Items of Interest from Federal Energy Regulatory Commission June 16, 2022, Open Meeting: Commission Takes Action on Reliability, Extreme Weather

1 message

FERC - State Relations <FERCStateRelations@ferc.gov> Thu, Jun 16, 2022 at 11:32 AM
To: Robert Thormeyer <Robert.Thormeyer@ferc.gov>

Dear State Colleagues,

We are writing to provide you updates on the Commission's ongoing work around the reliability of the electric grid and would also like to notify you of two important actions the Federal Energy Regulatory Commission took today.

First, by way of background, we have attached a fact sheet detailing the Commission's relevant authorities and actions that support the reliability of the system. These include working with grid operators and other stakeholders to ensure increased access to shared resources during tight conditions, ensuring resources are available when needed, improving efficiency and resilience of the transmission grid, information sharing and planning, and monitoring the grid and communicating risks.

Second, the Commission at its June 16 open meeting took the following additional actions:

- The Commission issued proposing to require the North American Electric Reliability Corporation (NERC) to develop reliability standard modifications to require that:
  - NERC develop benchmark planning cases based on information such as major prior extreme heat and cold weather events or future meteorological projections;
  - Transmission providers conduct studies of extreme heat and cold conditions including the expected resource mix's availability during such extreme conditions; and
  - Transmission providers develop corrective action plans for any instances where performance requirements for extreme heat and cold events are not met. (RM22-10)

- The Commission proposed to direct transmission providers to submit one-time reports describing their policies and processes for conducting extreme weather vulnerability assessments.

A press release summarizing both proposed rules is available here: FERC Acts to Boost Grid Reliability Against Extreme Weather Conditions

The staff presentation describing these two proposed rules is available here:

- Staff Presentation | NOPR on Transmission System Planning Performance Requirements for Extreme Weather
- Staff Presentation | One-Time Reports on Extreme Weather Vulnerability Assessments

Please let us know if you have any questions. Once available, we will circle back and share the two orders.

Rob

Rob Thormeyer

Director, State, International, & Public Affairs Division

Federal Energy Regulatory Commission

Robert.thormeyer@ferc.gov

(w) 202-502-8694

(cell) 202-465-5717

RESOURCE ADEQUACY AND SYSTEM RELIABILITY: FERC ACTION

The Federal Energy Regulatory Commission (FERC or the Commission) is an independent agency that regulates the interstate transmission of natural gas, oil, and electricity, among other things. Under sections 205 and 206 of the Federal Power Act (FPA), the Commission ensures that the rates, terms, and conditions for the transmission and sale for resale of electric energy in interstate commerce are just and reasonable and not unduly discriminatory or preferential. Pursuant to those provisions, the Commission has authority to ensure resource adequacy for the bulk power system, although that responsibility is frequently exercised in conjunction with state entities consistent with the FPA's division of jurisdiction in FPA section 201.

Under FPA section 215, FERC helps to ensure the reliability of the bulk power system through mandatory and enforceable reliability standards for the electric transmission system. The North American Electric Reliability Corporation (NERC) is the Commission-certified electric reliability organization responsible for developing and enforcing reliability standards subject to Commission oversight. The Commission retains independent enforcement authority and conducts audits of the cybersecurity standards and investigations of events to determine if reliability standards were violated.

On May 19, 2022, the Commission released its annual assessment detailing the summer outlook for energy markets and electric reliability. The report highlighted that the U.S. is expected to have sufficient capacity to maintain reliable operations this summer under normal conditions but that extreme weather events could pose challenges to reliability. Conditions such as major heat waves, wildfires, hurricanes, and other severe weather events could stress operations; these risks are particularly acute in the West, Texas, and parts of the Midwest.

Cyber security risks, extreme weather, the changing resource mix, and a shift in supply and demand related to the COVID pandemic require continued vigilance. The following information highlights the efforts that the Commission continues to advance with its partners and stakeholders to plan for and address the numerous challenges facing our nation's electric grid.

1. **Increasing Access to Shared Resources during Tight Conditions**
   - For the better part of a decade, the Commission guided efforts to ensure regional markets, such as the Midcontinent Independent System Operator (MISO), the PJM Interconnection (PJM) and the Southwest Power Pool (SPP), have critical rules in place to coordinate transmission system operations. These efforts resulted in the rules that helped **MISO and SPP access nearly 13,000 MW of resources in neighboring PJM during 2021 Winter Storm Uri**,[1] alleviating the need for more severe load shedding.[2] The efforts included:
     - Convened regions to establish Joint and Common Market process (AD14-3)
     - Issued and approved of PJM-MISO Joint Operating Agreement (ER10-2746 et. al)
     - Issued and approved Market-to-Market Coordination (ER10-2746 et. al)
     - Review, consideration and approval of SPP-MISO Joint Operating Agreement (ER13-1807 et. al)
   - In 2021 and 2022, the Commission considered and approved a series of tariff[3] provisions filed by the California Independent System Operator (CAISO) to improve access to resources during tight conditions, such as heat waves, including addressing resource adequacy rules, intertie transmission constraints, increasing access to demand response, and improving resource sufficiency evaluations.
     - Review, consideration, and approval of enhancements to CAISO's resource adequacy rules, including bolstering requirement to secure replacement capacity for maintenance outages (ER21-1551)
     - Review, consideration and approval of CAISO intertie transmission constraints (ER22-1246)

