






PJM Manual 13: Emergency Operations v85 Revision Summary

Ray Lee
Lead Engineer, Generation
Operating Committee
September 8, 2022

Action Required	Deadline	Who May Be Affected
<p>Review and update unit operating parameters in advance of forecasted cold weather, including Generating Facility cold weather operating <u>temperature</u> limit.</p> 	<p>When Advisory is Issued or as needed</p> 	<p>Generation Owners and designated agents.</p> 

- Original redline language
 - PJM will issue a Cold Weather Advisory on a zonal or RTO basis when temperatures are forecasted to trigger a Cold Weather Alert, typically greater than 24 hours in advance.
- Revised redline language
 - PJM will attempt to issue the advisory as far in advance as possible, typically within 3-5 days but given fluctuating and changing weather forecasts advisories could be issued up to 24 hours in advance.

Manual 13: Emergency Operations, [Revision 85](#)

[Project 2019-06 Cold Weather](#)

- To enhance the reliability of the BES during cold weather events by ensuring Generator Owners, Generator Operators, Reliability Coordinators, and Balancing Authorities prepare for extreme cold weather conditions.

[Project 2021-07 Extreme Cold Weather Grid Operations, Preparedness, and Coordination](#)

- Address reliability related findings from the Federal Energy Regulatory Commission (FERC), NERC, and Regional Entity Joint Staff Inquiry into the February 2021 Cold Weather Grid Operations

Section 3 Weather / Environmental Emergencies

- New sub-section 3.3.1
- Cold Weather Advisory
 - Will NOT trigger PAI

Offers advanced notice to PJM members of Potential Cold Weather allowing ample time to gather and report critical information and prepare facilities for cold weather readiness

Addresses NERC Standard requirements as defined in EOP-011, IRO-010, TOP-003

Defines PJM Actions for issuing Advisory

- **Issued greater than 24 hours (most likely 3-5 days) in advance of predicted cold weather**
- **Issued Prior to Cold Weather Alert**

Defines Member Actions associated with cold weather readiness

Prepare to take freeze protection actions, such as erecting temporary windbreaks or shelters, positioning heaters, verifying heat trace or draining equipment prone to freezing.

Review weather forecasts, determine any forecasted operational changes, and notify PJM of any changes.

Update Markets Gateway by entering unit specific operation limitations associated with cold weather preparedness.

The purpose of the Cold Weather Advisory is to provide an early notice that forecasted temperatures may call for a Cold Weather Alert.

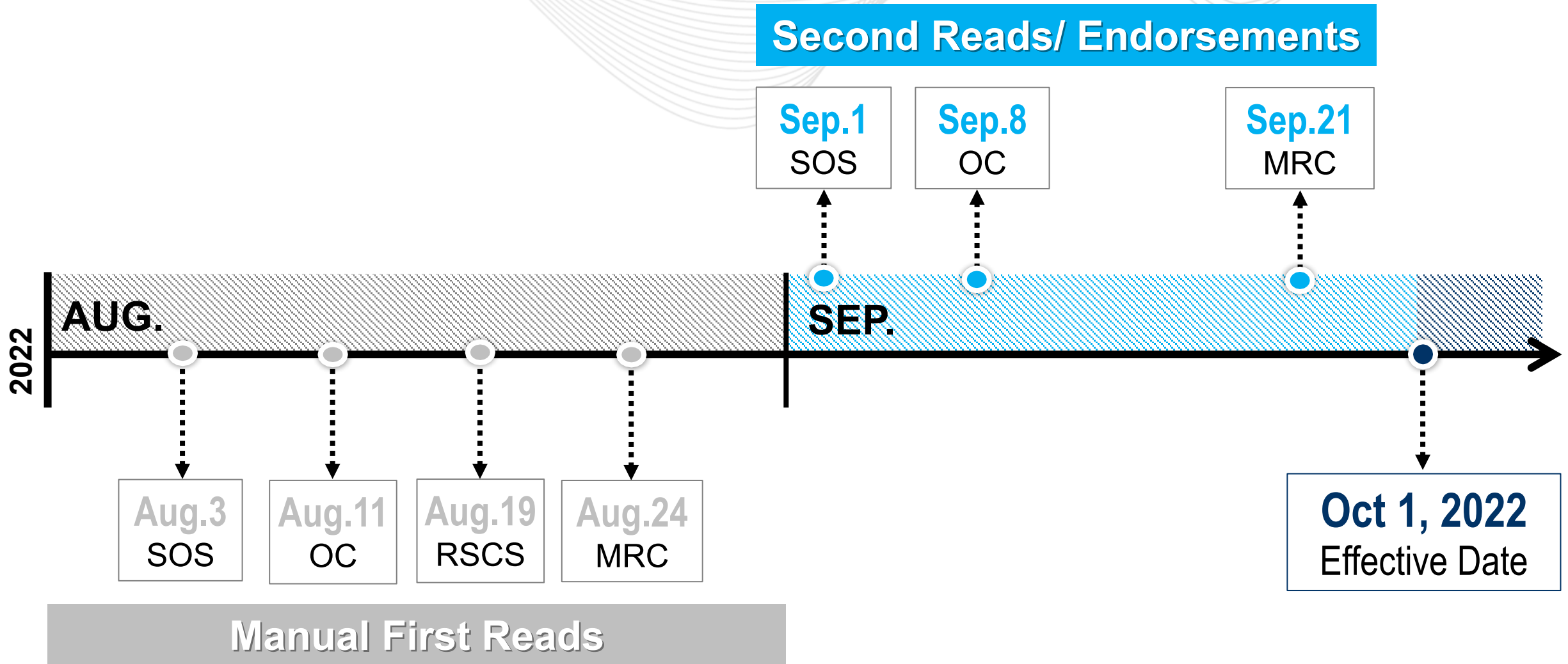
The early notification of an Advisory is intended to provide PJM members ample time to gather information required by NERC standards EOP-011, Emergency Preparedness and Operations, IRO-010 RC Data Specification and Collection, and TOP-003 Operational Reliability Data.

Members are to take any necessary precautions to prepare Generating Facilities for cold weather operations.

PJM will attempt to issue the advisory as far in advance as possible, typically within 3-5 days but given fluctuating and changing weather forecasts advisories could be issued up to 24 hours in advance.

NERC Operating Limitations identified in standards include:

- Unit Capability
- Unit Availability
- Fuel Switching Capability
- Fuel Supply / Inventory Concerns
- Environmental Constraints
- **Generating Unit Minimum (temperature limit):**
 - Design temperature or
 - Historical operating temperature or
 - Current cold weather performance temperature determined by an engineering analysis



Facilitator:
Darlene Phillips,
Darlene.Phillips@pjm.com

Secretary:
Jeff McLaughlin,
Jeffrey.McLaughlin@pjm.com

SME/Presenter:
Ray Lee, Ray.Lee@pjm.com

**Manual 13 – Emergency Operations, Rev. 58
Cold Weather Reporting Requirements**



Member Hotline

(610) 666 – 8980

(866) 400 – 8980

custsvc@pjm.com

**PROTECT THE
POWER GRID
THINK BEFORE
YOU CLICK!**



Be alert to
malicious
phishing emails.



Report suspicious email activity to PJM.
(610) 666-2244 / it_ops_ctr_shift@pjm.com