

System Operations Report

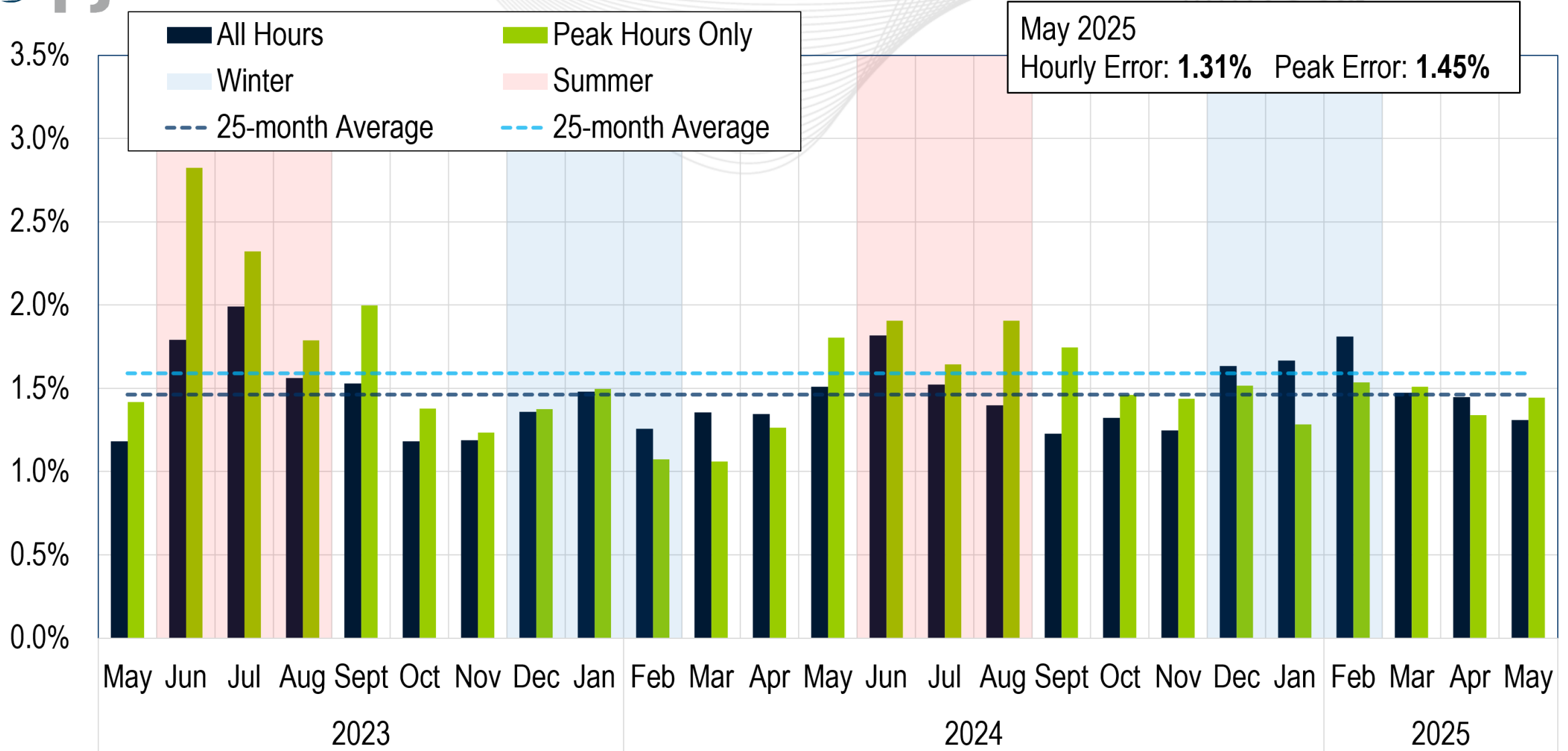
Marcus Smith, Lead Engineer –
Markets Coordination

