



# System Operations Report

Hong Chen

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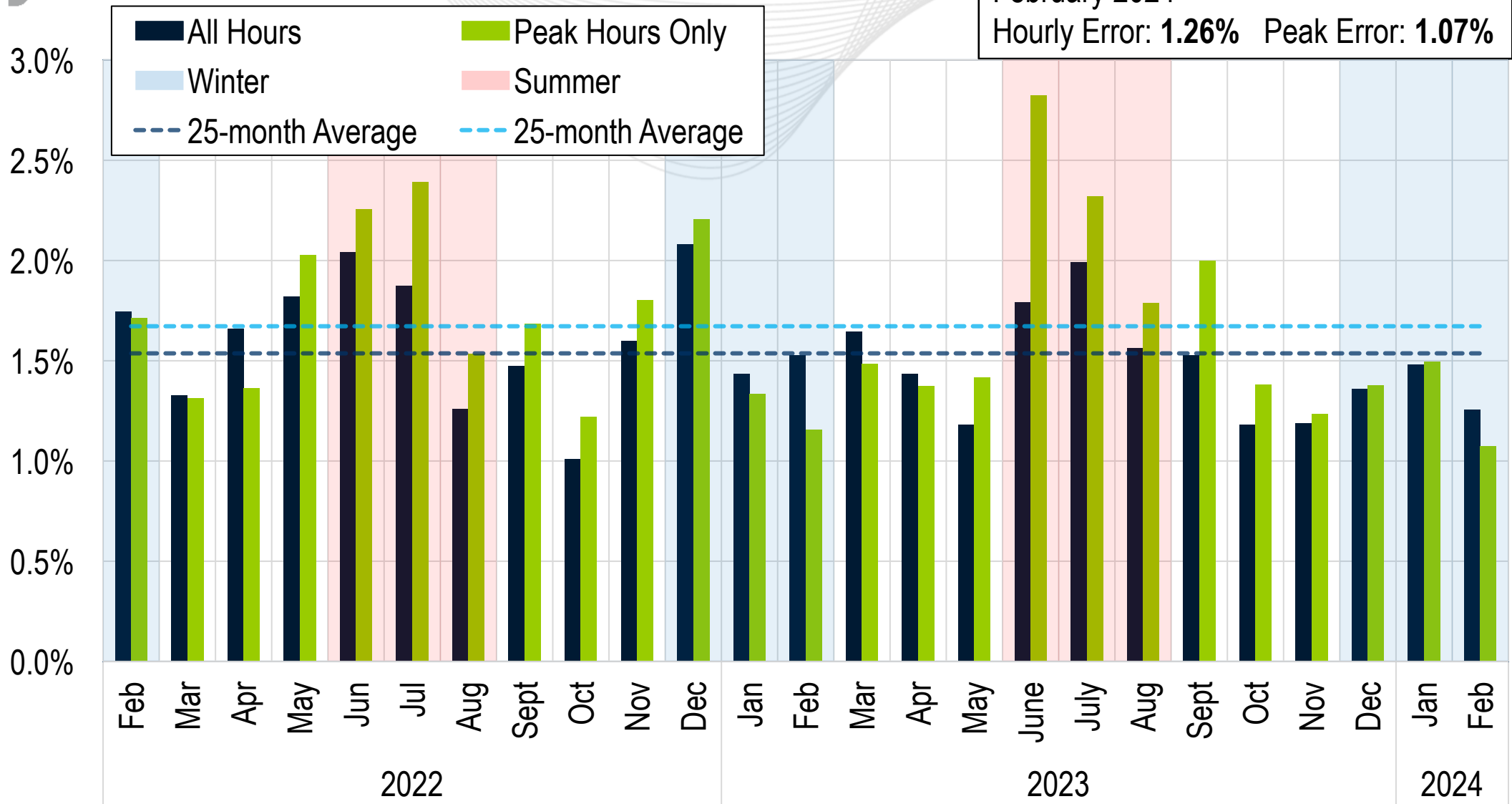
MC Webinar

