

# System Operations Report

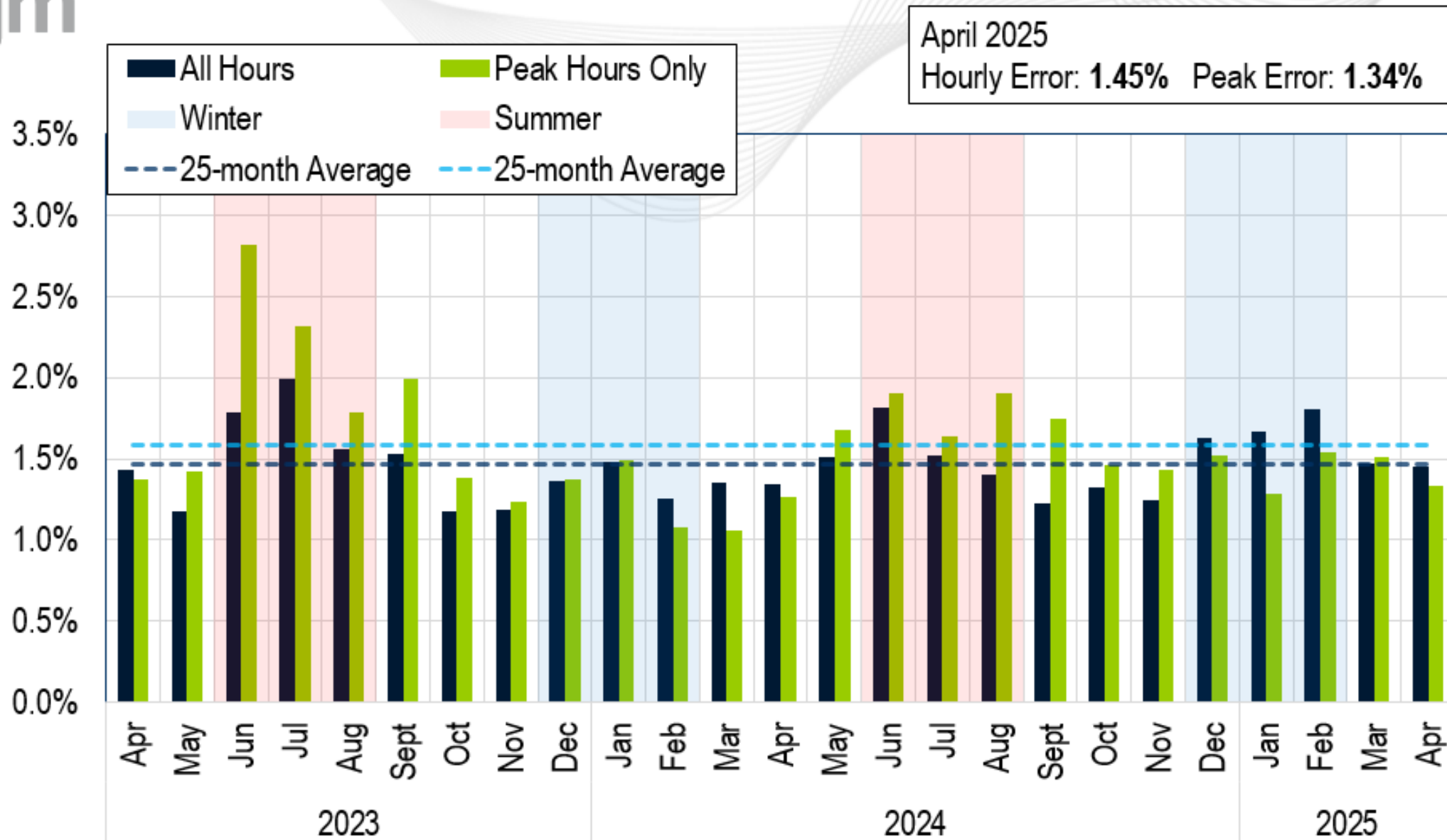
Marcus Smith, Lead Engineer –  
Markets Coordination

