



Planning Procedure 14

*Procedure for Data Collection for Generating
Availability Data System (GADS) Event and
Performance Data*

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MANAGER | RESOURCE ADEQUACY & ACCREDITATION



Planning Procedure 14 Overview

Proposed Effective Date: March 2025

- The ISO proposes a new Planning Procedure to capture the GADS data reporting process to provide structure and guidance for Lead Market Participants (LMPs) responsible for reporting monthly data
- This procedure will describe the data submission timelines, reporting requirements, and validation processes for the required data
 - Background on the GADS data reporting process is provided in Appendix 1



Rationale for New Procedure

- Timely and accurate ISO GADS data reporting is crucial to system reliability and calculation of the region's resource requirements
 - The LMP is ultimately responsible for the timely submission of GADS data
 - The process of reporting GADS data to ISO-NE has not previously been documented
 - The definitions of event types and their NERC classification can be left up to different LMP interpretations
 - The ISO data validation process for next steps when discrepancies are found has not previously been documented



Stakeholder Feedback from December RC

- Clarification was requested on event reporting requirements for wind and solar plants based on installed capacity ‘behind-the-meter’ vs. the Network Resource Capability (NR Capability)
 - The ISO has clarified the event reporting requirements for wind and solar plants after consulting with NERC and ISO Operations
- Since the December meeting, clarifications and clean-up changes were made to improve readability



Wind/Solar Event Reporting Requirements

- Events for wind and solar plants are defined differently than conventional generators
 - Conventional generators trigger an event at any point in which their capability is less than their Seasonal Claimed Capability
 - An event for wind and solar plants is defined when a certain threshold is met based on the difference of the plant's NR Capability and their Real-Time High Operating Limit (RTHOL)
 - The Wind High Limit (WHL) is not considered when defining events
- The start of an event for wind and solar plants is defined when the RTHOL is 20 MW or more lower than the NR Capability
- The event ends when 95% of the difference between the NR Capability and minimum RTHOL during the event has been restored to service **AND** there is less than a 20 MW difference between the NR Capability and RTHOL
- Examples are shown in Appendix 2



REVISED PP14 TEXT

Updates Since December RC Presentation



PP14 Updates Since December RC

- General updates:
 - Added references to OP-14
 - Fixed typos and improved overall readability
 - Removed some duplicative descriptions in process sections
 - Replaced term ‘minimum reporting requirements’ with ‘eligibility criteria’
 - Replaced uses of ‘monthly’ outside of Section 3.0 with ‘in accordance with Section 3.0 of this PP’
 - Updated titles for Section 4.0 for clarity
 - Aligned language in sub-sections of Section 4.0 (4.#.1, 4.#.2, and 4.#.3) for consistency across different generator types where appropriate

PP14 Updates Since December RC, cont.

Procedure Location	Procedure Text	Reason for Change
4.1.4 Event Data Reporting	If a conventional generator is not producing power at full NDC, then the generator should be reported as being in one of the event states listed in the table below. If a situation's proper event state cannot be determined, a detailed description of the issue must be submitted to gads@iso-ne.com prior to the 15th of the month during the ISO GADS data submission window for the previous month's data reporting period. The ISO will review the submittal and consult with the LMP for recording the appropriate event state.	Added clarity to notification process

- Similar updates were made to Section 4.2.4 for wind plants and Section 4.3.4 for solar plants



PP14 Updates Since December RC, cont.

Procedure Location	Procedure Text	Reason for Change
4.2.3 Performance Data Reporting	<p>LMPs shall report performance data monthly, together with event data in accordance with Section 3.0 of this PP. It can be submitted manually through the PowerGADS software portal or it can be uploaded using the NERC GADS Wind Workbook (Microsoft Excel template). The ISO clarifies its use of the NERC GADS Wind DRI for wind plants in the following manner:</p> <ol style="list-style-type: none">1. When LMPs report the plant total installed capacity (PTIC) for a wind plant, the ISO uses the Network Resource Capability (NR Capability) for the plant.2. When LMPs report the plant available installed capacity for a wind plant, the ISO uses the Real-Time High Operating Limit (RTHOL) for the plant.	<p>Removed 'monthly' with reference to Section 3.0 of this PP</p> <p>Added link to RTHOL term in OP-14 Appendix F</p>

- Similar update was made to Section 4.3.3 for solar plants



PP14 Updates Since December RC, cont.

