System Operations Report

Marcus Smith, Lead Engineer – Markets Coordination

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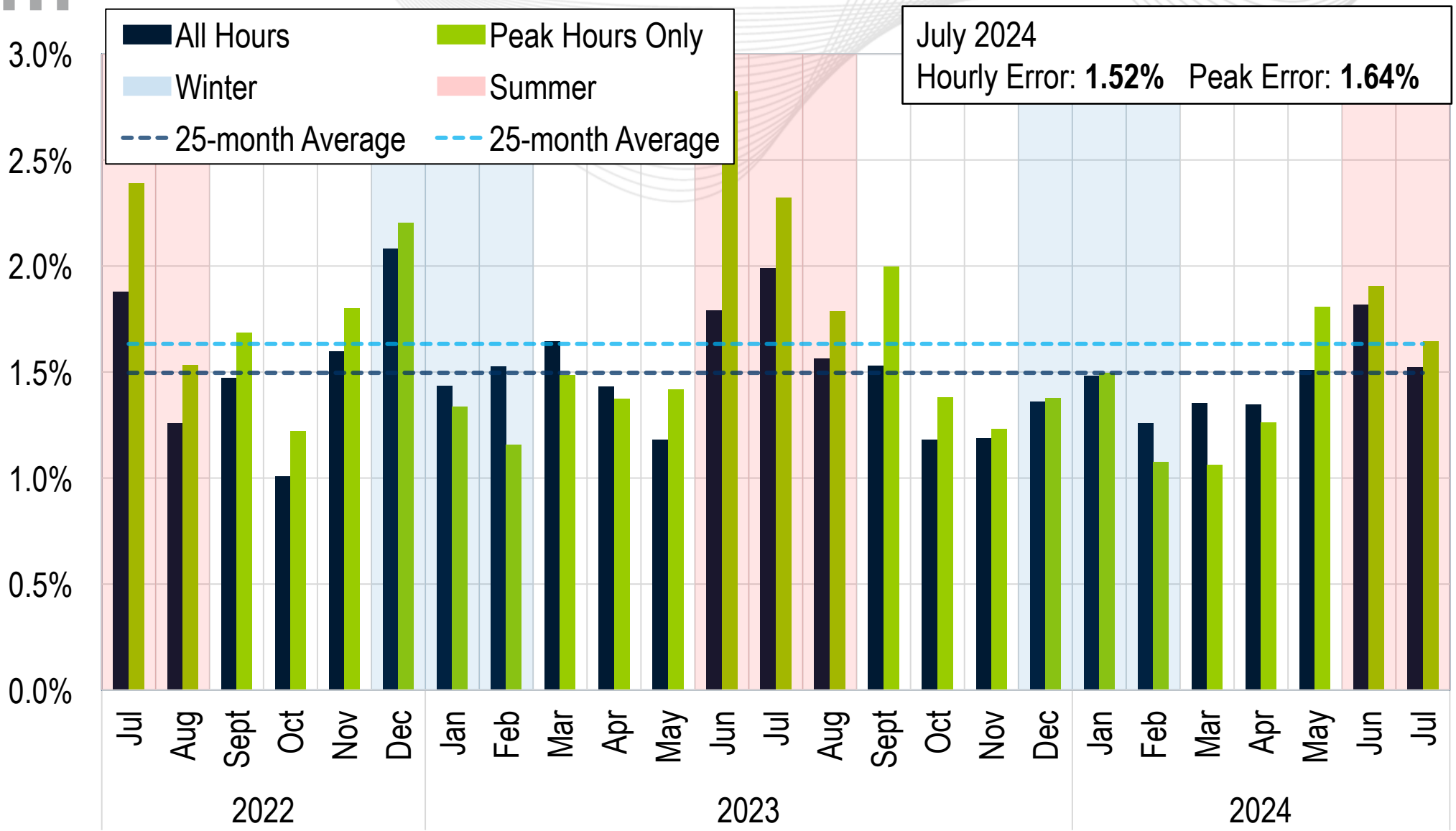
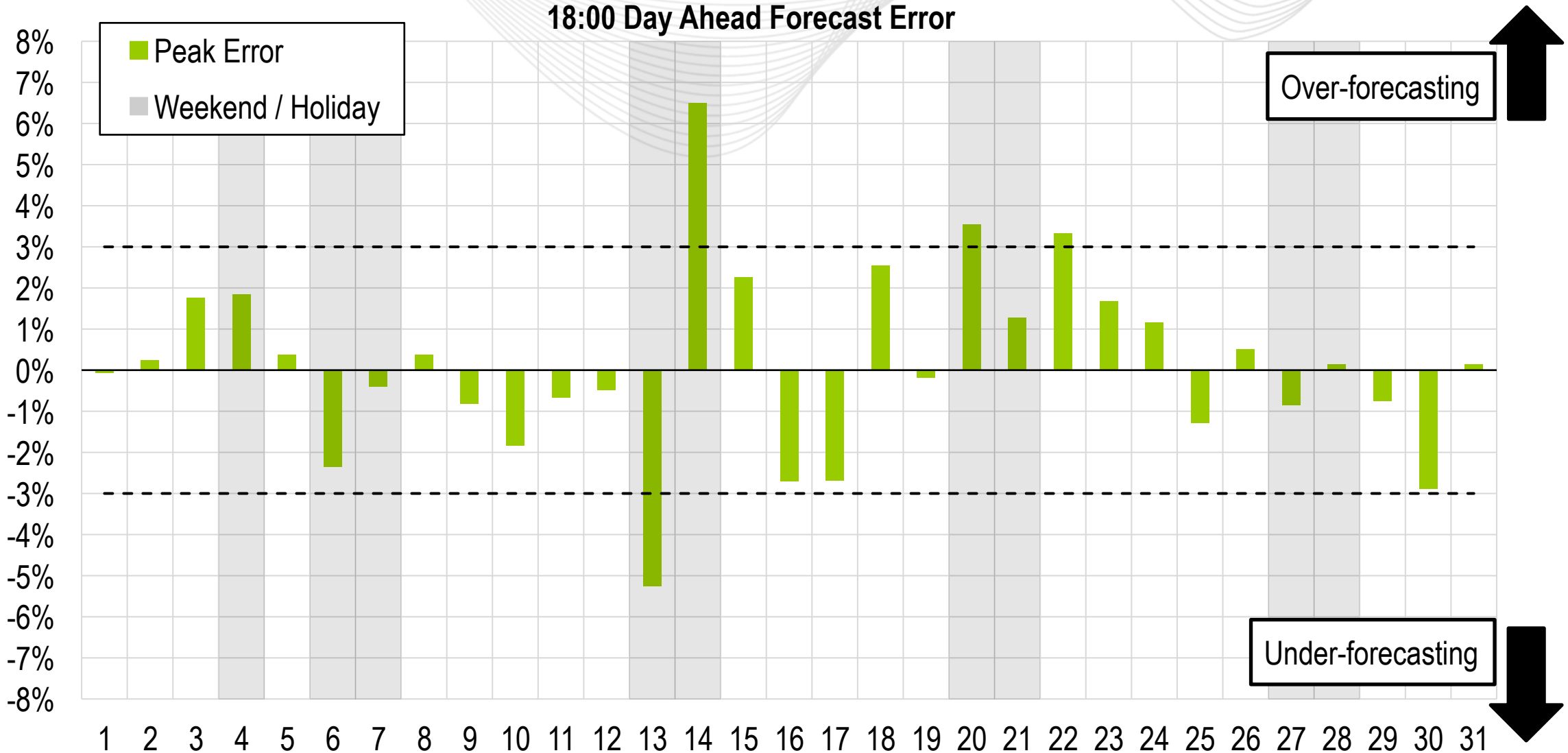
Operating Committee