David Kimmel, Sr. Engineer II –
Performance Compliance

Operating Committee

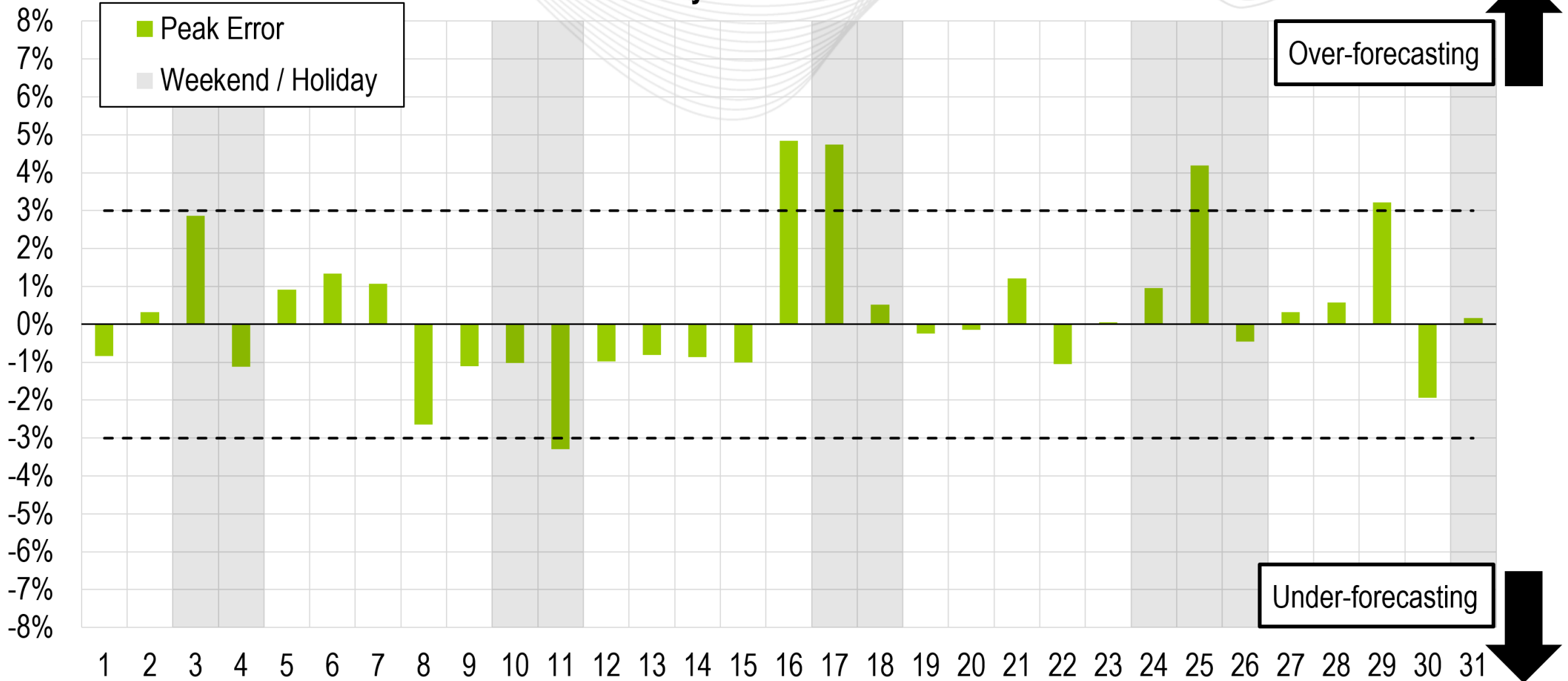
June 3, 2025

Average Load Forecast Error



Daily Peak Forecast Error (May)

18:00 Day Ahead Forecast Error



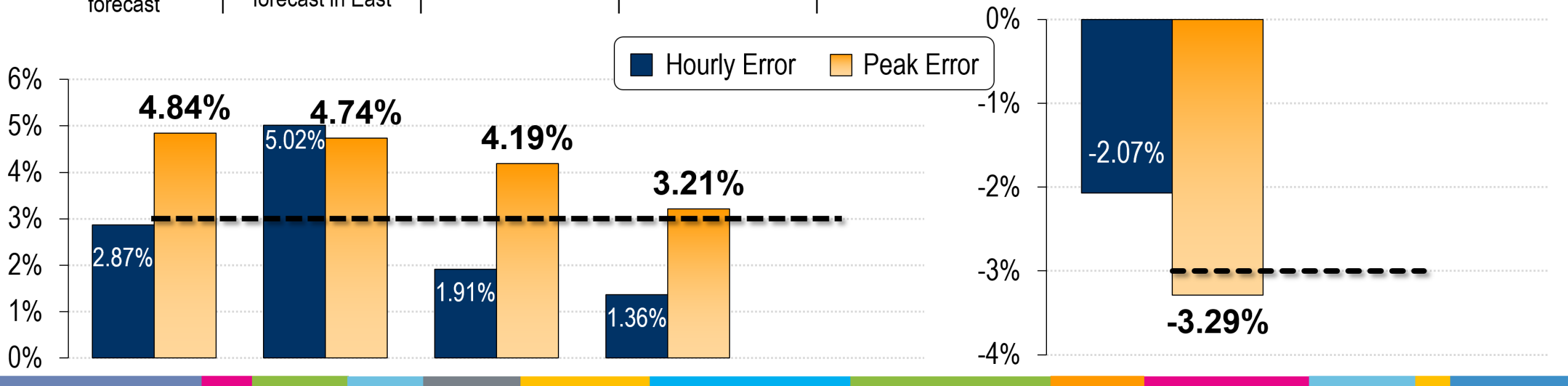
Days Exceeding 3% Forecast Error at Peak Hour

