# System Operations Report

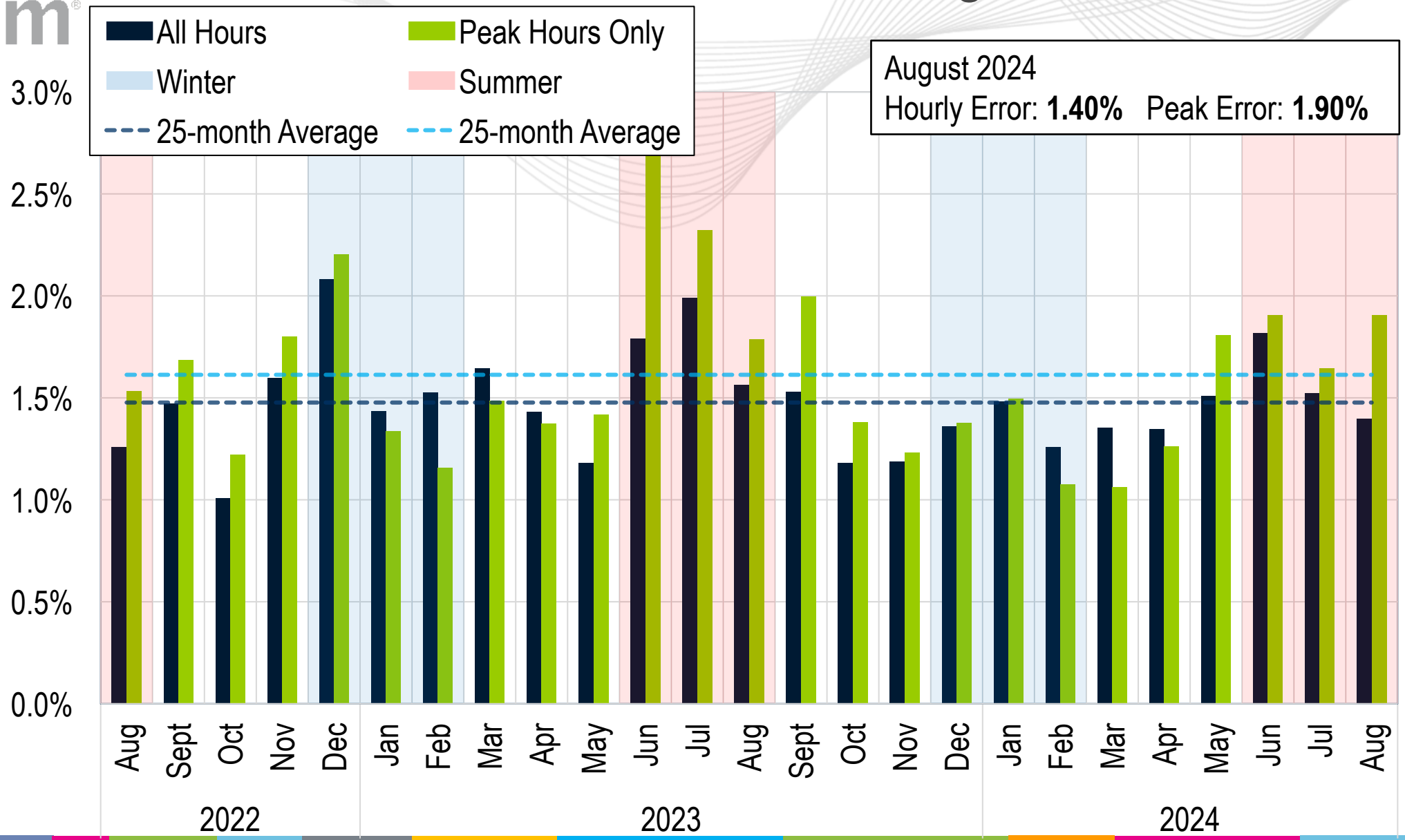
Marcus Smith, Lead Engineer – Markets Coordination

