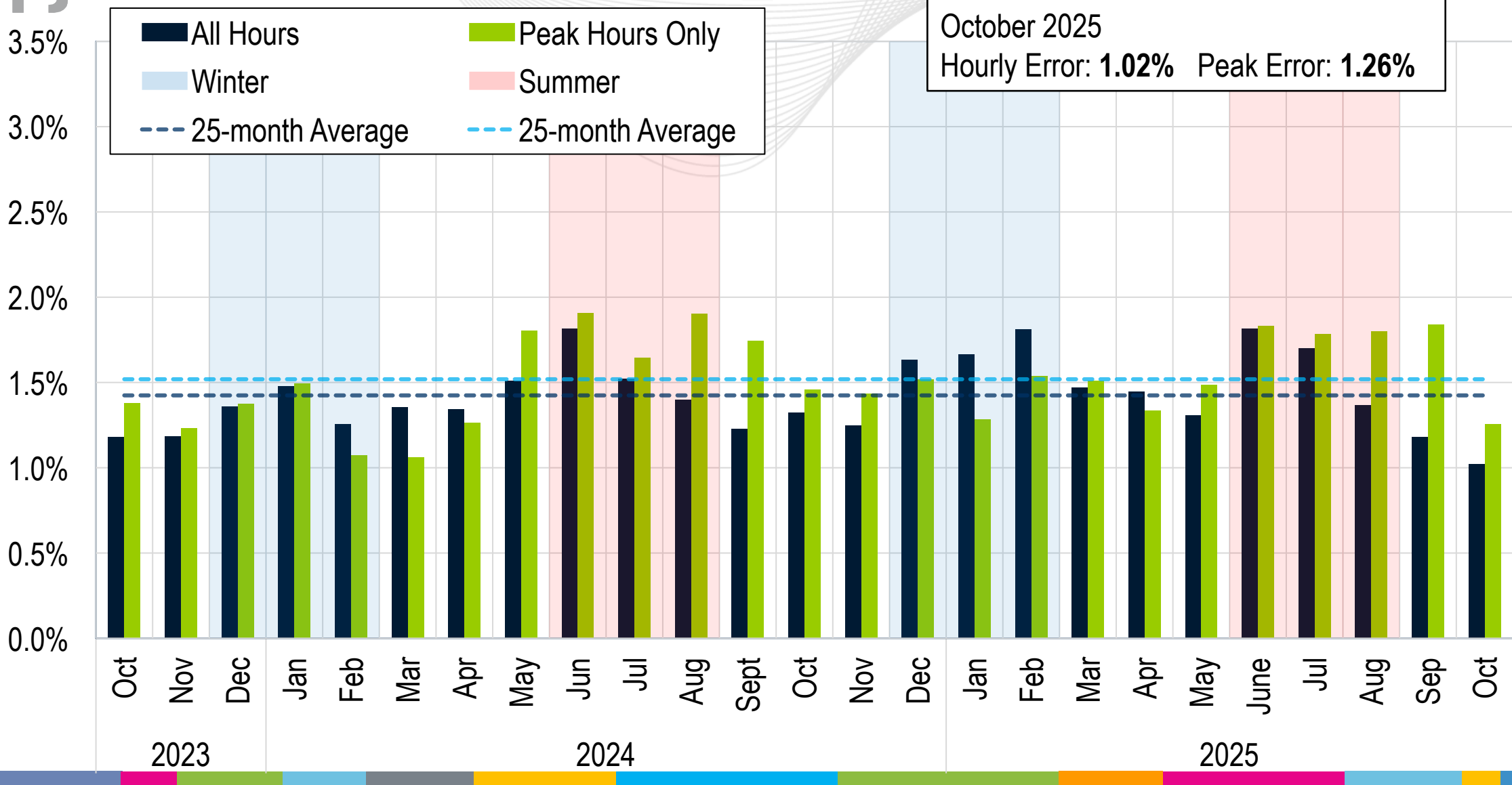


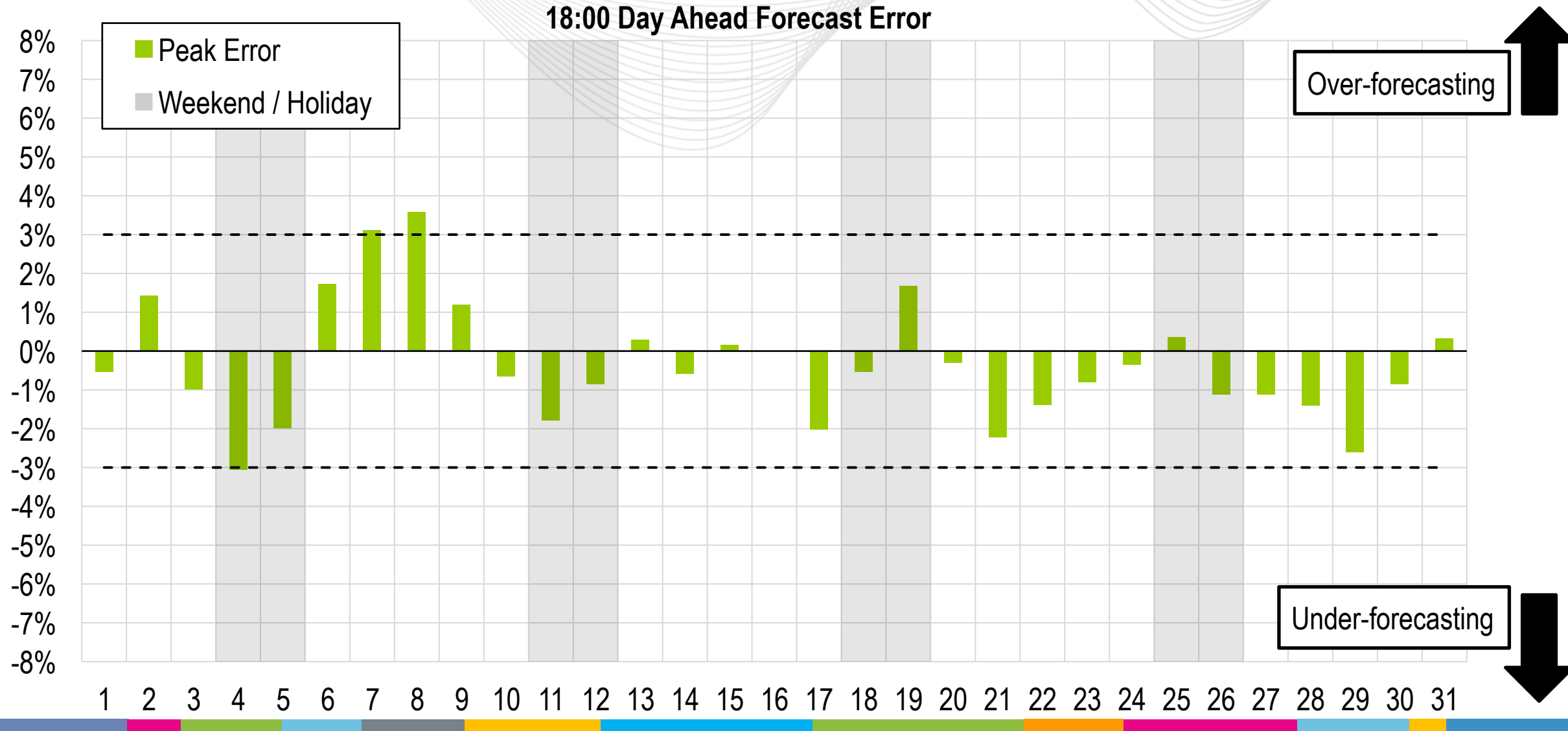
System Operations Report

Marcus Smith, Lead Engineer –
Operations Uncertainty and Risk
David Kimmel, Sr. Engineer II –
Performance Compliance
Operating Committee
November 3rd, 2025

Average Load Forecast Error



Daily Peak Forecast Error (Oct.)



