System Operations Report

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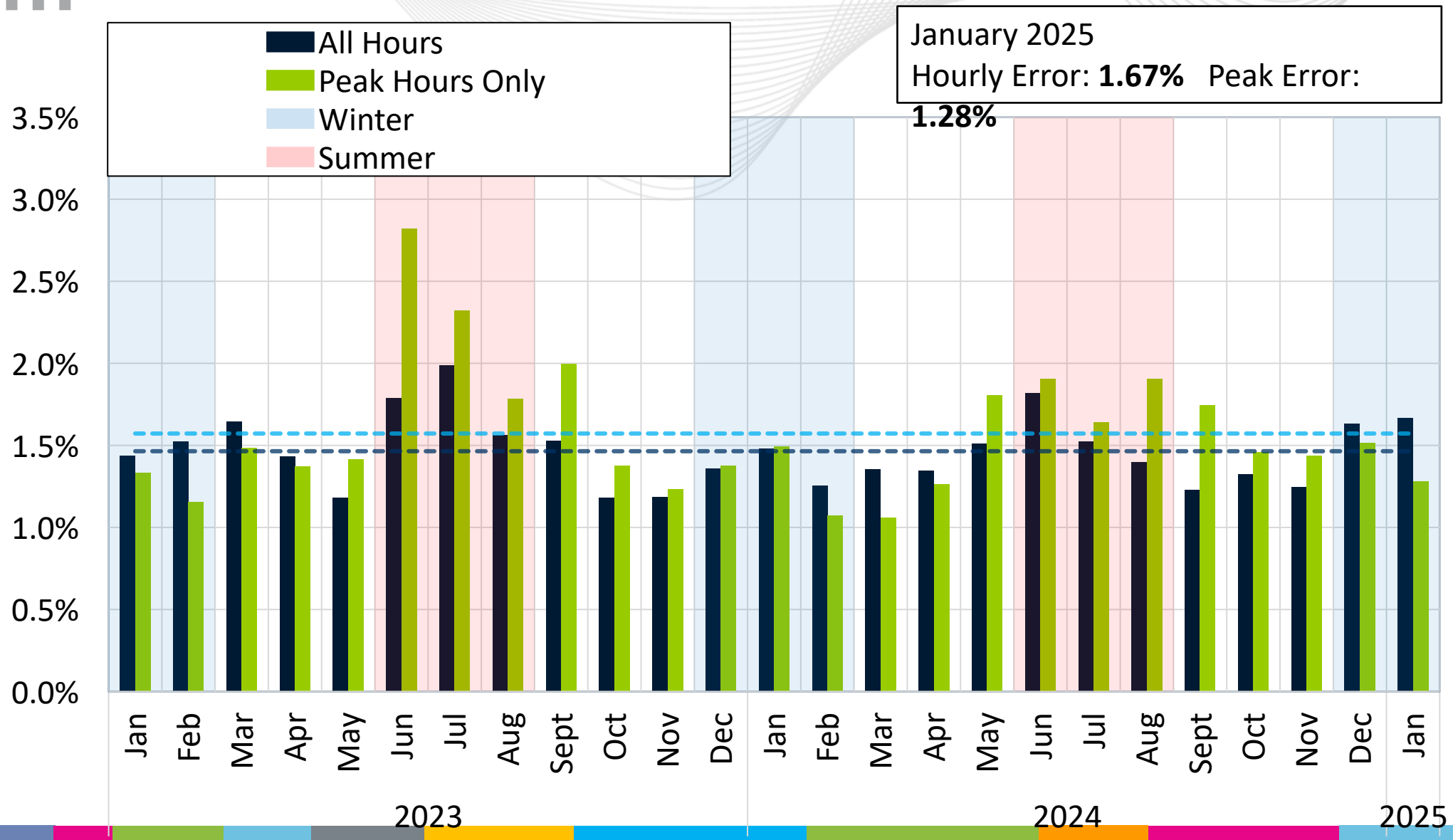
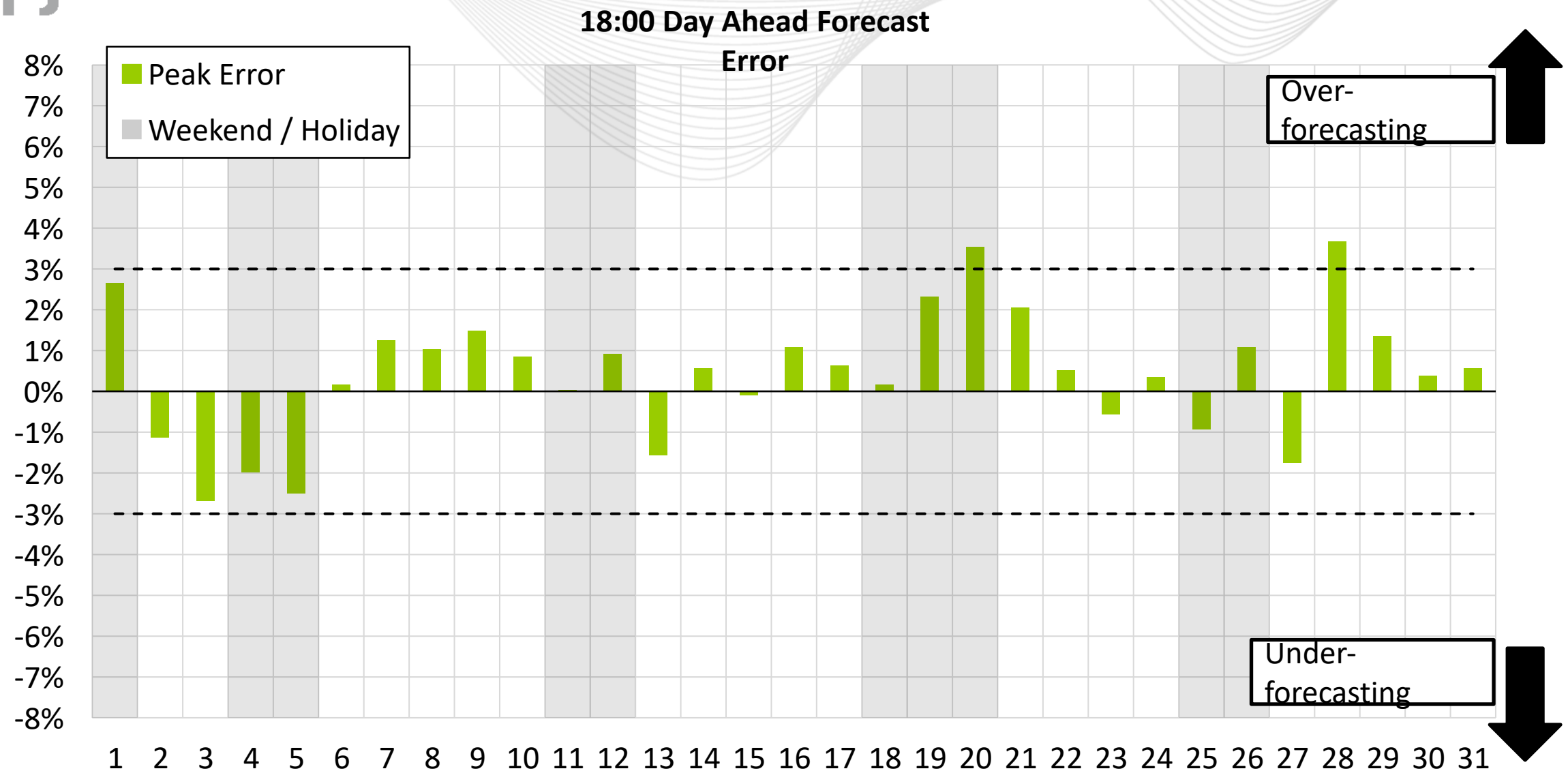
MC Webinar