David Kimmel, Sr. Engineer – Performance Compliance

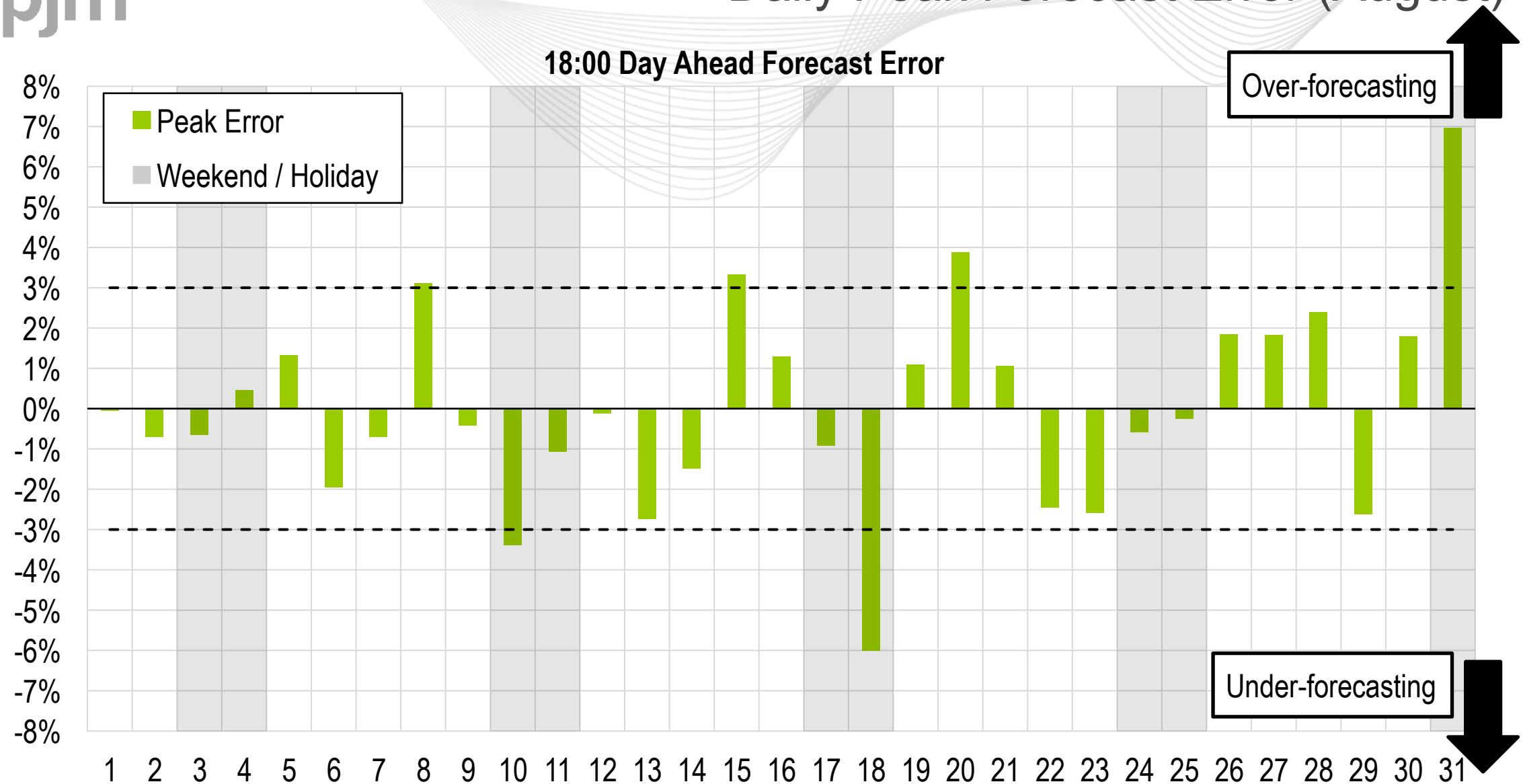
Operating Committee

September 12, 2024

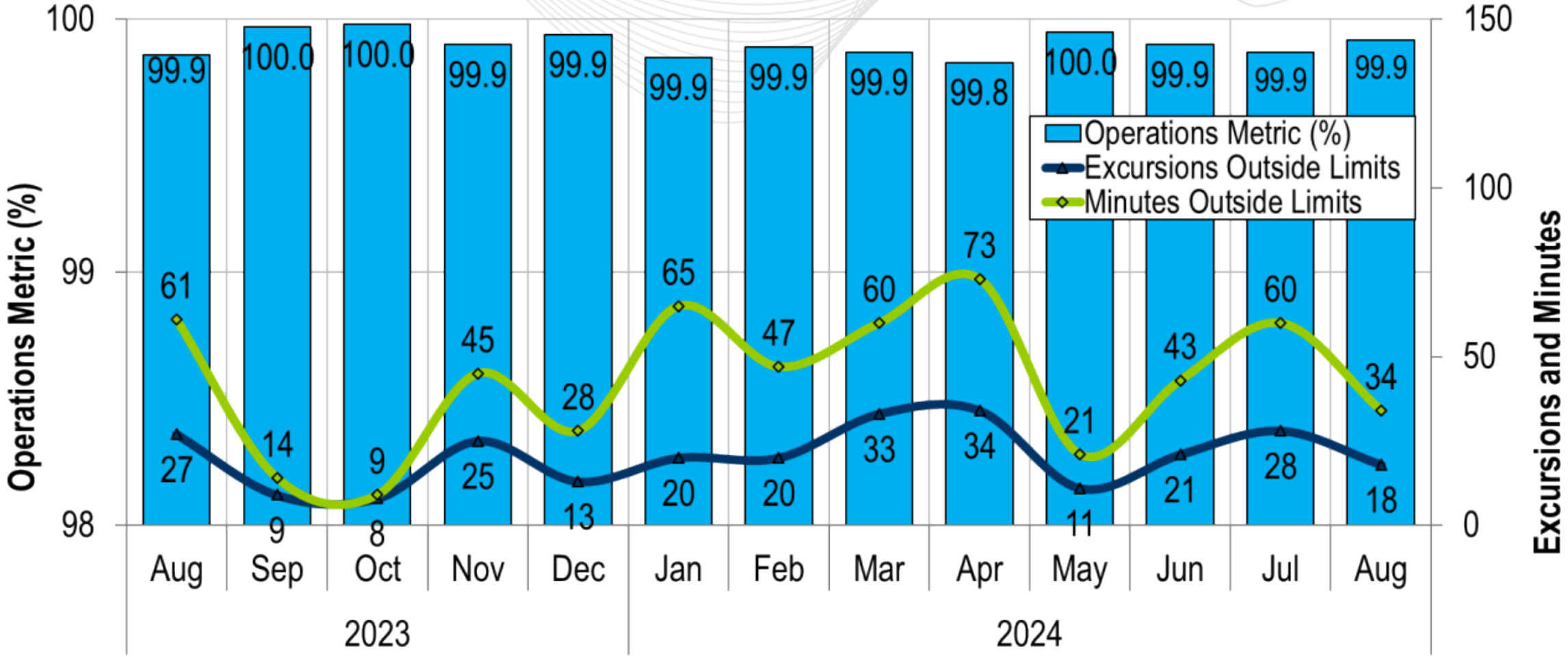