David Kimmel, Sr. Engineer II –  
Performance Compliance

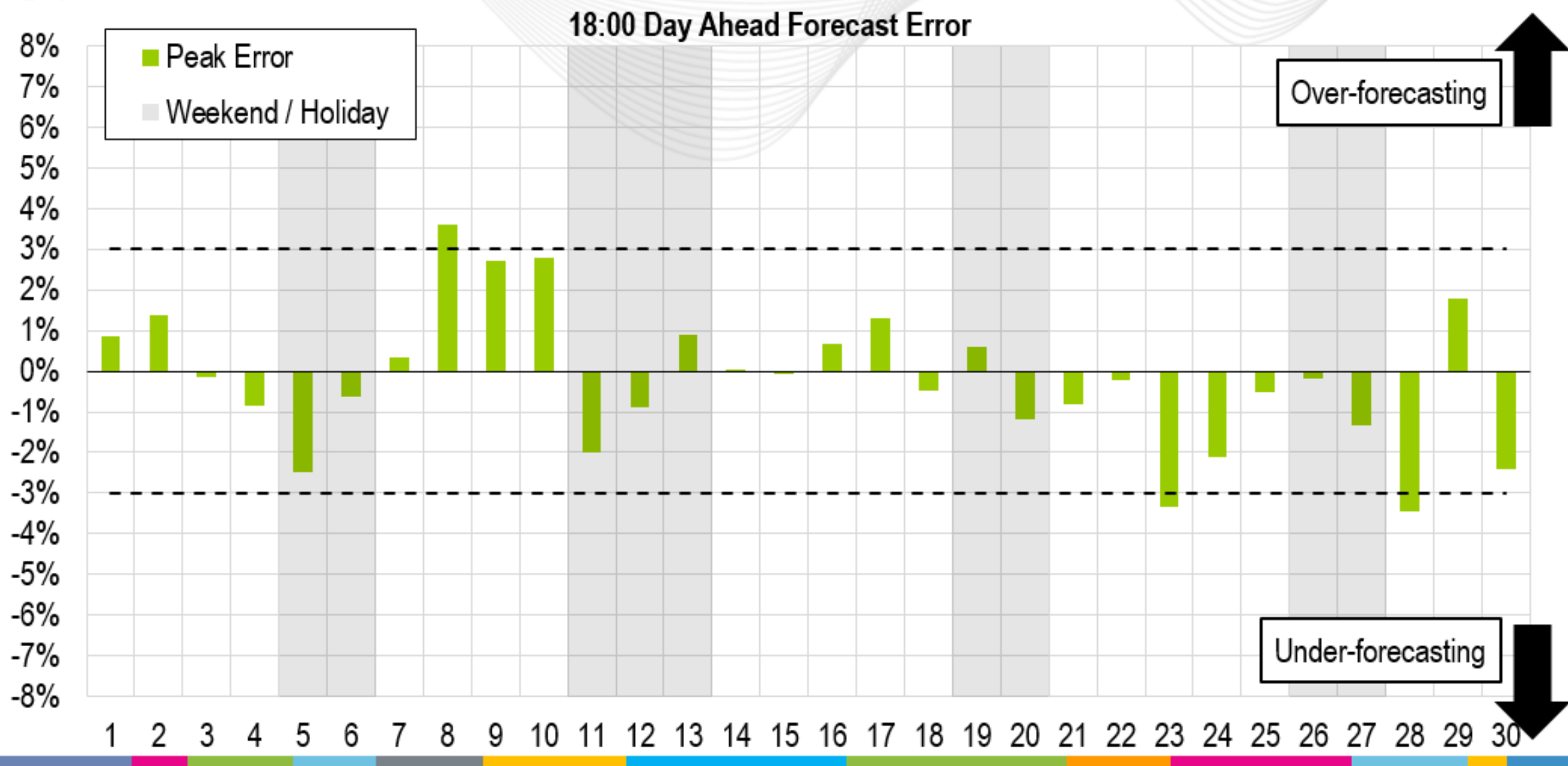
Operating Committee

May 8, 2025

# Average Load Forecast Error



# Daily Peak Forecast Error (April)

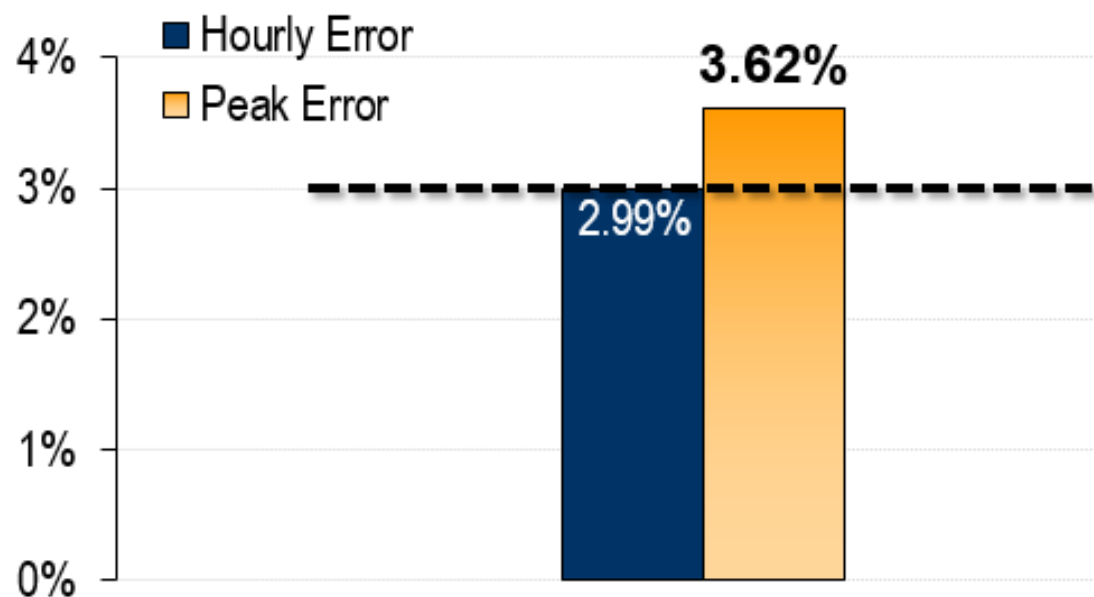


# Days Exceeding 3% Forecast Error at Peak Hour

## Over-forecasting

**Apr. 8**

Colder temperatures moved into the footprint after a period of mild conditions, but load response was lower than expected and led to over-forecasting



