

System Operations Report

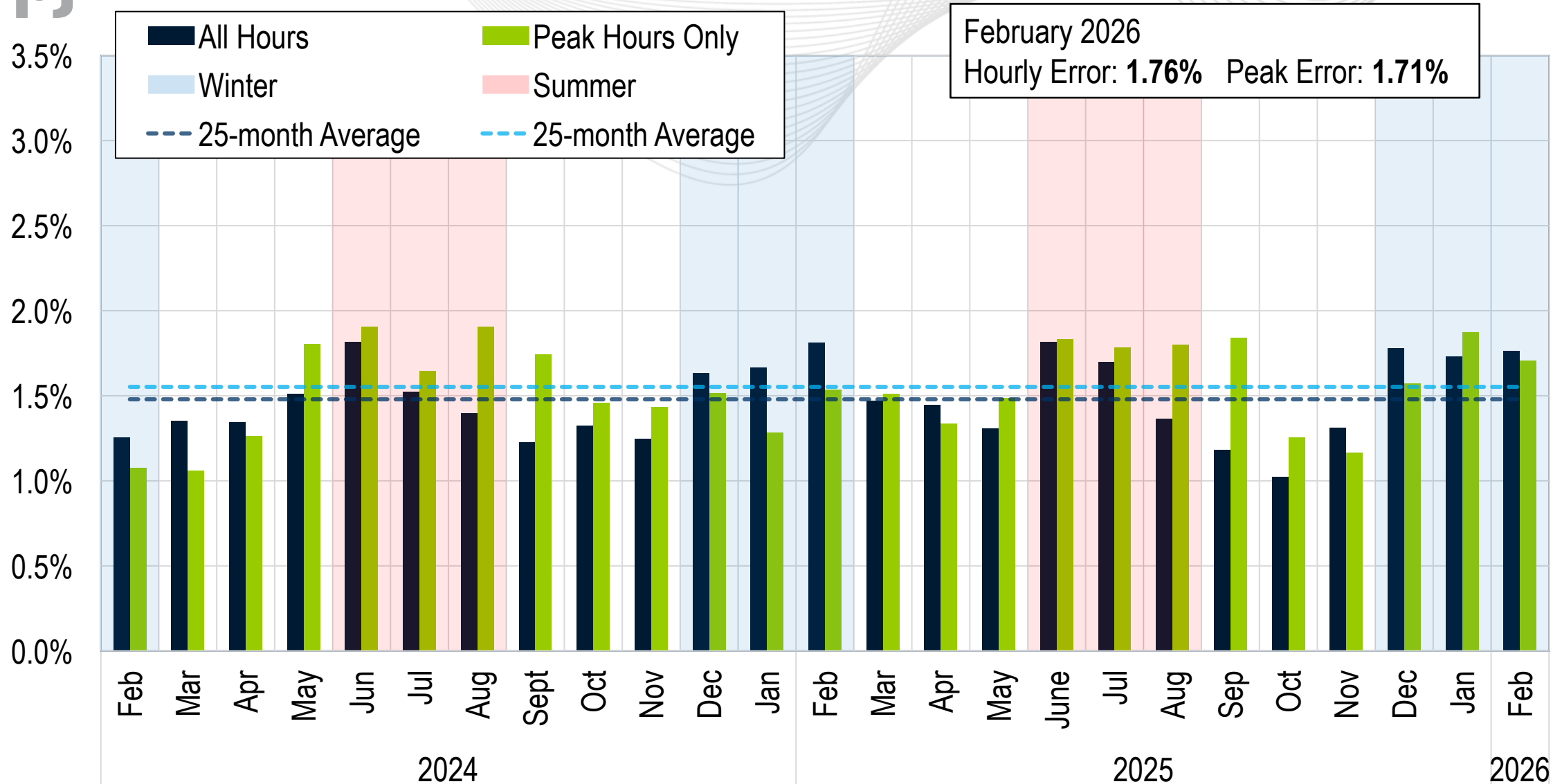
Michael Stewart, Sr. Engineer II –
Operations Uncertainty & Risk