# Average Load Forecast Error



# Daily Peak Forecast Error (August)



# Monthly BAAL Performance Score




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

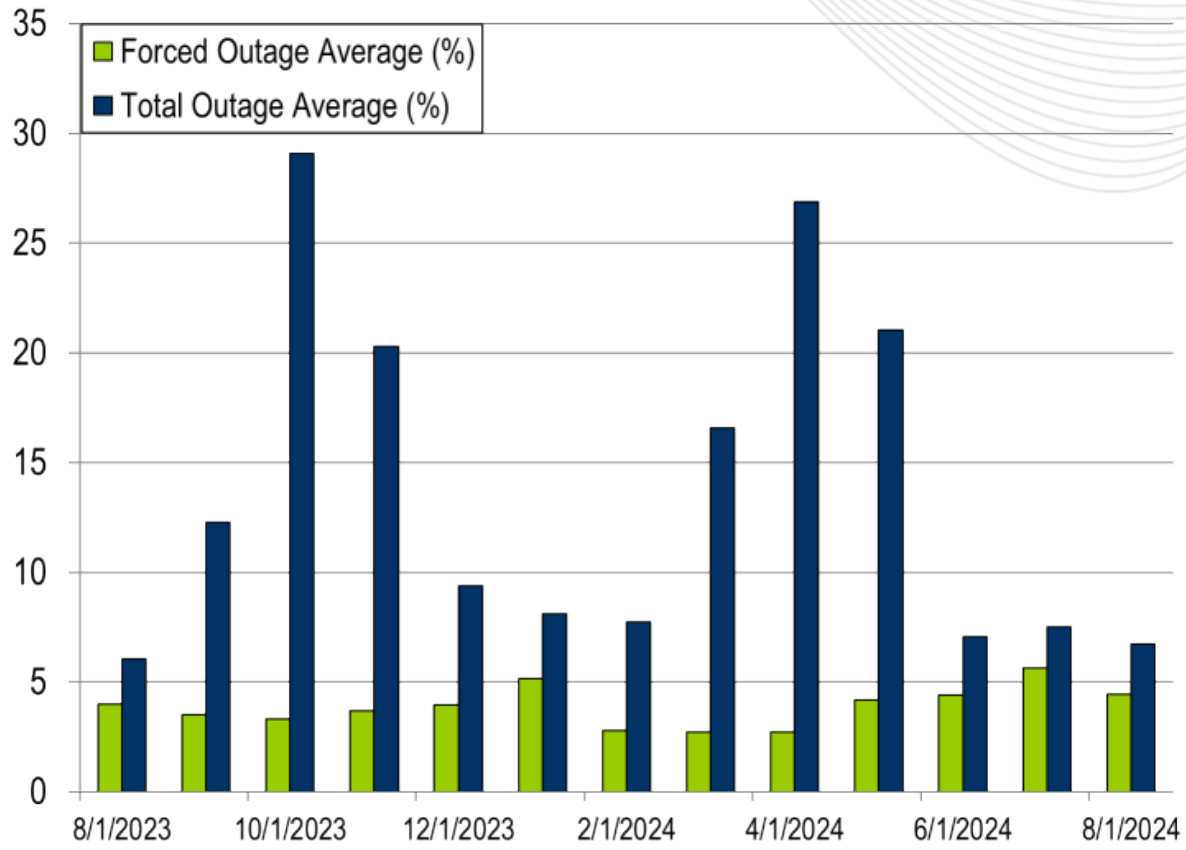
# Operational Summary (August)