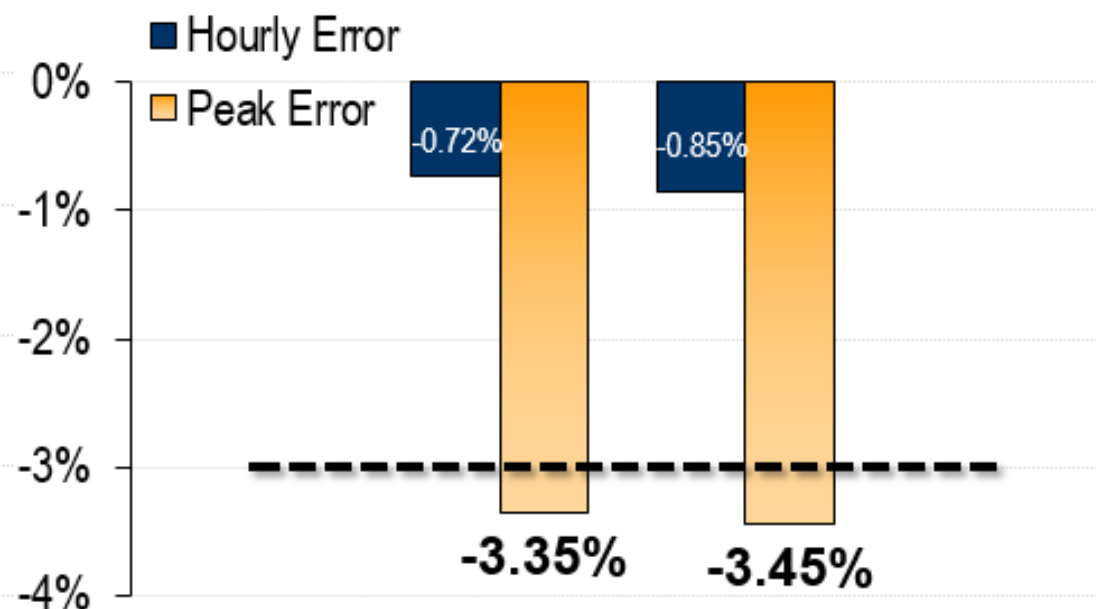
## Under-forecasting

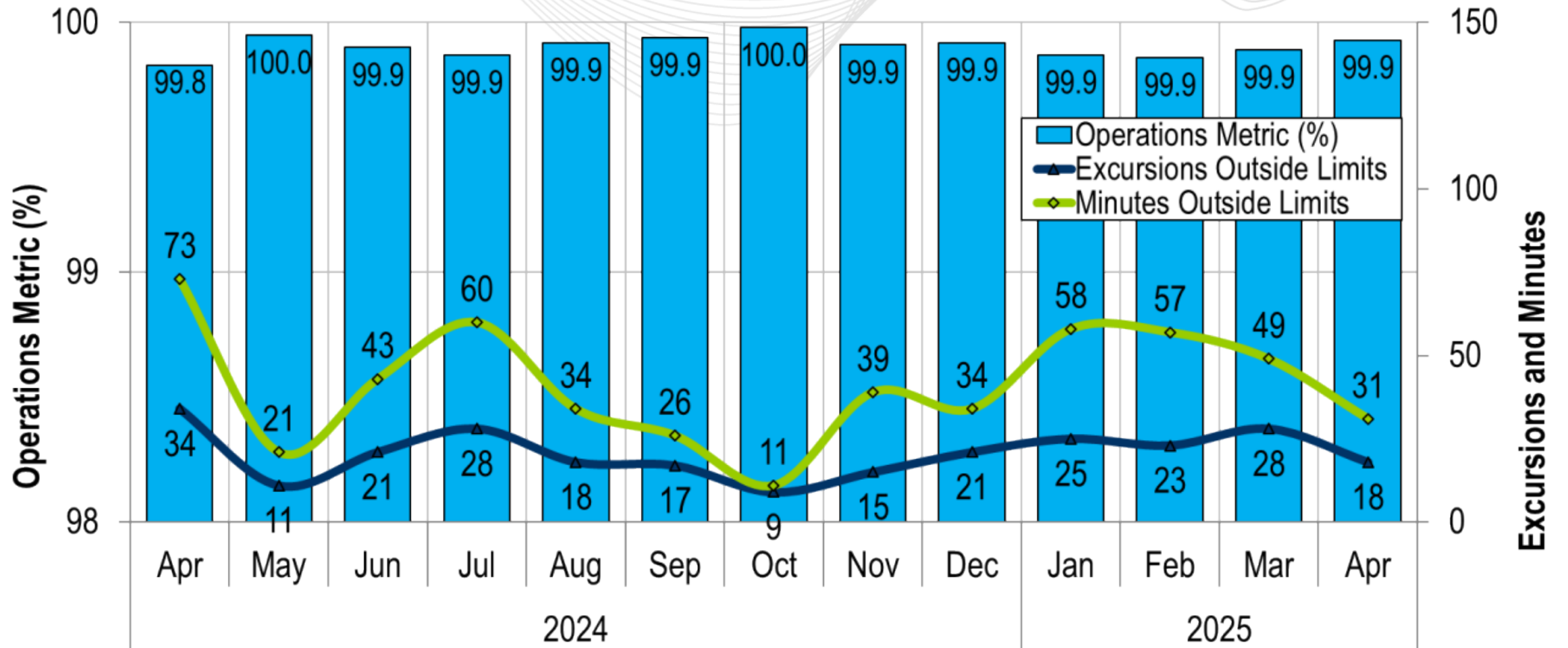
**Apr. 23**

A period of cooler temperatures before warmer than forecast temperatures led to higher loads and under-forecasting.