March 18, 2024



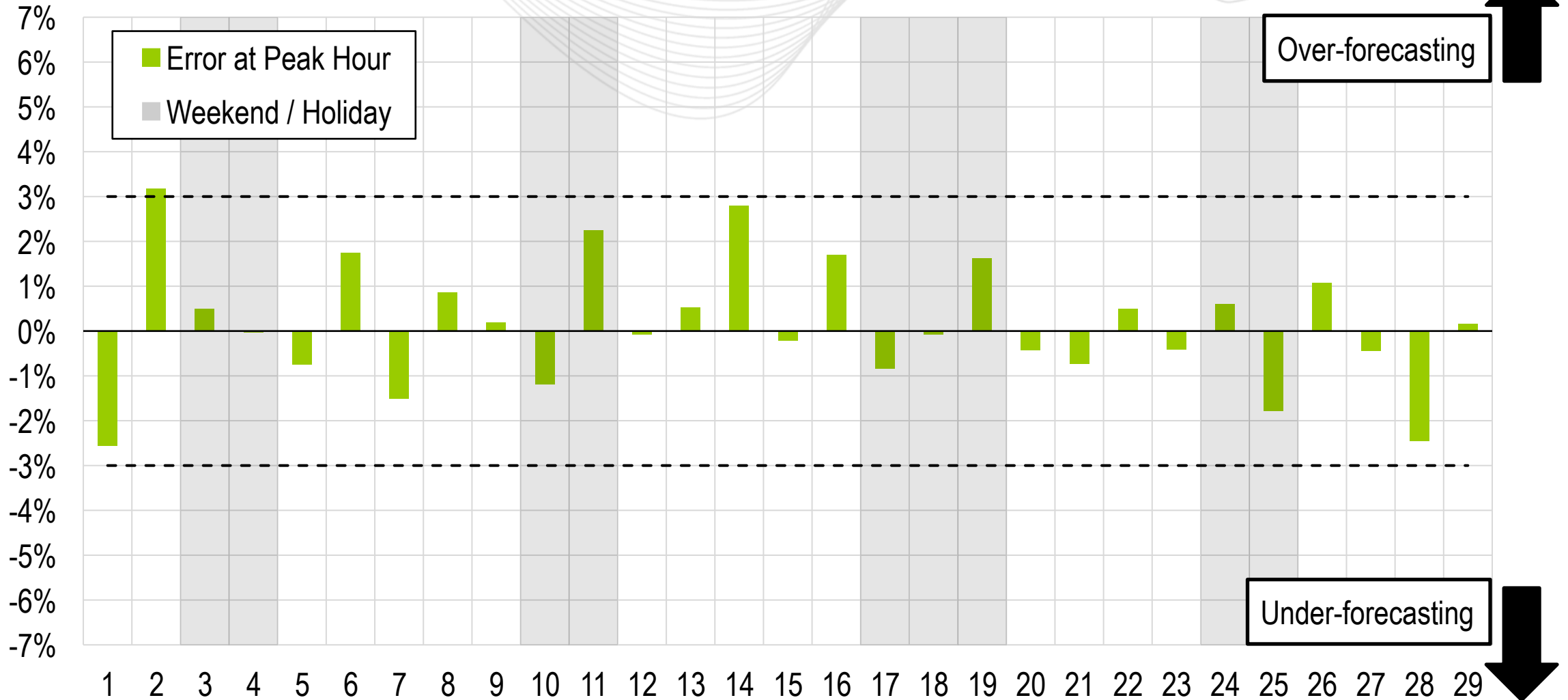
# Average Load Forecast Error