Days Exceeding 3% Forecast Error at Peak Hour

Over-forecasting

Oct. 7

Storms moved through the footprint leading to lower temperatures and lower loads

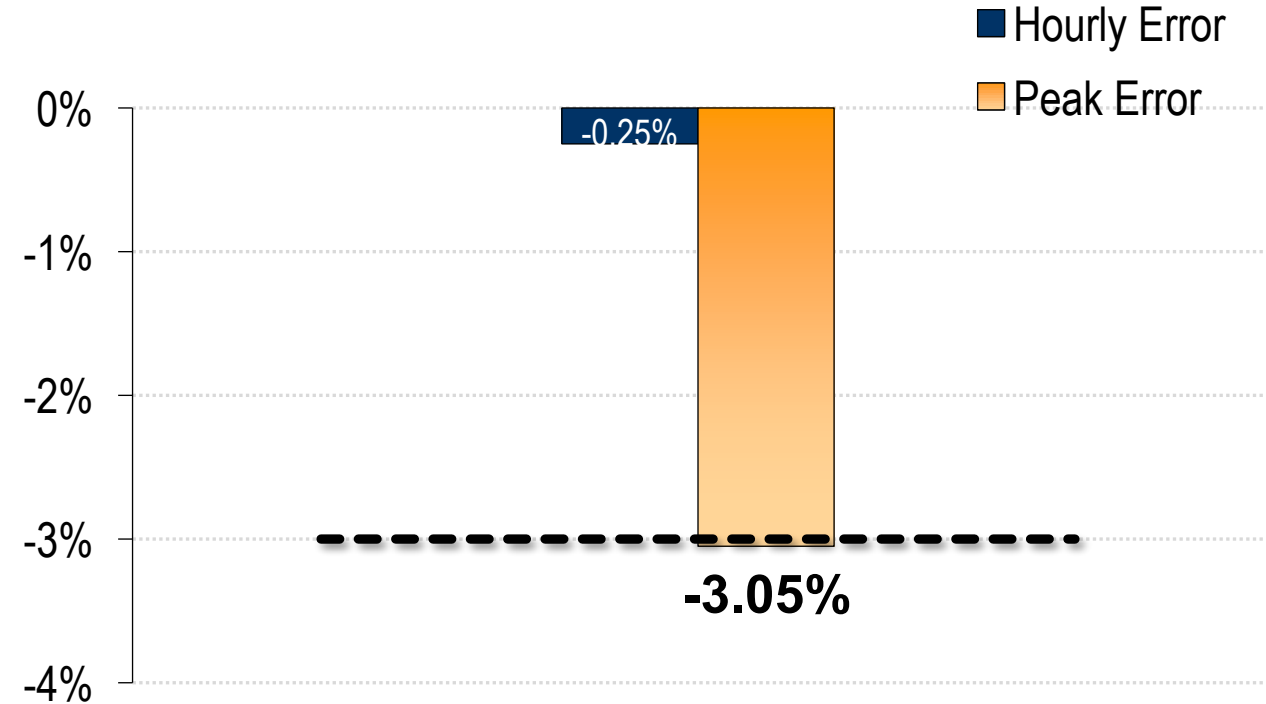