**Apr. 28**

Temperatures in northern regions came in 3-4 degrees warmer than forecast, leading to higher loads and under-forecasting.



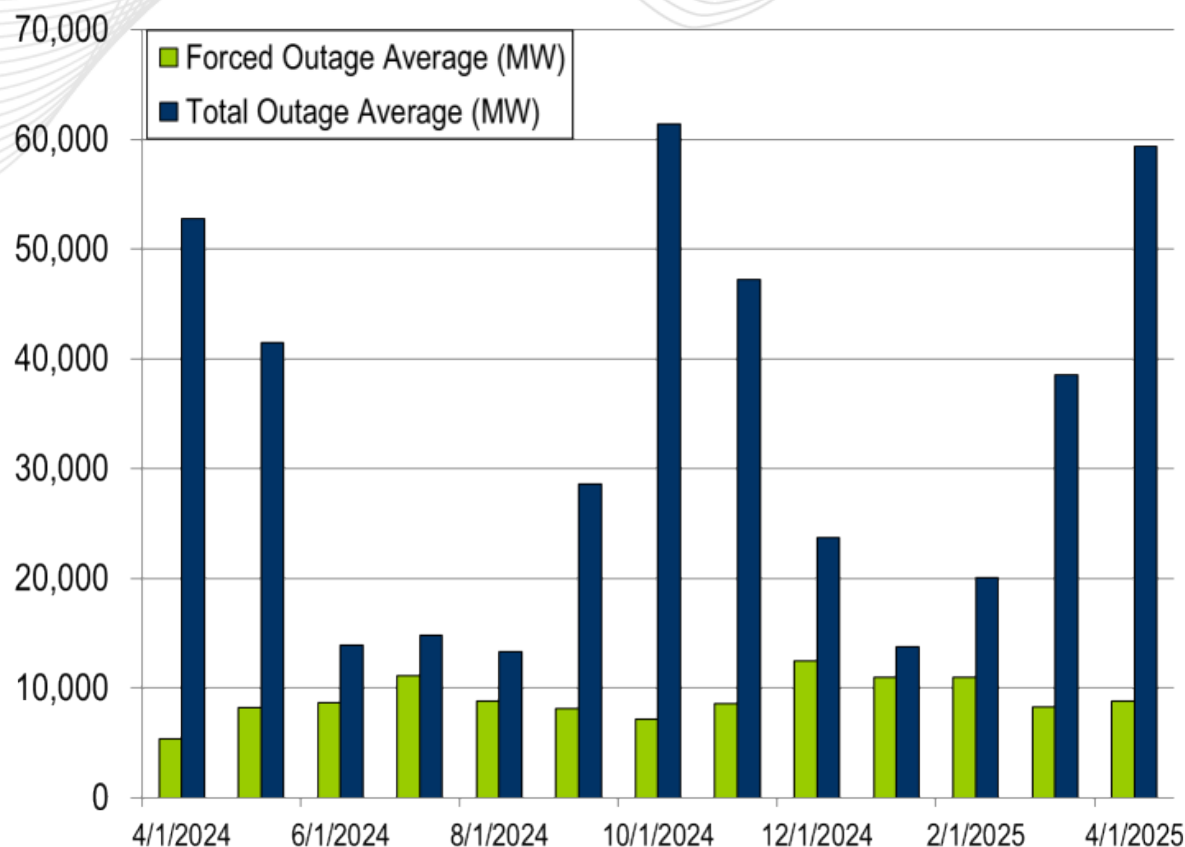
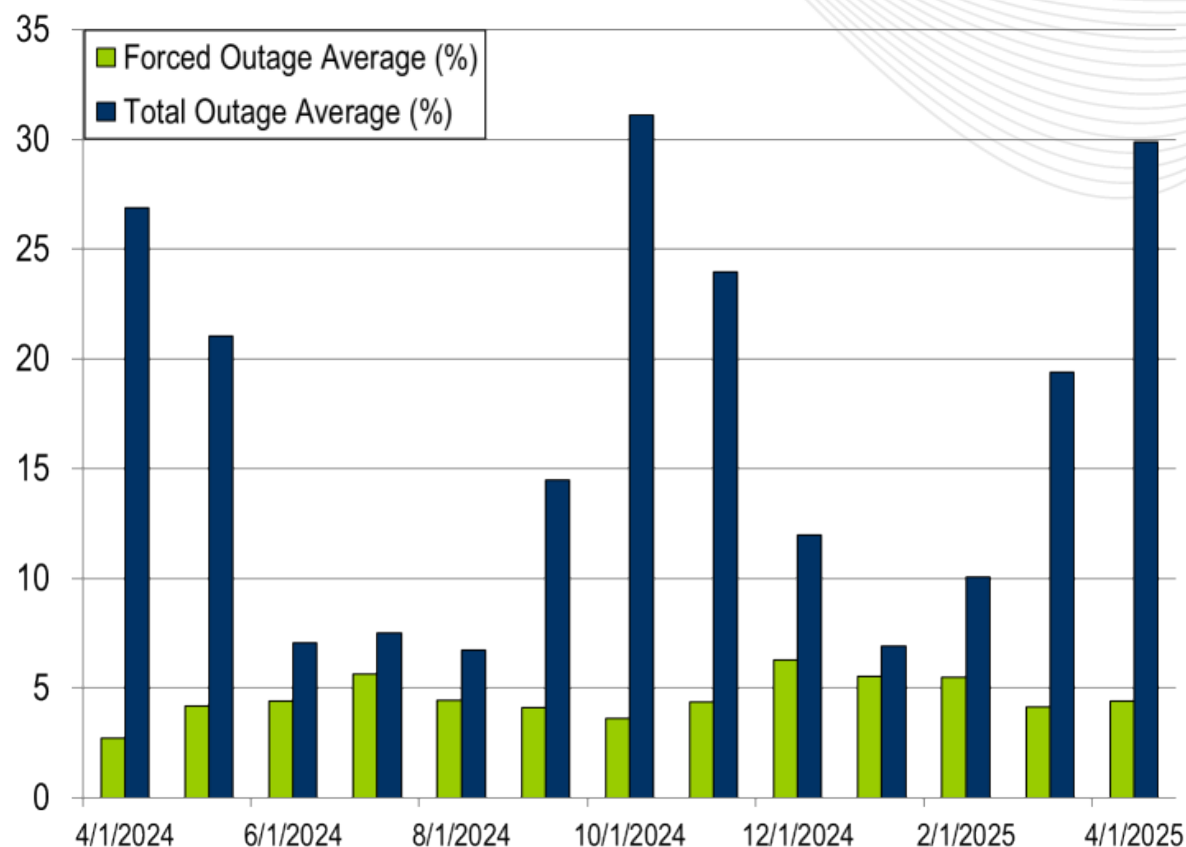


