

# NERC

NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

# Industry Webinar

Project 2023-01 EOP-004 IBR Event Reporting

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- North American Electric Reliability Corporation (NERC) Antitrust Guidelines
  - It is NERC's policy and practice to obey the antitrust laws and to avoid all conduct that unreasonably restrains competition. This policy requires the avoidance of any conduct that violates, or that might appear to violate, the antitrust laws. Among other things, the antitrust laws forbid any agreement between or among competitors regarding prices, availability of service, product design, terms of sale, division of markets, allocation of customers or any other activity that unreasonably restrains competition
- Notice of Open Meeting
  - Participants are reminded that this webinar is public. The access number was widely distributed. Speakers on the call should keep in mind that the listening audience may include members of the press and representatives of various governmental authorities, in addition to the expected participation by industry stakeholders.

- Project Background
- Summary of Changes (Draft 1)
- Attachment 1 – Event thresholds for reporting
- Technical Rationale
- Implementation Plan
- Project Timeline
- Questions & Answers

Name	Company
Charlie Cook (chair)	Duke Energy
Ali Miremadi (vice-chair)	California ISO
Patrick Gravois	ERCOT
Michael Ropp	Sandia National Laboratories
Filippo Benigni	Florida Power & Light
Todd Bennett	AECI
Kellie Macpherson	Radian Generation
Cindy Robert	Hydro-Quebec
Rebecca Skalko	MISO
Mario L. Kiresich	SCE
Rob Robertson	Leeward Renewable Energy
Cory Danson	WAPA-Sierra Nevada Region

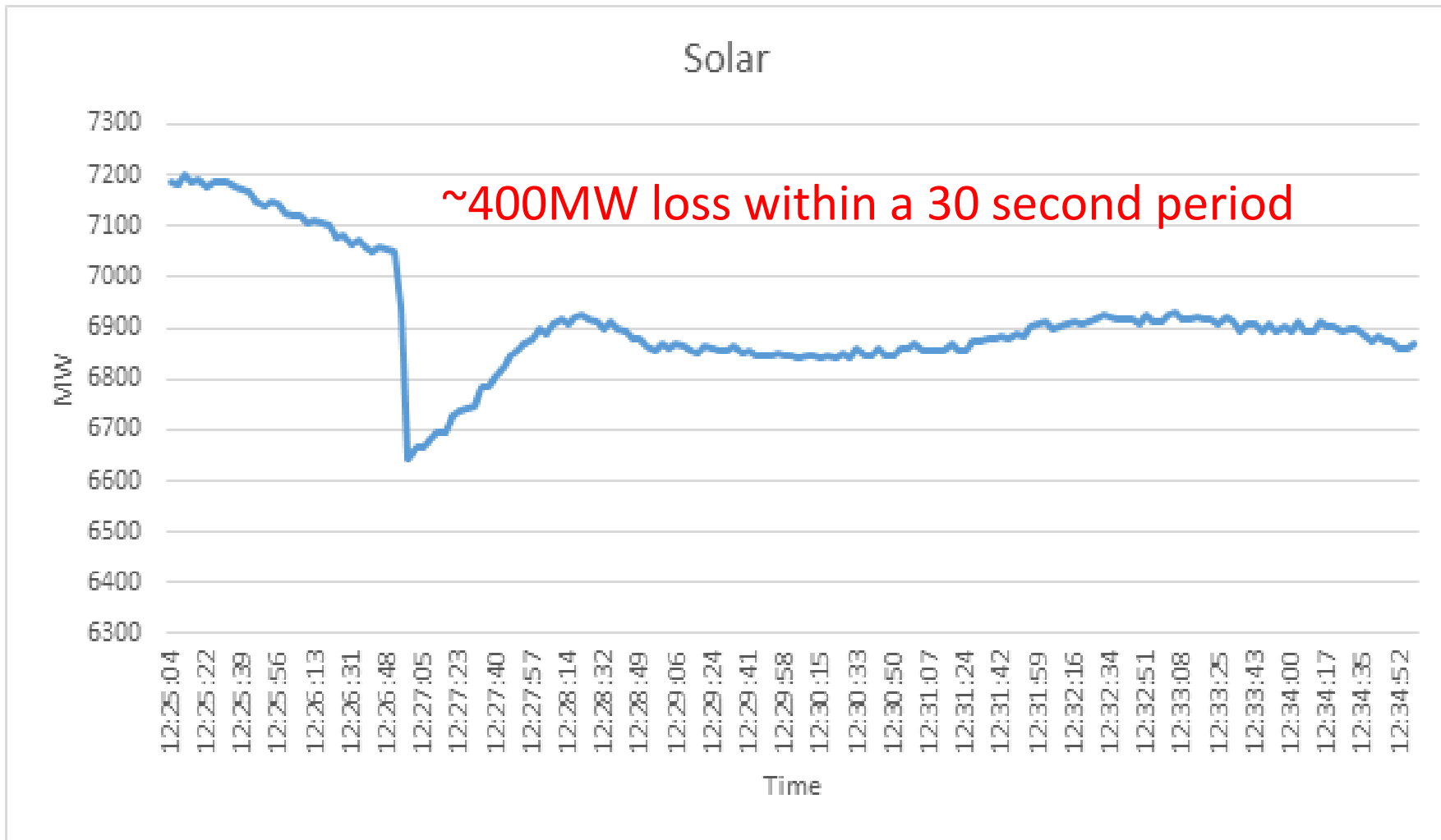
- May & June 2021 TX events – [Odessa Disturbance Report](#)
- 11 IBR loss events (>500MW) in last ~3.5 years (Event Analysis)
- Existing “generation loss” threshold uses large size threshold
  - 2,000MW Eastern, Western, Quebec; 1,400MW ERCOT
- Multiple widespread PV loss events did not meet EOP-004-4 “Generation loss” threshold
- EOP-004 event reporting helps with quicker response to widespread inverter-based resource (IBR) loss, improved awareness, gathering event data, and data preservation
- Initial SAR accepted by SC – January 2023
- Standard Drafting Team formed – May 2023