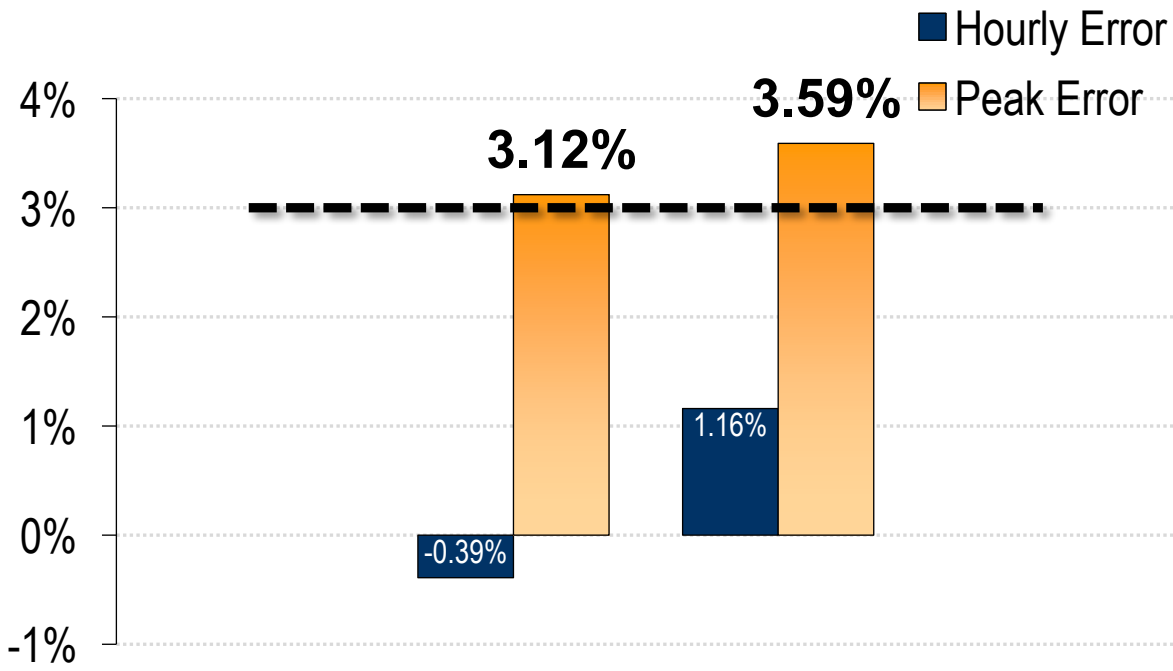
Oct. 8

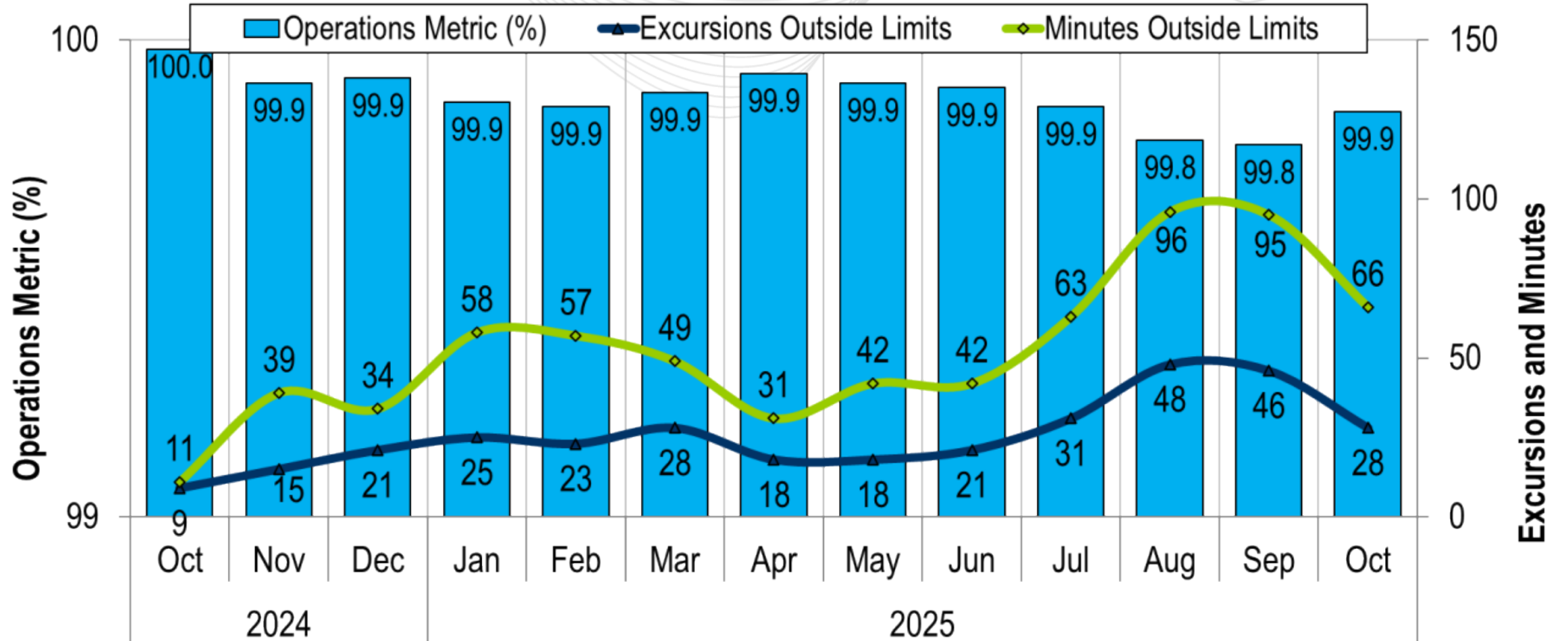
Loads came in lower due to variability in temperature and cloud coverage