August 8, 2024

Average Load Forecast Error

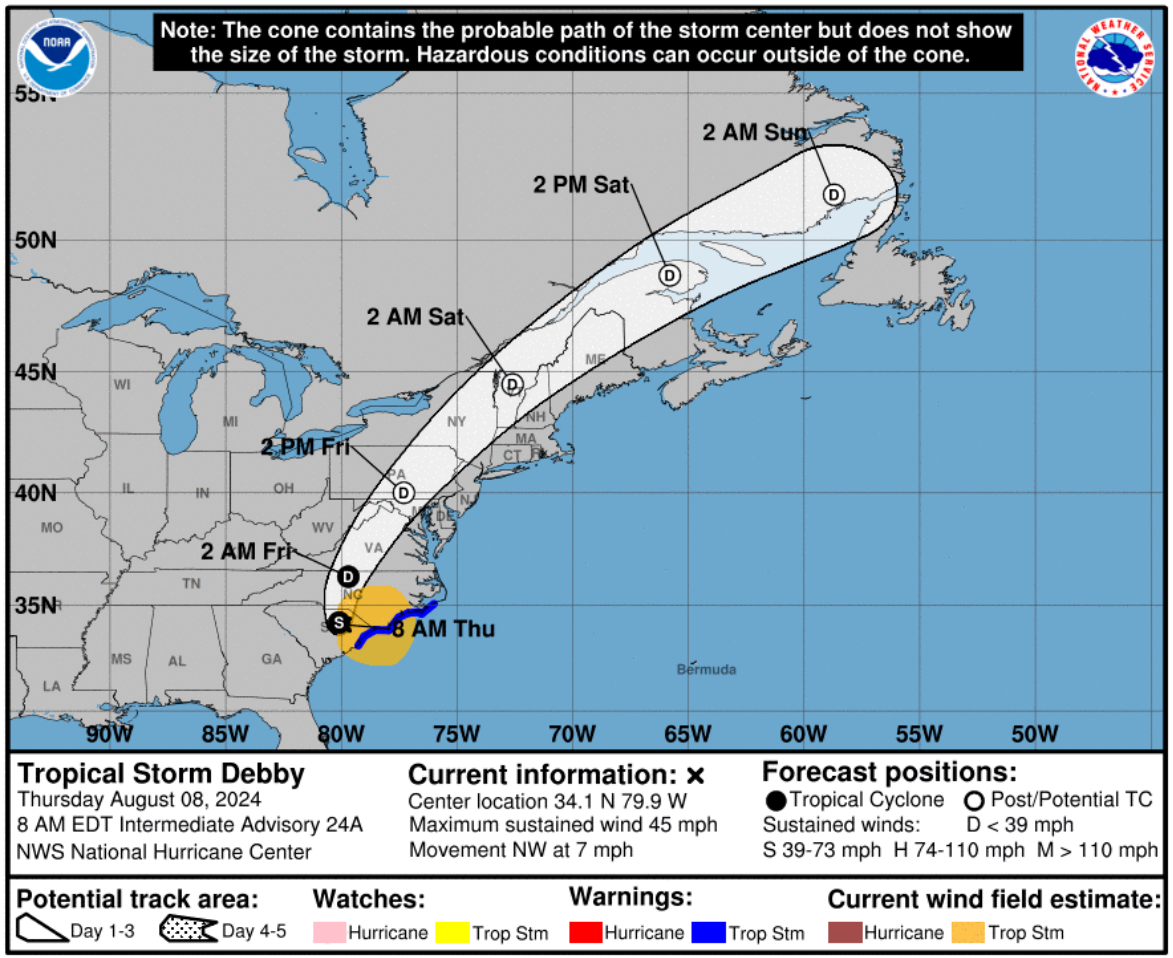


Daily Peak Forecast Error (July)