PJM's BAAL performance has exceeded the goal of 99% for each month in 2024 and 2025.

- The following Emergency Procedures occurred:
  - 2 Spin events
  - 2 Shared Reserve events
  - 5 High System Voltage Action
  - 1 Geomagnetic Disturbance Warning
  - 11 Post Contingency Local Load Relief Warnings

- 4 Shortage Cases Approved
- The approved Shortage Cases occurred on:
  - 04/08/2025:
    - 4 shortage cases approved
    - Factors: loss of imports, limited ramping capability, drastic increase in load during colder than usual morning pick-up

# RTO Generation Outage Rate - Monthly

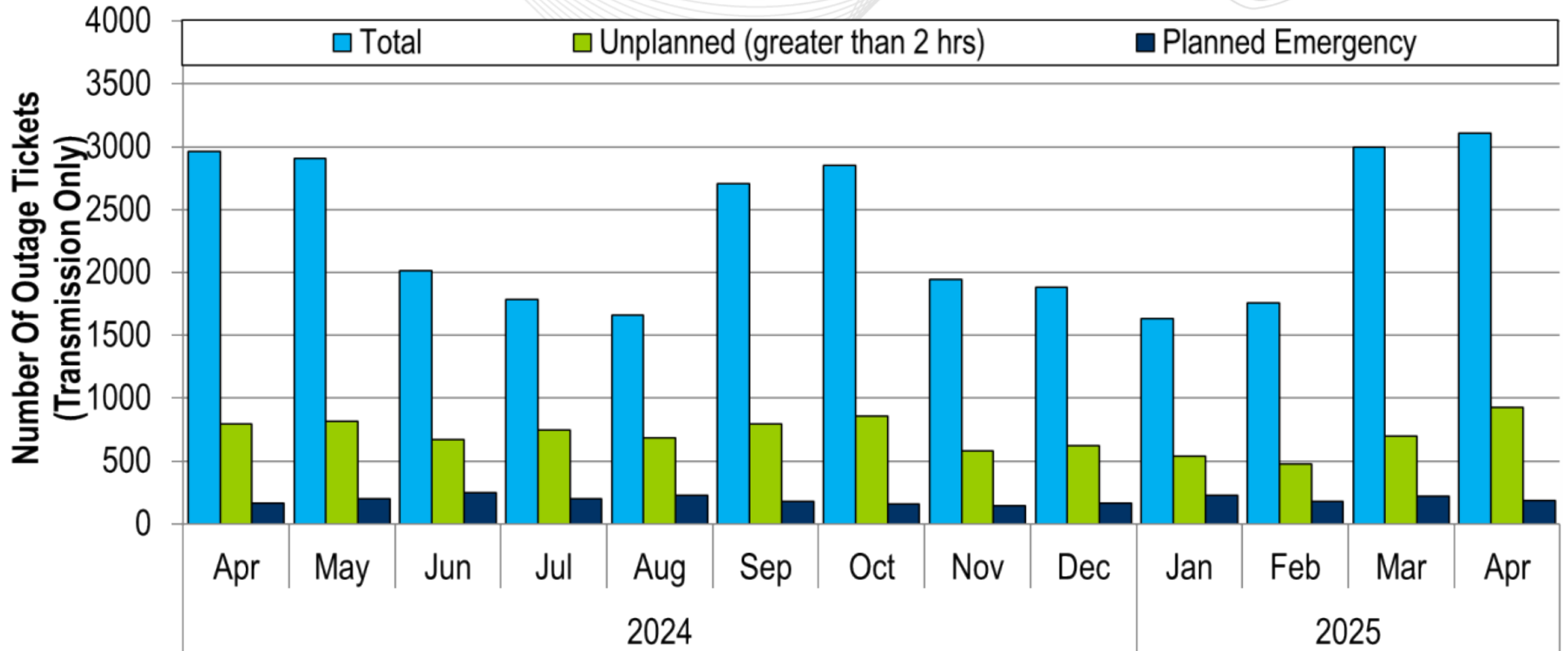


The 13-month average forced outage rate is 4.44% or 8,784 MW.

