



# System Operations Report

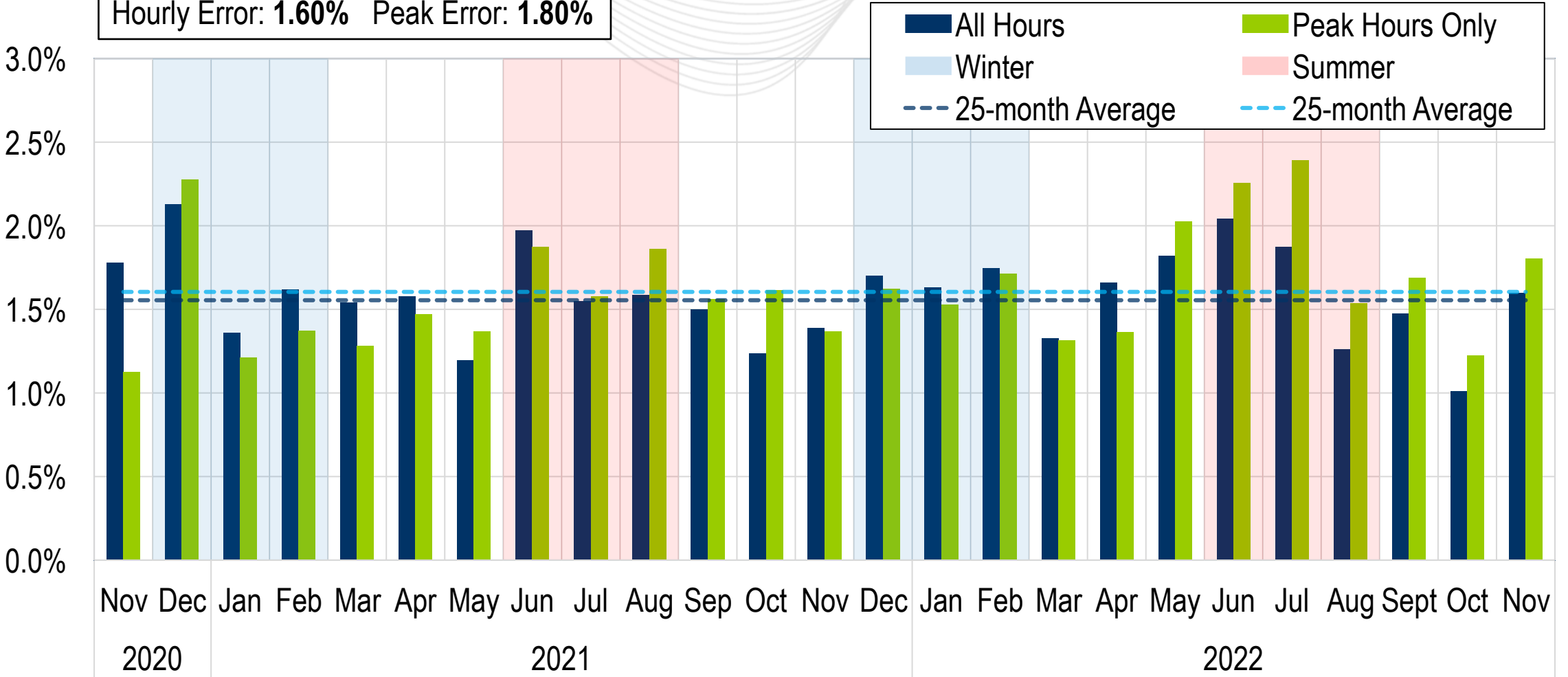
George Chu

Lead Engineer, Markets Coordination

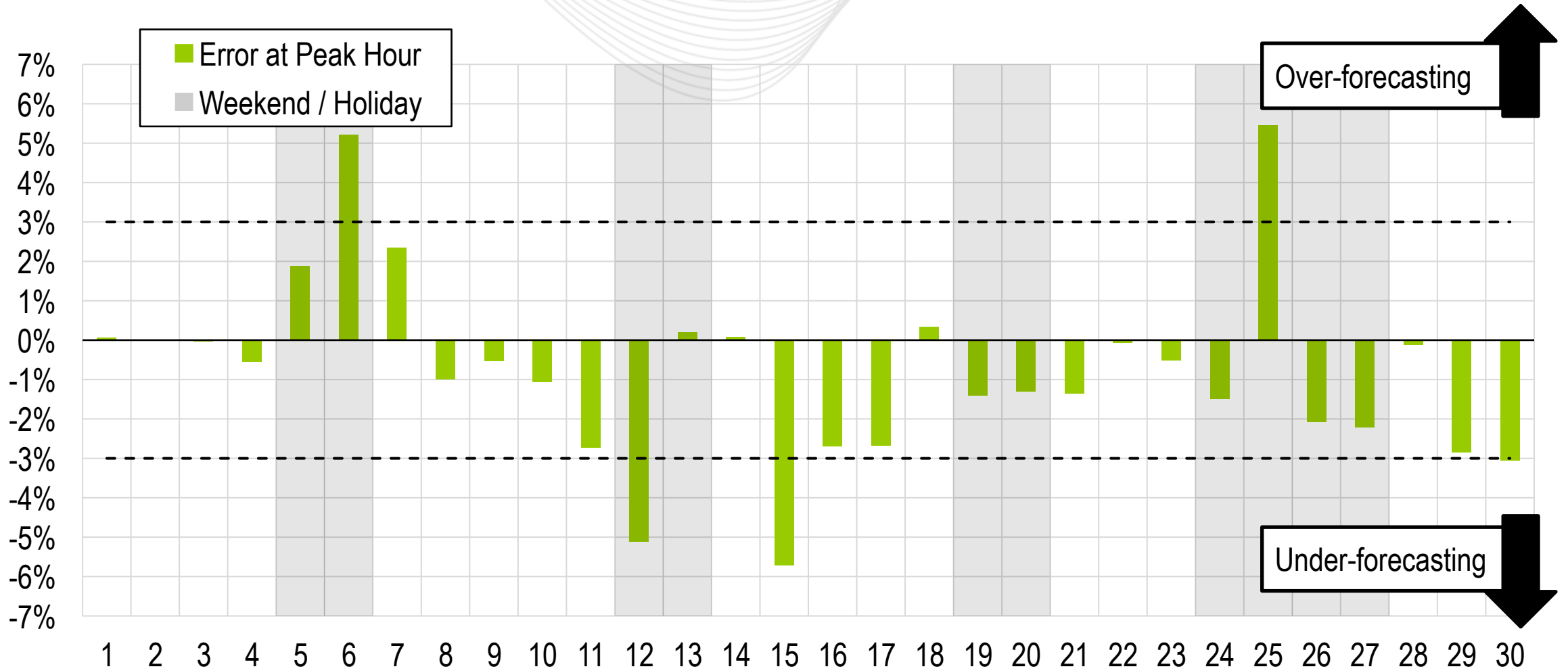
