



Manual 14-D: Generator Operational Requirements Periodic Review

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System Operations Subcommittee
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- **(New) Section 8.4: Wind Farm Rebuild / Repower**
 - Removed based on stakeholder feedback
 - Requirements now documented in pertinent sections
 - Attachment “E”: PJM Generator and Synchronous Condenser Reactive Capability Testing
 - Section 8.2.1: Data Requirements for Wind Forecast Set Up
- **Attachment N: Cold Weather Preparation Guideline and Checklist**
 - No change to proposed language changes
 - Additional documentation posted with meeting materials

Manual 14D: Generator Operational Requirements,
Revision 66

- **Periodic cover-to-cover review**
- **Corrected typos, capitalization and references throughout**
- **References**
 - Added reference to PJM Manual for Rules and Procedures for Determination of Generating Capability (M-21B)

- **Section 4.3.4 Data Exchange and Management Requirements**
 - Updated communication protocol for registering Phasor Measurement Units (PMU)

- **Section 6.3.4 Other Requirements**
 - Clarified requirement for all Generating Facilities to provide reactive capability curves to PJM prior to commercial operation
 - Clarified requirement for applicable Generating Facilities to complete reactive testing no later than 90 days after commercial operations

- **Section 7.1.1 Generator Real-Power Control**
 - Added language clarifying procedures for generation resources that lose remote control of MW output
- **Section 7.1.2 Voltage and Reactive Control**
 - Added language clarifying procedures for generation resources that lose remote control of MVAR output

- **Section 7.3.6 Generation Owner Periodic Tasks and Data Submittals**

- Updated the Guideline: Generation Owner Periodic Tasks and Data Submittals
 - Added task to provide data in support of Black Start RFP
 - Removed the task covering Real Time Values – no longer applicable
 - Updated Temporary Parameter Limits Exceptions to align with current business rules in PJM manuals

<https://www.pjm.com/~media/documents/manuals/manual-links/m14d/go-periodic-tasks.ashx>

- **Section 7.3.6 Generation Owner Periodic Tasks and Data Submittals**
 - Currently accessed from Section 6.3.4 in M-14D **or**
 - The Generation Onboarding Section of PJM website <https://www.pjm.com/markets-and-operations/ops-analysis/generation-onboarding> **or**
 - New link that has been added to the Generation section of PJM website for ease of reference
 - <https://www.pjm.com/markets-and-operations/ops-analysis>

- **Section 7.4 Synchronization and Disconnection Procedures**
 - Added language clarifying notification procedures in the event of a relay trip
- **Section 8 Wind Farm Requirements**
 - Removed specific references to wind speed and wind direction to generalize to other meteorological parameters
- **Section 8.2.1 Data Requirements for Wind Forecast Set Up**
 - Added clarification regarding data needed for wind farm rebuild / repower

- **Section 8.3.3 Real-time Operating Reserve Settlement**
 - Updated language to reflect the wind back cast usage in settlements for wind as well as the applicability to hybrid resources
- **Section 9.1.1 Generator Deactivation Notice**
 - Updated information that may be posted publically

- **Section 10.1 Black Start Selection Process**
 - Added note to enhance awareness that Black Start information is CEII and Member Confidential
- **Section 11.1 Generator Data Confidentiality Procedures**
 - Clarified language specifically naming cold weather operating limits in generator parameter data sharing procedures

- **Section 12.3.3 Real-time Operating Reserve Settlement**
 - Added new subsection with language to reflect the solar backcast usage in settlements as well as the applicability to hybrid resources
- **Section 13.1 Marketing and Classification of Mixed Technology Facilities**
 - Add reference to Manual 21B, Section 2.6

- **Attachment D: PJM Generating Unit Reactive Capability Curve Specification and Reporting Procedures**
 - Removed reference to AVR status from since it is already covered in Section 7: Generator Operations
 - Clarified requirements and process for submitting and updating reactive capability curves
 - Clarified requirements for wind farms that rebuilt/repowered to submit reactive capability curves within 6 months of rebuild/repower

- **Attachment E: PJM Generator and Synchronous Condenser Reactive Capability Testing**
 - Added reference to PJM Manual, 21B - Rules and Procedures for Determination of Generating Capability
 - Added clarification that new reactive test is needed following wind farm rebuild / repower, even if wind farm previously performed a reactive test within the last 66 months

- **Attachment N: Cold Weather Preparation Guideline and Checklist**
 - Reformatted and reordered content into additional sections and subsections to increase readability and usability
 - Added the language taken from NERC Generating Unit Winter Weather Readiness Guideline:
- https://www.nerc.com/comm/RSTC_Reliability_Guidelines/Reliability_Guideline_Generating_Unit_Winter_Weather_Readiness_v4.pdf

- **Attachment N: Cold Weather Preparation Guideline and Checklist**
 - **Section N.2** Management Roles and Expectations new language taken directly from the NERC Guideline
 - **Section N.3** Pre-Winter Seasons Items – All Generating Facilities, Safety combination of existing language and the NERC Guideline
 - **Section N.4** Equipment Preparation - Conventional Generating Facilities, Evaluation of Critical Components is combination of existing language and NERC Guideline
 - **Section N.5** Equipment Preparation - Inverter-Based Resources is combination of existing language and NERC Guideline

- **Attachment N: Cold Weather Preparation Guideline and Checklist (continued)**
 - Replaced references to “generator” with either generation resource or Generating Facility where applicable
 - References section updated to reflect latest industry best practices and lessons learned
 - Added footnote with link to NOAA map of locational first frost date
 - ***Copies of current and updated versions of Attachment N posted with meeting materials***

- **Appendix A: Behind the Meter Generation Business Rules**
 - Revised multiple rules to reflect current business practices
 - Removed references to submitting changes using a template via email
 - Clarified methodology for determining Summer Net Capability for NRBTMG
 - Updated date for PJM posting NRBTMG from 11/30 to 10/31
 - Updated date PJM shall open the Coincident Peak Hours screen in the Capacity Exchange from 11/1 to 10/22
 - Clarified reporting dates associated with response to a performance compliance event

Committee		Sep	Oct	Nov	Dec
Manual 14-D Generator Operational Requirements Revision 66	SOS		● 10/2 ● 10/31		
	OC		● 10/10	● 11/08	★ 12/05
	MRC			● 11/21	★ 12/18
	RSCS		○ 10/18		

- *First Read*
- ★ *Endorsement*
- *Info Only*

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Periodic Review**



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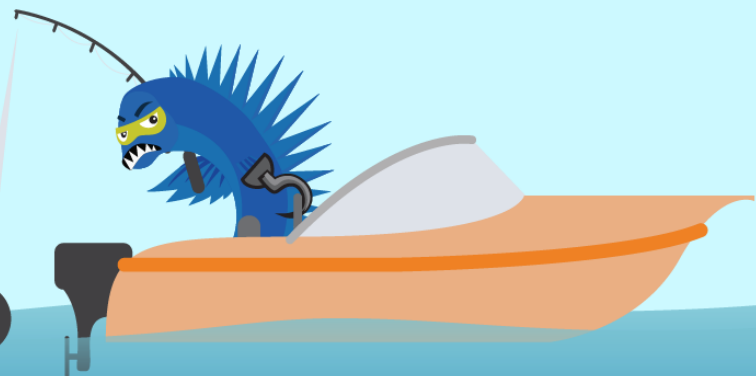
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