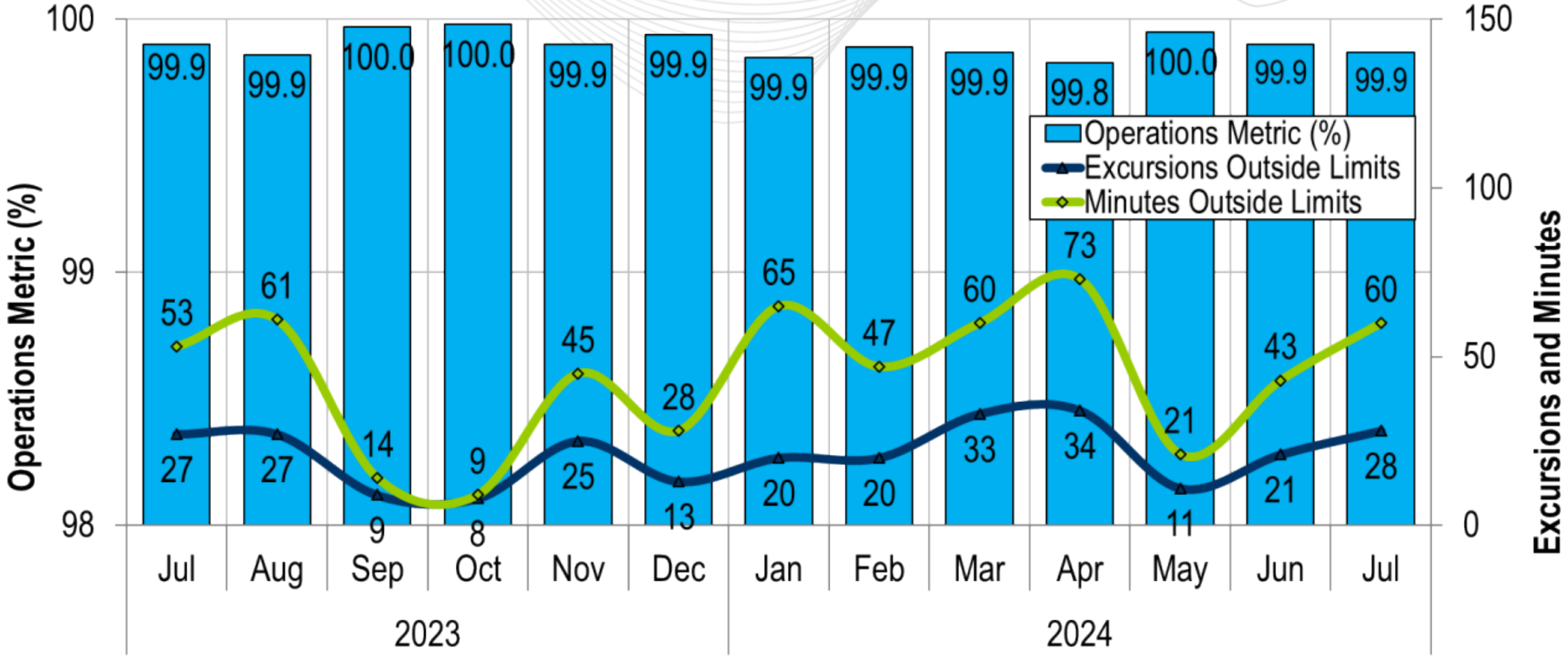


Tropical Weather Update

Tropical Storm Debby



Monthly BAAL Performance Score



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

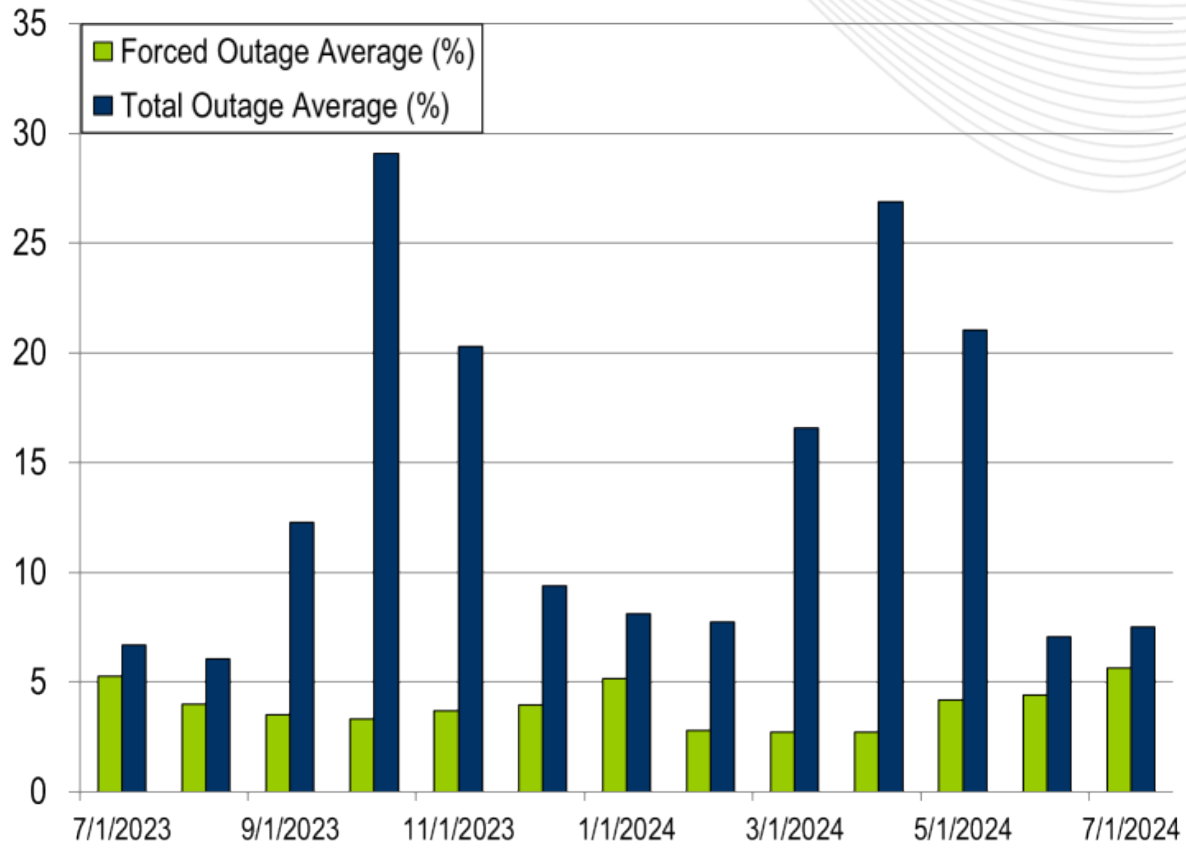
Operational Summary (July)