Jennifer Warner-Freeman, Lead Economist –
Performance Compliance

Member's Committee

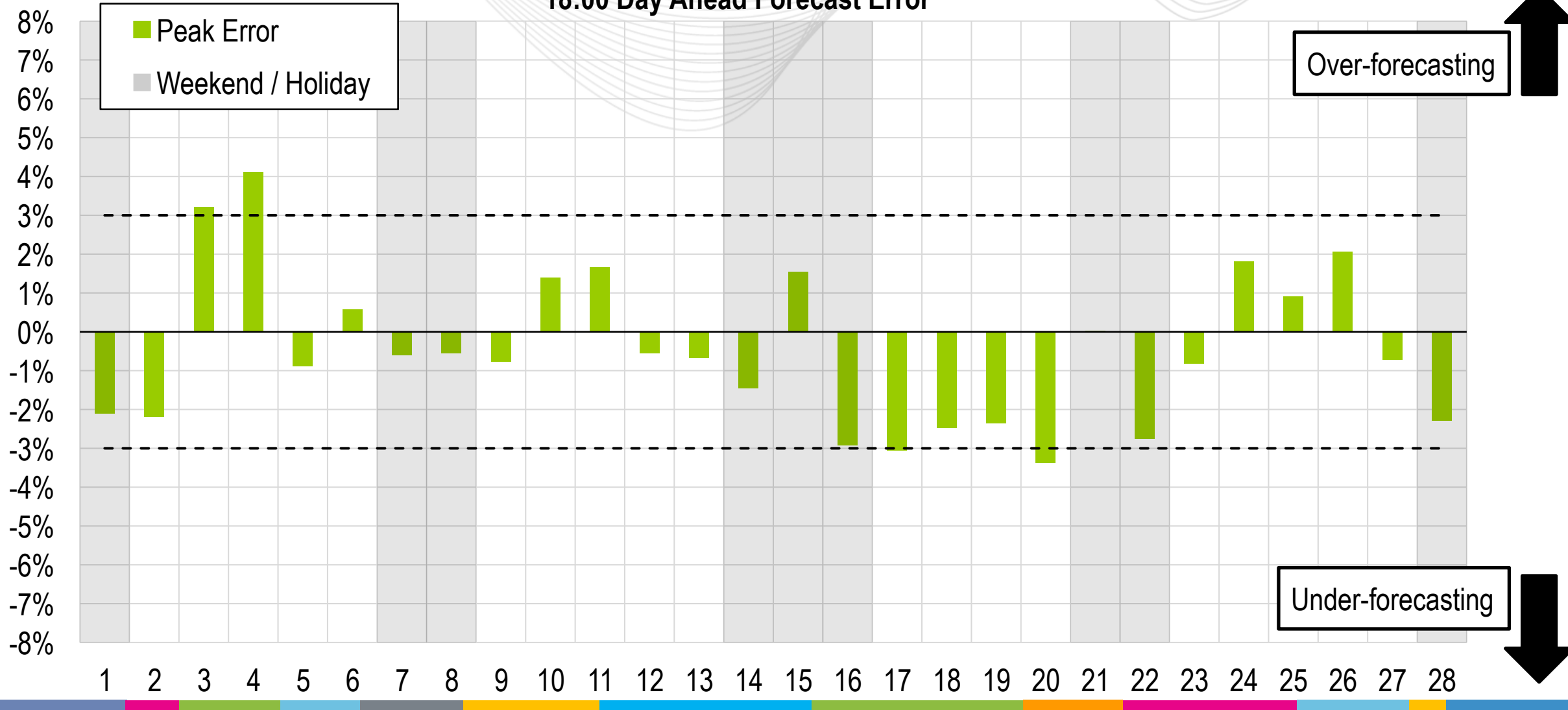
March 25th, 2026

Average Load Forecast Error



Daily Peak Forecast Error (Feb.)

18:00 Day Ahead Forecast Error



Days Exceeding 3% Forecast Error at Peak Hour

Over-forecasting

Feb. 3

Temperatures came in much warmer than forecast, leading to lower loads.

Feb. 4

Temperatures came in much higher than forecast, leading to lower loads.