February 18, 2025

Average Load Forecast Error



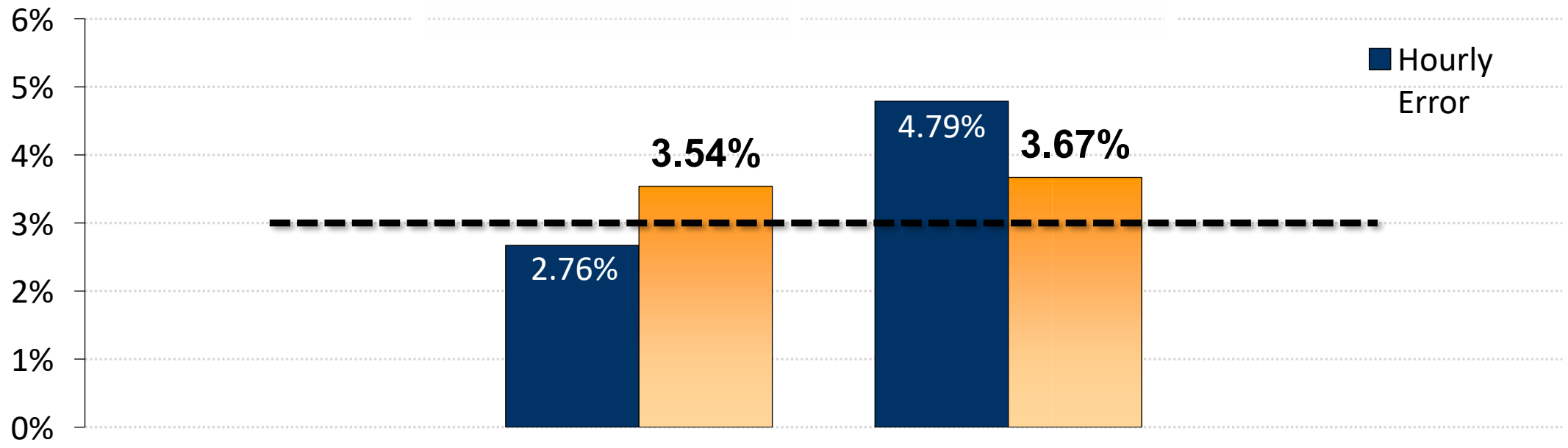
Daily Peak Forecast Error (January)