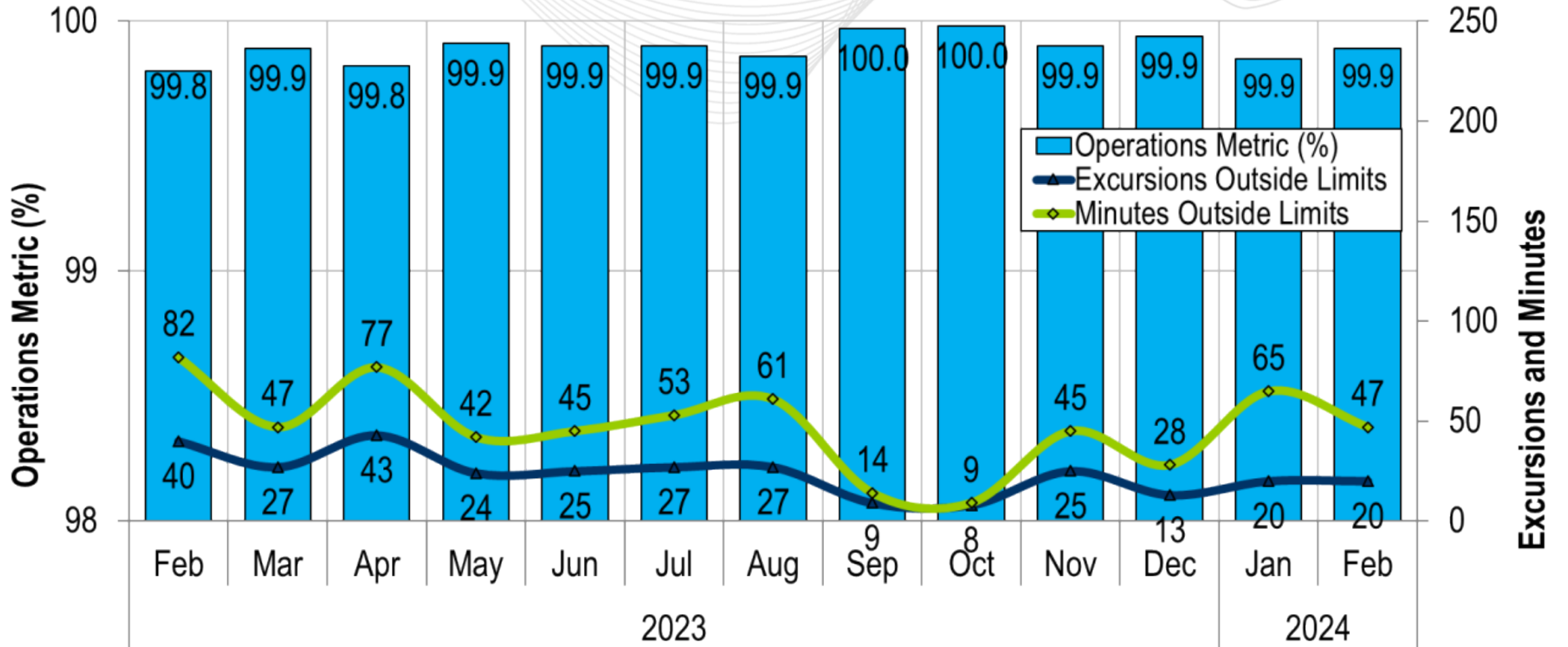
February 2024  
Hourly Error: **1.26%** Peak Error: **1.07%**