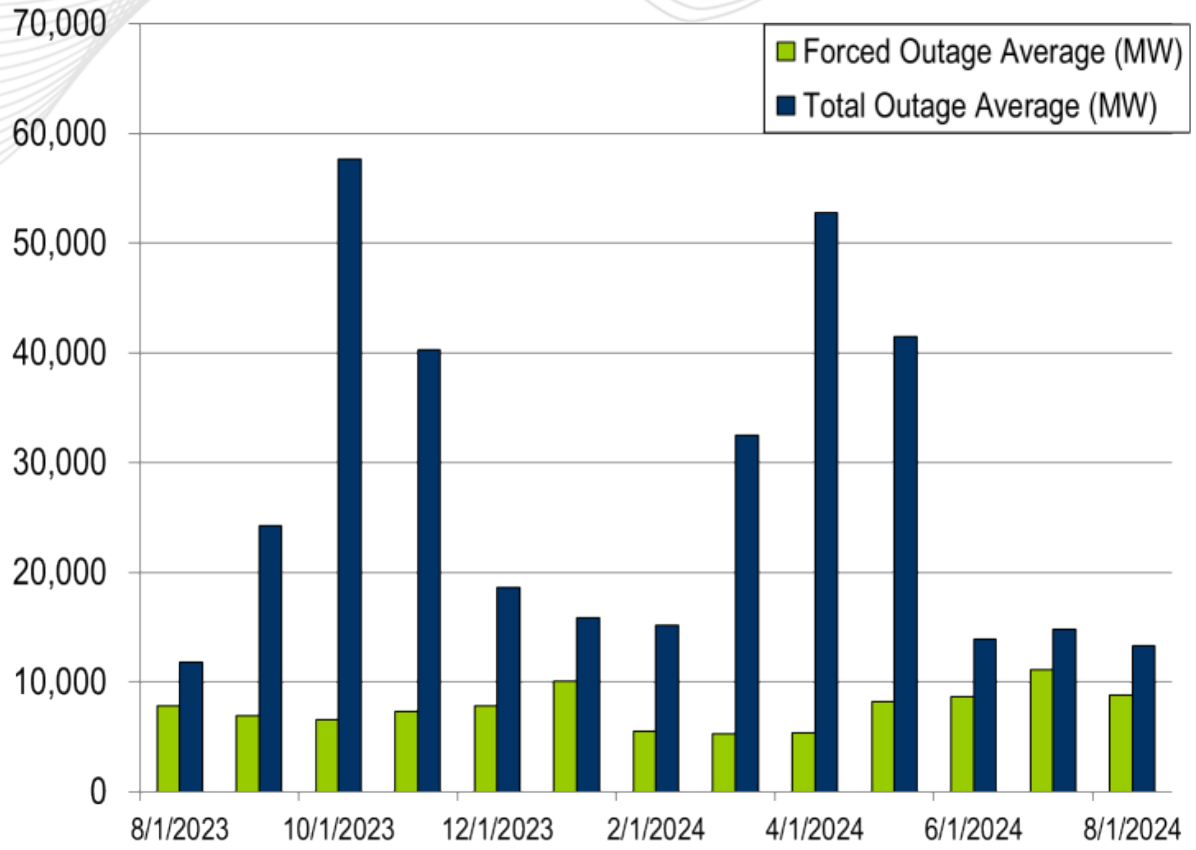
- The following Emergency Procedures occurred:
  - 8 Shared Reserve events
  - 3 Spin events
  - 6 Hot Weather Alerts
  - 5 Geomagnetic Disturbance Warnings
  - 1 NERC EEA Level 1
  - 14 Post Contingency Local Load Relief Warnings (PCLLRWs)