MC Webinar

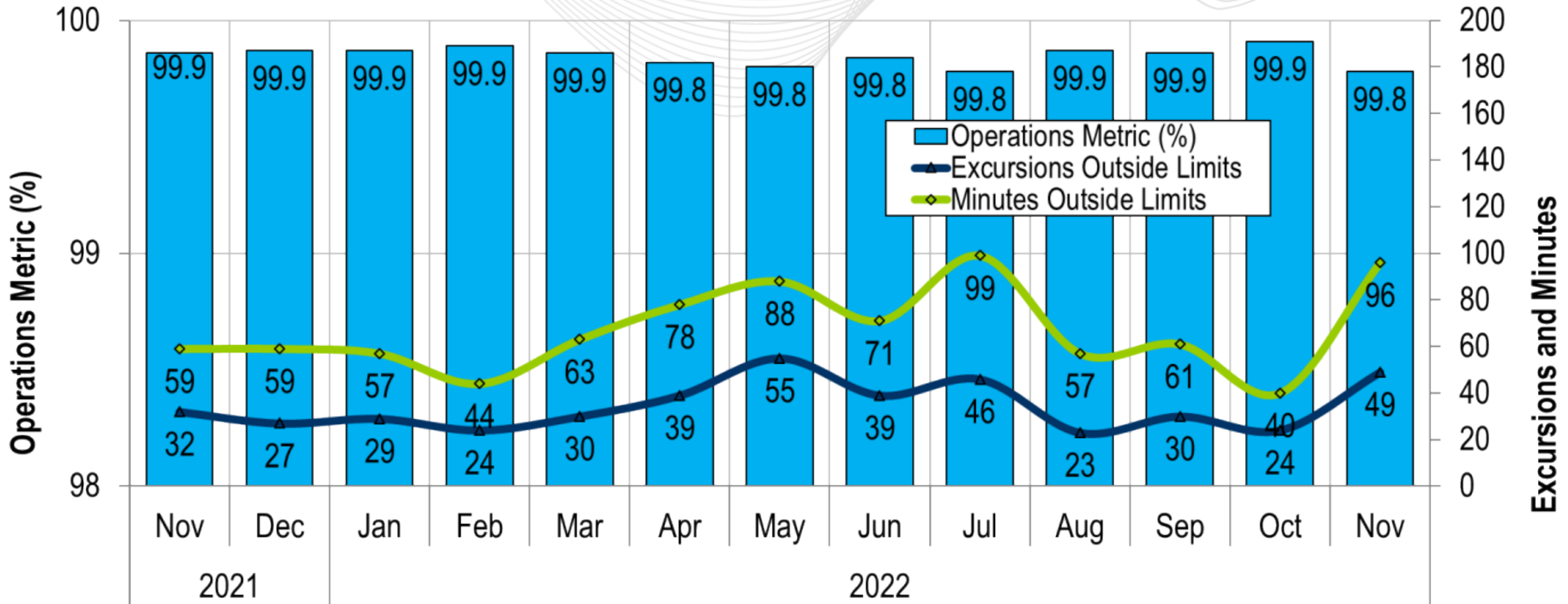
December 19th, 2022

November 2022  
 Hourly Error: **1.60%** Peak Error: **1.80%**



# Daily Peak Forecast Error (November)

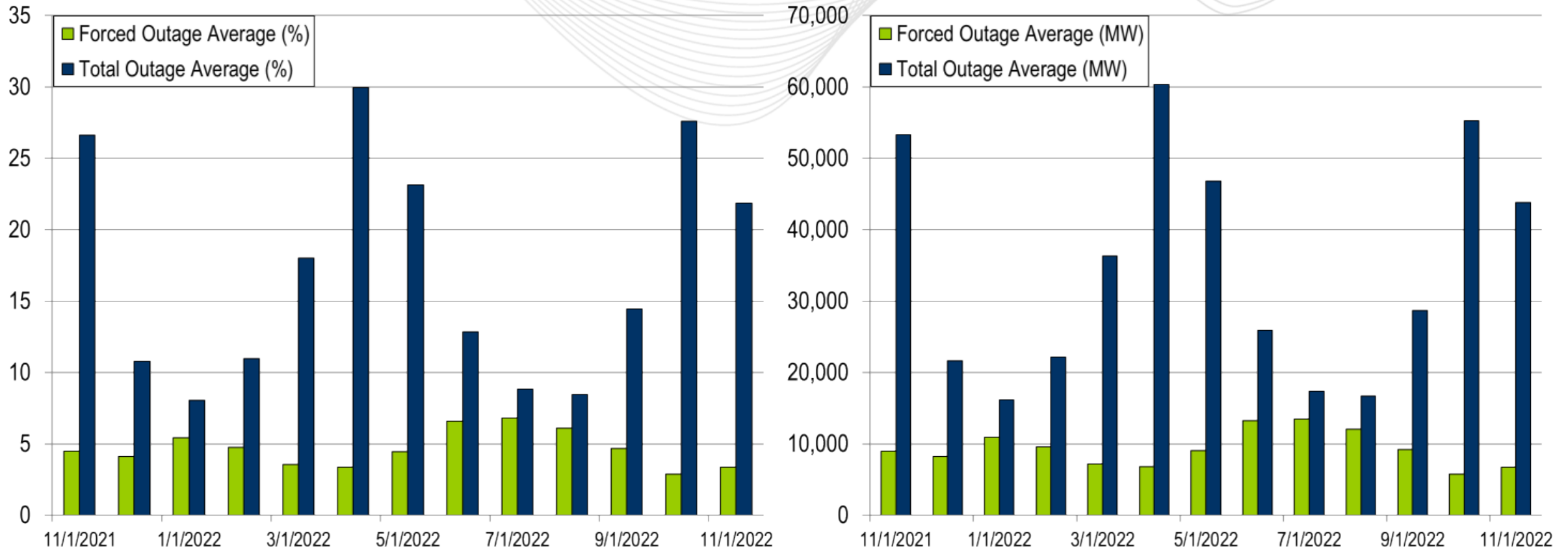




PJM's BAAL performance has exceeded the goal of 99% for each month in 2022.

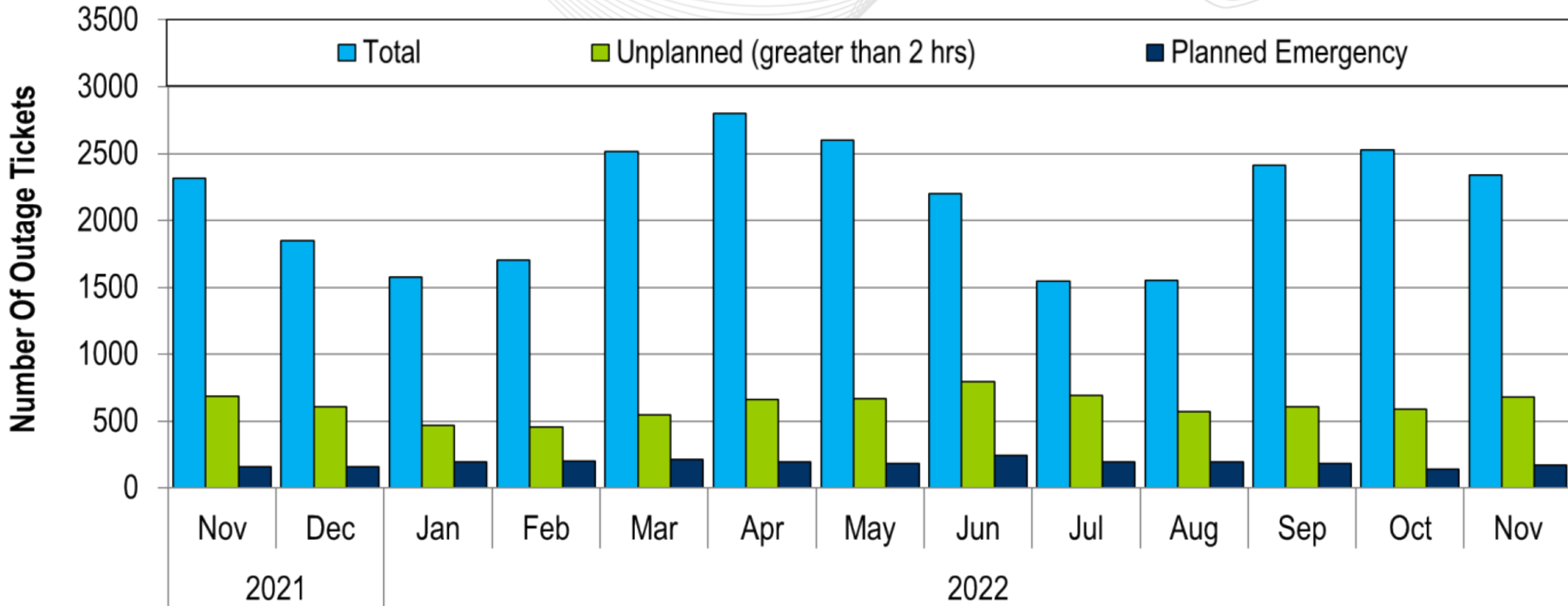
- Three Spinning Event
- Three Shared Reserve Event
- The following Emergency Procedures occurred:
  - 12 Post-Contingency Local Load Relief Warnings (PCLLRW)