# Daily Peak Forecast Error (February)

## 18:00 Day Ahead Forecast Error

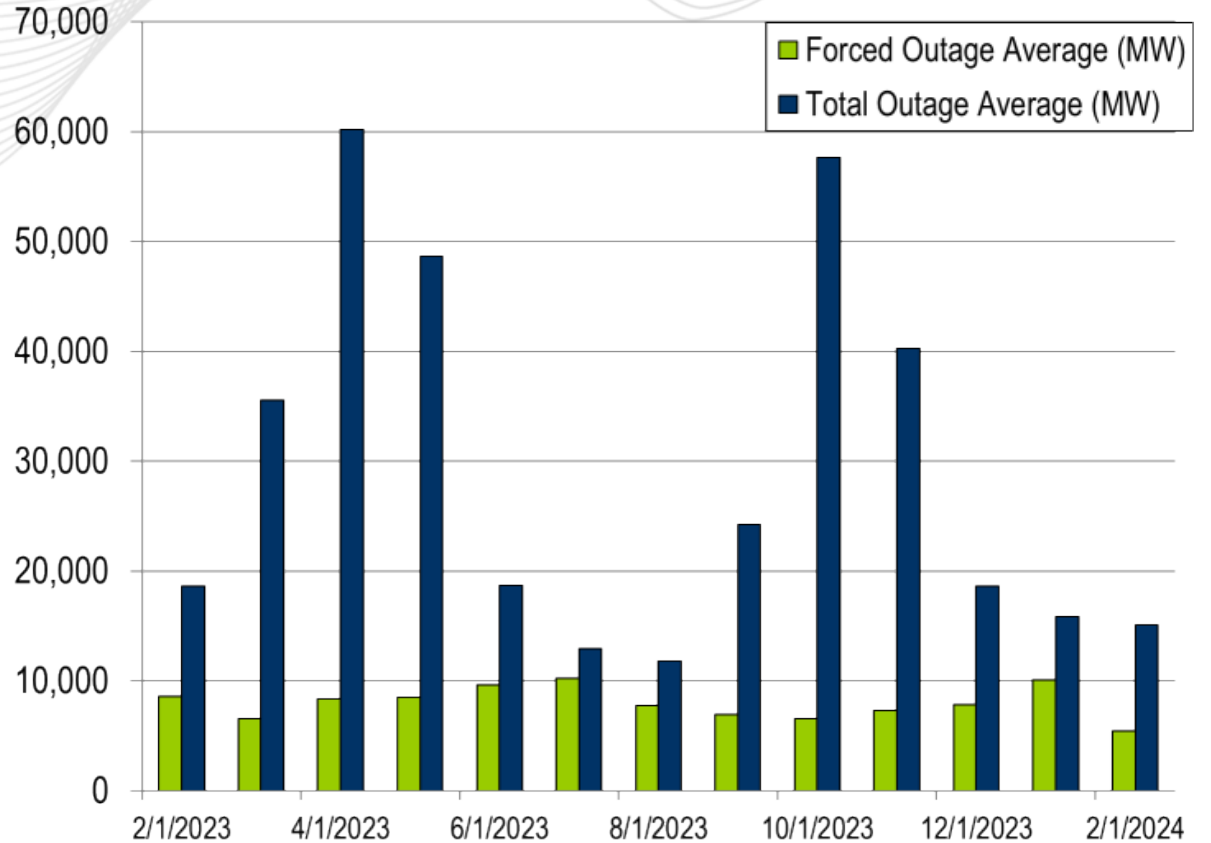
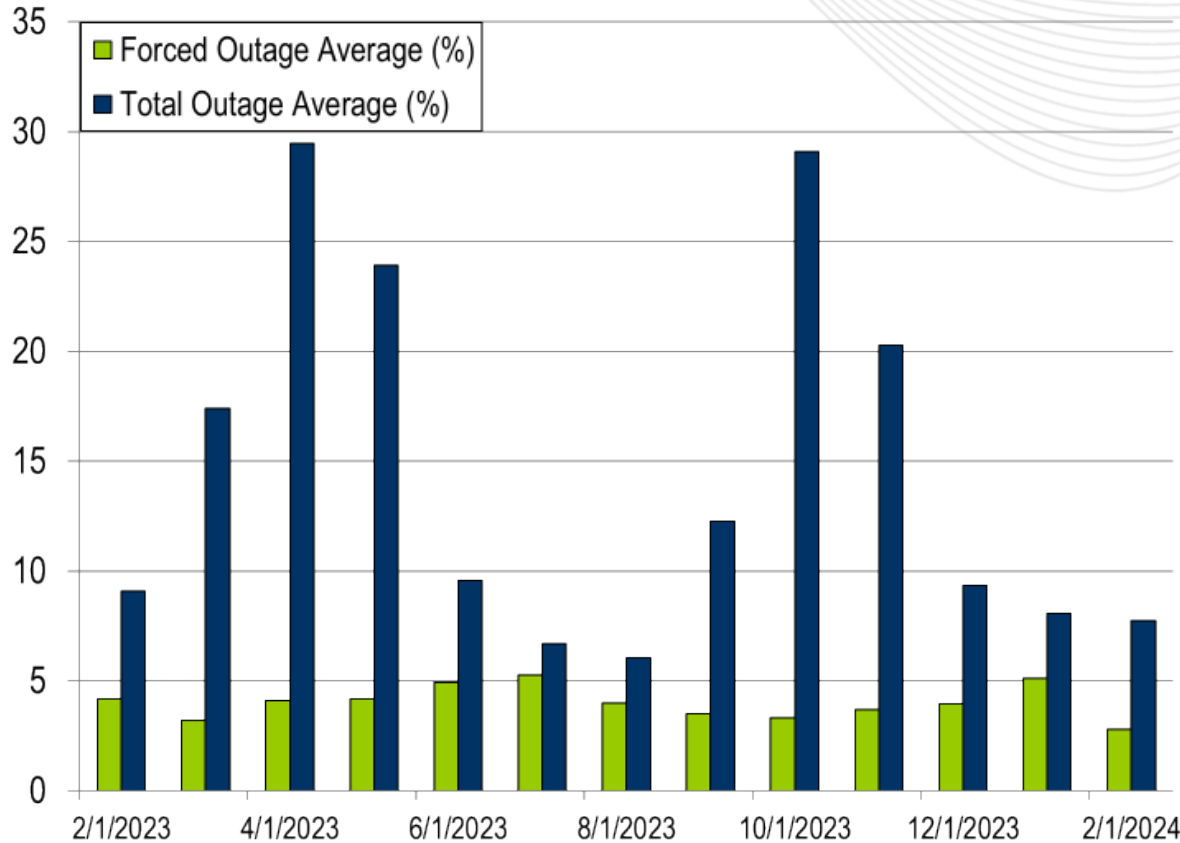




PJM's BAAL performance has exceeded the goal of 99% for each month in 2023 and 2024.