Procedure Location	Procedure Text	Reason for Change
4.2.4 Event Data Reporting	<p>The start of an event for wind plants is defined when there is a loss of the RTHOL is 20 MW or more lower than the NR Capability of PTIC due to an outage. The event ends when 95% of the of the difference between the NR Capability and minimum RTHOL PTIC that was unavailable due to the outage event has been returned to service during the event has been restored to service AND there is less than a 20 MW of PTIC is unavailable due to an outage difference between the NR Capability and RTHOL. In other words:</p> <ul style="list-style-type: none"> • Event Start: <ul style="list-style-type: none"> • $RTHOL \leq NR \text{ Capability} - 20 \text{ MW}$ • Event End (Both conditions must be met): <ul style="list-style-type: none"> • $RTHOL > RTHOL_{\text{Min During Event}} + 0.95 * (NR \text{ Capability} - RTHOL_{\text{Min During Event}})$ • $RTHOL > NR \text{ Capability} - 20 \text{ MW}$ 	Updated language of event start/end criteria to align with OP-14 and added equations

- Similar updates were made to Section 4.3.4 for solar plants



PP14 Updates Since December RC, cont.

Procedure Location	Procedure Text			Reason for Change
4.2.4 Event Data Reporting	ISO GADS Wind Event Type	PP14 Wind Event Type Definition	ISO-NE OP-5 Outage Type	Update table sub-headings to align with NERC DRI terms and added Active state
	Inactive-Event StatesAvailability States			
	AC – Active	AC state in the time from when the subgroup is first declared commercially active until it moves to an inactive state (IR, MB, or RU).	N/A	
	IR – Inactive Reserve	IR is defined by IEEE Standard 762 and GADS as “the state in which a unit is unavailable for service but can be brought back into service after some repairs in a relatively short duration of time, typically measured in days.”	N/A	
	MB – Mothballed	MB is defined by IEEE Standard 762 and GADS as “the state in which a unit is unavailable for service but can be brought back into service after some repairs with appropriate amount of notification, typically weeks or months.”	N/A	
	RU – Retired	RU is defined by IEEE Standard 762 and GADS as “the Sstate in which a unit is unavailable for service and not expected to return to service in the future.” NOTE: Plant must also be retired in CAMS to be retired in ISO GADS.	N/A	
	Active-Event StatesTypes			
		Any event as defined in Section 4.2.4 of this PP that must be requested with a minimum of 15	PO –	

- Similar updates were made to the table in Section 4.3.4 for solar plants

CONCLUSION AND SCHEDULE



Conclusion

- The ISO proposes a new Planning Procedure to describe the GADS data reporting process
- Timely and accurate GADS data reporting is crucial to system reliability and calculation of the region's resource requirements
- Thoroughly reviewed the language to improve readability and add clarity where needed
- Added additional details and clarifications for event reporting requirements for wind and solar plants



Stakeholder Schedule

Stakeholder Committee and Date	Scheduled Project Milestone
Reliability Committee October 22, 2024	Initial introduction & background
Reliability Committee November 19, 2024	Present draft procedure
Reliability Committee December 17, 2024	Present updated draft procedure
Reliability Committee January 22, 2025	Present updated draft procedure; vote
Participants Committee February 6, 2025	Vote

Questions

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APPENDIX 1

Background



Background

- GADS data has been used for many years in the calculation of the Installed Capacity Requirement (ICR) and related values
- GADS data is used to calculate a generator's Equivalent Forced Outage Rate on demand (EFORd) to serve as an indicator on future performance in a probabilistic reliability simulation
- The duration, magnitude, and cause for each event is critical in the proper calculation of the EFORd metric
- The EFORd* value is used in the resource availability assumption for the ICR and related values

*The term EFORd, as used in the Tariff, refers to forced outages excluding Outside of Management Control (OMC) events



Background, cont.