[1] FERC-NERC February 2021 Cold Weather Report at 15.
[2] Manual load shedding, often referred to as rolling or rotating blackouts, is when bulks power system operators order a percentage of the demand, or load, to be temporarily disconnected, to avoid system instability or other system emergencies.
[3] A FERC tariff is a compilation of all effective rate schedules of a particular company or utility.

- Review, consideration and approval of CAISO reliability demand response resources bidding changes (ER22-1431)
- Review, consideration and approval of CAISO resource sufficiency evaluation enhancements for the Western Energy Imbalance Market (ER22-1278)
- Review, consideration and approval of CAISO Market Enhancements responding to 2020 heat waves (ER21-1536)

2. Ensuring Resources are Available When Needed

- In 2021, the Commission approved tariff changes in MISO to ensure new non-synchronous resources stay connected to the grid during grid faults and continue injecting power without tripping offline, known as momentary cessation. The Commission reviewed and approved MISO's prohibition of momentary cessation (ER20-2621). In 2019, the Commission reviewed and approved similar provisions in CAISO (ER19-1153).
- In 2021, following Winter Storm Uri, the Commission conducted a joint inquiry with NERC and subsequently released a comprehensive report on the extreme cold weather event. The report found that more than 60,000 MW were lost due to outage or derate and resources of all types were unable to perform. The report recommended additional reliability standards to ensure all resources types are better able to provide power during extreme cold weather conditions and to ensure coordination among generators and grid operators.
  - The Commission engaged with NERC over a period of 8 months to develop recommendations. In November 2021, the NERC Board of Trustees committed to follow through on the recommendations. NERC has active standard development teams. NERC expects to submit the standards for Commission review in 2023 and 2024.

3. Enabling an Environment for Resources to Operate during Tight Conditions

- In 2020, the Commission approved tariff changes from SPP to improve their ability to procure flexible ramping capability from generators to manage anticipated and unforeseen significant ramping events. The Commission reviewed, considered and approved SPP's ramping capability proposal (ER20-1617).
- In 2016, the Commission enacted shortage pricing changes for all regions to better ensure resources are incentivized to perform during shortage conditions (Order No. 825, RM15-24).

4. Improving Efficiency and Resilience of the Transmission Grid

- In order to improve the resilience of the nation's transmission infrastructure, the Commission is taking steps to maximize benefits from existing transmission, while seeking to improve the planning and cost allocation processes for the build-out of new and badly needed transmission. Specific actions include:
  - Rulemaking requiring all transmission providers to use ambient-adjusted transmission lines ratings to increase the efficiency of the existing grid (RM20-16, 2021)
  - Issuance of a notice of inquiry (NOI) recognizing the potential reliability benefits of dynamic line ratings which may further increase the efficiency of existing transmission lines (AD22-5, 2022)
  - Issuance of a Notice of Proposed Rulemaking (NOPR) seeking to improve regional transmission planning and cost allocation of certain types of transmission to address the need for more resilient and reliable energy infrastructure (RM21-17, 2022)

5. Information Sharing and Planning

- In June of 2022, FERC initiated two rulemakings to improve the reliability of the bulk power system in the face of extreme weather events and to better understand the risks associated with extreme weather and the mitigation actions underway.

- Initiated a rulemaking proposing to direct NERC to develop a reliability standard to require planners to ensure that the transmission system performs reliably during extreme heat and cold weather events and consider similar requirements for drought conditions (RM22-10).
- Initiated a rulemaking proposing to direct transmission providers to submit one-time reports describing their policies and processes for conducting extreme weather vulnerability assessments. These extreme weather vulnerability assessments will improve the Commission's understanding of how transmission providers identify and mitigate risks to transmission assets and operations caused by extreme weather events (RM22-16, AD21-13).

6. Monitoring the Grid and Communicating Risks

- The Commission actively tracks the status of the grid, monitors events, and works with NERC, DOE and other government agencies, RTOs/ISOs, and industry to help ensure reliability:
  - FERC's Reliability Monitoring Center (RMC) is currently tracking areas of concern identified in the FERC 2022 Summer Assessment including increased wildfire risks to the western United States, impacts from the ongoing drought conditions, and potential capacity shortfalls in some regions.
  - The RMC conducts 24-7 monitoring including, amongst other capabilities, maintaining awareness with data feeds hosted by NERC, the Department of Energy, and system operators, as well as subscription and publicly available resources.