- There have been no shortage case approvals in the month of November.



The 13-month average forced outage rate is 4.67% or 9,339 MW.  
 The 13-month average total outage rate is 17.04% or 34,203 MW.

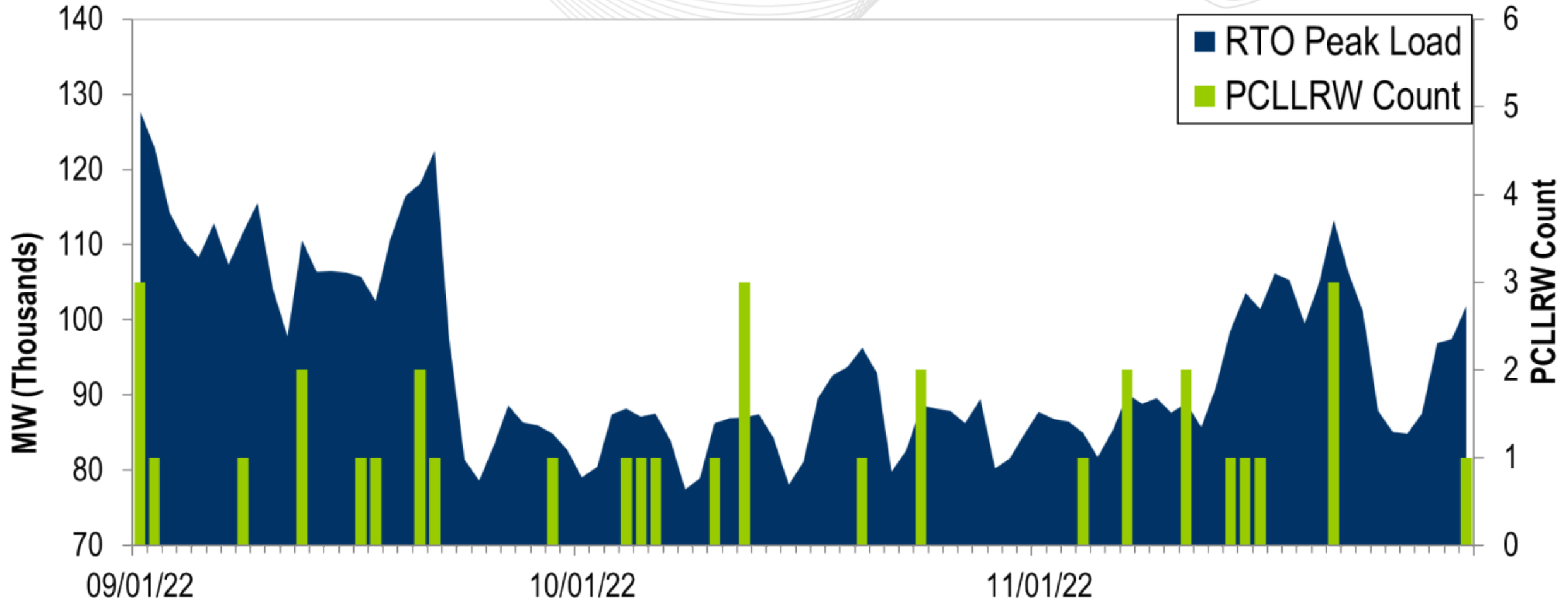
# 2021-2022 Planned Emergency, Unplanned, and Total Outages by Ticket



Note: "Unplanned Outages" include tripped facilities. One tripping event may involve multiple facilities.