- LMPs are responsible for providing unit level event and performance data to two separate databases:
 - **ISO GADS:** Internal GADS database that ISO-NE uses to calculate EFORd values for use in probabilistic reliability simulations to calculate the ICR and related values. Conventional generators 5 MW or greater except, hydro and pumped storage generators 20 MW or greater; wind plants 75 MW or greater, and solar plants 20 MW or greater are required to submit data monthly. Stand-alone energy storage plants currently are not required to submit data
 - **NERC GADS:** External GADS database that NERC uses to compile fleet-wide class average generator metrics by fuel type and size. LMPs can elect the ISO to submit their ISO GADS data to NERC on their behalf. NERC requires conventional generators 20 MW or greater, wind plants 75 MW or greater, and solar plants 100 MW or greater (20 MW or greater starting 1/1/25) to submit data quarterly. Stand-alone energy storage plants currently are not required to submit data

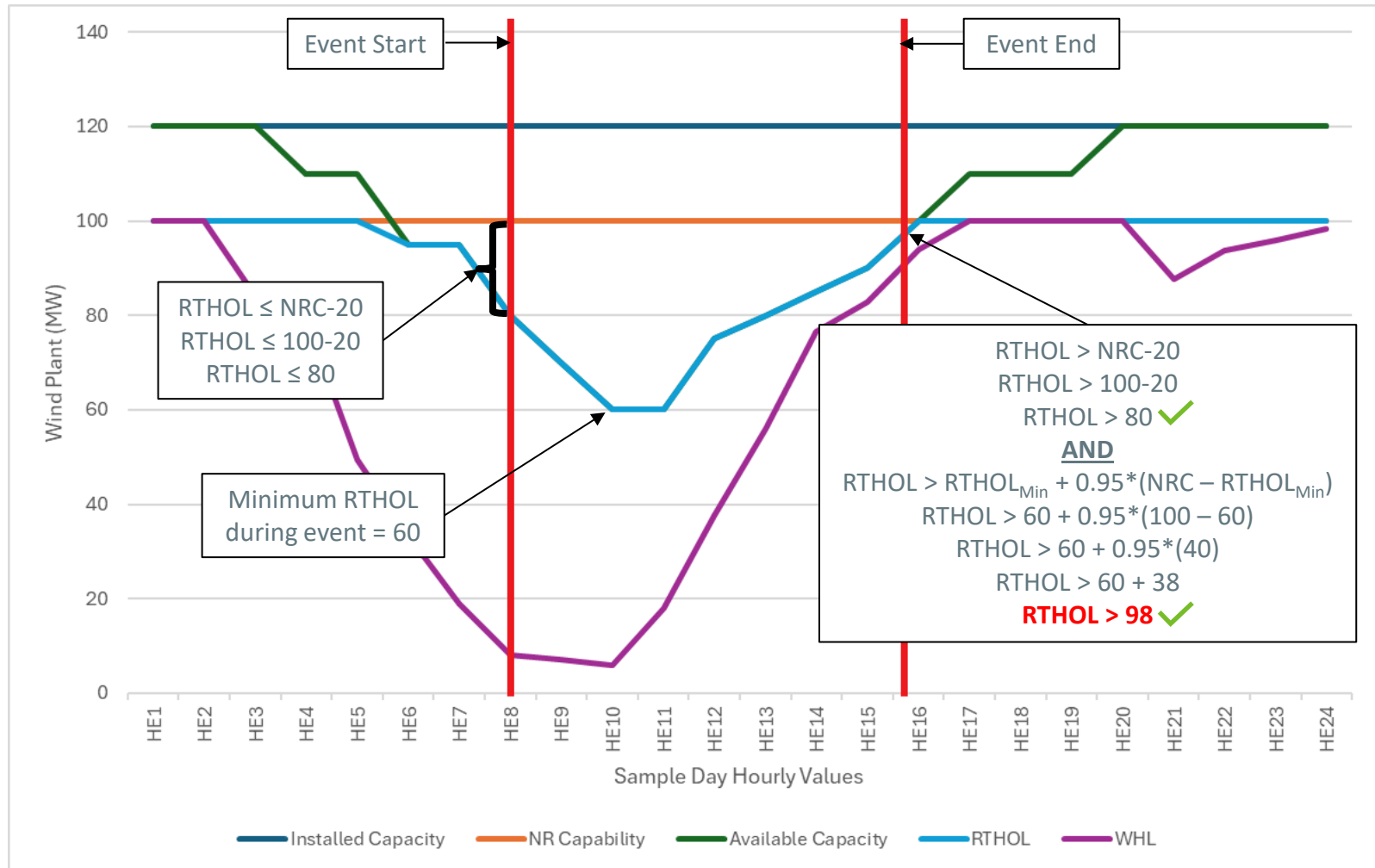


APPENDIX 2

Wind/Solar Event Examples



Wind/Solar Event Example #1



Wind/Solar Event Example #2