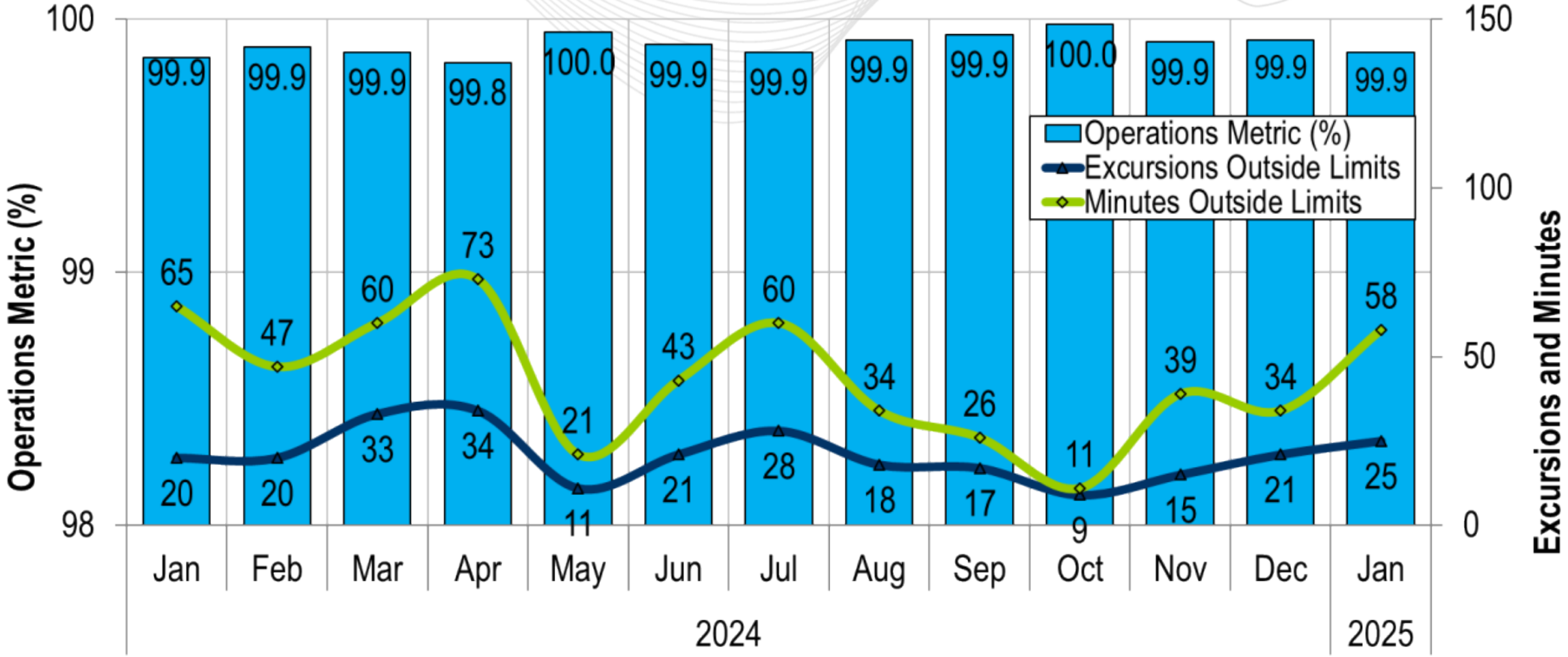
Days Exceeding 3% Forecast Error at Peak Hour

Over-forecasting

Jan. 20	Jan. 28
Extreme cold temperatures moved into RTO, but holiday impact led to over-forecasting.	Temperatures came in significantly warmer across the region, leading to over-forecasting.



Monthly BAAL Performance Score



PJM's BAAL performance has exceeded the goal of 99% for each month in 2023 and 2024.

