresses only what it can see today, not what actually happens tomorrow. The market place is quickly changing and there are business models and technologies in R&D that five years from now may leave obsolete a solution built today based on an incomplete understanding of the state-of-the-art.

More broadly, the NYISO should pursue solutions that are applicable across a wide range of possible future states given the limitations of what we know now and the technology of today. It would be a mistake to assume that power electronics, generation sources, control systems, and demand-side technologies will not improve--perhaps dramatically--over the coming years, possibly eliminating what seem like big issues today. At a minimum, such changes may alter the parameters of the operations and reliability problem, rendering the solution stranded. Rather than seek to anticipate future outcomes, the NYISO should accept that there is much about the future that is uncertain and beyond solving for.

Finally, we suggest that the NYISO remain open to the idea that structures other than its centrally administered wholesale markets may be suited to procuring identified services. Just as the sources of services is changing, competitive market forces may be more effectively harnessed going forward through other market structures administered by other entities. The NYISO states,

*“[w]holesale markets must continue to reflect all grid reliability services needed through defined products, with product pricing that reflects the marginal, cost to serve or forego (when supply is scarce) the reliability need. (p. 5)”*

This statement may be presuming a solution before all the options are truly understood. For example, while it is true that all of the ancillary services required to reliably operate the power system must be procured, it may not necessarily be the case that they all are purchased through the NYISO’s centrally administered wholesale market. A goal of the grid in transition, then, should be to determine what is most efficient, and thus preferred by the market place, and then to facilitate the development of structures consistent with that determination.