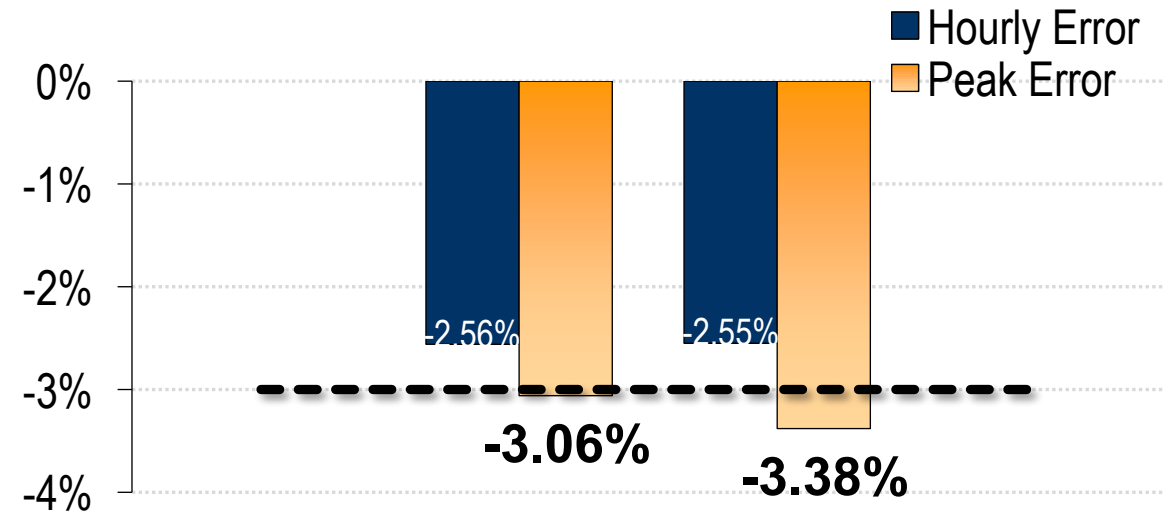
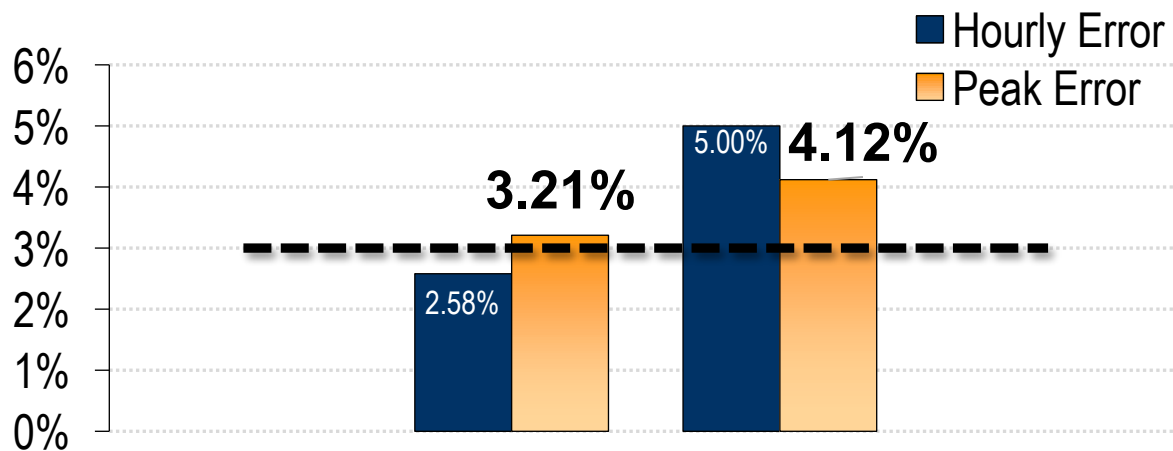
Under-forecasting