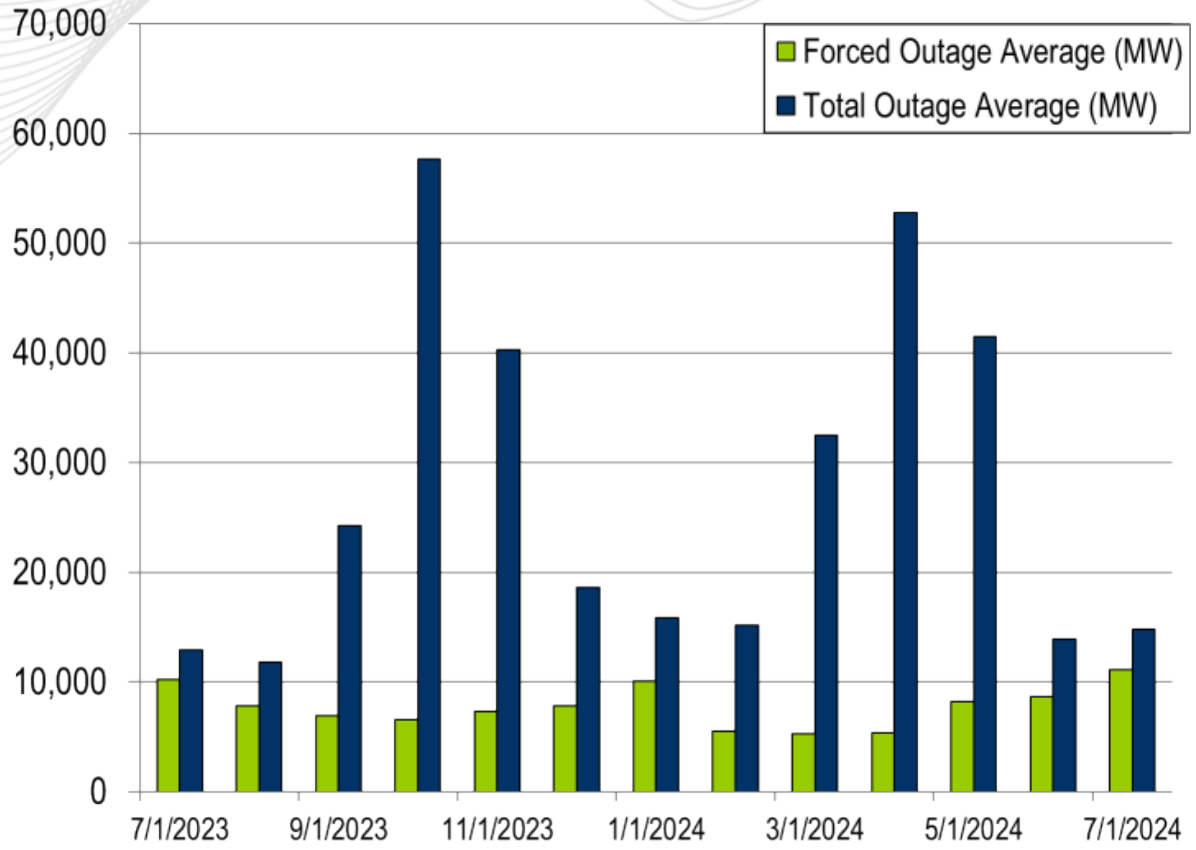
- The following Emergency Procedures occurred:
  - 8 Shared Reserve events
  - 3 Spin events
  - 8 Hot Weather Alerts
  - 21 Post Contingency Local Load Relief Warnings (PCLLRWs)

Shortage Case Approvals

- 3 Shortage Cases Approved
- The approved Shortage Cases occurred on:
  - 07/08/2024:
    - 1 shortage case approved for the 18:05 interval
    - Factors: Unit Tripping
  - 07/28/2024:
    - 2 shortage cases approved for the 17:30 and 17:35 intervals
    - Factors: Unit Tripping

