



IRC Primary Frequency NOPR Response



PFRSTF
October 9, 2017

- The IRC comprises the Alberta Electric System Operator (“AESO”), California Independent System Operator (“CAISO”), Electric Reliability Council of Texas, Inc. (“ERCOT”), the Independent Electricity System Operator of Ontario, Inc. (“IESO”), ISO New England, Inc. (“ISO-NE”), Midcontinent Independent System Operator, Inc. (“MISO”), New York Independent System Operator, Inc. (“NYISO”), PJM Interconnection, L.L.C. (“PJM”), and Southwest Power Pool, Inc. (“SPP”). ****The AESO and ERCOT are not subject to the Commission’s jurisdiction with respect to the matters addressed in this rulemaking and, therefore, do not join these comments.*

General Comment

- The purpose of the Commission’s proposal is to ensure adequate levels of primary frequency response continue to exist given the transformation in the resource mix and the Commission’s concerns about declining frequency response. With the exception of Nuclear, the IRC supports the requirements proposed in the NOPR and the application of such requirements to all resource types, including electric storage resources and small generators.

Questions 1(a), (b), and (c) in Section II A

Challenges, Operational Implications, and Impacts of the Proposed Requirements on Electric Storage Resources

- The IRC is not aware of any challenges of requiring electric storage resources to implement the proposed operating settings for droop, deadband, and timely and sustained response proposed in the NOPR. The NOPR proposal is consistent with NERC guidelines and the current requirements of certain RTOs and ISOs.

Question 2 in Section II A

Risks Associated with Requiring Electric Storage Resources to Provide Primary Frequency Response

- The IRC is not aware of risks associated with requiring electric storage resources to provide timely and sustained primary frequency response, such as possible adverse effects on an electric storage resource's ability to fulfill other obligations (e.g., providing energy or other ancillary services).
- The Commission's proposed requirements to provide sustained frequency response is consistent with NERC's guideline and should be applied to both traditional and electric storage resources. As NERC states in its Reliability Guideline that frequency deviations often persist for longer than one minute, and frequency response should be sustained until the frequency returns to a value within the governor deadband.

Question 3(a) and (b) in Section II A

Relationship between Electric Storage Resources Being Online and the Provision of Primary Frequency Response

- All newly interconnecting generating resources, and all existing interconnections that require the submission of a new interconnection request, should be required to install the capability necessary to provide primary frequency response and operate in accordance with the settings proposed in the NOPR.
- Electric storage resources should be required to provide primary frequency response in accordance with each RTO's and ISO's respective tariff and in a manner similar to all other resources
- An electric storage resource that is online but is not providing energy or certain ancillary services, it is not expected to provide primary frequency response.

Question 5 in Section II B

Whether PJM's Changes to its Interconnection Agreements Address Concerns Regarding Costs and Barriers and whether PJM's Approach is Viable in other Regions

- PJM has not experienced any decrease in the number of interconnections requests or interconnections of small non-synchronous generators since requiring non-synchronous generating facilities to install enhanced inverters that include primary frequency response capability.