Feb. 17

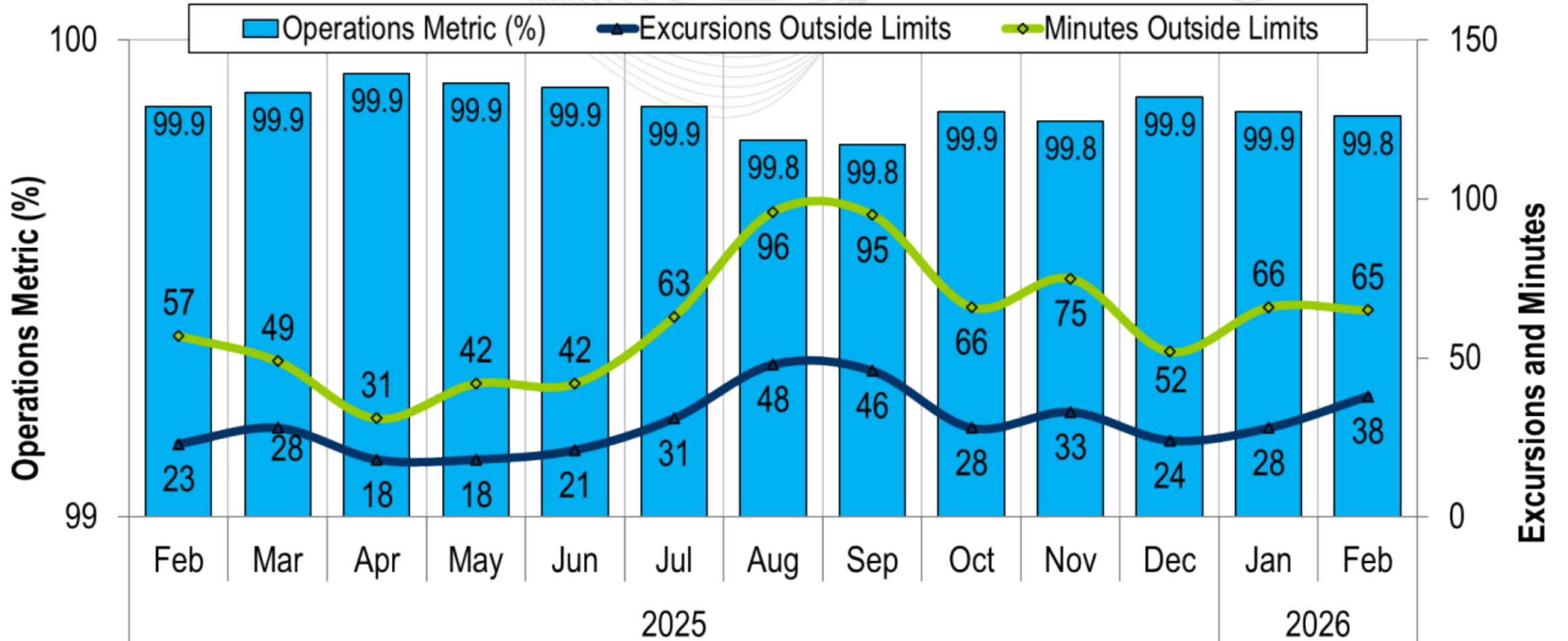
Temperatures came in cooler than forecast in several zones, leading to higher loads.

Feb. 20

Temperatures came in lower than forecast across the RTO, leading to higher loads.



Monthly BAAL Performance Score



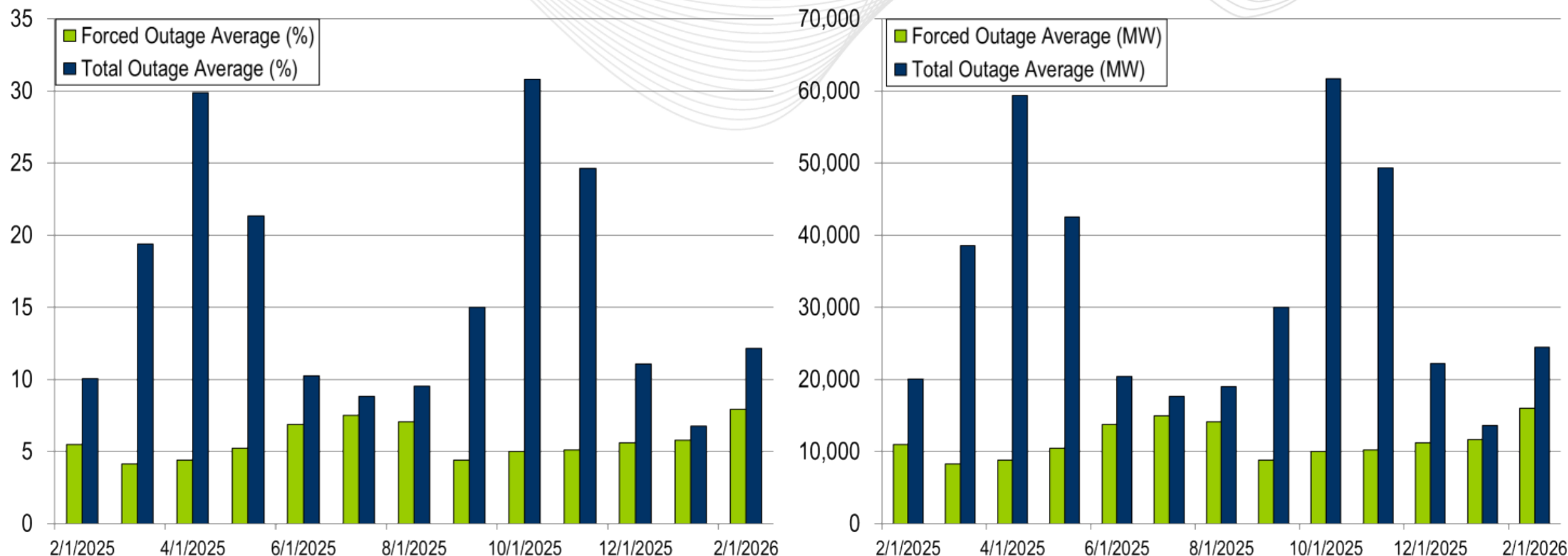
PJM's BAAL performance has exceeded the goal of 99% for each month in 2025 and 2026.