# PCLLRW Count Vs. Peak Load – Daily Values For 3 Months



| Event | Date     | Start Time | End Time | Duration | Region | Assigned (MW) | Response (MW) | Penalty (MW) |
|-------|----------|------------|----------|----------|--------|---------------|---------------|--------------|
| 1     | 11/04/22 | 15:03:00   | 15:07:25 | 00:04:25 | RTO    | 1686.7        | 1686.7        | 0.0          |
| 2     | 11/14/22 | 22:01:14   | 22:07:58 | 00:06:44 | RTO    | 1829.8        | 1829.8        | 0.0          |
| 3     | 11/29/22 | 16:30:42   | 16:47:27 | 00:16:45 | RTO    | 1785.3        | 949.0         | 836.3        |

\*Response is equal to Assigned for events with duration less than ten minutes

Presenter:  
George Chu,  
[George.Chu@pjm.com](mailto:George.Chu@pjm.com)

SME:  
Ross Kelly,  
[Ross.Kelly@pjm.com](mailto:Ross.Kelly@pjm.com)

System Operations Report



### Member Hotline

(610) 666 – 8980

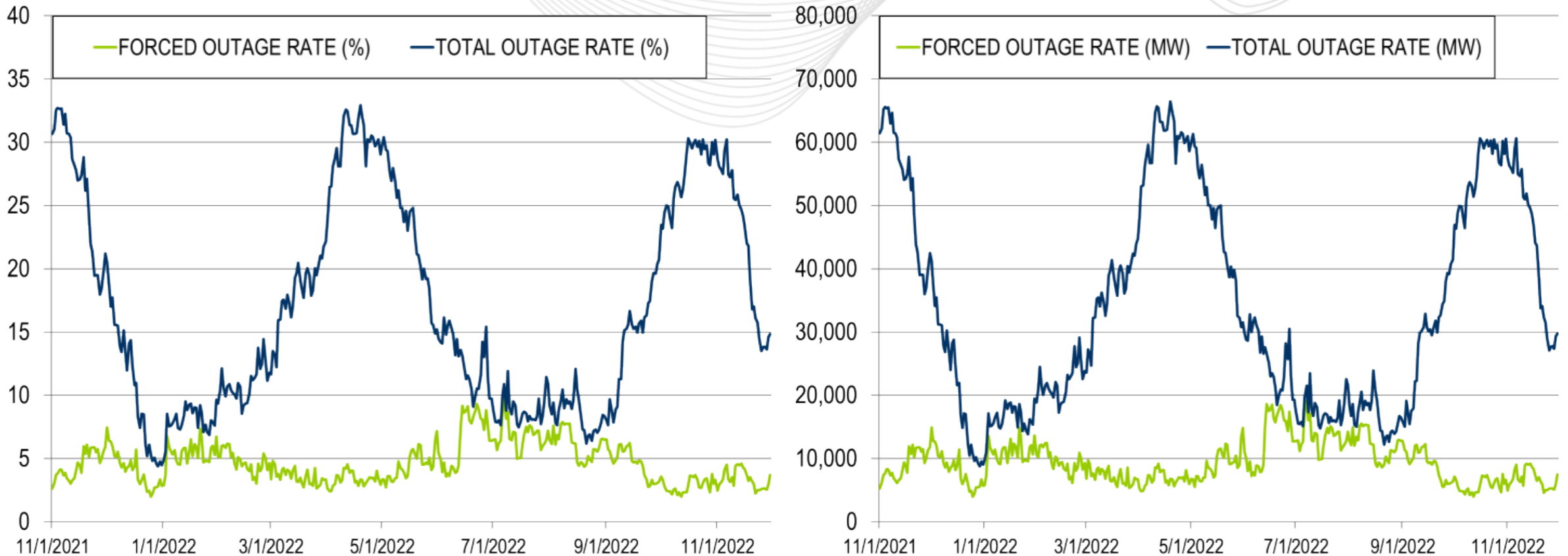
(866) 400 – 8980

[custsvc@pjm.com](mailto:custsvc@pjm.com)