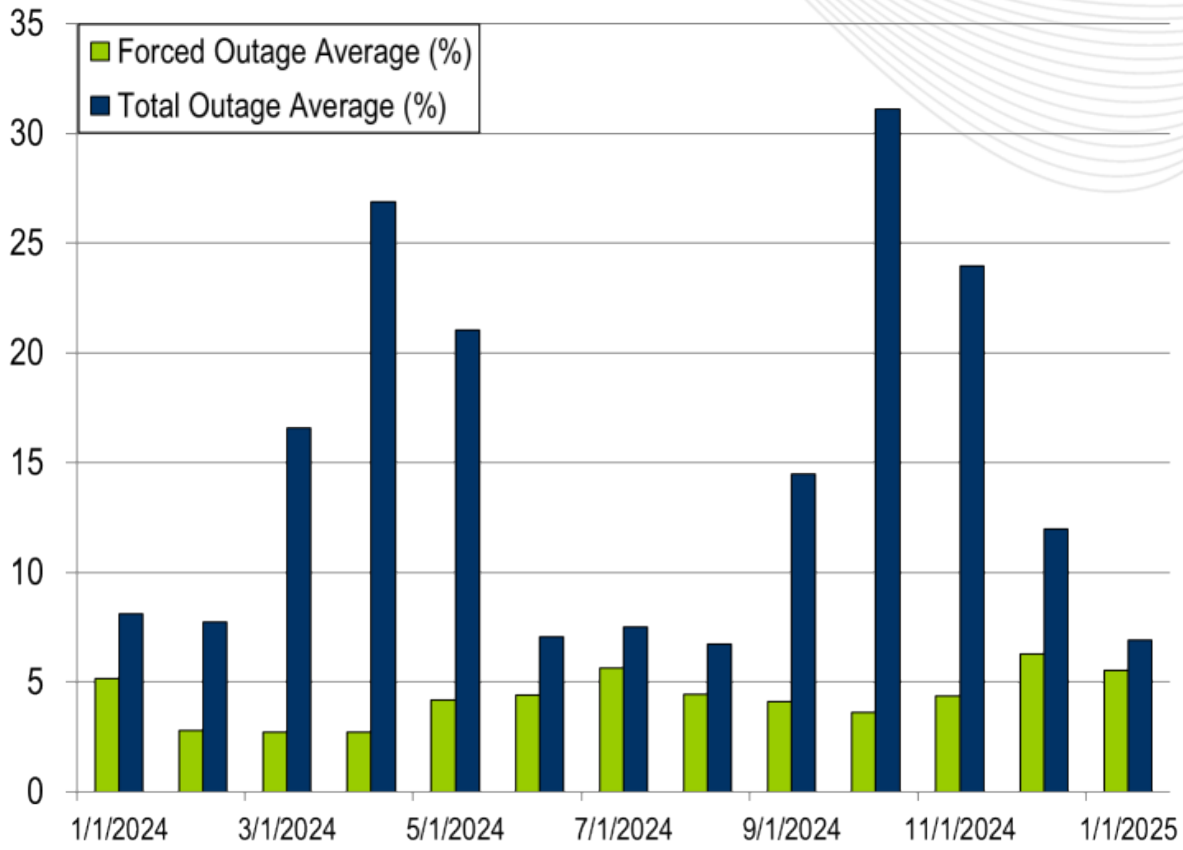
Operational Summary (January)

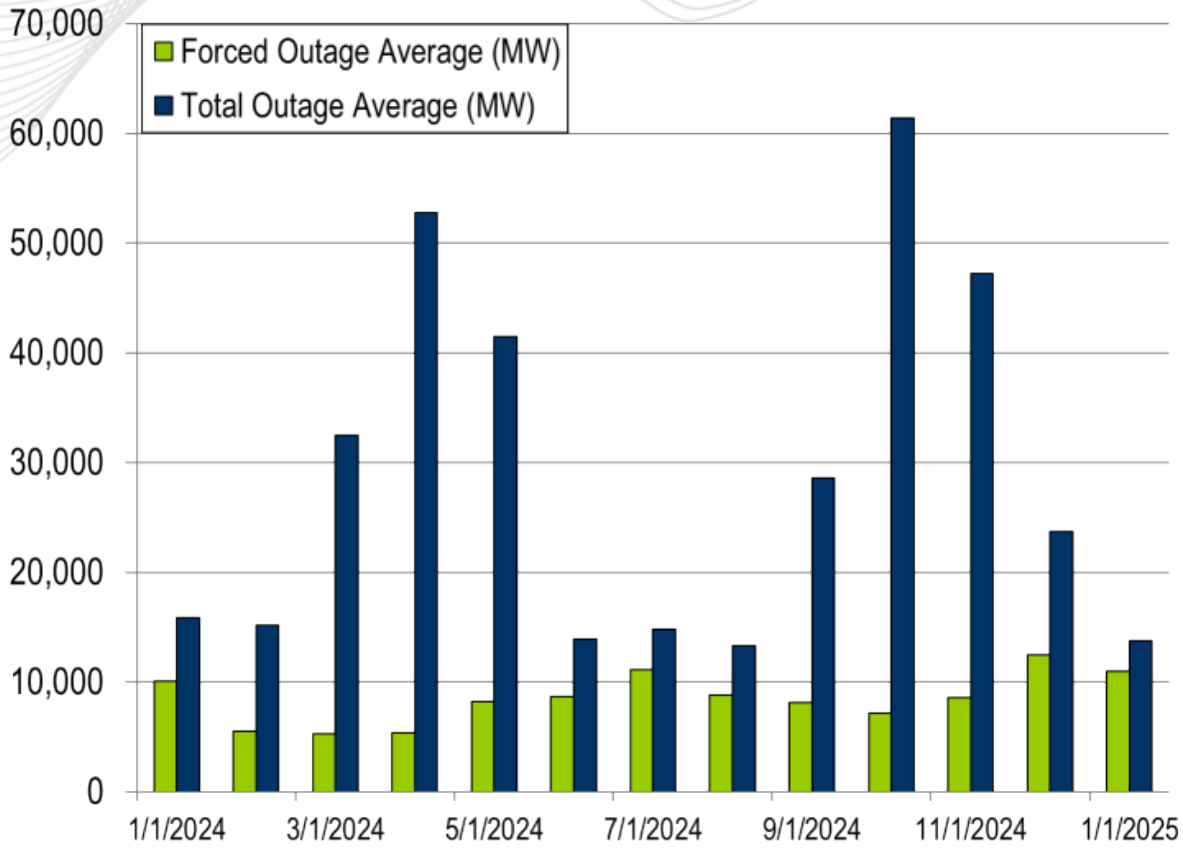
- The following Emergency Procedures occurred:
  - 6 Shared Reserve events
  - 1 Spin Event
  - 1 Conservative Operations Alert
  - 1 Maximum Generation Emergency Alert
  - 6 Cold Weather Alerts
  - 1 Geomagnetic Disturbance Warning
  - 1 Low Voltage Alert
  - 39 Post Contingency Local Load Relief Warnings (PCLLRWs)
  - 1 TLR Level 1
  - 1 NERC EEA Level 1