The 13-month average total outage rate is 16.69% or 32,981 MW.

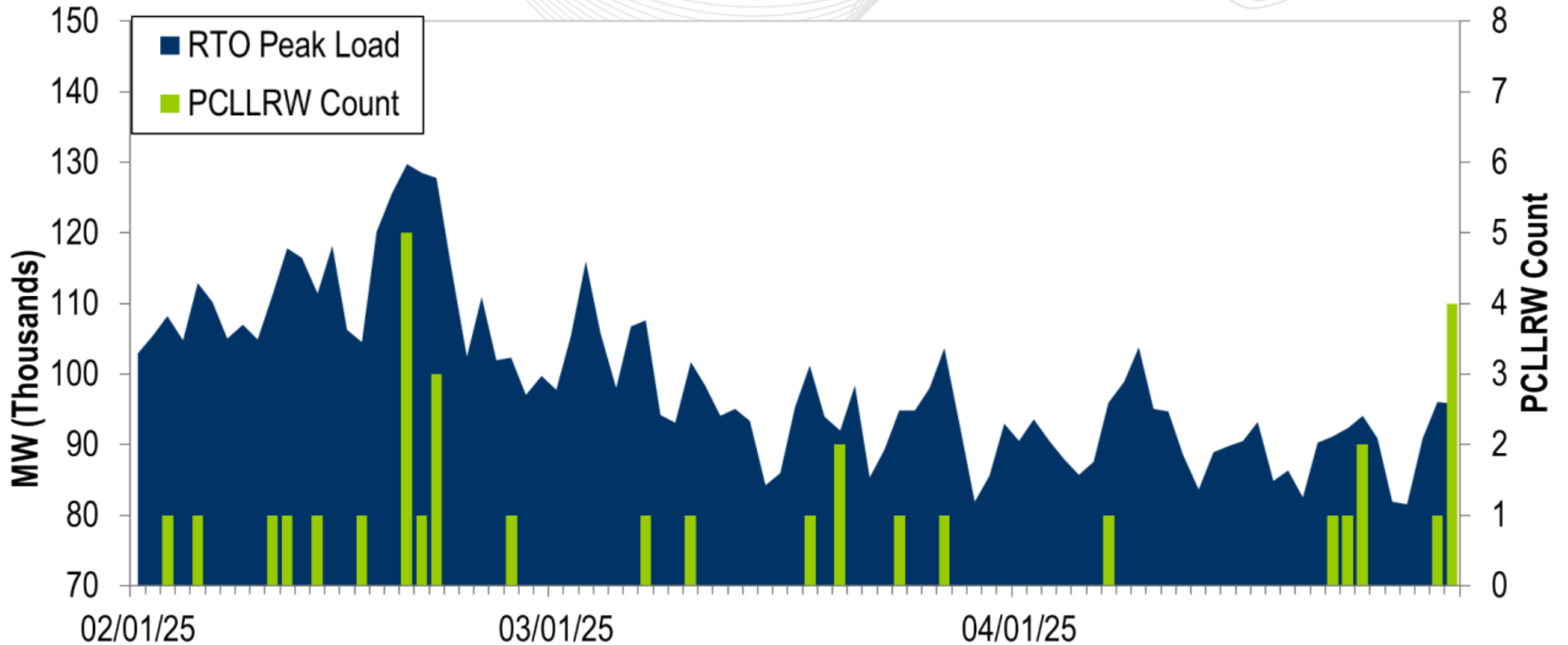


# 2024-2025 Planned Emergency, Unplanned, and Total Outages by Ticket (Transmission Only)



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

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



Event	1			2		
Date	04/05/25			04/24/25		
Start Time	04:21:05			00:50:09		
End Time	04:29:28			00:57:12		
Duration	00:08:23			00:07:03		
Region	RTO			MAD		
Resource Type	<b>Gen</b>	<b>DR</b>	<b>Total</b>	<b>Gen</b>	<b>DR</b>	<b>Total</b>
Assigned (MW)	1755	452	2207	1085	0	1085
Estimated Expected Response of Assigned Resources (MW)	1472	379	1850	765	0	765
Actual Response of Assigned Resources (MW)	1279	339	1618	657	0	657
Output Increase of Resources without Assignment (MW)	2090	0	2090	175	0	175
Percent Response To Estimated Expected Response (%)	87%	89%	87%	86%	100%	86%
Penalty (MW)	0	0	0	0	0	0

## Load Forecast Report

### Presenter/SME:

Marcus Smith,  
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## System Operations Report

### Presenter:

David Kimmel,  
[David.Kimmel@pjm.com](mailto:David.Kimmel@pjm.com)

### SME:

Ross Kelly,  
[Ross.Kelly@pjm.com](mailto:Ross.Kelly@pjm.com)

A green speech bubble containing a white question mark, positioned above a blue speech bubble with three horizontal lines, indicating a question or contact point.