Under-forecasting

Oct. 4

Load came in higher due to warmer than forecasted temperatures in the East



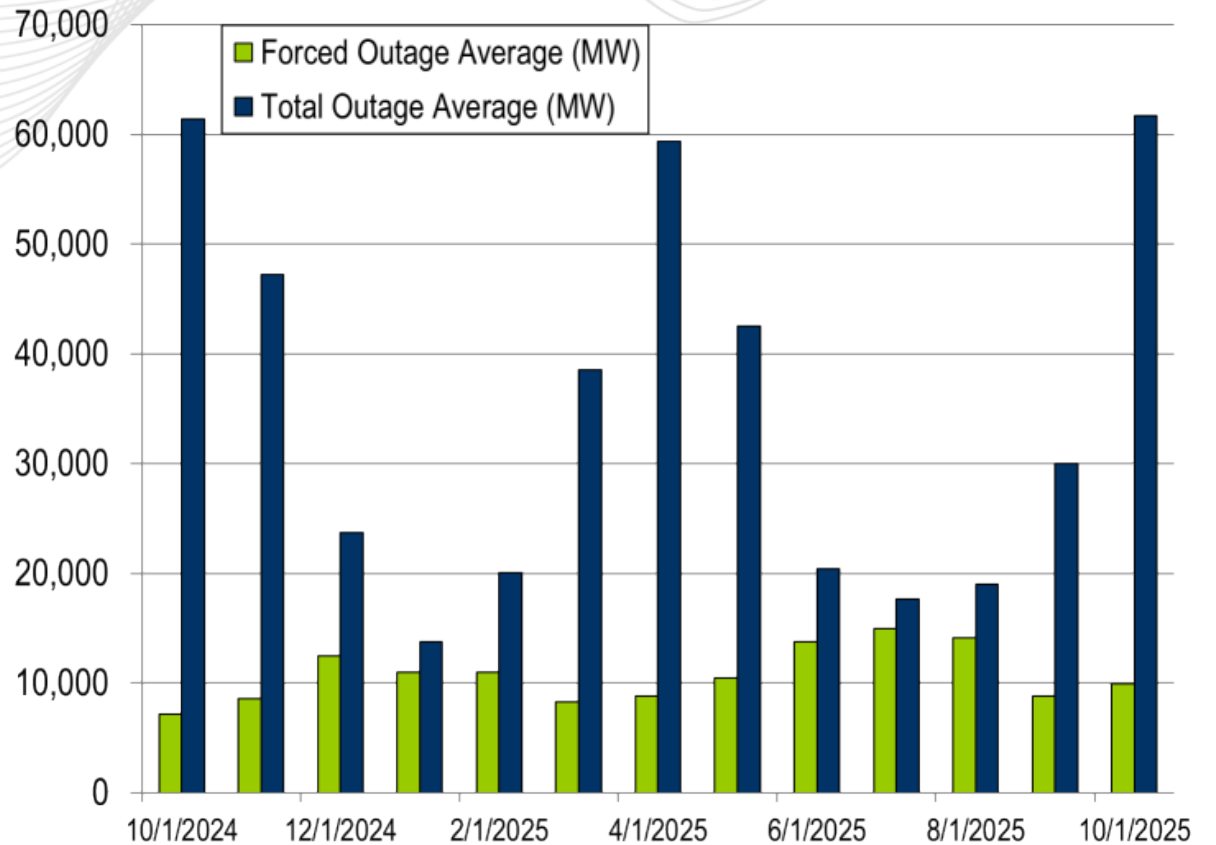
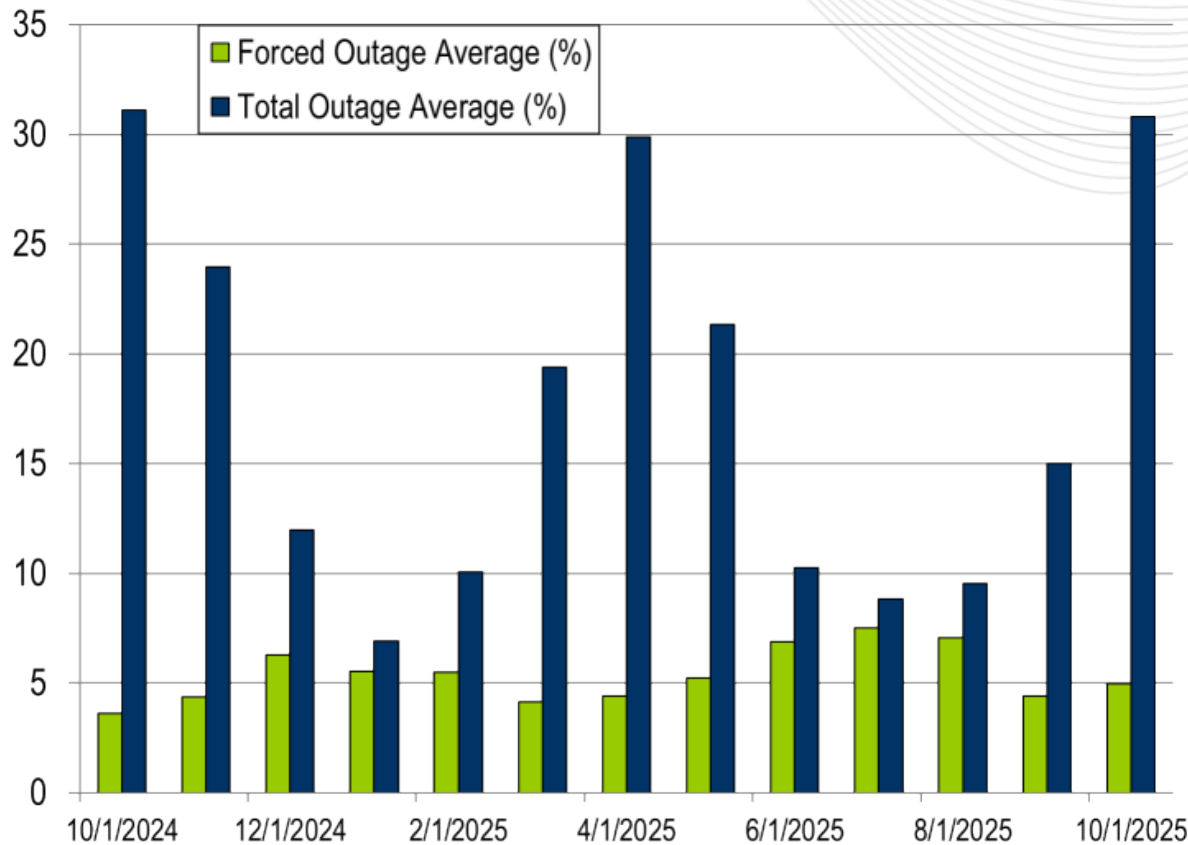