# Shortage Case Approvals

- There were no shortage case approvals for the month of August 2024

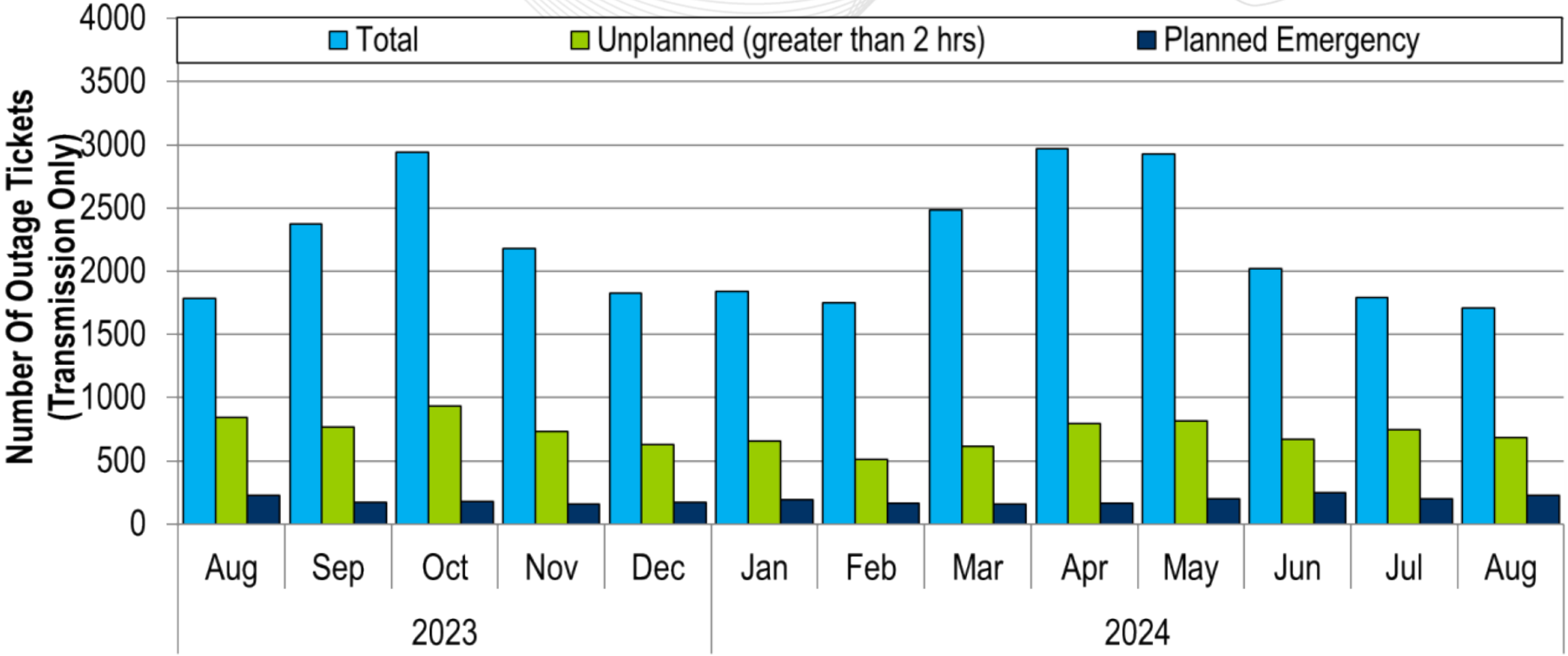
# RTO Generation Outage Rate - Monthly



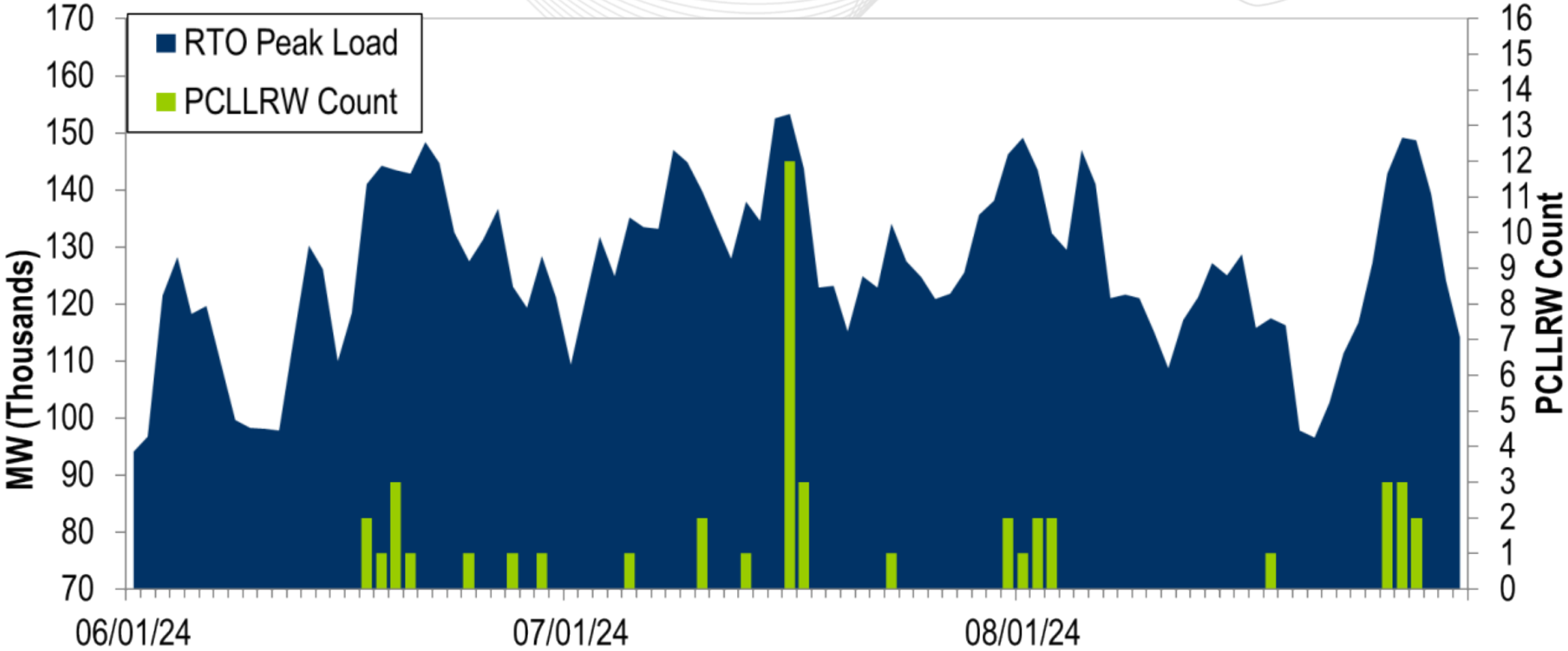

The 13-month average forced outage rate is 3.90% or 7,693 MW.
The 13-month average total outage rate is 13.74% or 27,090 MW.

# 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 | 08/12/24 | | | 08/18/24 | | | 08/26/24 | | |
| Start Time | 17:10:55 | | | 16:04:33 | | | 13:53:42 | | |
| End Time | 17:20:34 | | | 16:20:24 | | | 13:57:55 | | |
| Duration | 00:09:39 | | | 00:15:51 | | | 00:04:13 | | |
| Region | RTO | | | RTO | | | RTO | | |
| Resource Type | Gen | DR | Total | Gen | DR | Total | Gen | DR | Total |
| Assigned (MW) | 1338 | 49 | 1386 | 1417 | 529 | 1945 | 2111 | 539 | 2650 |
| Estimated Expected Response of Assigned Resources (MW) | 1291 | 47 | 1338 | 1417 | 529 | 1945 | 890 | 227 | 1117 |
| Actual Response of Assigned Resources (MW) | 965 | 43 | 1008 | 838 | 477 | 1316 | 720 | 307 | 1027 |
| Output Increase of Resources without Assignment (MW) | 695 | 0 | 695 | 3169 | 0 | 3169 | 1643 | 0 | 1643 |
| Percent Response To Estimated Expected Response (%) | 75% | 92% | 75% | 59% | 90% | 68% | 81% | 135% | 92% |
| Penalty (MW) | 0 | 0 | 0 | 578 | 51 | 630 | 0 | 0 | 0 |