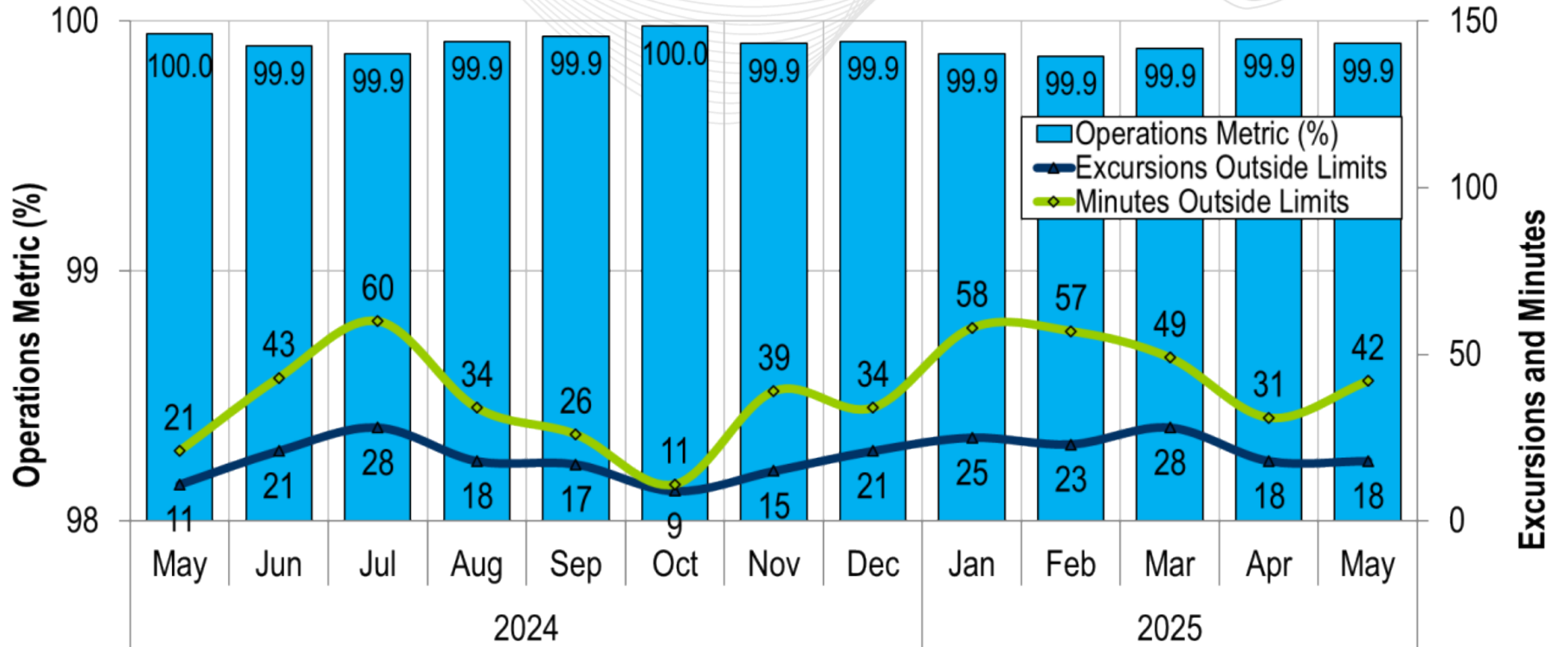
Over Forecasting

| | | | |
|--|--|---|--|
| May 16 Day after highest peak of month, thunderstorms suppressed loads with temperatures ~3-5 degrees cooler than forecast | May 17 Loads never fully recovered from prior day's storms as temperatures the first half of day were 3-6 degrees cooler than forecast in East | May 25 Coolest Memorial Day Weekend in 4 years with greater holiday impacts than anticipated especially in Western Region | May 29 Slower pick up to peak with temperatures 4-6 degrees cooler than forecast in East |
|--|--|---|--|

Under Forecasting

May 11: Stronger late afternoon pick up in load with temperatures 3-5 degrees warmer than forecast



