

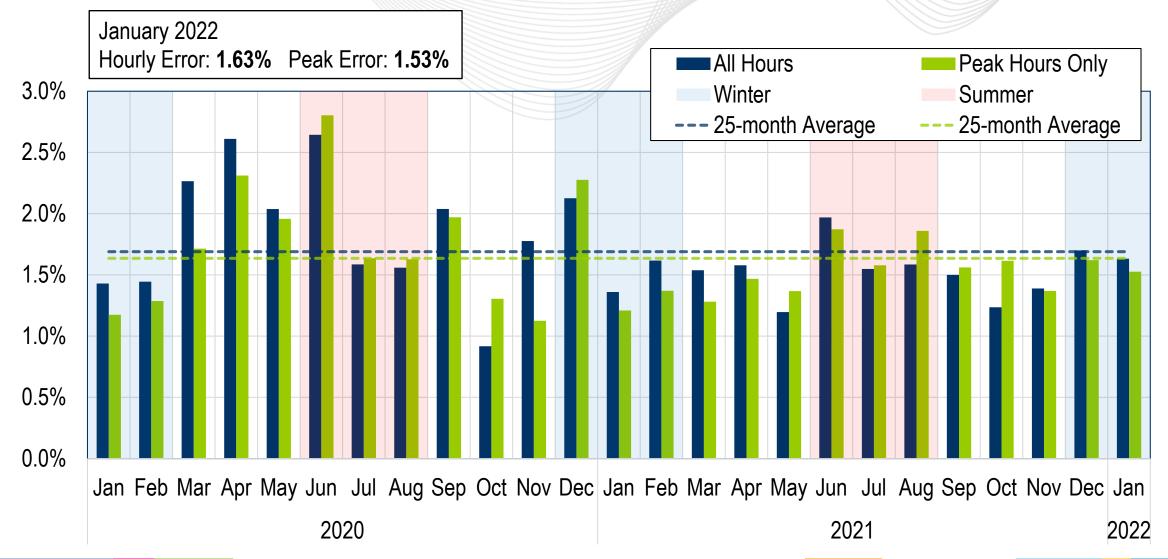
System Operations Report

Hong Chen
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MC Webinar

February 22, 2022

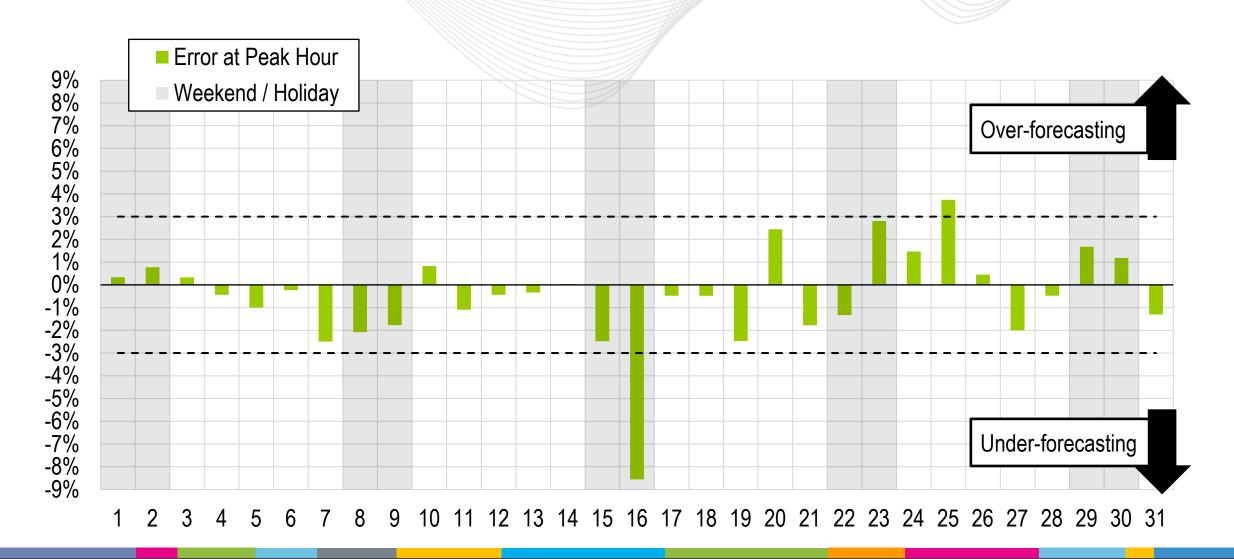


Average Load Forecast Error



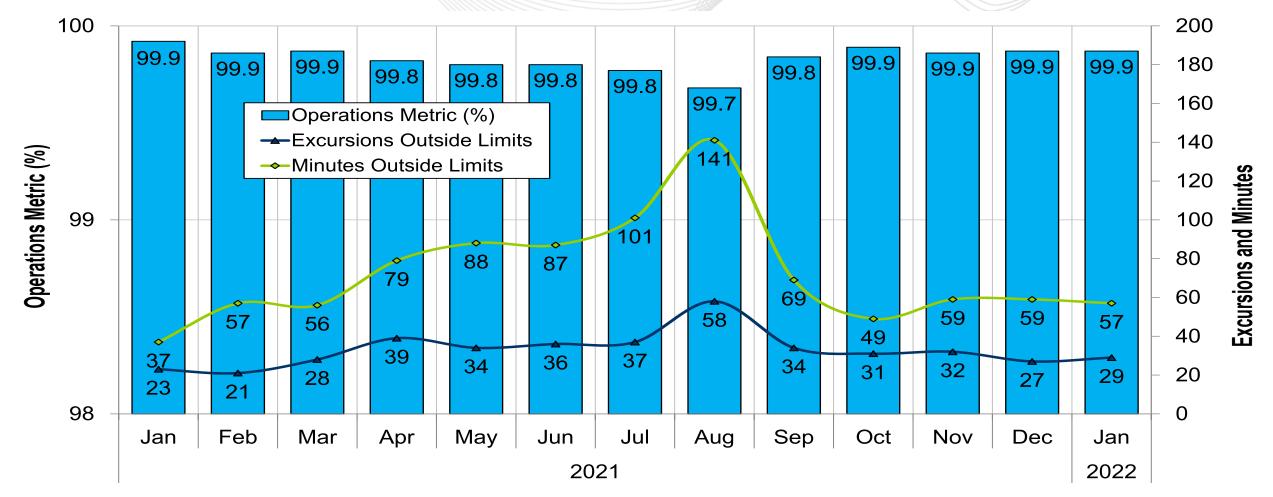


Daily Peak Forecast Error (January)





Monthly BAAL Performance Score



PJM's BAAL performance has exceeded the goal of 99% for each month in 2022.



- One spinning event
- Seven reserve sharing events with the Northeast Power Coordinating Council (NPCC)
- The following Emergency Procedures occurred:
 - 1 Conservative Operations
 - -7 Cold Weather Alerts
 - 44 Post-Contingency Local Load Relief Warnings (PCLLRW)
 - 11 Shortage Cases Approved