# Contact

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

Member Hotline

(610) 666 – 8980

(866) 400 – 8980

custsvc@pjm.com

# Appendix

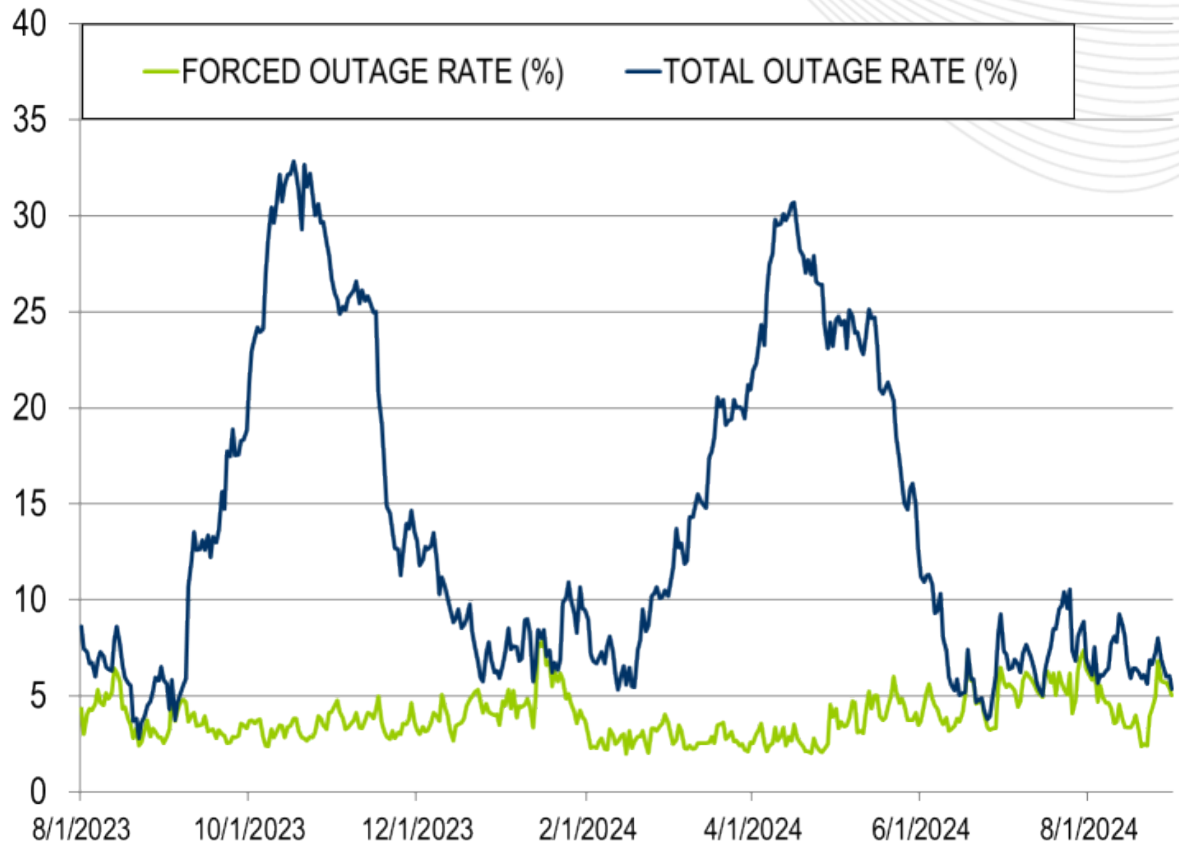
# Balancing Authority ACE Limit - Performance Measure

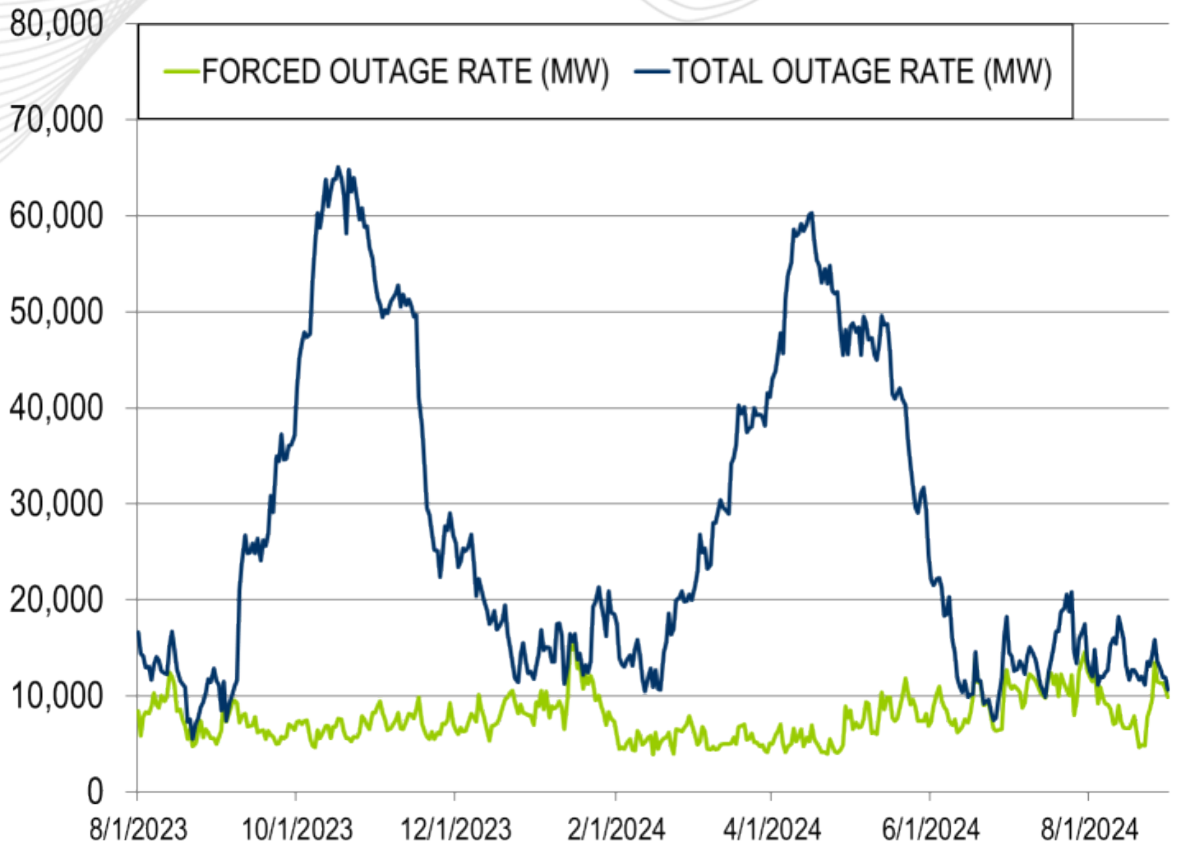
**Goal Measurement: Balancing Authority ACE Limit (BAAL)**