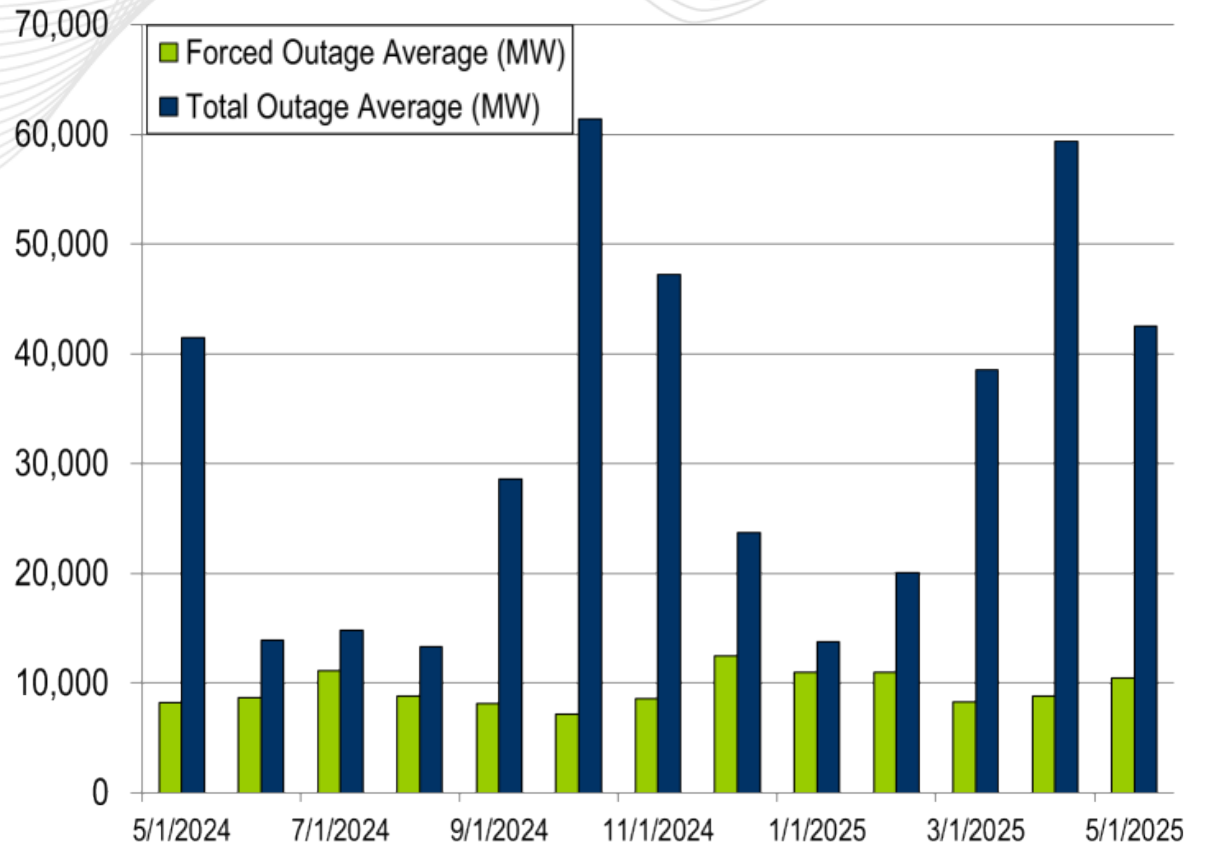
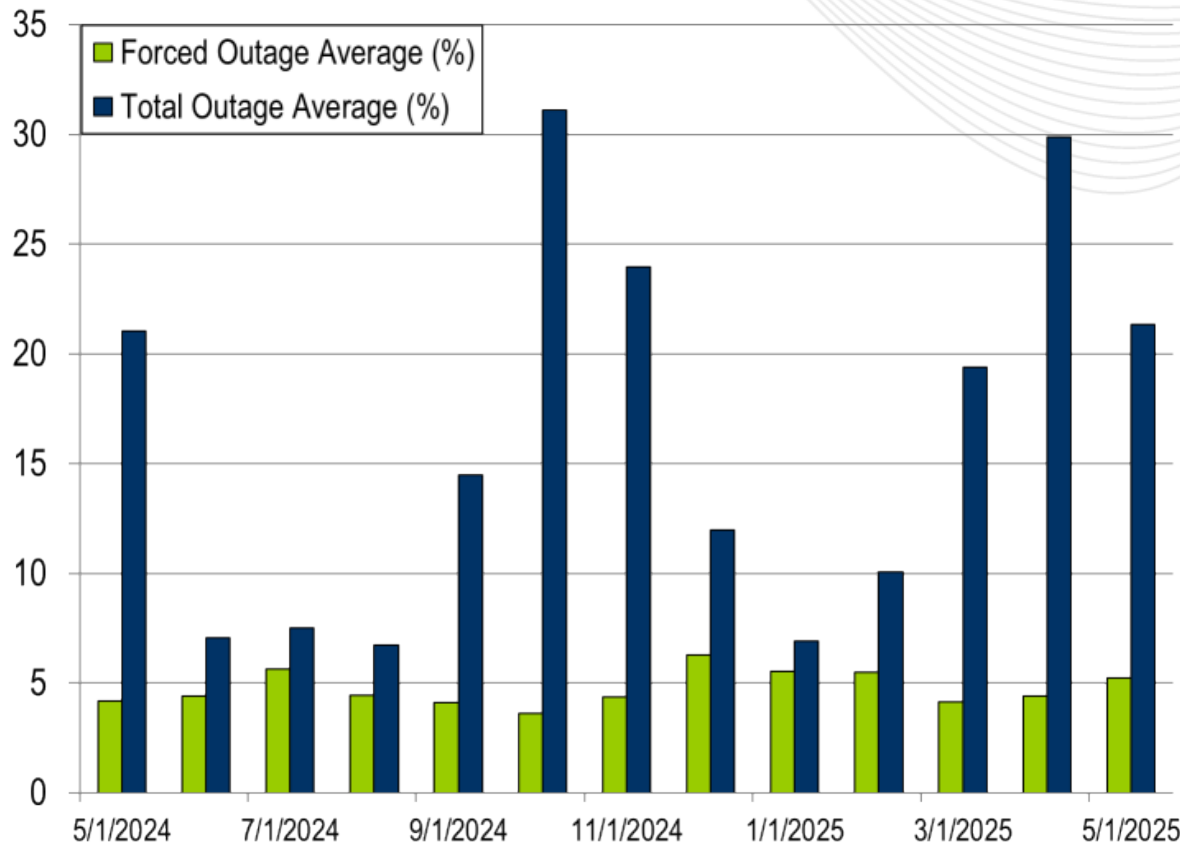