?

## Member Hotline

(610) 666 – 8980

(866) 400 – 8980

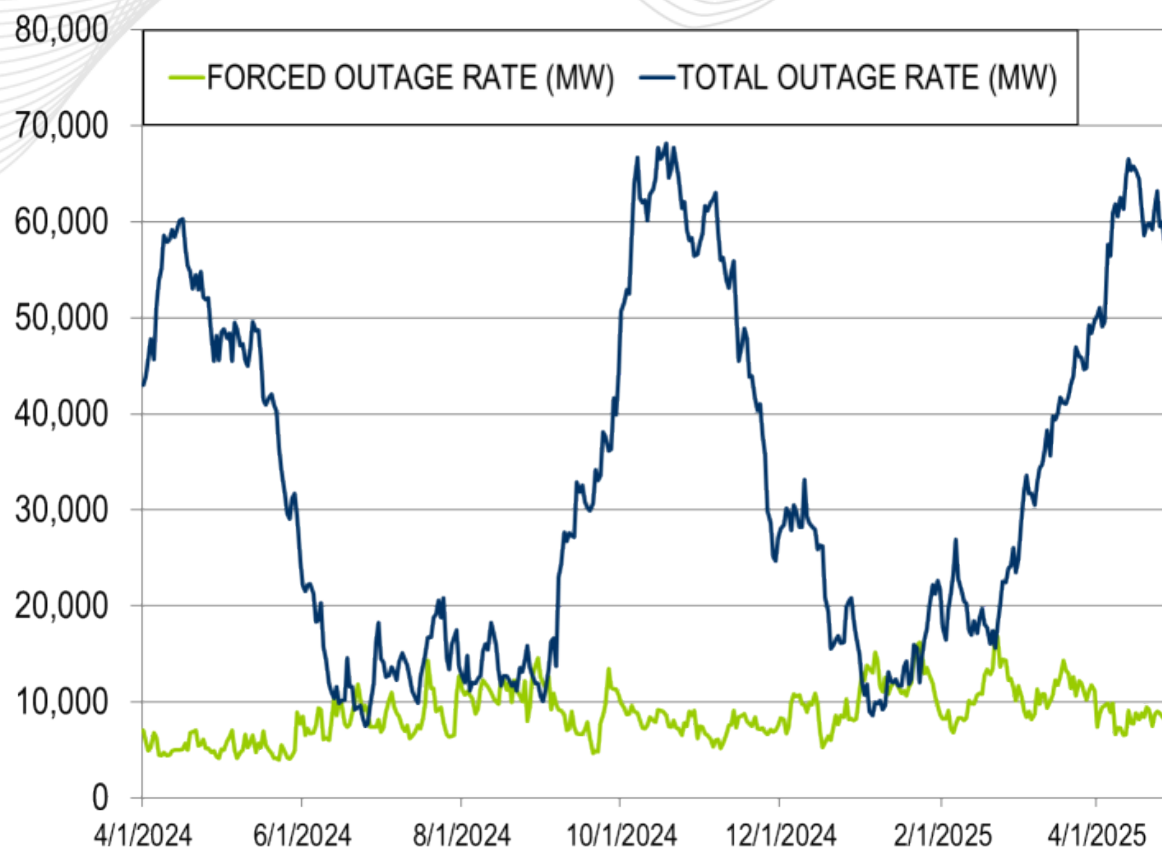
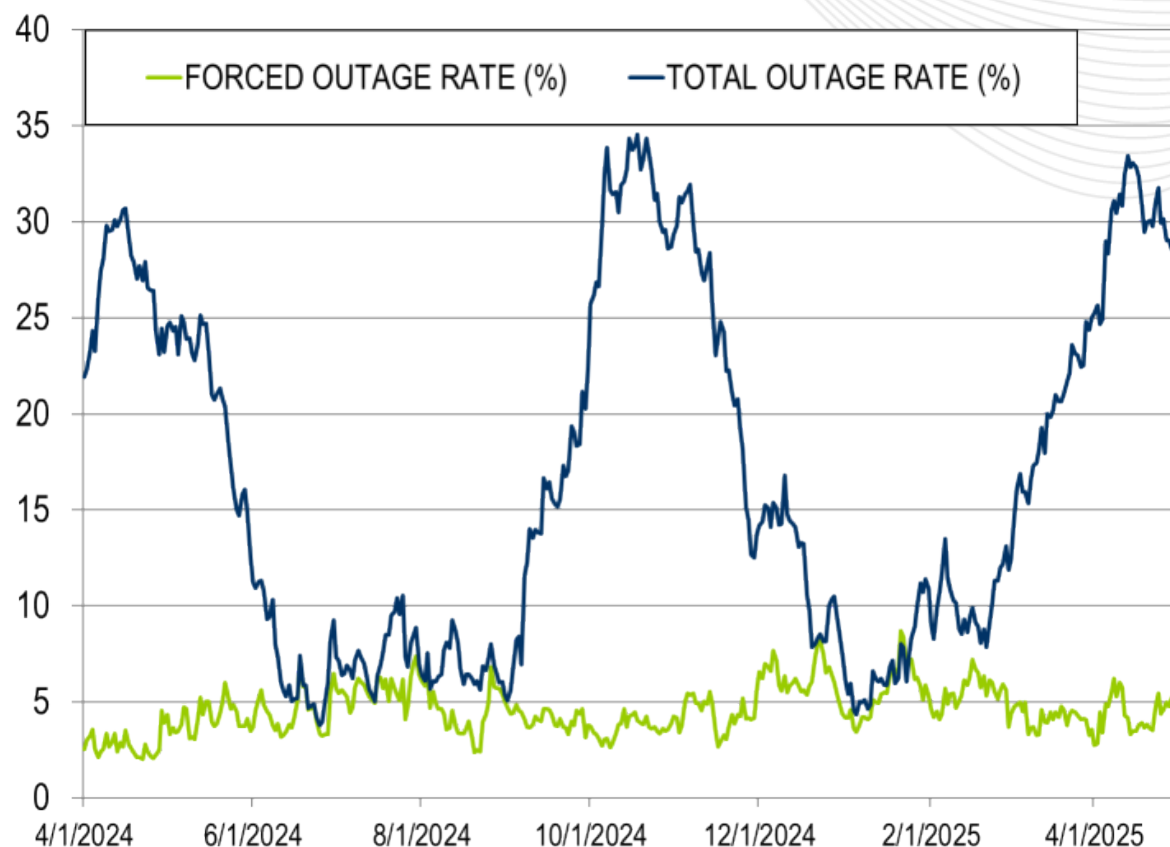
[custsvc@pjm.com](mailto:custsvc@pjm.com)