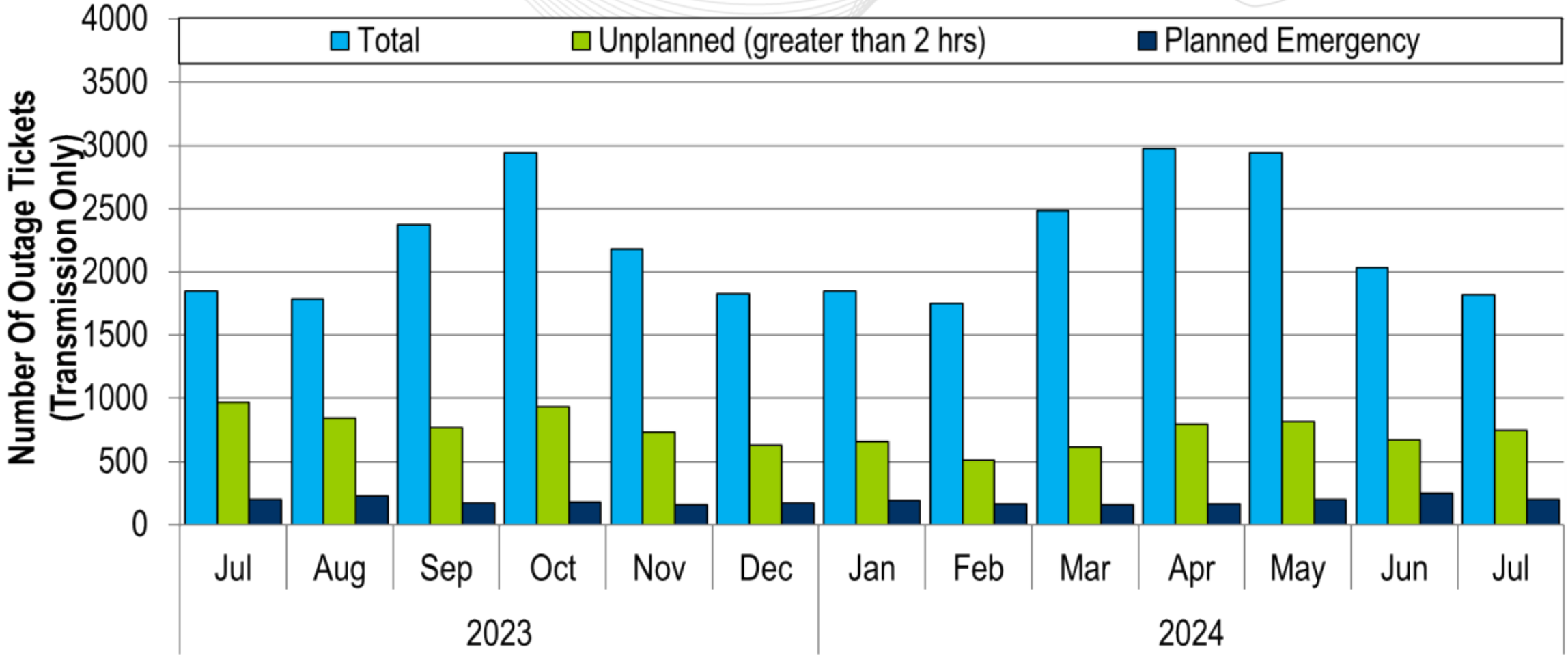
RTO Generation Outage Rate - Monthly





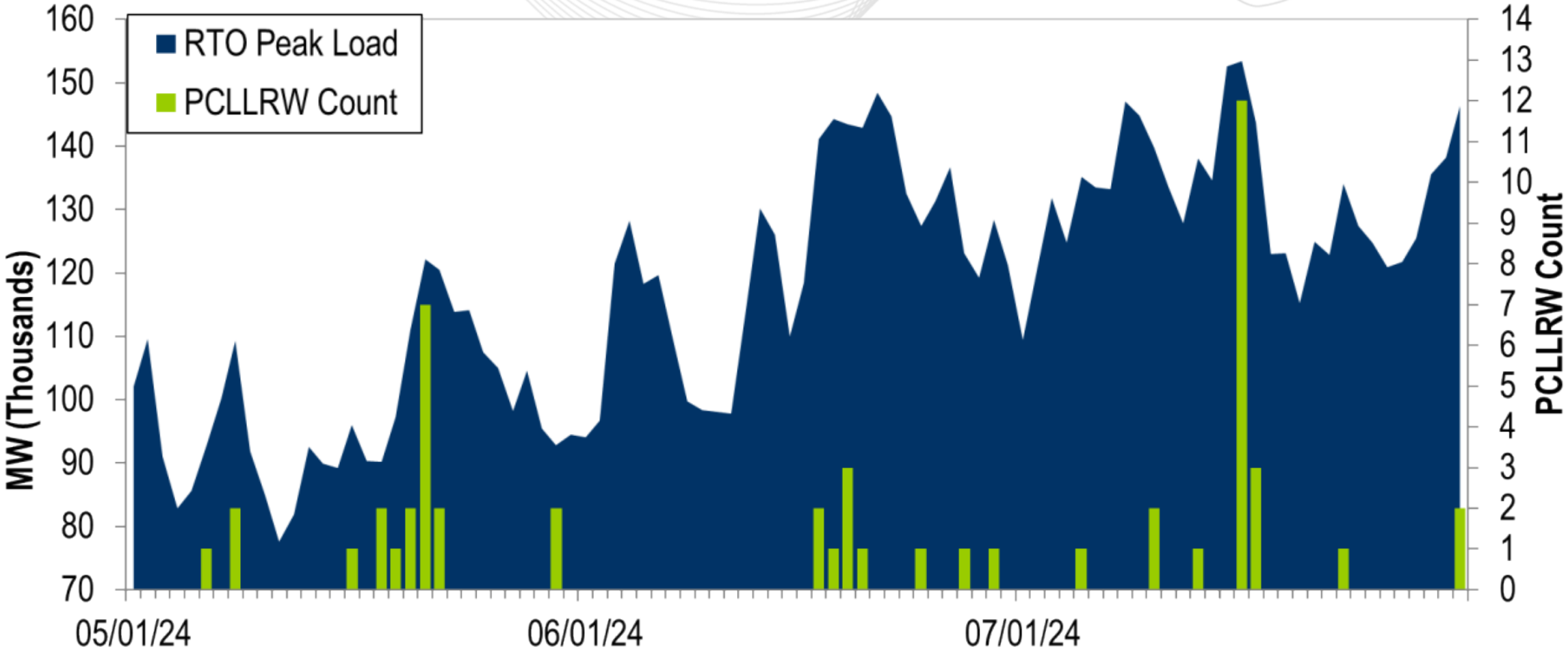
The 13-month average forced outage rate is 3.97% or 7,803 MW.
The 13-month average total outage rate is 13.73% or 27,063 MW.