PJM's BAAL performance has exceeded the goal of 99% for each month in 2024 and 2025.

- The following Emergency Procedures occurred:
 - 1 Spin Event
 - 1 Shared Reserve event
 - 3 High System Voltage Action
 - 1 Geomagnetic Disturbance Warning
 - 24 Post Contingency Local Load Relief Warnings

- 2 Shortage Cases Approved
- The approved Shortage Cases occurred on:
 - 05/08/2025:
 - 1 shortage case approved for the 16:50 interval
 - Factors: load increase
 - 05/28/2025:
 - 1 shortage case approved for the 07:45 interval
 - Factors: load increase

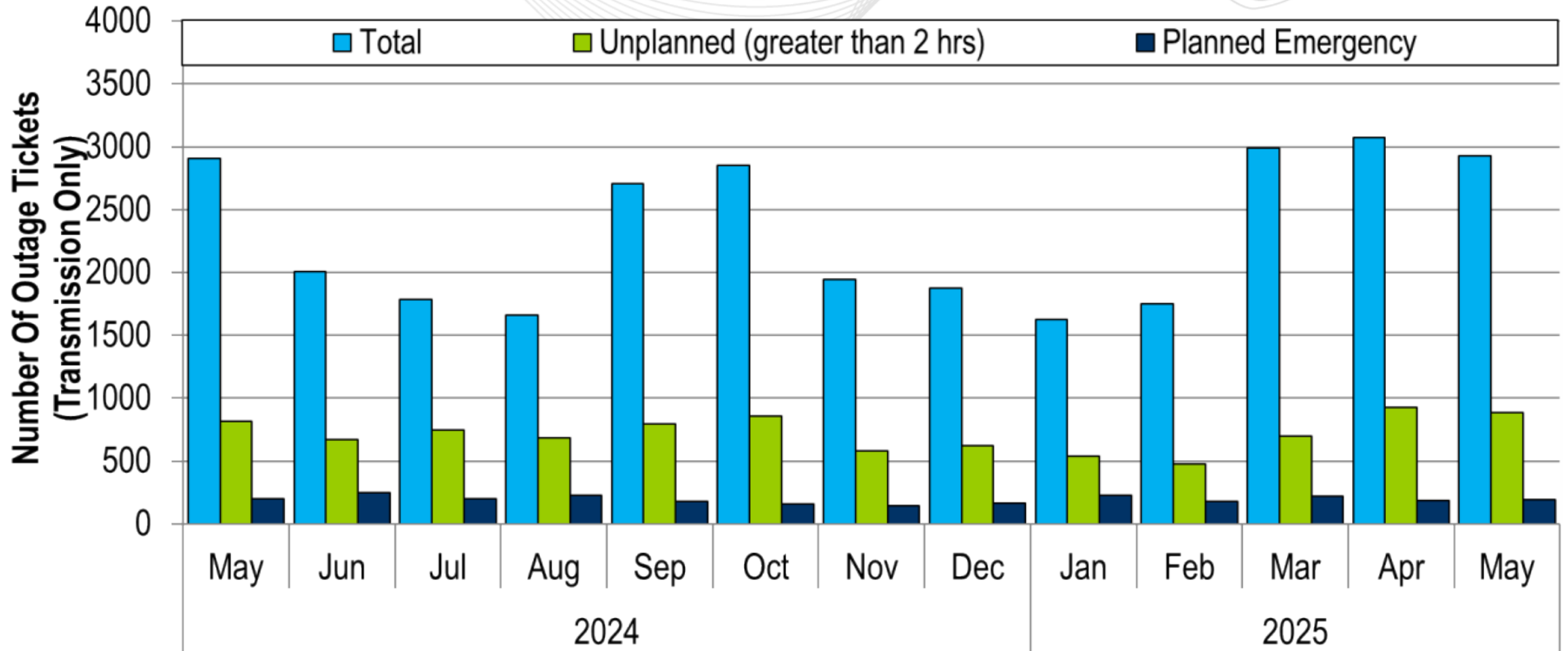
RTO Generation Outage Rate - Monthly



The 13-month average forced outage rate is 4.63% or 9,155 MW.