- The following Emergency Procedures occurred:
 - 2 Spin Events
 - 3 Shared Reserve Events
 - 1 Conservative Operations Alert
 - 2 Cold Weather Alerts
 - 20 Post Contingency Local Load Relief Warnings

- 34 Shortage Cases Approved
- The approved Shortage Cases occurred on:
 - 02/01/2026:
 - 3 shortage case approved for the 03:25, 03:35, and 08:20 intervals
 - Factors: Load came in more than forecasted
 - 02/02/2026
 - 9 shortage cases approved for the 07:05, 07:15, 07:20, 07:25, 07:40, and 0800 intervals
 - Factors: Approved close to morning peaks, load came in more than forecasted
 - 02/04/2026:
 - 1 shortage case approved for the 22:30 interval
 - Factors: Load came in more than forecasted
 - 02/06/2026:
 - 6 shortage case approved for the 07:15, 07:25, 07:30, 07:35, 07:40, and 18:05 intervals
 - Factors: Approved close to the morning or evening peak, load came in more than forecasted

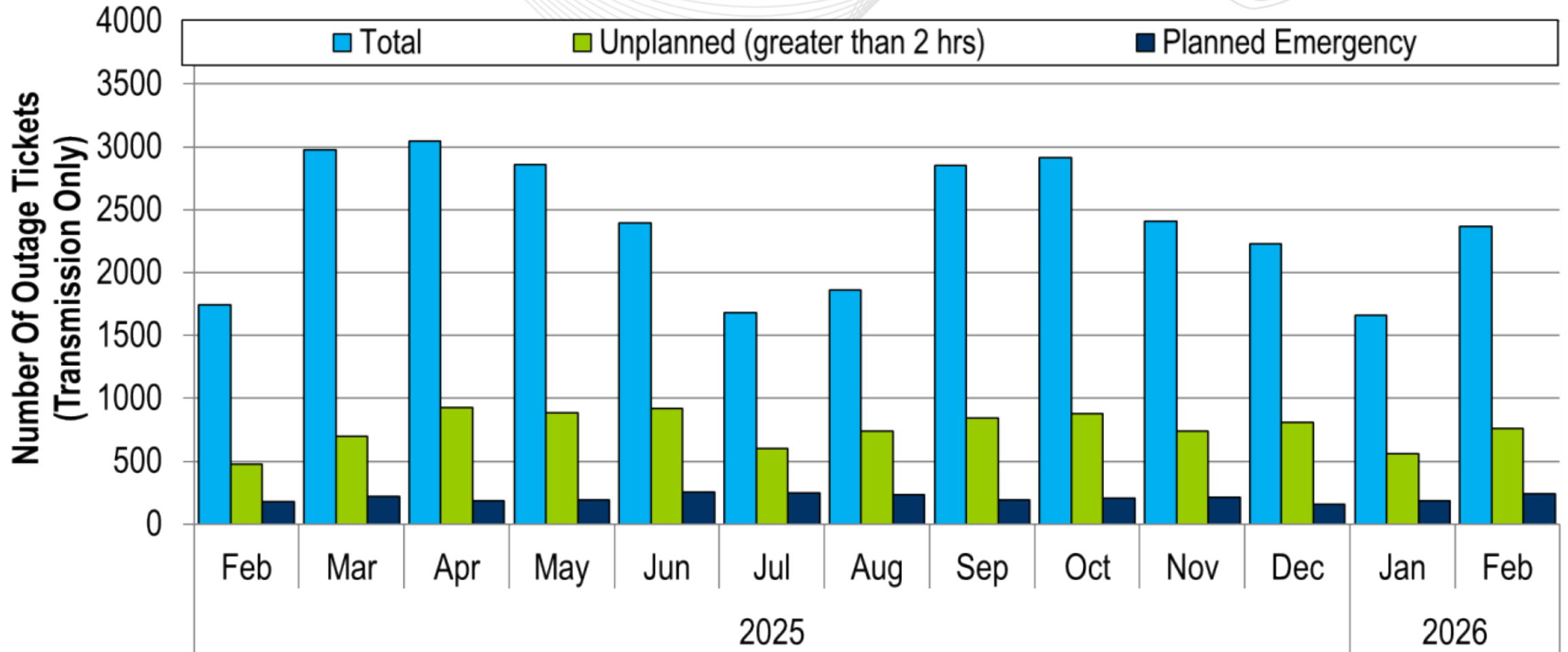
- The approved Shortage Cases occurred on:
 - 02/07/2026:
 - 1 shortage case approved for the 18:10 interval
 - Factors: Load came in more than forecasted
 - 02/09/2026:
 - 12 shortage case approved for the 06:35, 06:40, 06:55, 07:00, and 07:20 to 07:50 intervals
 - Factors: Load came in more than forecasted, approved near morning peak
 - 02/13/2026:
 - 1 shortage case approved for the 07:25 interval
 - Factors: Load came in more than forecasted for the morning peak
 - 02/16/2026:
 - 1 shortage case approved for the 18:00 interval
 - Factors: Load came in more than forecasted for the evening peak