Shortage Case Approvals

- There have been no shortage case approvals for the month of January 2025.

RTO Generation Outage Rate - Monthly

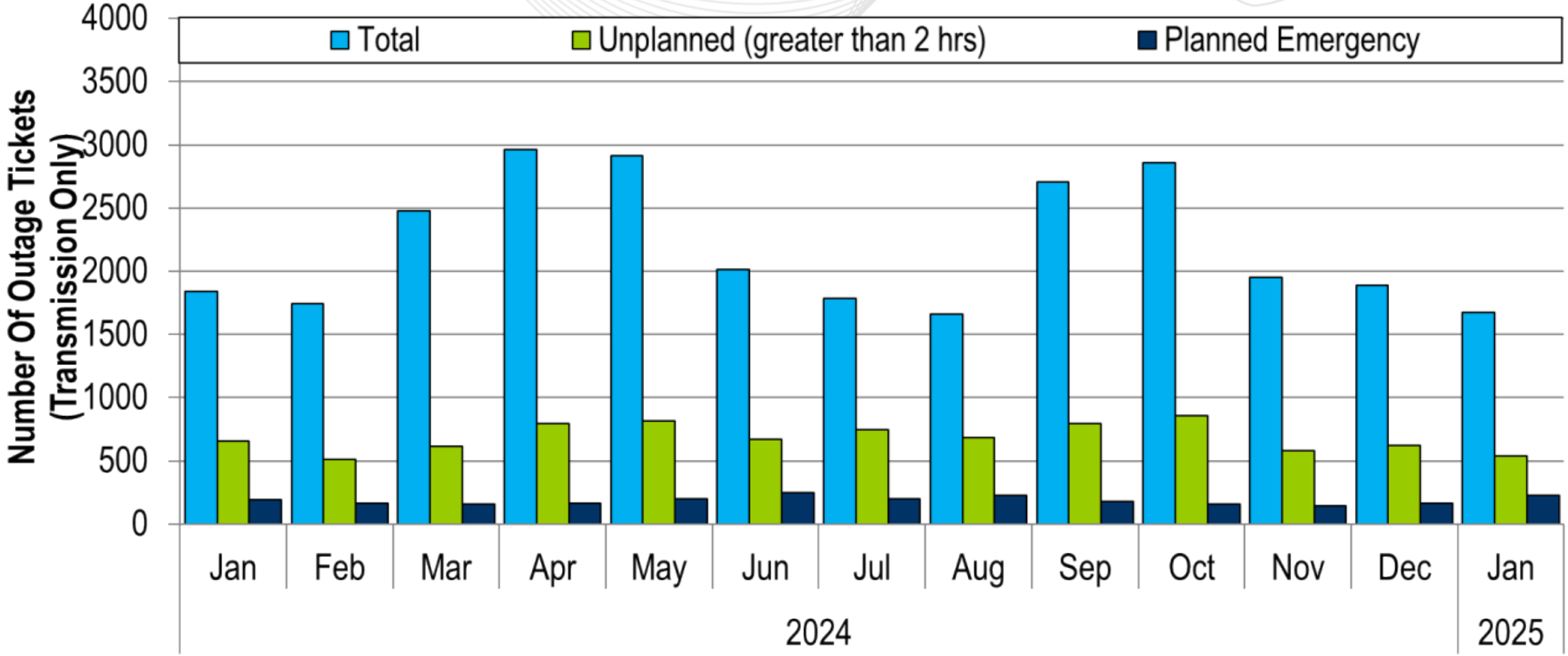




The 13-month average forced outage rate is 4.33% or 8,531 MW.