# Appendix

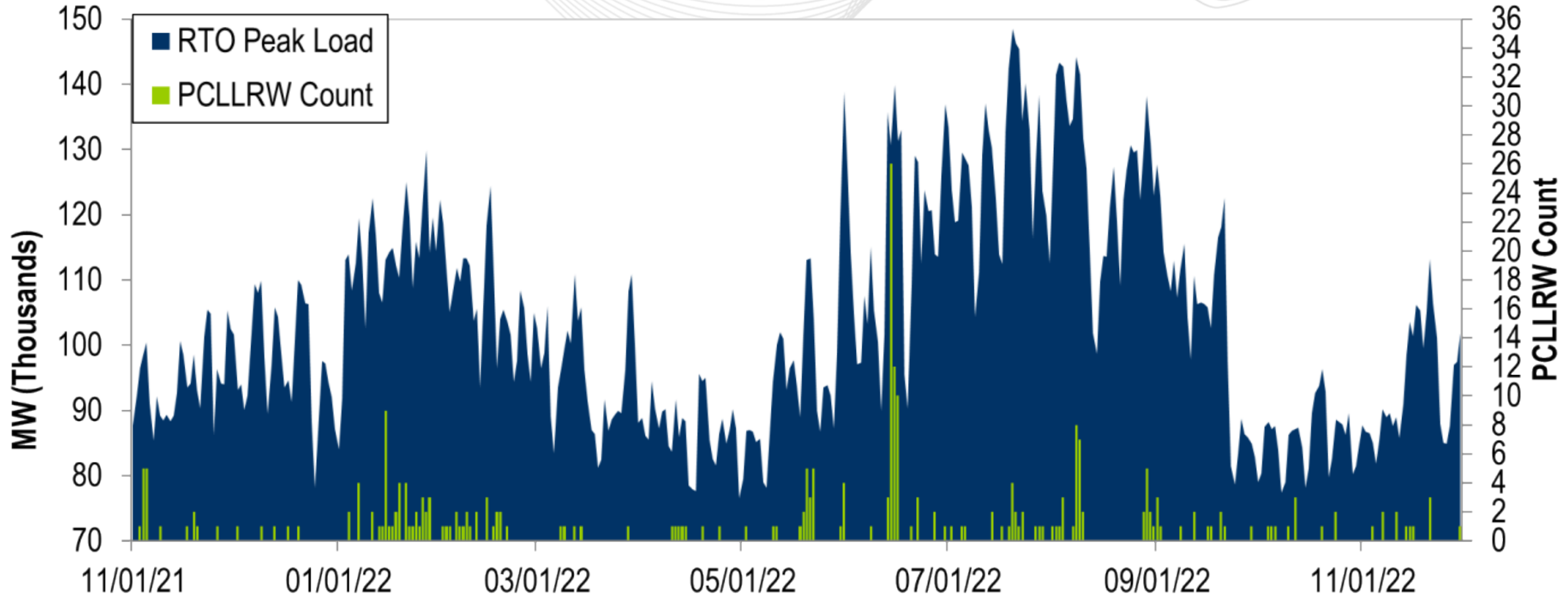
## Goal Measurement: Balancing Authority ACE Limit (BAAL)

- 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.



The 13-month average forced outage rate is 4.67% or 9,339 MW.  
 The 13-month average total outage rate is 17.04% or 34,203 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)