PJM's BAAL performance has exceeded the goal of 99% for each month in 2024 and 2025.

- The following Emergency Procedures occurred:
 - 3 Spin Events
 - 1 Shared Reserve Event
 - 1 Geomagnetic Disturbance Warnings
 - 24 Post Contingency Local Load Relief Warnings

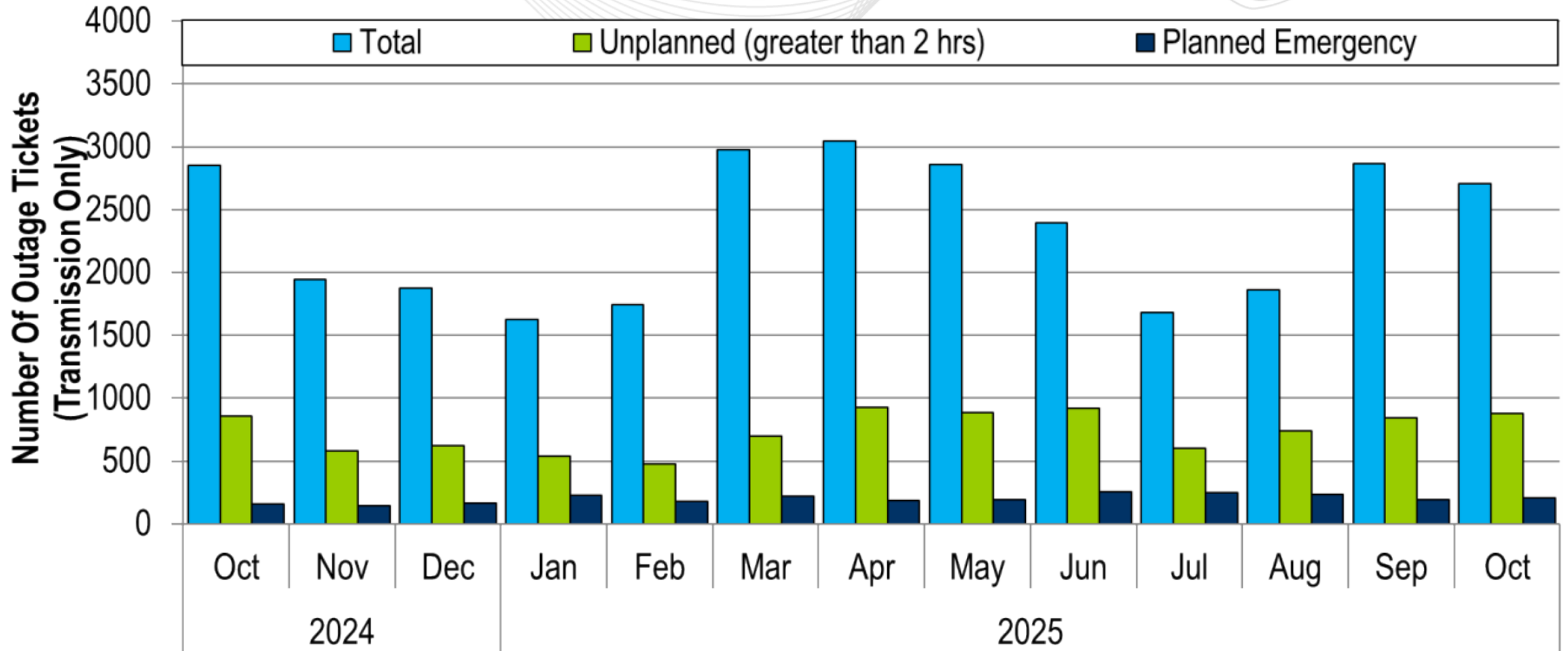
- 3 Shortage Cases Approved
- The approved Shortage Cases occurred on:
 - 10/03/2025:
 - 2 shortage cases approved for the 17:50 and 17:55 intervals
 - Factors: Short going into evening ramp
 - 10/17/2025:
 - 1 shortage cases approved for the 10:20 interval
 - Factors: Unit trip