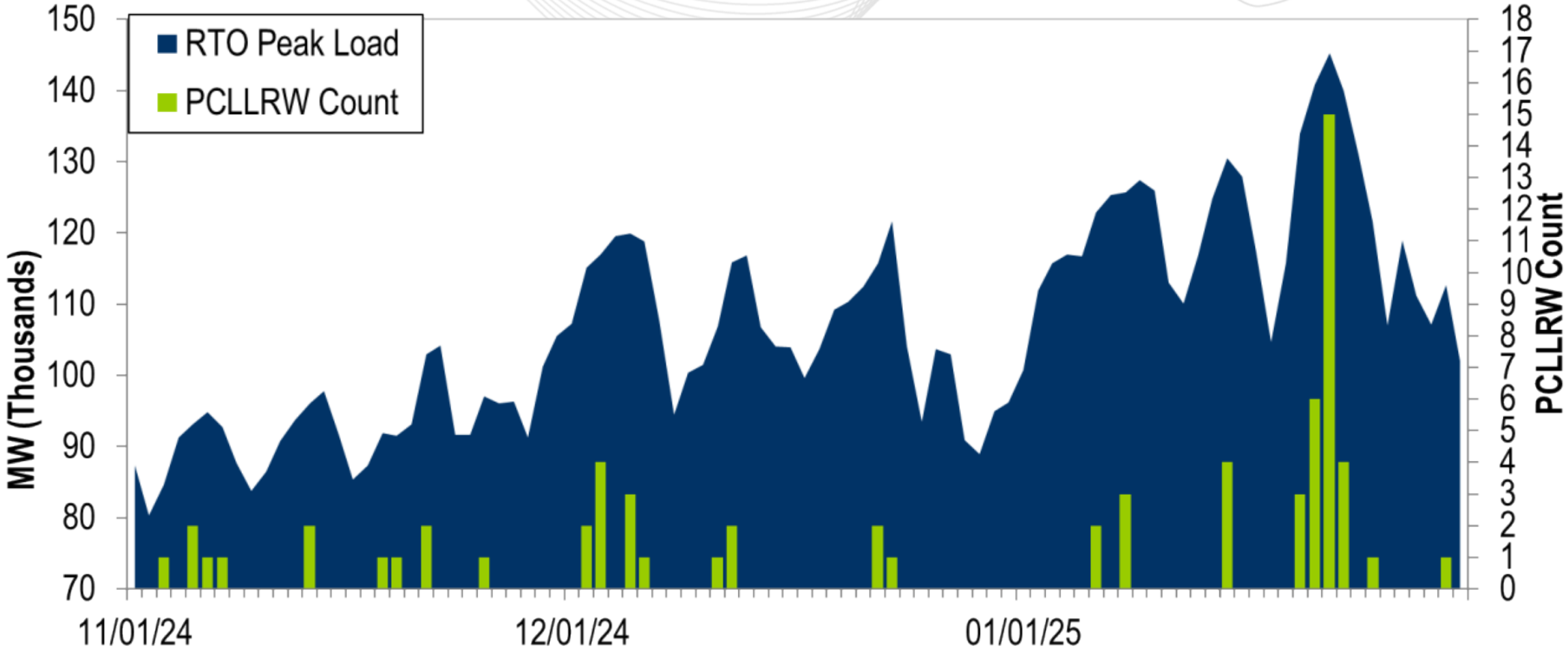
The 13-month average total outage rate is 14.63% or 28,821 MW.

2024-2025 Planned Emergency, Unplanned, and Total Outages by Ticket (Transmission Only)



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

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



Spin Response

Event	1		
Date	01/21/25		
Start Time	00:20:01		
End Time	00:24:41		
Duration	00:04:40		
Region	RTO		
Resource Type	**Gen**	**DR**	**Total**
Assigned (MW)	694	40	734
Estimated Expected Response of Assigned Resources (MW)	324	19	342
Actual Response of Assigned Resources (MW)	518	26	543
Output Increase of Resources without Assignment (MW)	2549	0	2549
Percent Response To Estimated Expected Response (%)	160%	139%	159%
Penalty (MW)	0	0	0