2023-2024 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



Spin Response

Event	1			2			3		
Date	07/08/24			07/18/24			07/21/24		
Start Time	17:57:03			15:25:50			17:53:39		
End Time	18:11:32			15:32:50			18:03:49		
Duration	00:14:29			00:07:00			00:10:10		
Region	RTO			RTO			RTO		
Resource Type	Gen	DR	Total	Gen	DR	Total	Gen	DR	Total
Assigned (MW)	3123	111	3234	2328	169	2497	1826	553	2379
Estimated Expected Response of Assigned Resources (MW)	3123	111	3234	1630	119	1748	1826	553	2379
Actual Response of Assigned Resources (MW)	1385	94	1479	1059	125	1183	1233	533	1766
Output Increase of Resources without Assignment (MW)	1484	0	1484	2676	0	2676	1341	0	1341
Percent Response To Estimated Expected Response (%)	44%	84%	46%	65%	105%	68%	68%	96%	74%
Penalty (MW)	1738	17	1755	0	0	0	593	20	613

Contact

Load Forecast Report

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Appendix

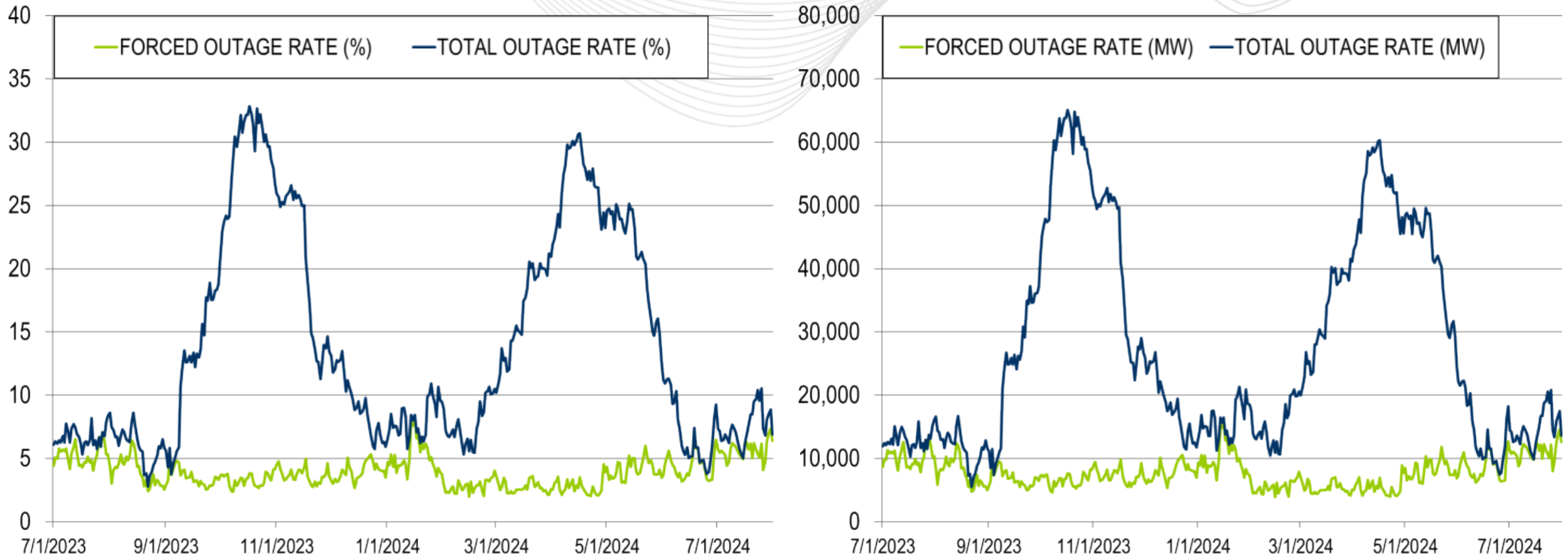
Balancing Authority ACE Limit - Performance Measure