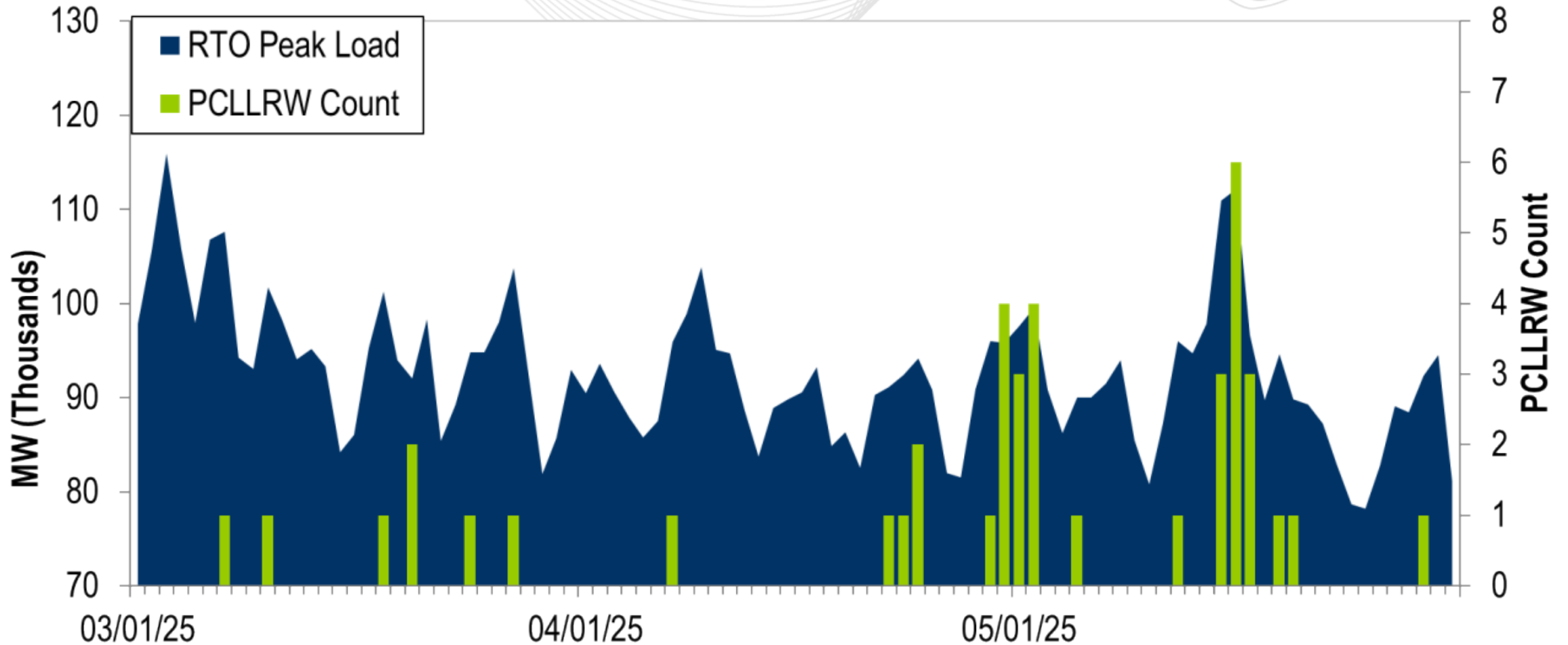
The 13-month average total outage rate is 17.07% or 33,708 MW.

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 | | |
| Date | 05/19/25 | | |
| Start Time | 11:46:23 | | |
| End Time | 11:53:54 | | |
| Duration | 00:07:31 | | |
| Region | RTO | | |
| Resource Type | Gen | DR | Total |
| Assigned (MW) | 2641 | 688 | 3329 |
| Estimated Expected Response of Assigned Resources (MW) | 1985 | 517 | 2502 |
| Actual Response of Assigned Resources (MW) | 1679 | 474 | 2154 |
| Output Increase of Resources without Assignment (MW) | 1769 | 0 | 1769 |
| Percent Response To Assignment (%) | 64% | 69% | 65% |
| Percent Response To Estimated Expected Response (%) | 85% | 92% | 86% |
| Penalty (MW) | 0 | 0 | 0 |

| Event Counted Toward Qualifying Events | Qualifying Reason | Individual Percent Response To Assignment (%) | Average Percent Response To Assignment (%) |
|--|-----------------------|---|--|
| 02/05/25 10:05:15 | Duration ≥ 10 minutes | 65.1% | 65.1% |
| - | - | - | |
| - | - | - | |

Load Forecast Report

Presenter/SME:

Marcus Smith,
Marcus.Smith@pjm.com

System Operations Report

Presenter:

David Kimmel,
David.Kimmel@pjm.com

SME:

Ross Kelly,
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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.