- 11 Shortage Cases Approved
- The approved Shortage Cases occurred on:
 - -01/13/22:
 - 1 Shortage Case for 06:30
 - 1 Shortage Case for 06:35
 - Fast load increase, unit tripping, and increased interchange
 - -01/16/22:
 - 1 Shortage Case for 16:40
 - Fast load increase and increased interchange

Shortage Case Approvals (Continued)

-01/27/22:

- 1 Shortage Case for 06:05
- 1 Shortage Case for 06:15
- Fast load increase, increased interchange, and transfer interface binding

-01/30/22:

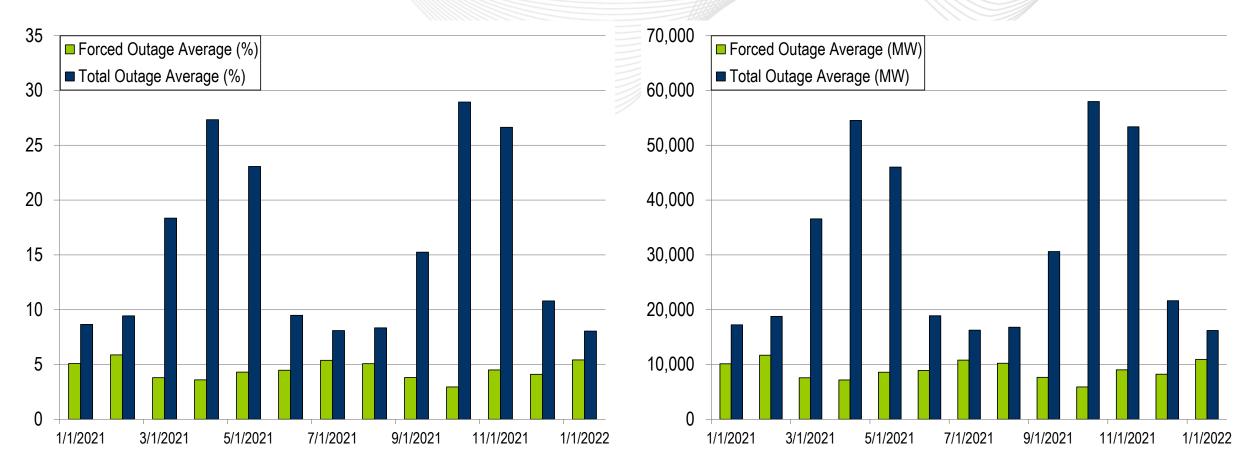
- 1 Shortage Case for 01:45
- 1 Shortage Case for 01:50
- 1 Shortage Case for 01:55
- 1 Shortage Case for 01:59
- Increased interchange and transfer interface binding