RTO Generation Outage Rate - Monthly



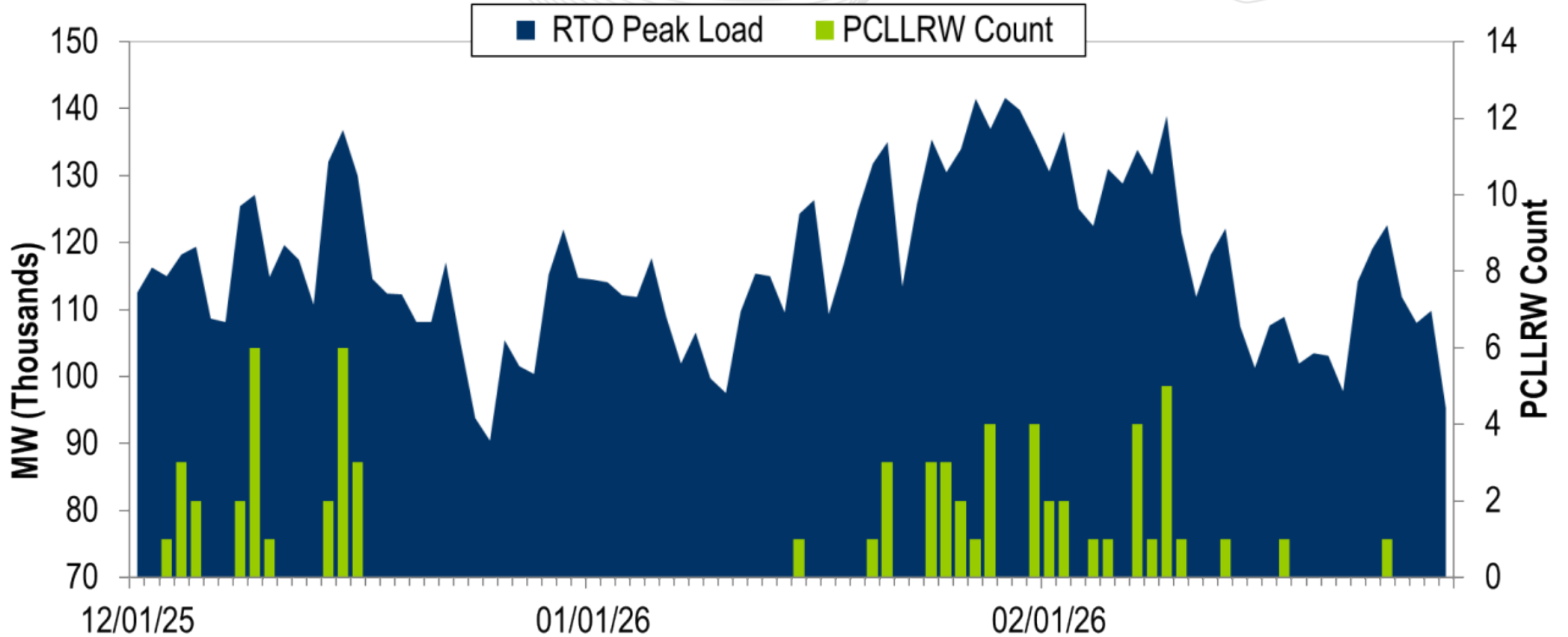
The 13-month average forced outage rate is 5.73% or 11,454 MW.
The 13-month average total outage rate is 16.18% or 32,331 MW.