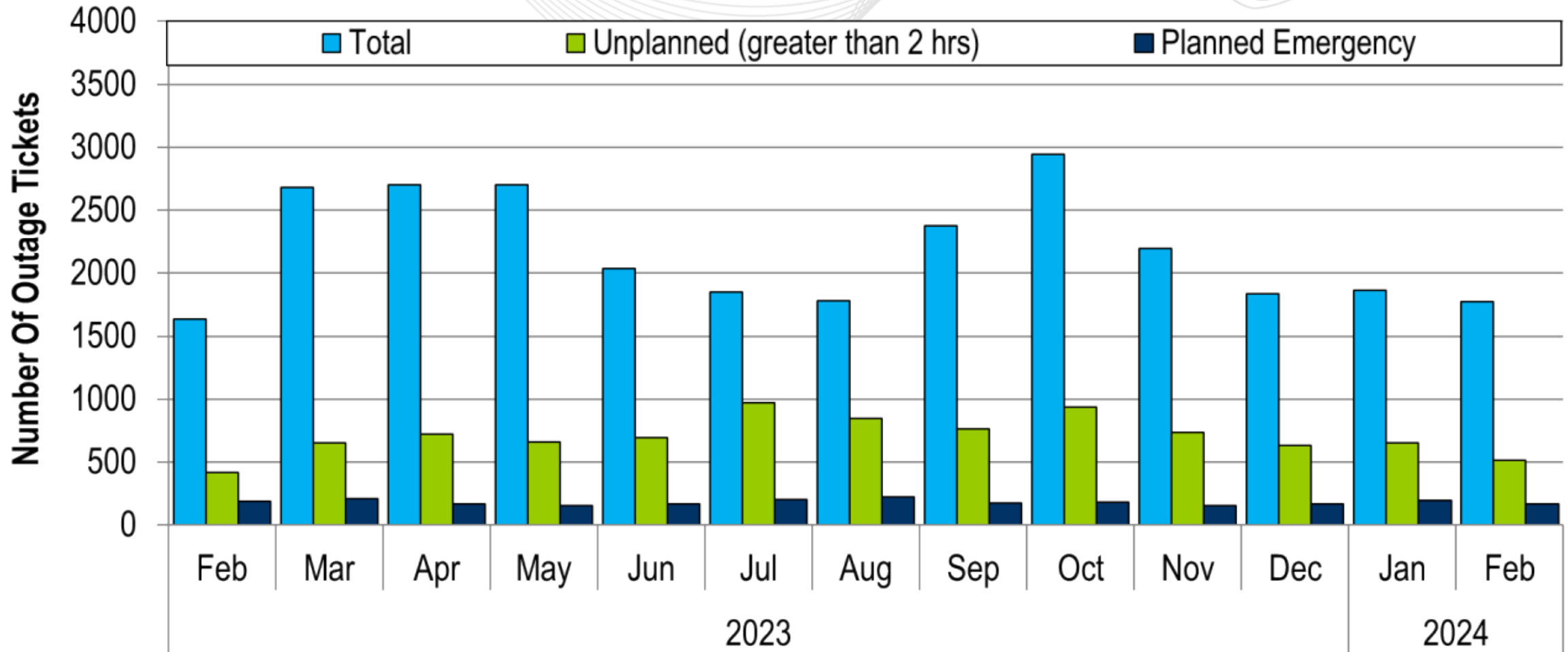
- 3 Shared Reserve events
- 1 Spin Event
- The following Emergency Procedures occurred:
  - 3 Post Contingency Local Load Relief Warnings (PCLLRWs)

- There have been no approved shortage cases for the month of February 2024



The 13-month average forced outage rate is 4.04% or 8,018 MW.  
 The 13-month average total outage rate is 14.58% or 29,169 MW.