-01/31/22:

- 1 Shortage Case for 06:40
- 1 Shortage Case for 06:45
- Fast load increase



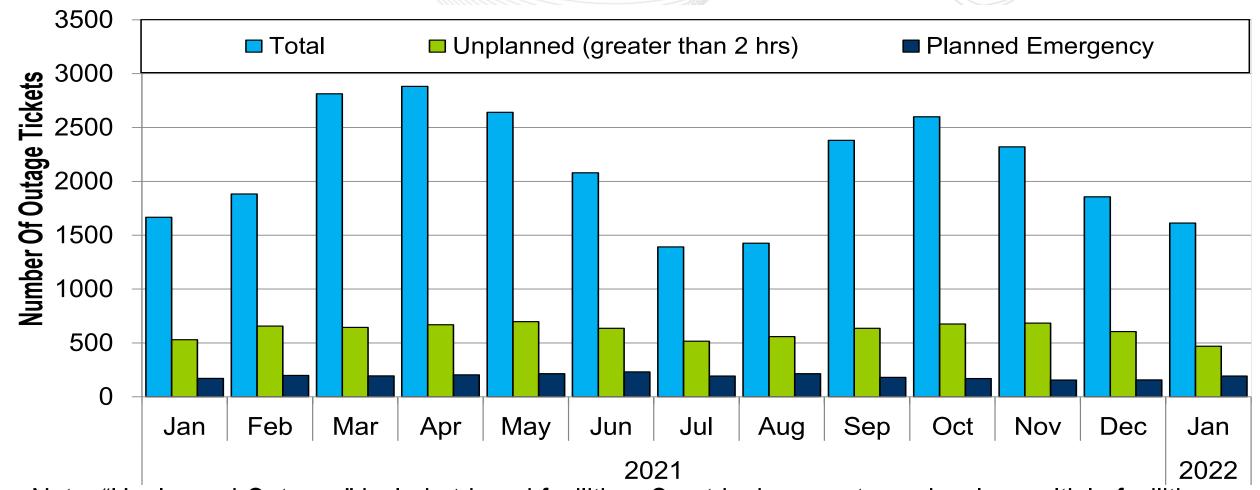
RTO Generation Outage Rate - Monthly



The 13-month average forced outage rate is 4.49% or 8,979 MW. The 13-month average total outage rate is 15.58% or 31,157 MW.



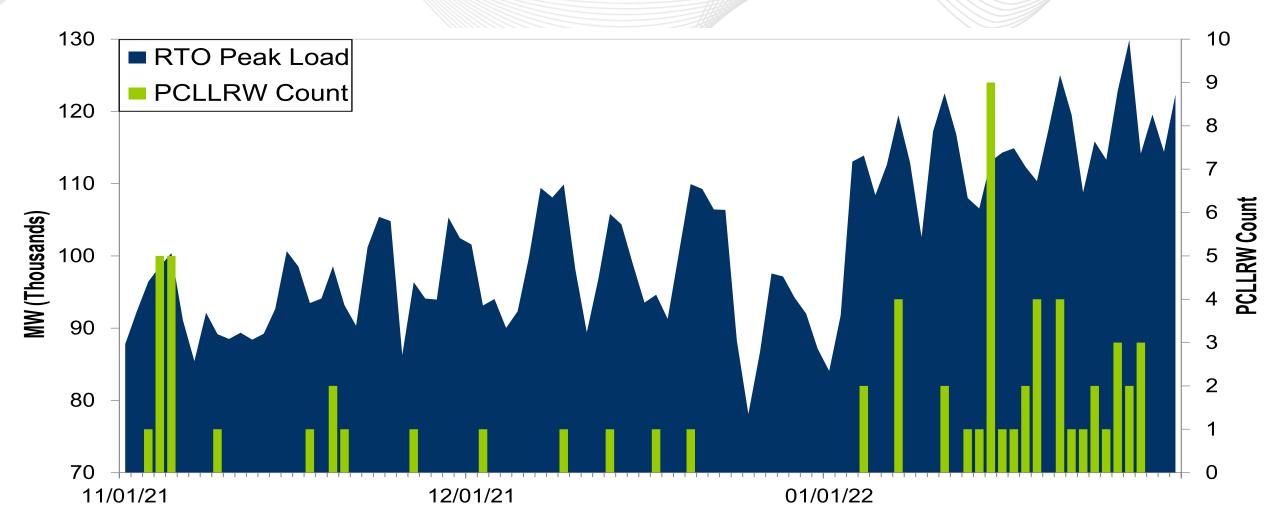
2021-2022 Planned Emergency, Unplanned, and Total Outages by Ticket