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Member Hotline

(610) 666 – 8980

(866) 400 – 8980

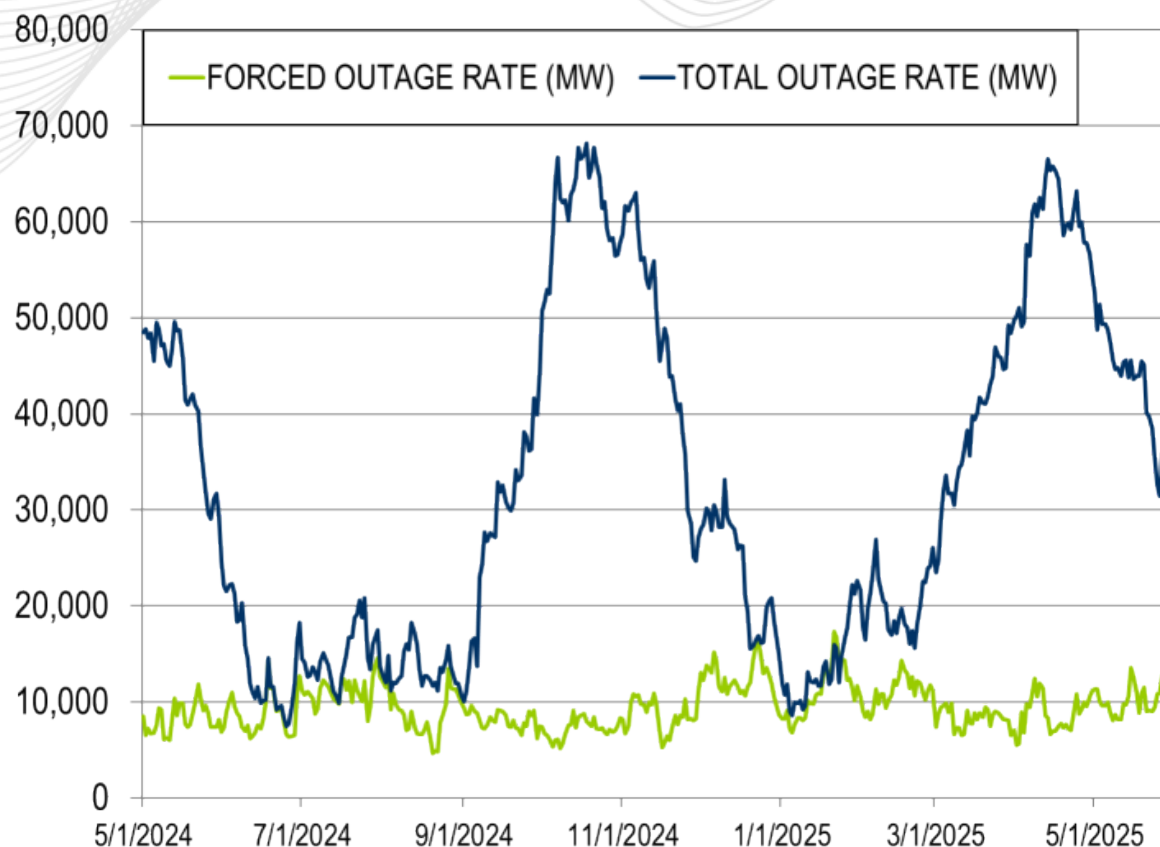
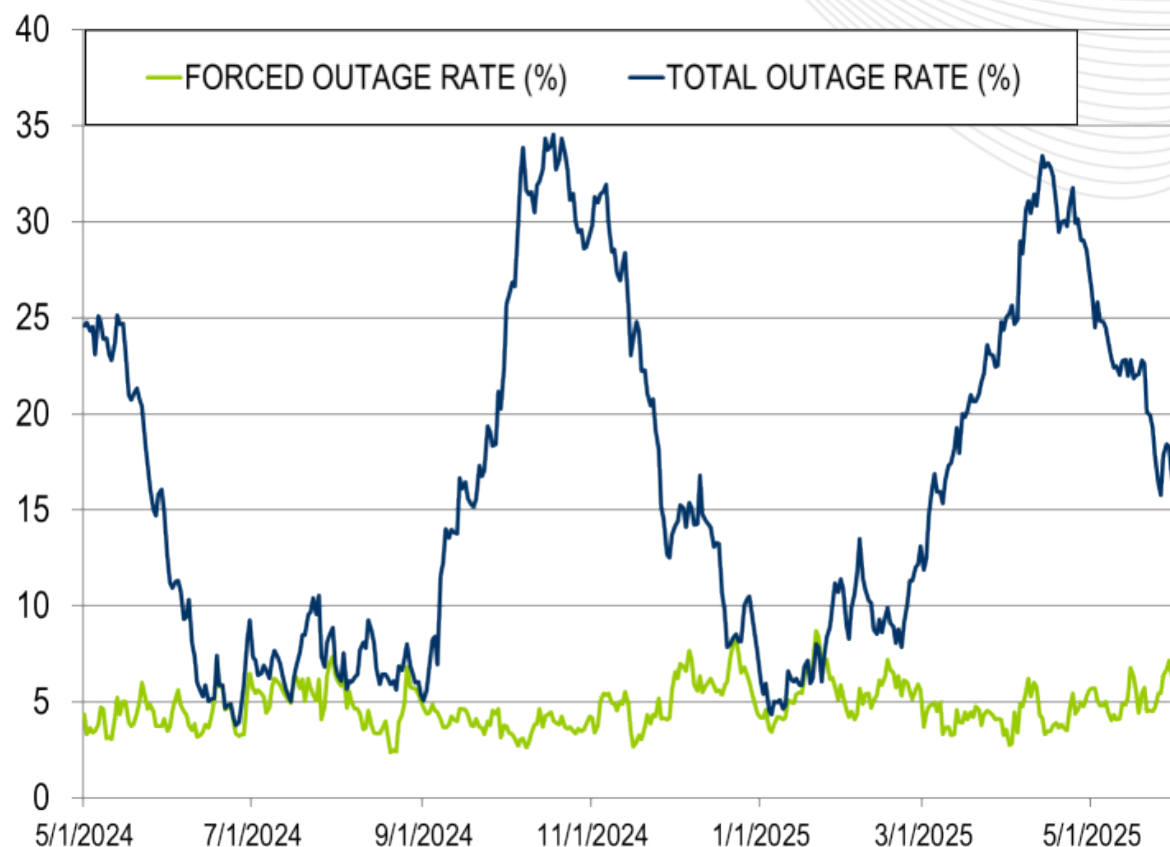
custsvc@pjm.com