- Event Reporting (notification) under EOP-004 is mandatory, immediate, and brief, and is intended to notify other entities that an event has taken place. Occurs within 24 hours (or end of next business day) after recognition of meeting an event threshold for reporting.
- Event Analysis Process (EAP) is voluntary and its purpose is to determine the how, what, and why of an event.

- Addition of two thresholds for reporting
  - IBR generation loss > 500MW
  - Loss of DC Tie Line loaded > 500MW
- Obligation of new reporting is only for the Balancing Authority
- IBR generation includes solar photovoltaic, Type 3 and Type 4 wind, and battery energy storage

Event Type	Entity with Reporting Responsibility	Threshold for Reporting
IBR generation loss	BA	<p>Total aggregated generation loss of <math>\geq 500</math> MW from inverter-based resource(s) (IBR)<sup>1</sup> occurring within a 30 second period.</p> <p>IBR generation loss shall be calculated using Telemetry data<sup>2</sup> by subtracting the lowest aggregated IBR generation output observed during a 30 second period from the pre-disturbance aggregated IBR generation output.</p>
Loss of DC Tie Line	BA	Loss of a DC Tie Line, between two separate asynchronous systems, loaded at $\geq 500$ MW.





- [Technical Rationale](#) (Draft 1)
- The term “loss” includes instances the IBR unit(s) trips offline, or there is a full or partial reduction of active power output (MW). This threshold is not meant to report losses due to weather patterns, lack of wind, change in irradiance, fuel unavailability, curtailment, or a temporary reduction in active power output due to expected operation of the IBR unit(s).
- Rationale for 30 second period
- Rationale for Telemetry data
- IBR non-generation is not applicable for EOP-004, e.g. HVDC transmission, STATCOM, or SVC

## **Effective Date of EOP-004-5**

Where approval by an applicable governmental authority is required, the standard shall become effective on the first day of the first calendar quarter that is twenty-four (24) months after the effective date of the applicable governmental authority's order approving the standard, or as otherwise provided for by the applicable governmental authority.

- 45-day initial ballot and comment period
  - Scheduled for July 28 to September 11, 2023
  - Ballot pools formed through August 28
- Subsequent ballot
  - Scheduled for December 2023
- NERC Board Adoption
  - Scheduled for May 2024



# Questions and Answers