Note: "Unplanned Outages" include tripped facilities. One tripping event may involve multiple facilities.



PCLLRW Count Vs. Peak Load - Daily Values For 3 Months





Event	Date	Start Time	End Time	Duration	Region	Tier 1 Estimate (MW)	Tier 1 Response (MW)
1	01/03/22	12:27:31	12:36:27	00:08:56	RTO	516.8	377.6

Event	Date	Start Time	End Time	Duration	Region	Tier 2 Assigned (MW)	Tier 2 Response (MW)	Tier 2 Penalty (MW)
1	01/03/22	12:27:31	12:36:27	00:08:56	RTO	1344.2	1344.2	0.0

*Tier 2 Response is equal to Tier 2 Assigned for events with duration less than ten minutes



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System Operations Report



Member Hotline

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Appendix



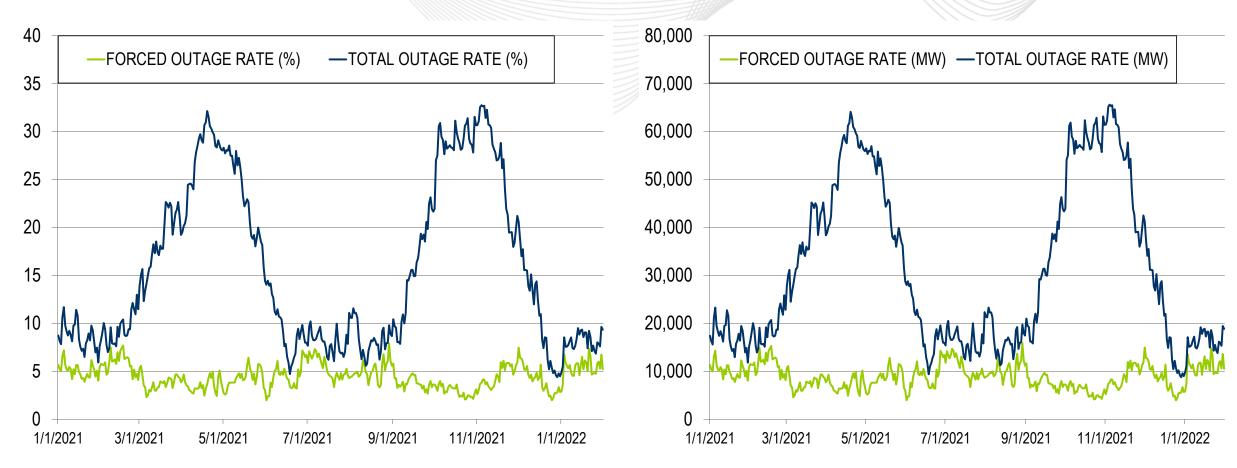
Balancing Authority ACE Limit - Performance Measure

Goal Measurement: Balancing Authority ACE Limit (BAAL)

- The purpose of the new BAAL standard is to maintain interconnection frequency within a predefined frequency profile under all conditions (normal and abnormal), to prevent frequency-related instability, unplanned tripping of load or generation, or uncontrolled separation or cascading outages that adversely impact the reliability of the interconnection. NERC requires each balancing authority demonstrate real-time monitoring of ACE and interconnection frequency against associated limits and shall balance its resources and demands in real time so that its Reporting ACE does not exceed the BAAL (BAAL_{LOW} or BAAL_{HIGH}) for a continuous time period greater than 30 minutes for each event.
- PJM directly measures the total number of BAAL excursions in minutes compared to the total number of minutes within a month. PJM has set a target value for this performance goal at 99% on a daily and monthly basis. In addition, current NERC rules limit the recovery period to no more than 30 minutes for a single event.



RTO Generation Outage Rate - Daily



The 13-month average forced outage rate is 4.49% or 8,979 MW. The 13-month average total outage rate is 15.58% or 31,157 MW.



PCLLRW Count Vs. Peak Load - Daily Values For 13 Months