Note: This event includes only preliminary results for non-MAD units

Contact

Load Forecast Report

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Appendix

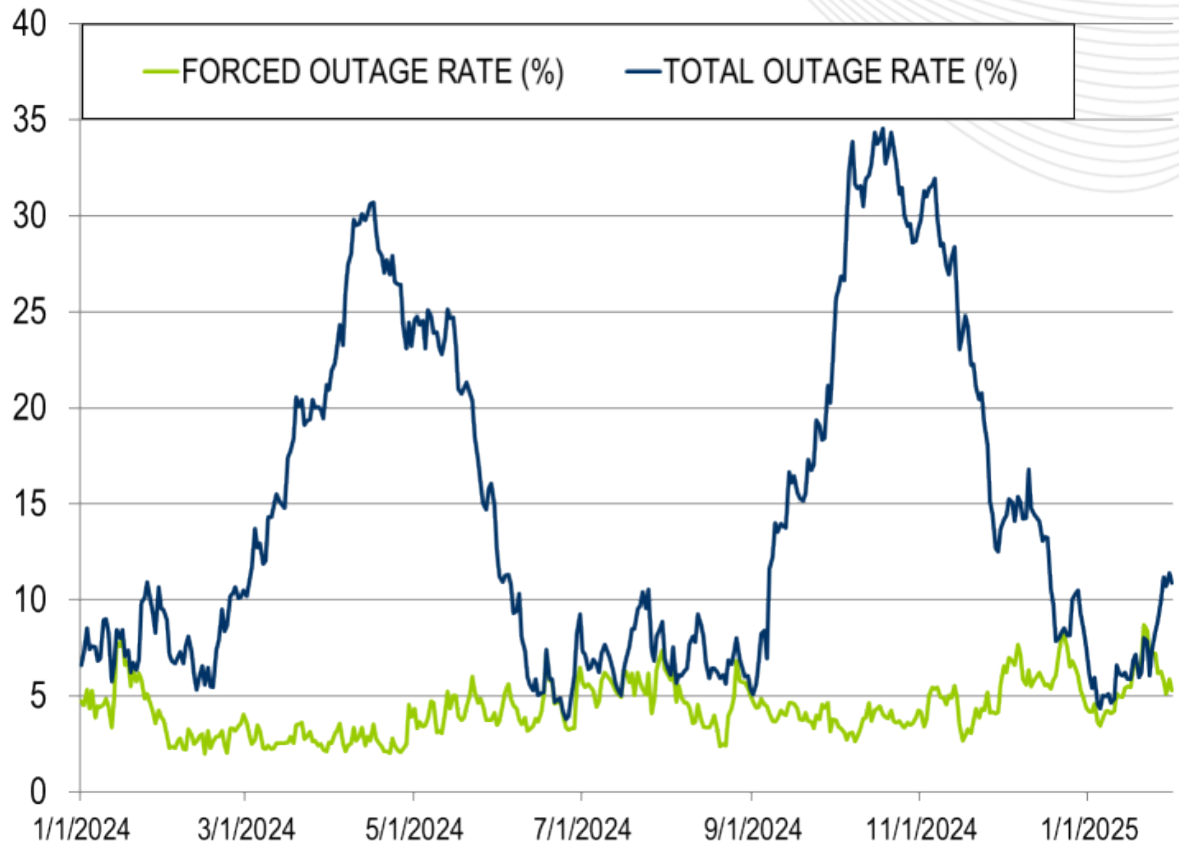
Balancing Authority ACE Limit - Performance Measure

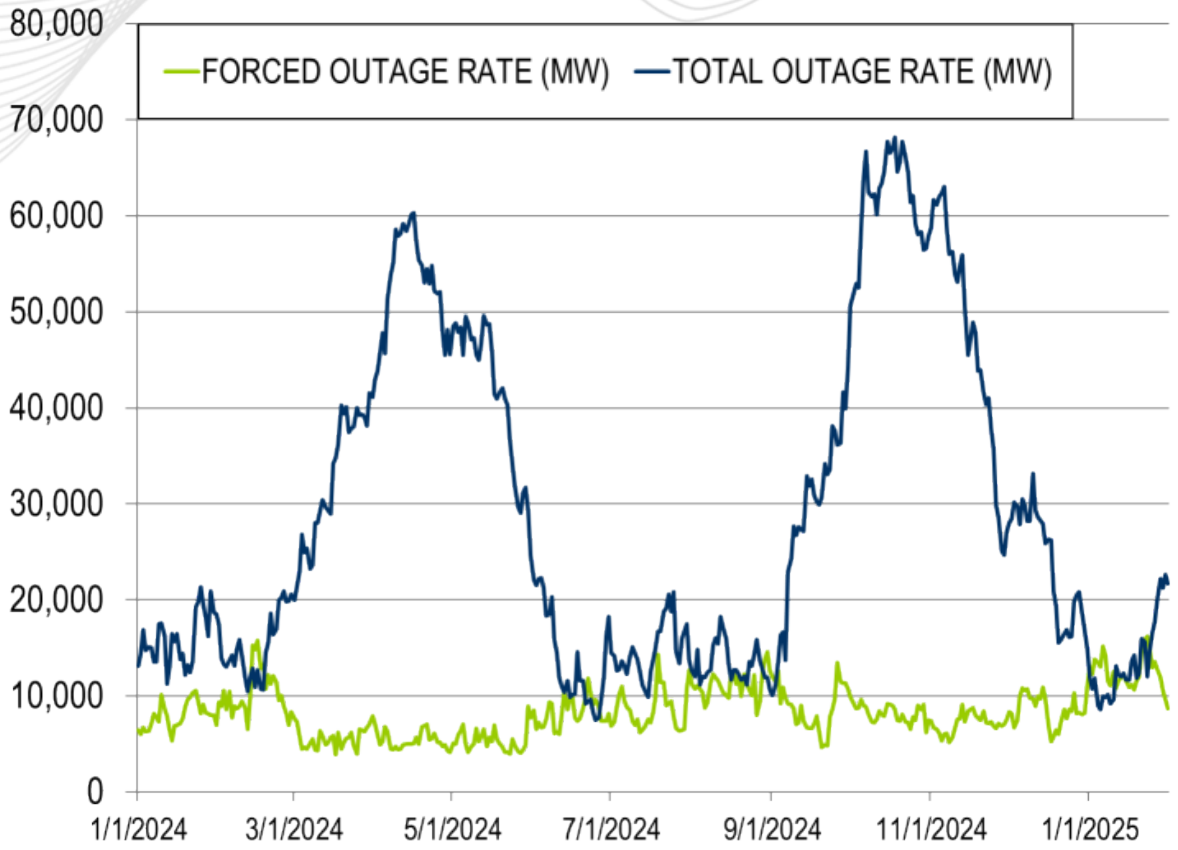
Goal Measurement: Balancing Authority ACE Limit (BAAL)