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	02/03/26			02/23/26		
Start Time	11:49:15			02:06:43		
End Time	11:53:39			02:13:35		
Duration	00:04:24			00:06:52		
Region	RTO			RTO		
Resource Type	Gen	DR	Total	Gen	DR	Total
Assigned (MW)	1969	292	2261	2305	452	2757
Estimated Expected Response of Assigned Resources (MW)	866	129	995	1583	310	1893
Actual Response of Assigned Resources (MW)	624	182	805	1397	145	1542
Output Increase of Resources without Assignment (MW)	1635	0	1635	1591	0	1591
Percent Response To Assignment (%)	32%	62%	36%	61%	32%	56%
Percent Response To Estimated Expected Response (%)	72%	141%	81%	88%	47%	81%
Penalty (MW)	0	0	0	0	0	0

Event Counted Toward Qualifying Events	Qualifying Reason	Individual Percent Response To Assignment (%)	Average Percent Response To Assignment (%)

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 contact point.

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Member Hotline

(610) 666 – 8980

(866) 400 – 8980

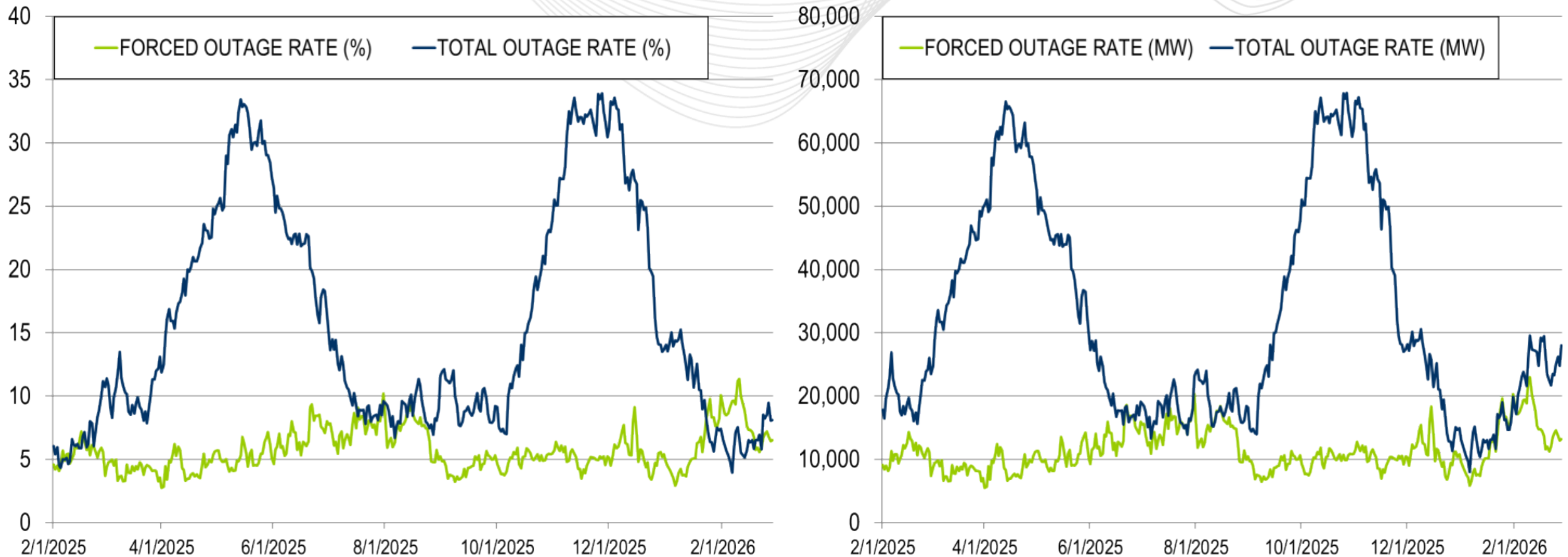
custsvc@pjm.com

Appendix

Goal Measurement: Balancing Authority ACE Limit (BAAL)