RTO Generation Outage Rate - Monthly



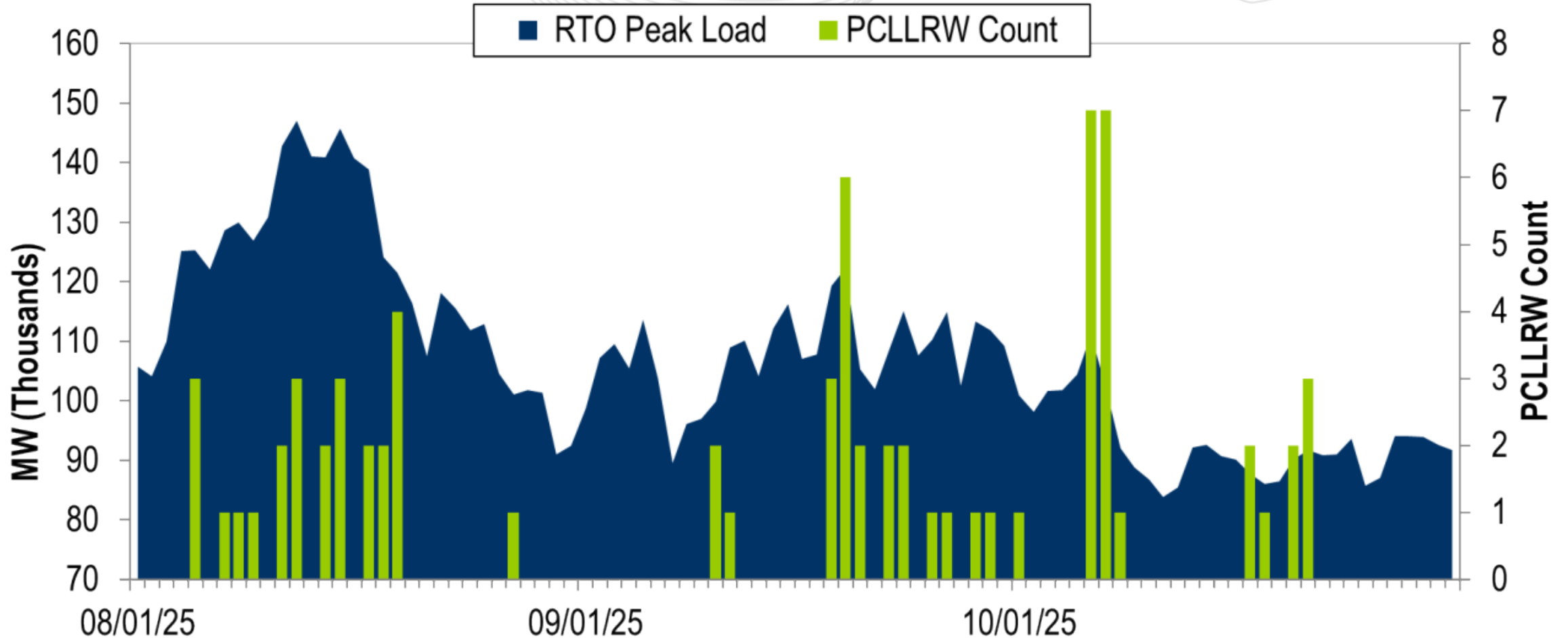
The 13-month average forced outage rate is 5.25% or 10,427 MW.
The 13-month average total outage rate is 16.71% or 33,206 MW.

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			3		
Date	10/15/25			10/17/25			10/28/25		
Start Time	16:52:11			10:13:02			19:05:31		
End Time	16:57:32			10:24:09			19:20:10		
Duration	00:05:21			00:11:07			00:14:39		
Region	RTO			RTO			RTO		
Resource Type	Gen	DR	Total	Gen	DR	Total	Gen	DR	Total
Assigned (MW)	2804	0	2804	1743	644	2387	1708	574	2282
Estimated Expected Response of Assigned Resources (MW)	1500	0	1500	1743	644	2387	1708	574	2282
Actual Response of Assigned Resources (MW)	1604	0	1604	1297	595	1893	942	447	1389
Output Increase of Resources without Assignment (MW)	1537	0	1537	1578	0	1578	1192	0	1192
Percent Response To Assignment (%)	57%	0%	57%	74%	92%	79%	55%	78%	61%
Percent Response To Estimated Expected Response (%)	107%	0%	107%	74%	92%	79%	55%	78%	61%
Penalty (MW)	0	0	0	446	49	495	767	126	893

Event Counted Toward Qualifying Events	Qualifying Reason	Individual Percent Response To Assignment (%)	Average Percent Response To Assignment (%)
09/25/25 19:12:37	Duration ≥ 10 minutes	77.0%	72.3%
10/17/25 10:13:02	Duration ≥ 10 minutes	79.0%	
10/28/25 19:05:31	Duration ≥ 10 minutes	61.0%	

Load Forecast Report

Presenter/SME:

Marcus Smith,
Marcus.Smith@pjm.com

System Operations Report

Presenter:

David Kimmel,
David.Kimmel@pjm.com

SME:

Ross Kelly,
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 inquiry.