- 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 4.33% or 8,531 MW.

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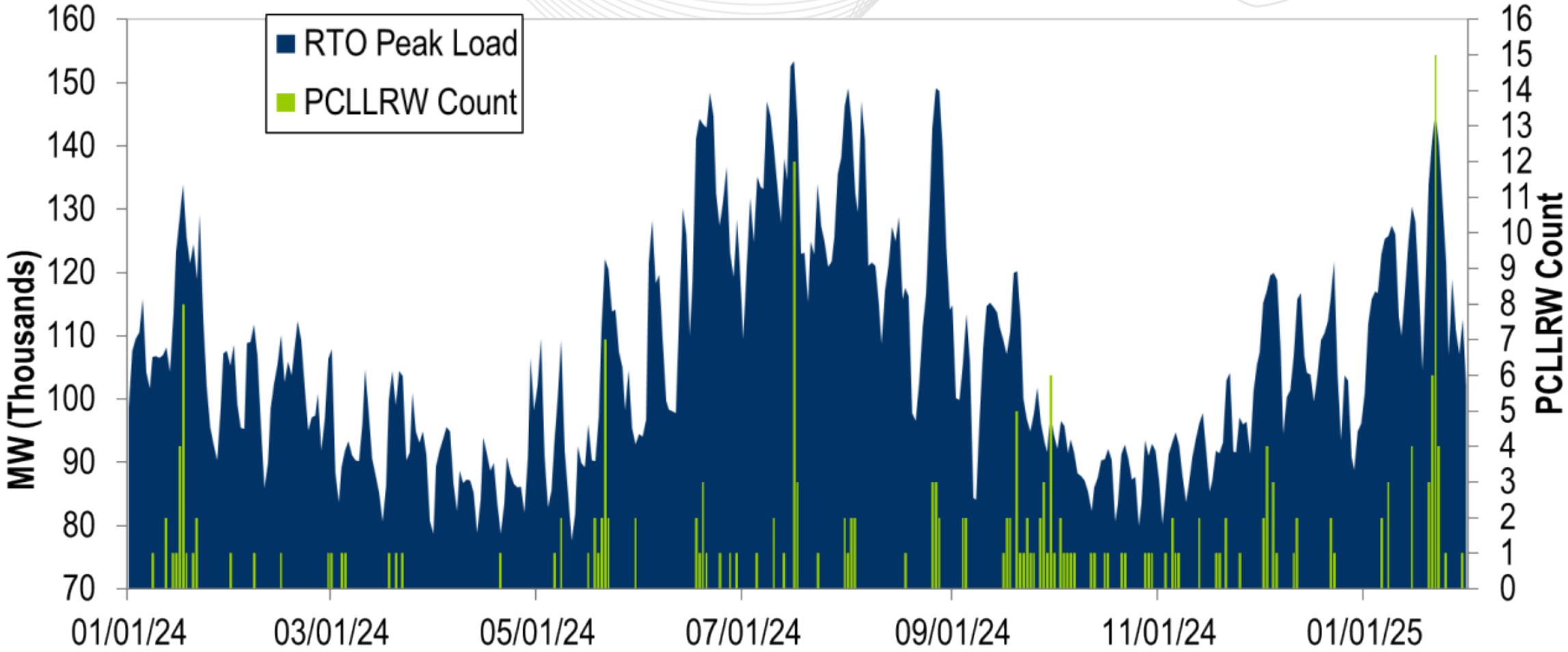
PCLLRW Count Vs. Peak Load – Daily Values For 13 Months



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