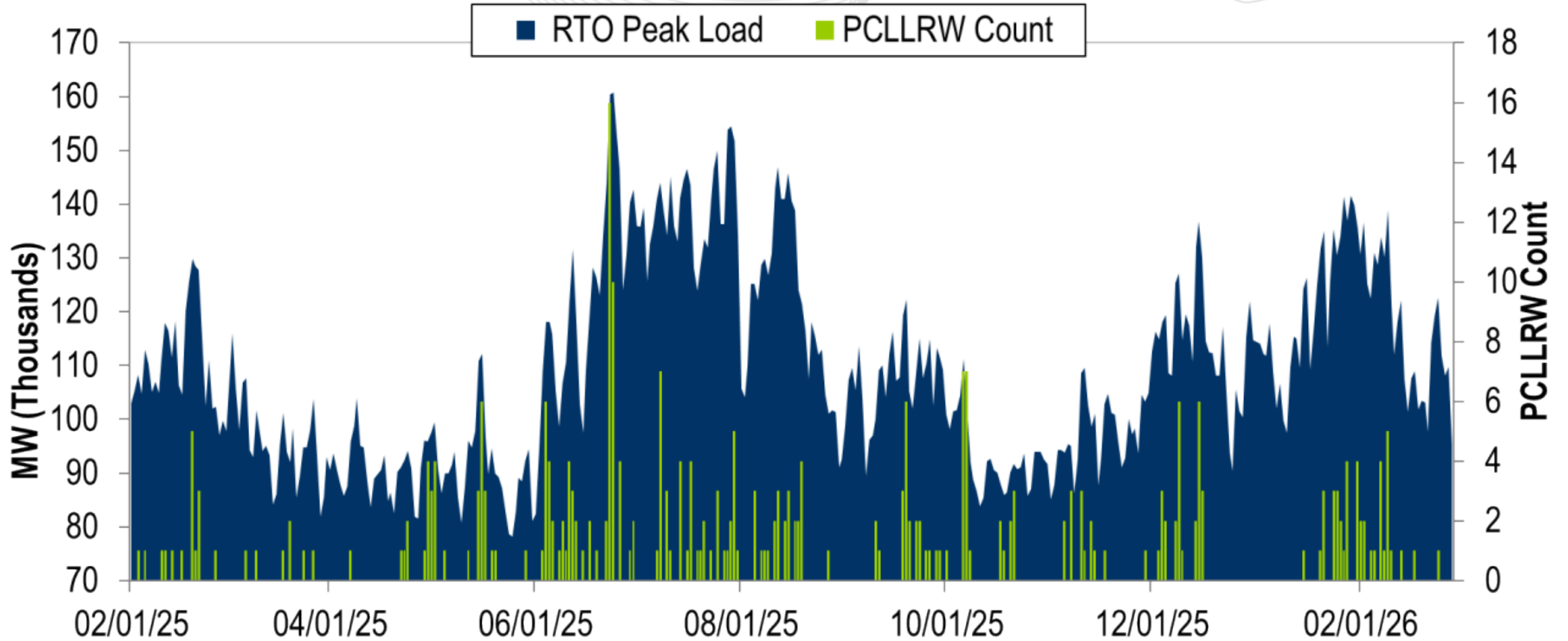
- The purpose of the new BAAL standard is to maintain interconnection frequency within a predefined frequency profile under all conditions (normal and abnormal), to prevent frequency-related instability, unplanned tripping of load or generation, or uncontrolled separation or cascading outages that adversely 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 5.73% or 11,454 MW.
The 13-month average total outage rate is 16.18% or 32,331 MW.

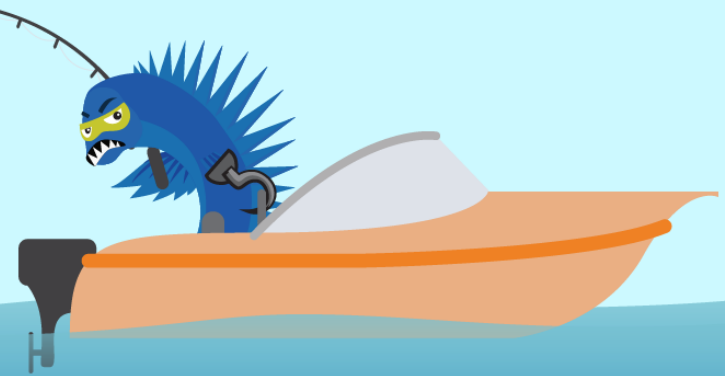
PCLLRW Count Vs. Peak Load – Daily Values For 13 Months



**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