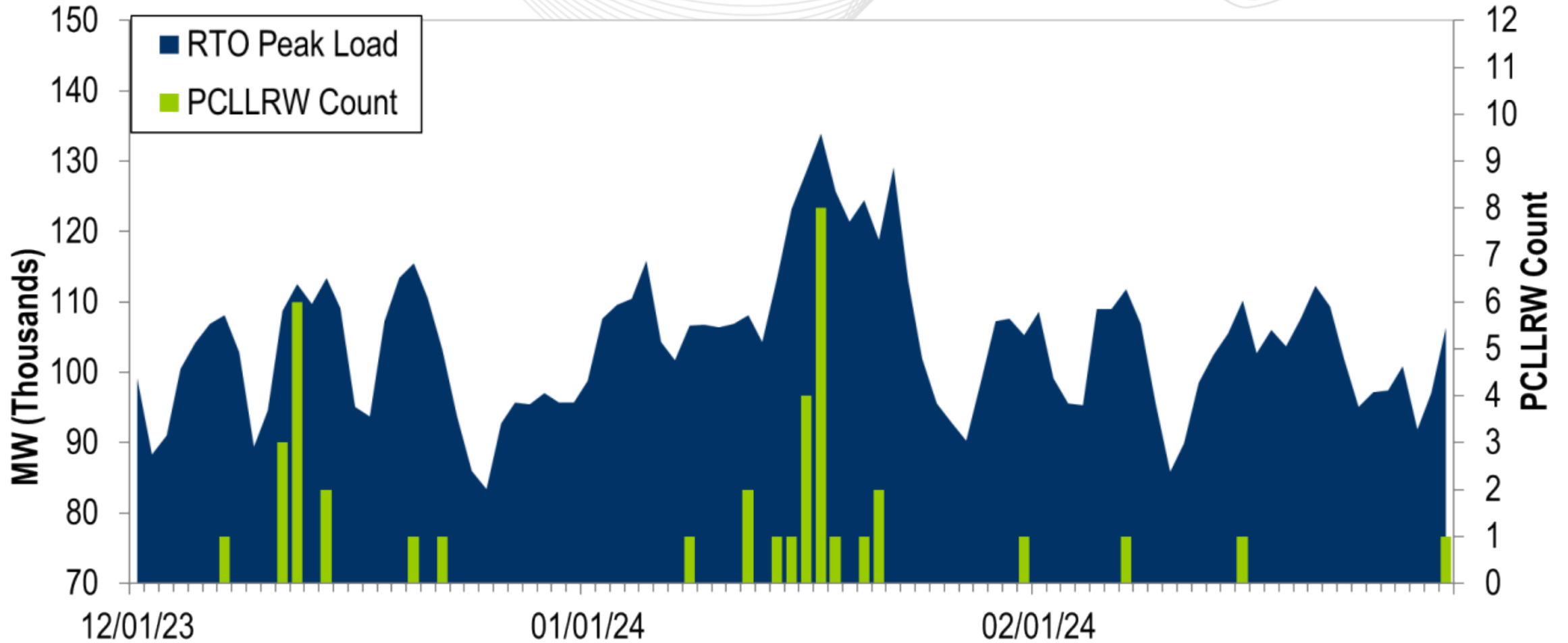
# 2022-2023 Planned Emergency, Unplanned, and Total Outages by Ticket



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	02/24/24		
Start Time	15:48:08		
End Time	16:00:27		
Duration	00:12:19		
Region	RTO		
Resource Type	Gen	DR	Total
Assigned (MW)	2689	262	2951
Estimated Expected Response of Assigned Resources (MW)	2689	262	2951
Actual Response of Assigned Resources (MW)	964	20	984
Output Increase of Resources without Assignment (MW)	1777	0	1777
Percent Response To Estimated Expected Response (%)	36%	7%	33%
Penalty (MW)	1724	243	1967

## System Operations Report

Presenter:

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## Member Hotline

(610) 666 – 8980

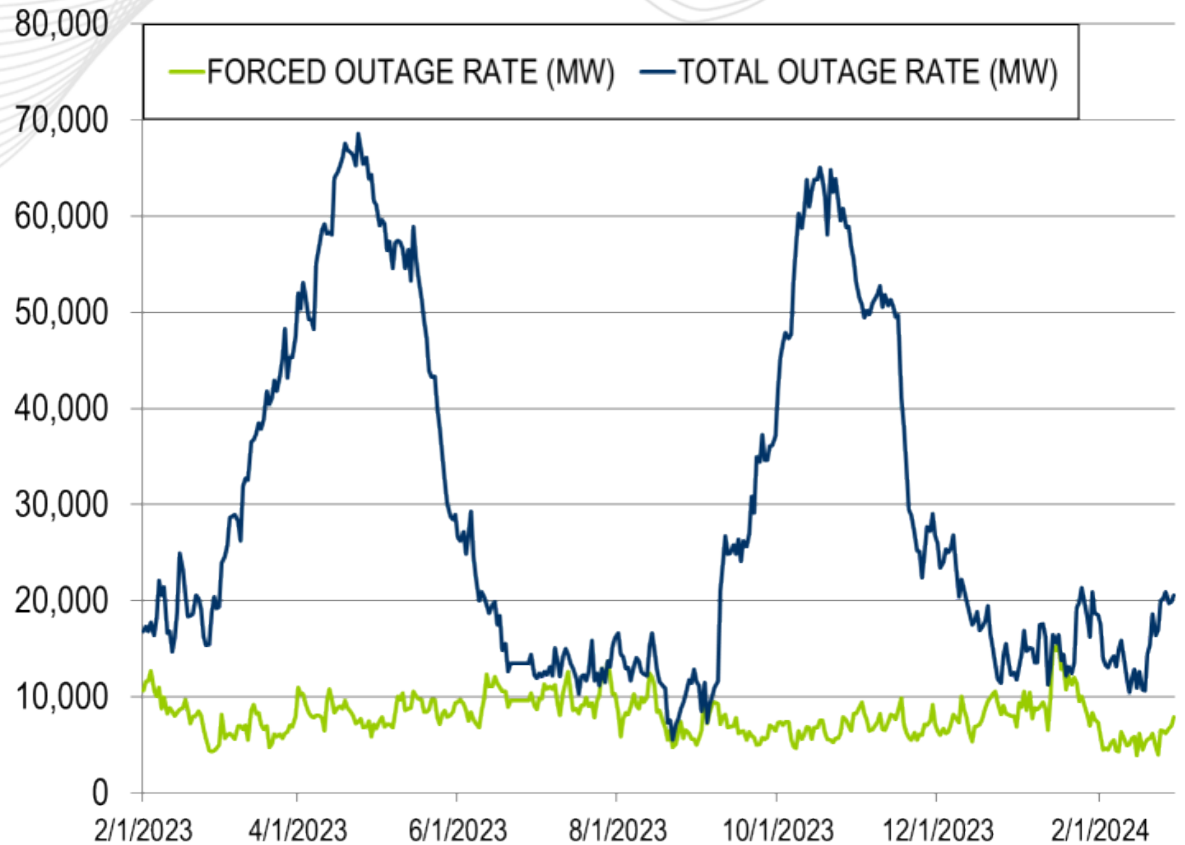
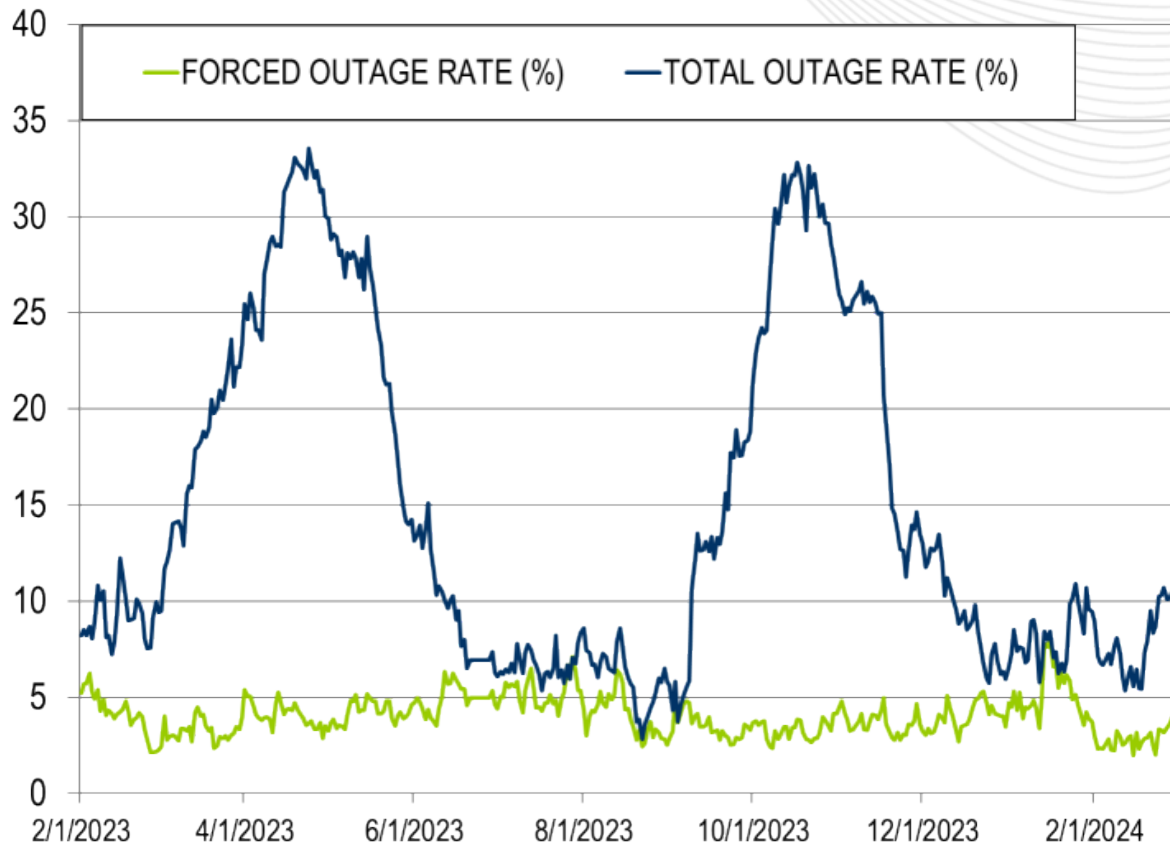
(866) 400 – 8980