- 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.

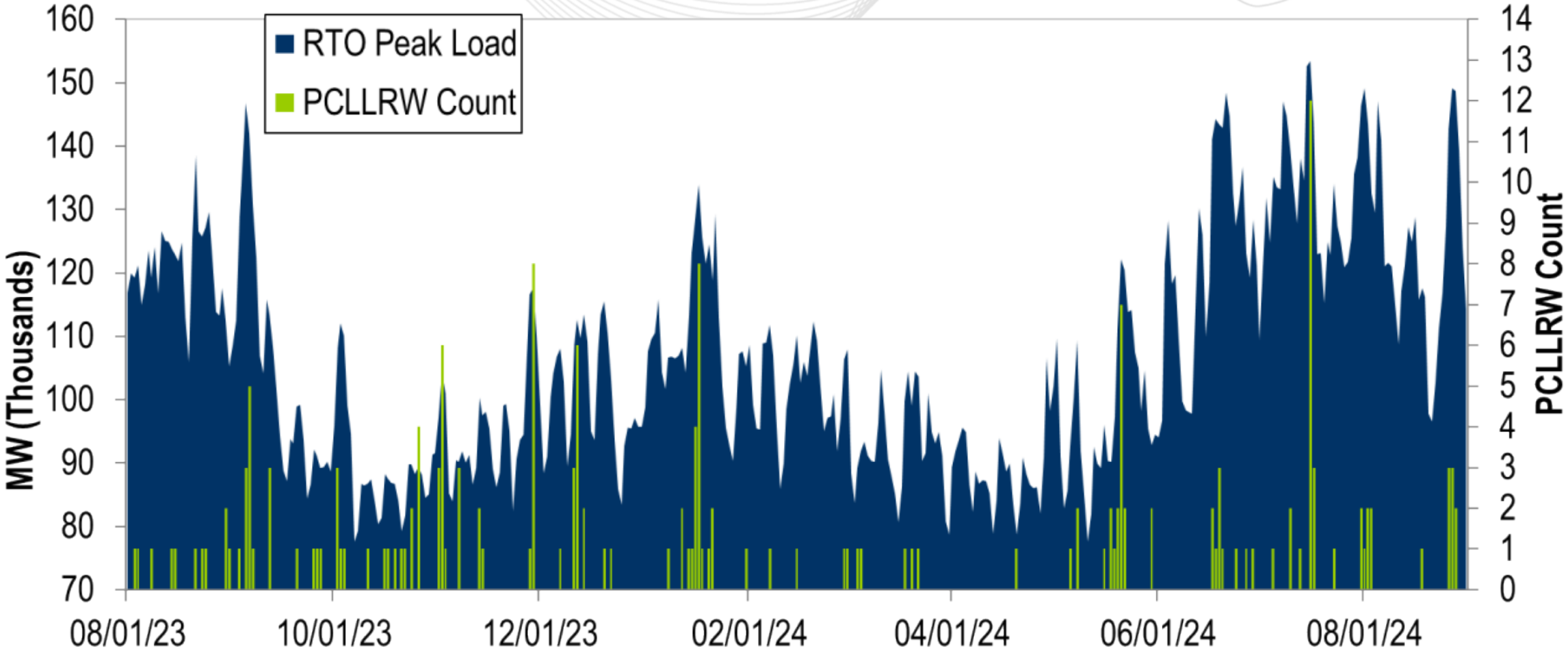
# RTO Generation Outage Rate - Daily




The 13-month average forced outage rate is 3.90% or 7,693 MW.
The 13-month average total outage rate is 13.74% or 27,090 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