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.

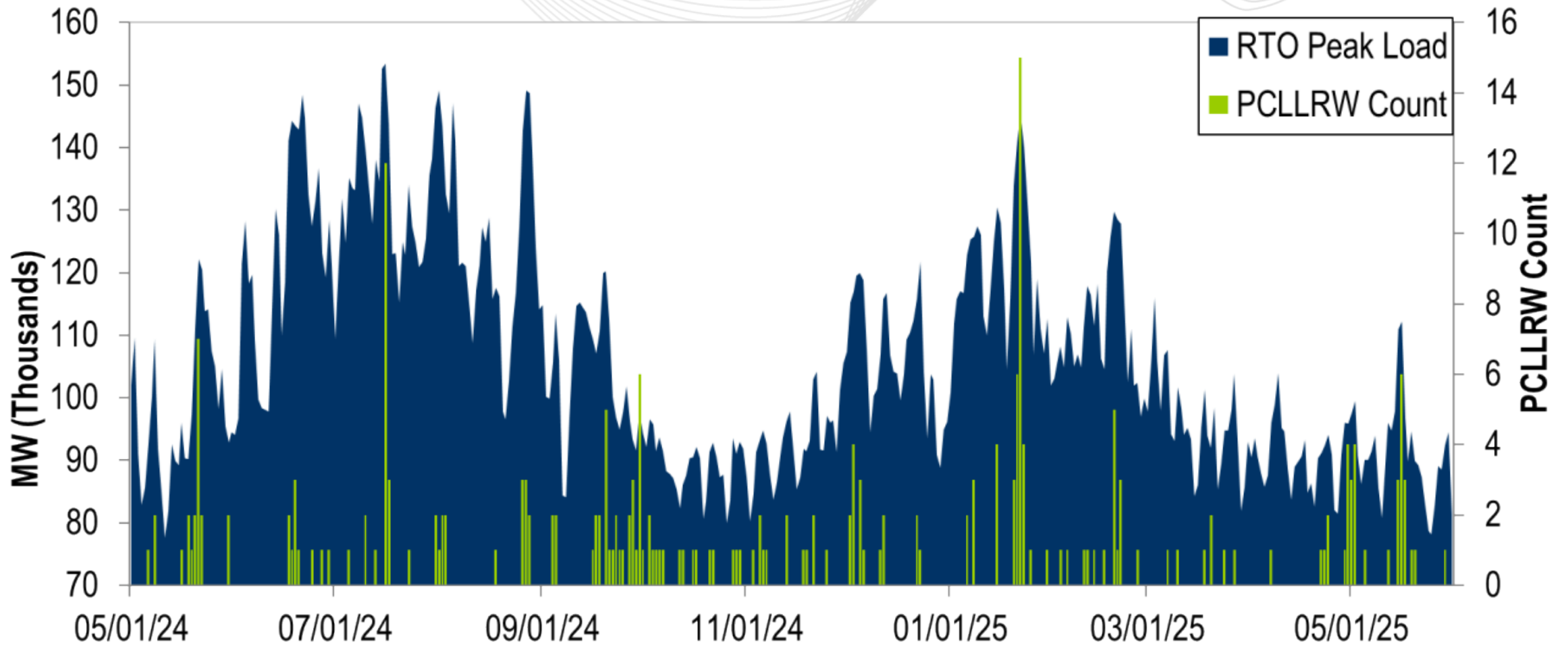
RTO Generation Outage Rate - Daily



The 13-month average forced outage rate is 4.63% or 9,155 MW.

The 13-month average total outage rate is 17.07% or 33,708 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