?

Member Hotline

(610) 666 – 8980

(866) 400 – 8980

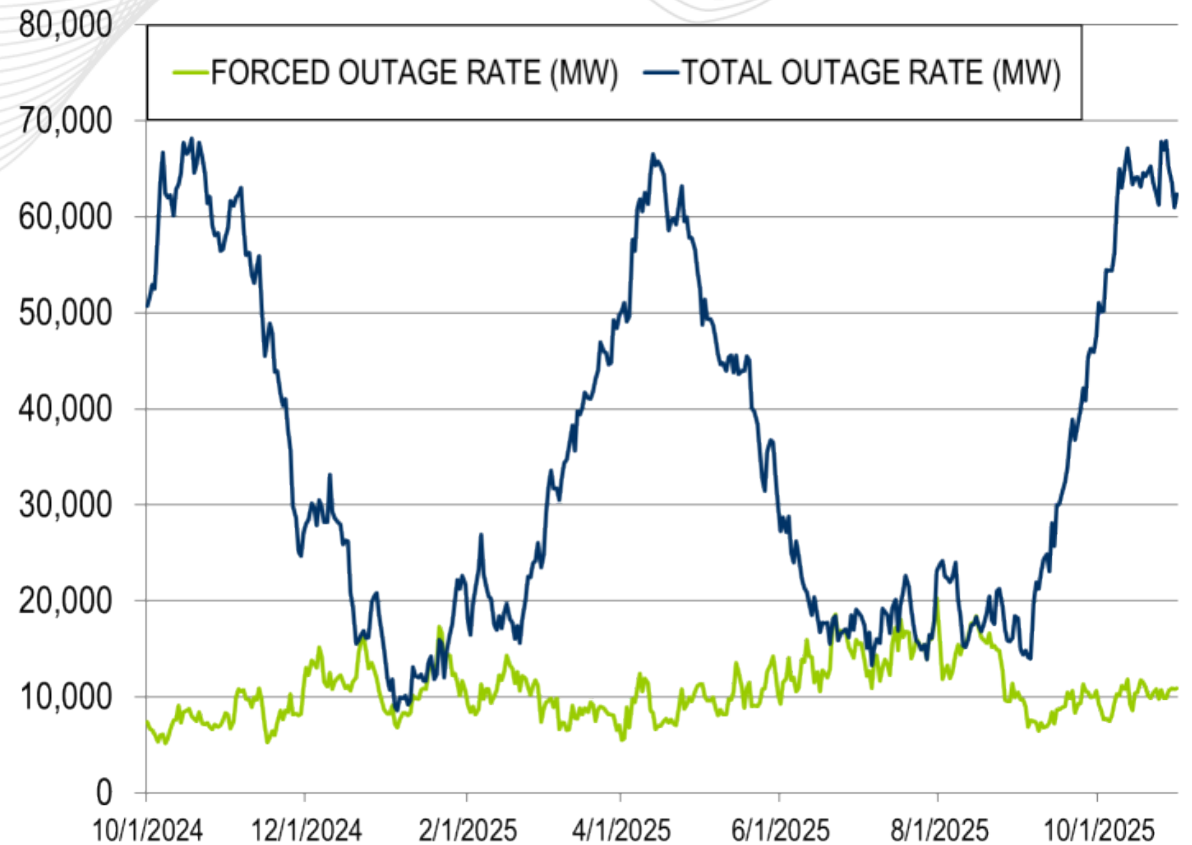
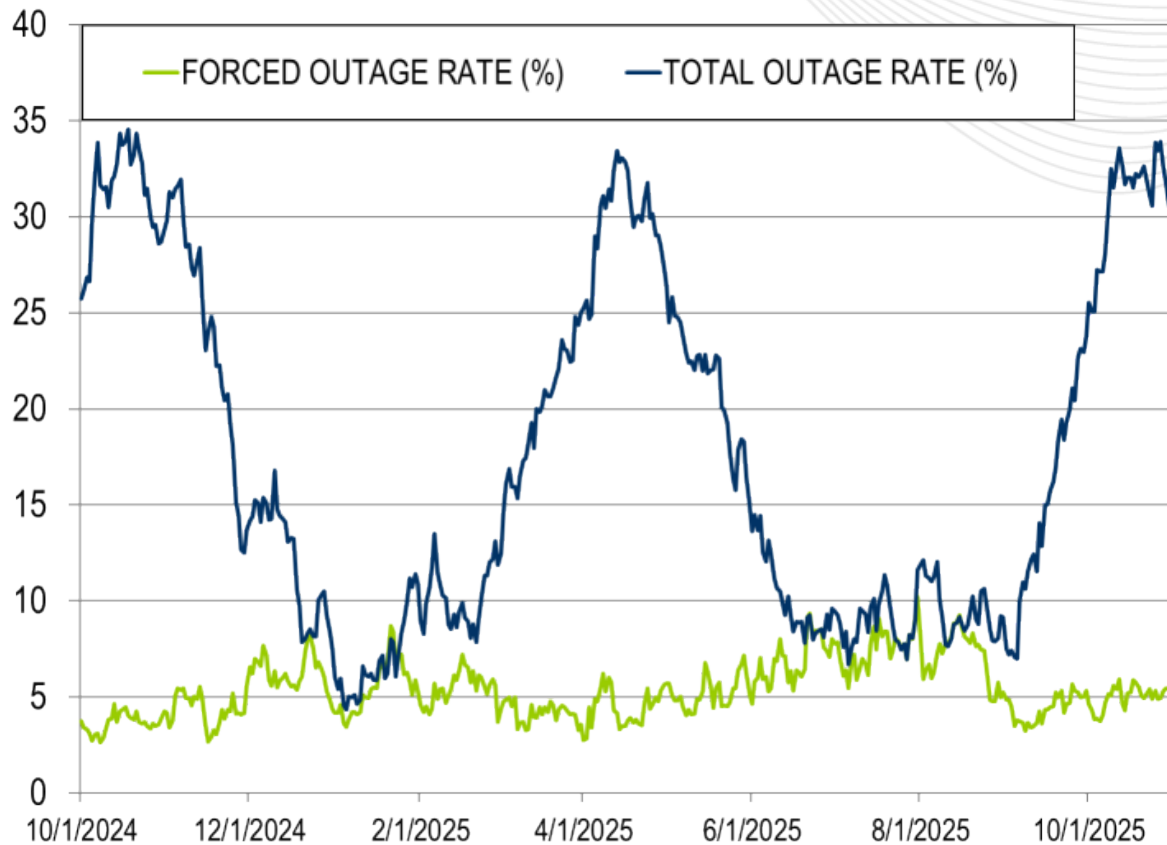
custsvc@pjm.com