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# Appendix

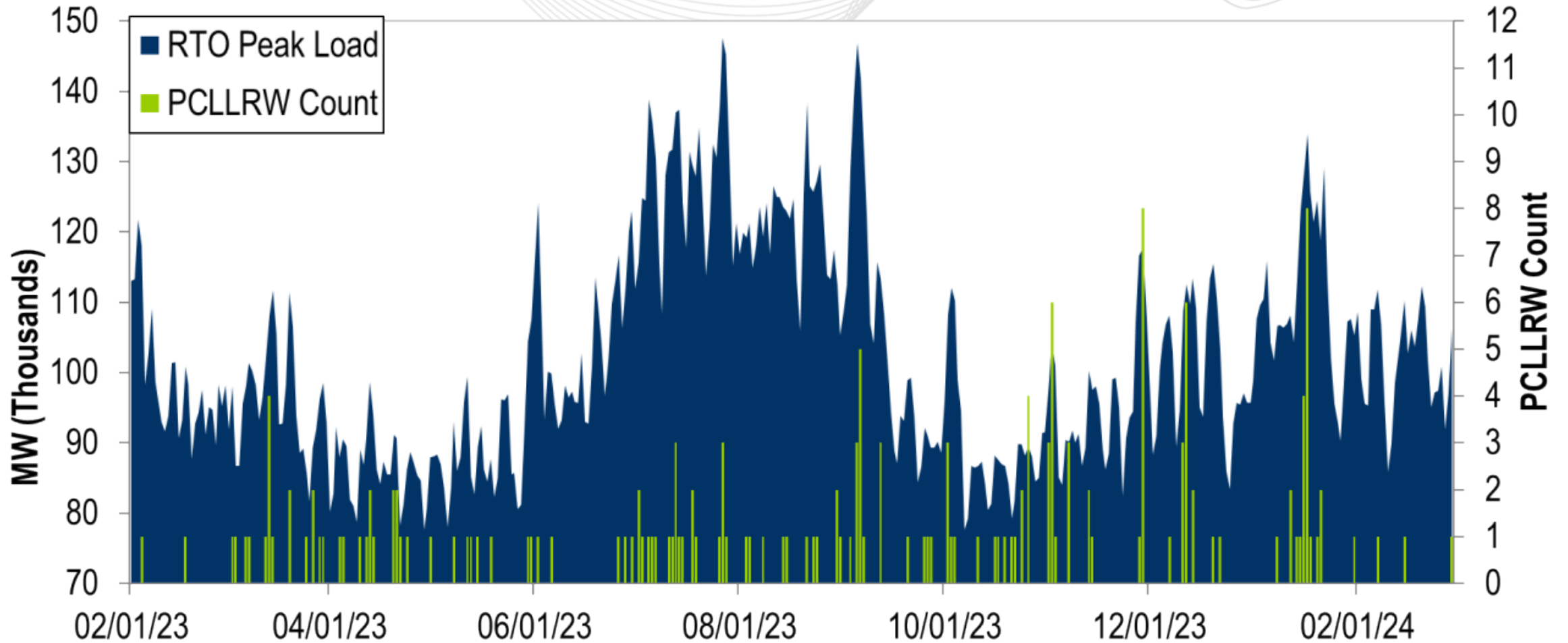
## Goal Measurement: Balancing Authority ACE Limit (BAAL)

- 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.



The 13-month average forced outage rate is 4.04% or 8,018 MW.  
 The 13-month average total outage rate is 14.58% or 29,169 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)

