



M-13 Revision 94

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PJM OC

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Sr. Manager Dispatch, System Operations



30-Minute Reserve Requirement Background

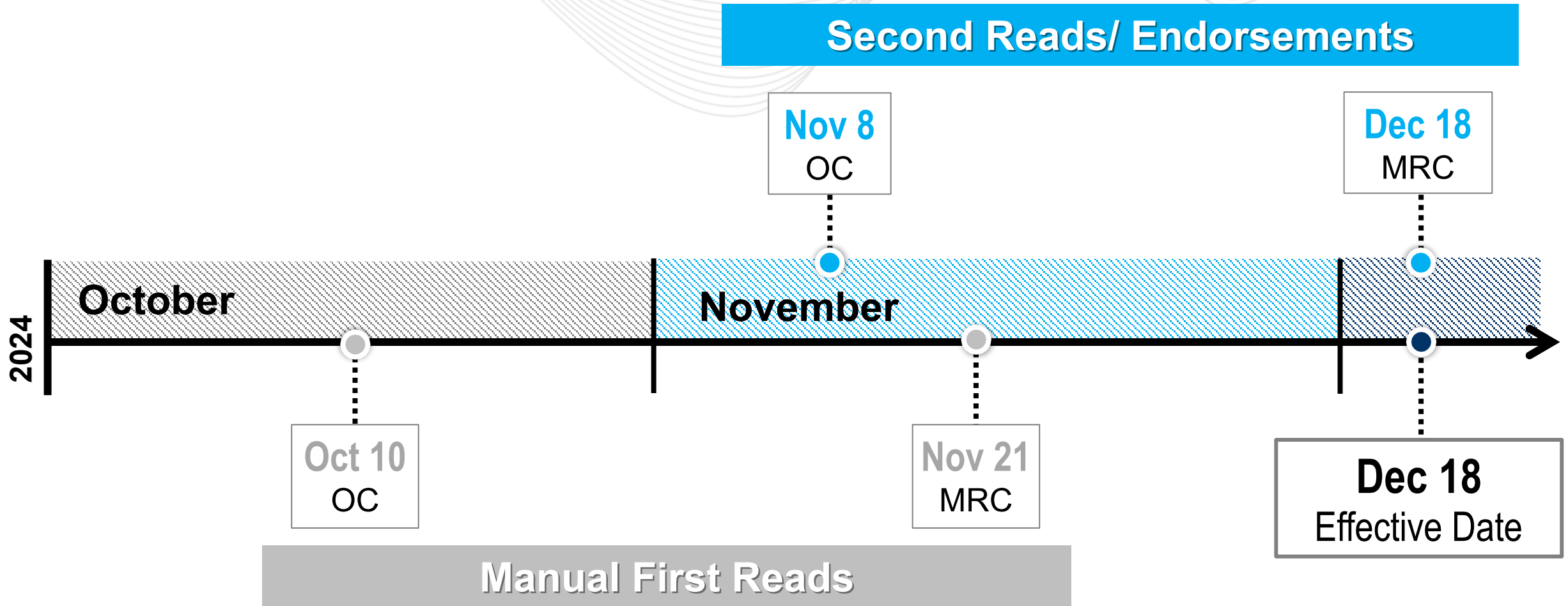
- PJM is the NERC Registered Balancing Authority (and RC, TOP, PC, TSP) and has compliance obligations associated with maintaining system reliability.
- Currently, the PJM Market 30-minute Reserve Requirement is the greater of:
 - 3,000 MW
 - Primary Reserve Requirement, or
 - Active Gas Contingency
- PJM Operations utilizes a Day Ahead Scheduling Reserve (DASR)
 - PJM DASR Implemented in 2009
 - A flat requirement (i.e., 3,000 MW) does not reflect how reliability risk changes based on operational conditions.
 - Based on DASR approach, any time peak load is greater than 74,257 MW, 3,000 MW of 30-Minute Reserves is not sufficient to manage day-ahead operational risk
- PJM is updating M-13 for transparency purposes to reflect DASR requirements. There is no change to PJM Market 30-minute Reserve Requirements.

- Section 2.2 Reserve Requirements
 - Updating Day Ahead Scheduling Reserve (DASR) for transparency purposes to accurately reflect operations reserve day ahead scheduling objectives
 - Markets Operating Reserve Requirement is not changing
 - The Day-ahead Scheduling Reserves (DASR) is calculated on an annual basis. This calculation considers variables that adversely impact system reliability specifically, Underforecasted Load Forecast Error (LFE) and Generator Forced Outage Rates (FOR).
 - Day ahead Scheduling Reserve = Underforecasted LFE + FOR

- Load Forecast Error Component
 - The average underforecasted load forecast error component of the day-ahead operating reserve calculation is based on a three-year average of load forecast error where load is underforecasted in the forecast generated at 18:00 of the scheduling day (day-1) compared to the operating day peak load

- Forced Outage Rate Component
 - The forced outage rate component of the minimum operating reserve calculation is based on a rolling three-year average of forced outages that are submitted after 18:00 of the scheduling day (day - 1) and that are effective from 0800 through 20:00 of the operating day

				Reserve Service		
				Synchronized Reserve (SR)	Primary Reserve (PR)	30 Minute Reserve (30 Min)
Reliability Requirement	Largest Single Contingency			150% of Synchronized Reserve Reliability Requirement		Markets Requirement Greater of Primary reserve requirement, 3,000 MW, or largest active gas contingency
						Operations Day Ahead Scheduling Reserve Requirement = Underforecasted LFE + FOR



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M-13 Version 94 Revisions



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