



New York Reliability Council
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MEMORANDUM

To: NERC Board of Trustees
From: New York State Reliability Council (NYSRC)
Date: January 25, 2022
Re: Policy Input on Proposed SAR, "Fuel Assurance with Energy-Constrained Resources"

The New York State Reliability Council (NYSRC <https://www.nysrc.org/>) is pleased to respond to the request from NERC's Board of Trustees to provide policy input to the proposed SAR "Fuel Assurance with Energy-Constrained Resources".

The NYSRC was approved by the Federal Energy Regulatory Commission (FERC) at the same time as the formation of the New York State Independent System Operator (NYISO) to ensure that the reliability of New York State's bulk power system would be maintained in the transition to a fully competitive wholesale electricity market. The NYSRC has fulfilled this responsibility for more than 20 years. The NYSRC accomplishes this through the adoption of Reliability Rules that establish necessary requirements to protect the reliability of the state's bulk power system. These rules are more specific or more stringent than and are inclusive of, NERC and NPCC Standards. They are binding on the NYISO and its market participants.

NYSRC is actively involved in the subject matter, especially in the areas of assessing the impact on system reliability of increased penetration of renewable, intermittent resources and extreme weather. The NYSRC 2022 Goals document includes actions covering resource adequacy and transmission security, plus transmission operations and planning objectives covering these areas.

<https://nysrc.org/PDF/Documents/NYSRC%202022%20Goals%20%202022%20-%20EC%20Approved%2011-10-2021%20-%20Revised%201-18-2022.pdf>

NYSRC has expanded its oversight of resource adequacy of the New York Control Area to include forward looking LOLH & EUE metrics to complement the existing LOLE criterion. An example of the criticality of this issue can be found in New York State's Climate Leadership and Community Protection Act (CLCPA) which has New York power supply targets of 70% emission free energy by 2030 and 100% emission free energy by 2040.

Resource adequacy studies made by NYSRC and CLCPA indicate that the Installed Reserve Margin (IRM) must increase from the current levels of approximately 20% to over 160% to

achieve a 100% emission free target by 2040. Lesser but still major increases in the IRM in the years leading up to 2040 are required. In addition to large-scale deployment of wind and solar inverter-based resources, the supplemental resource capacity in the CLCPA study deploys significant amounts of long-term battery storage and variable resources such as from green H₂, resources that rely on technologies that do not currently exist for utility scale application. Clearly, system adequacy and transmission security will be challenged under these conditions.

The proposed SAR addresses the following assessment items:

- Definition of terms
- Performance metrics for comparison to targets or pre-defined criteria
- Assessment assumptions
- Inter-area coordination
- Wide-spread, long-term, extreme event analyses
- Procedural issues

The Board requests MRC policy input on the following questions:

Q1. Will the proposed approach summarized above and outlined in the SAR enable stakeholders to identify energy deficit risks and develop mitigations from energy constrained resources?

A1. NYSRC Answer:

- Yes, the NYSRC supports the SAR's objective of requiring assessments of the reliability impact of a grid having energy-constrained resources to supplement the historical focus on capacity-constrained resources with an assessment of energy assurance.
- To this end, the section of the SAR under the heading of NERC Reliability Standards Review reviews much of the critical criteria work that will be needed in the development of new or modified NERC Standards.
- The ability to identify risk and develop mitigation is dependent upon targets or pre-defined criteria in the new or modified NERC Standards.
- Given that the deployment of mitigation actions such as transmission reinforcement or interconnection of large-scale, long-term storage or dispatchable emissions free resources may take many years, it is necessary to know the specific metrics and minimum risk criteria for those metrics as early as possible.

Q2. Is there a preferred alternative approach to that outlined in the SAR, or enhancements to the proposed approach in the SAR, that would enable stakeholders to identify energy deficit risks and develop mitigations from energy-constrained resources?

A2. NYSRC Answer:

- A suggested enhancement to the proposed SAR would emphasize the need for analytical procedures for the assessment of risk with energy-constrained resources.
- It is recognized that limited analytical procedures currently exist in this area and it is suggested that their timely development is essential to the objective of the proposed SAR.

In its responses, the NYSRC conveys the time criticality of the work that is needed in the next few years for a successful transition to a decarbonized electric grid and agrees with NERC in calling this transition the greatest risk to reliability in the next 10 years.

Respectfully submitted,
New York State Reliability Council