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.

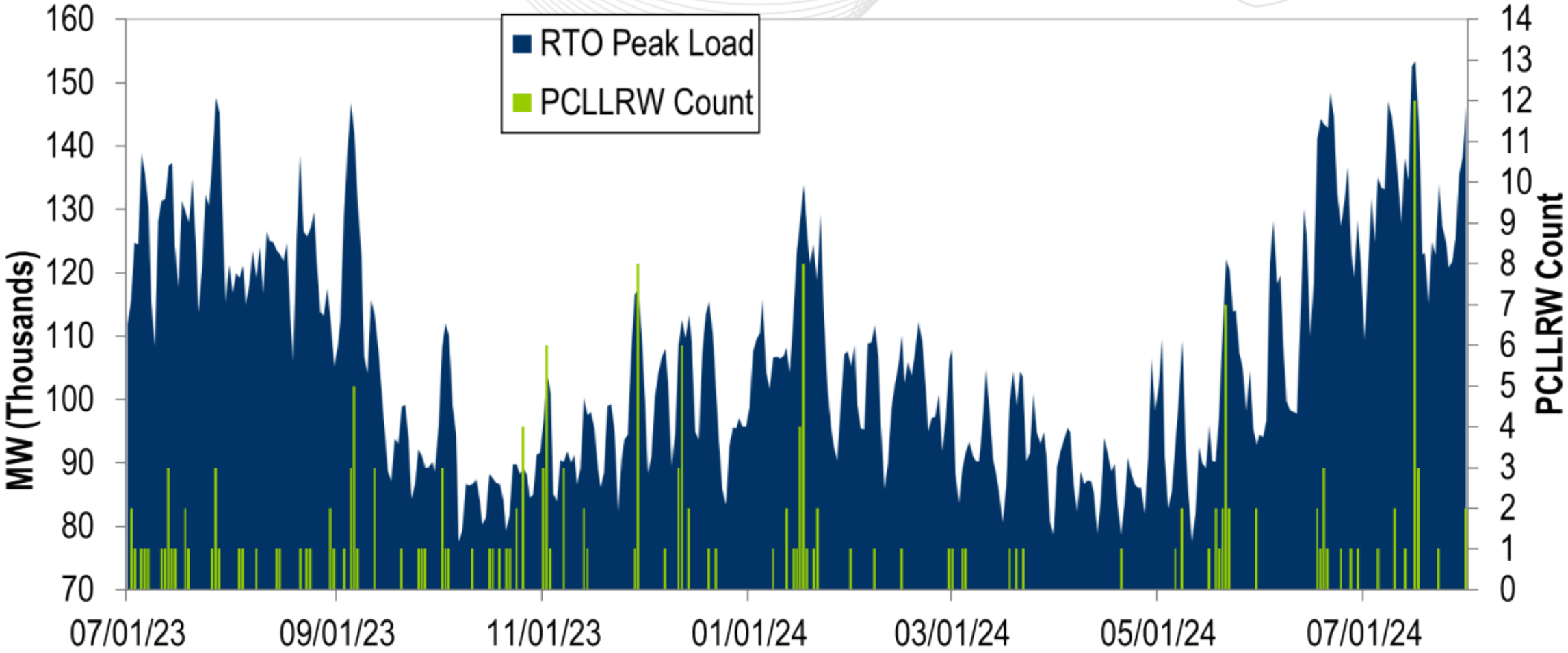
RTO Generation Outage Rate - Daily



The 13-month average forced outage rate is 3.97% or 7,803 MW.

The 13-month average total outage rate is 13.73% or 27,063 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