# Appendix

## 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

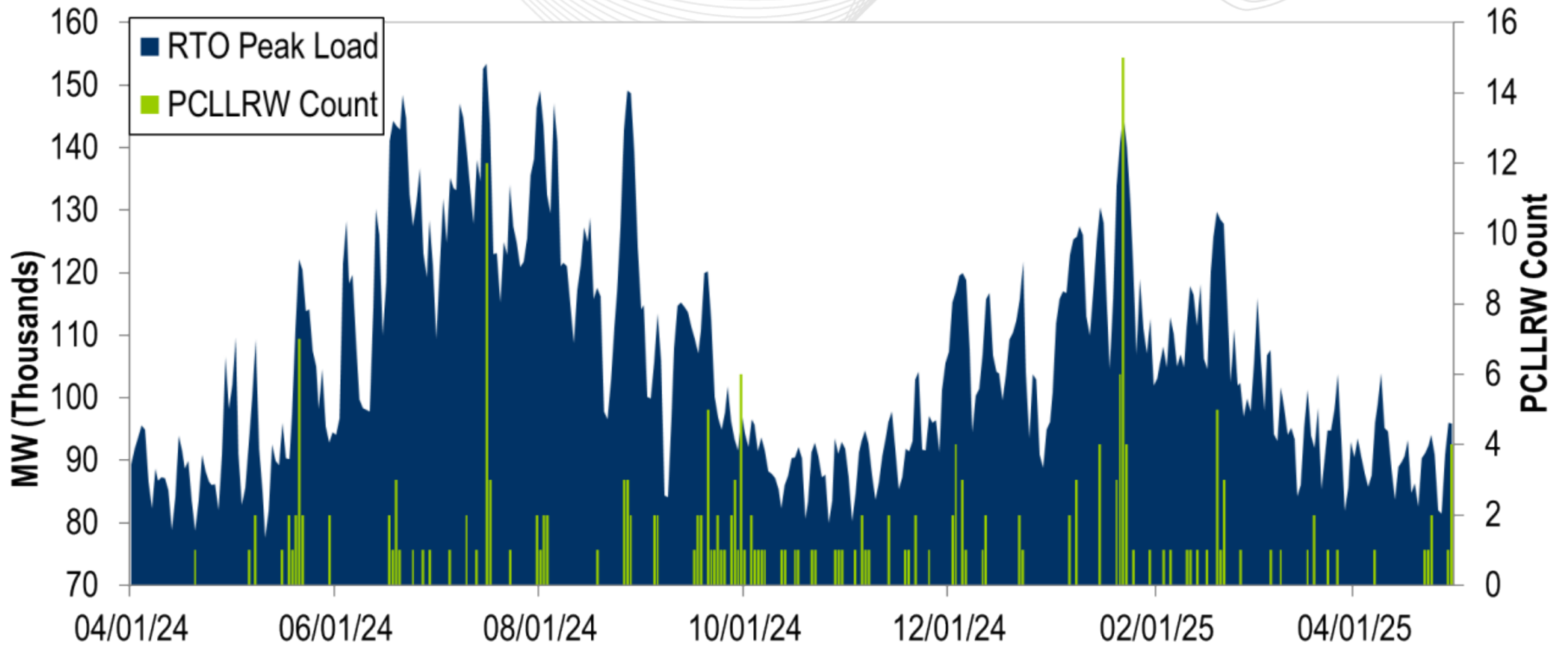


The 13-month average forced outage rate is 4.44% or 8,784 MW.

The 13-month average total outage rate is 16.69% or 32,981 MW.



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





**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](mailto:it_ops_ctr_shift@pjm.com)