Appendix

Goal Measurement: Balancing Authority ACE Limit (BAAL)

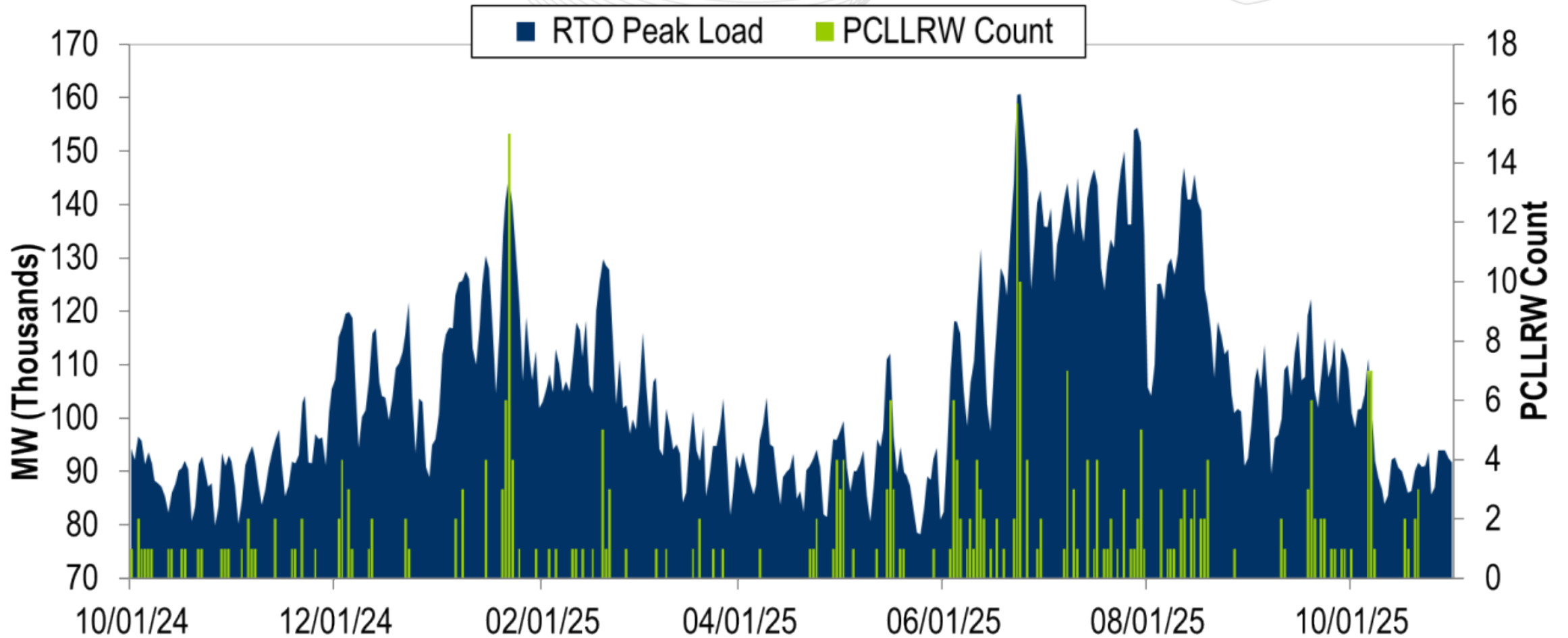
- The purpose of the new BAAL standard is to maintain interconnection frequency within a predefined frequency profile under all conditions (normal and abnormal), to prevent frequency-related instability, unplanned tripping of load or generation, or uncontrolled separation or cascading outages that adversely 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 5.25% or 10,427 MW.
The 13-month average total outage rate is 16.71% or 33,206 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.
Call (610) 666-2244 or email it_ops_ctr_shift@pjm.com