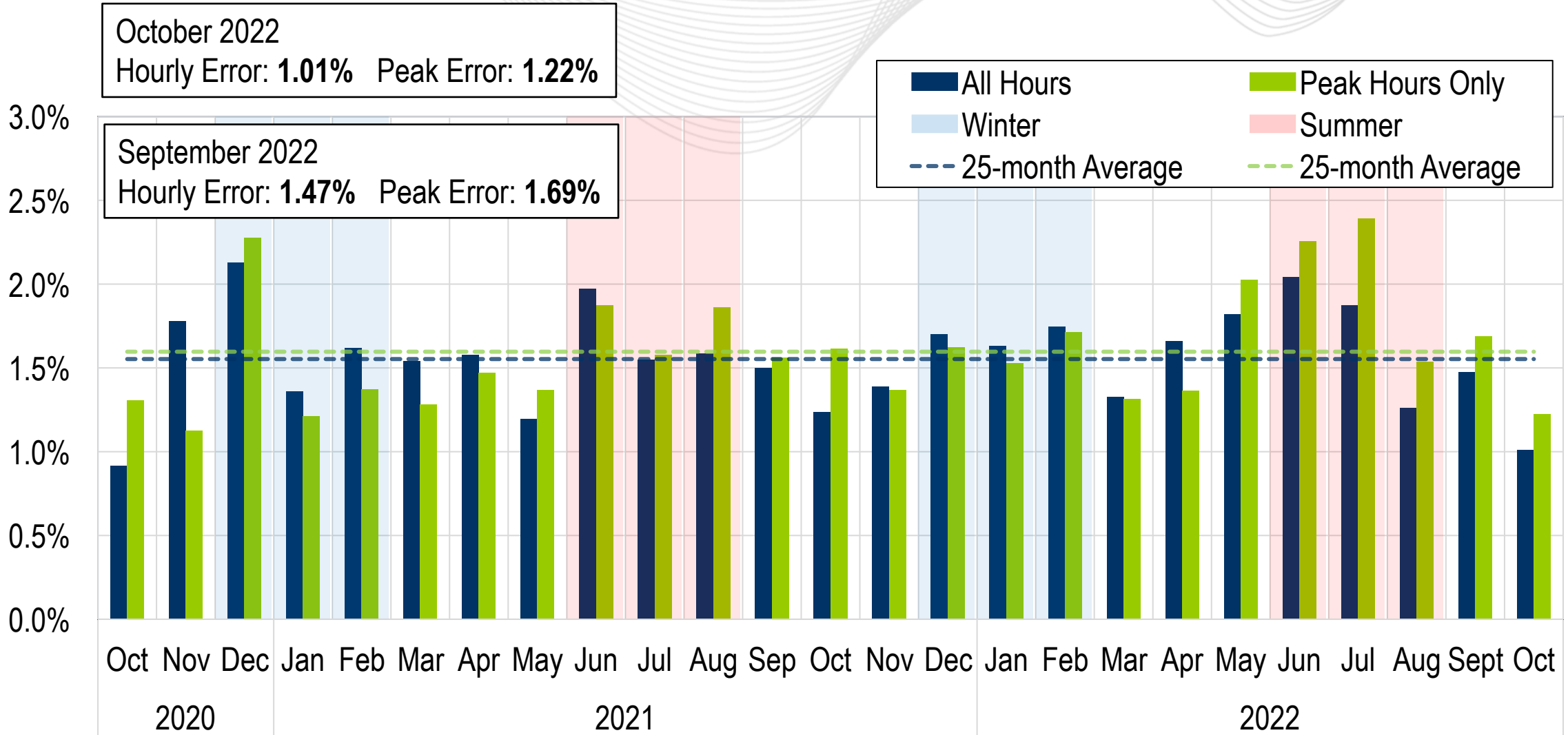


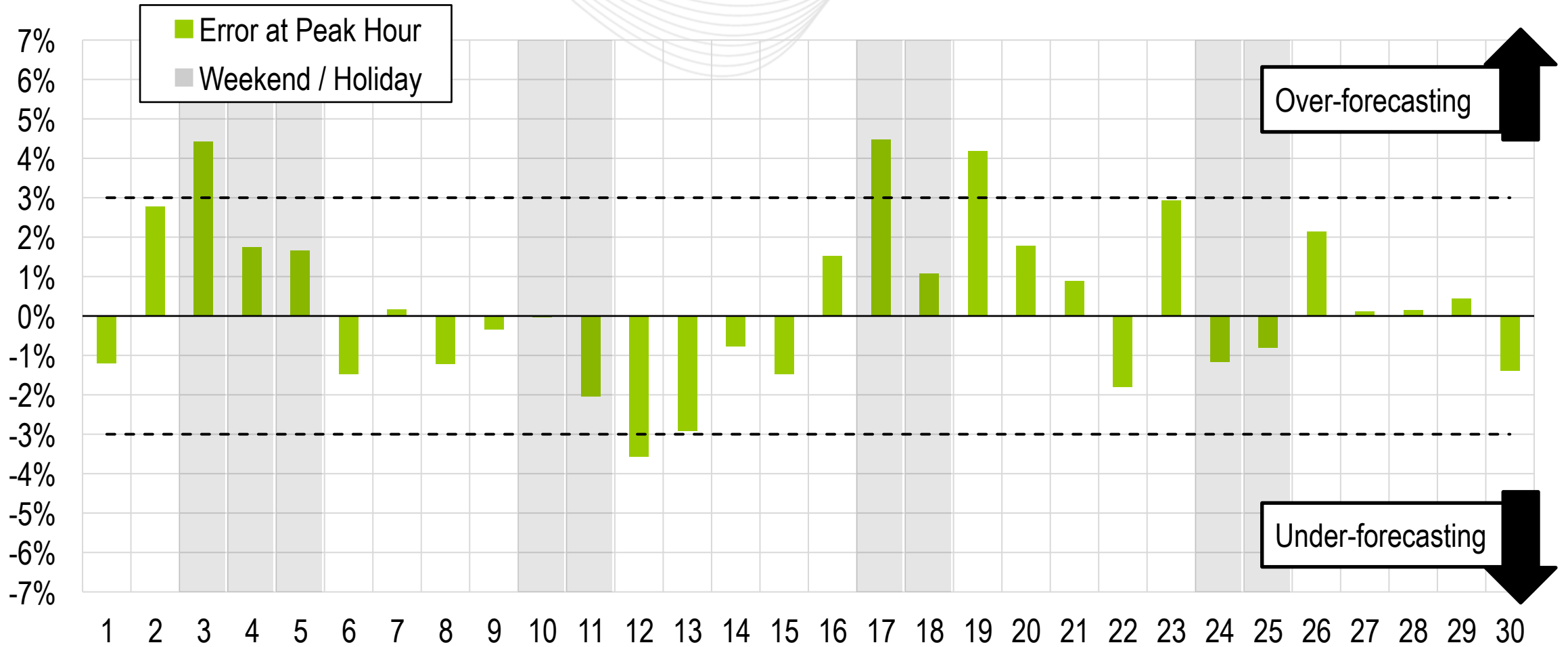


# System Operations Report

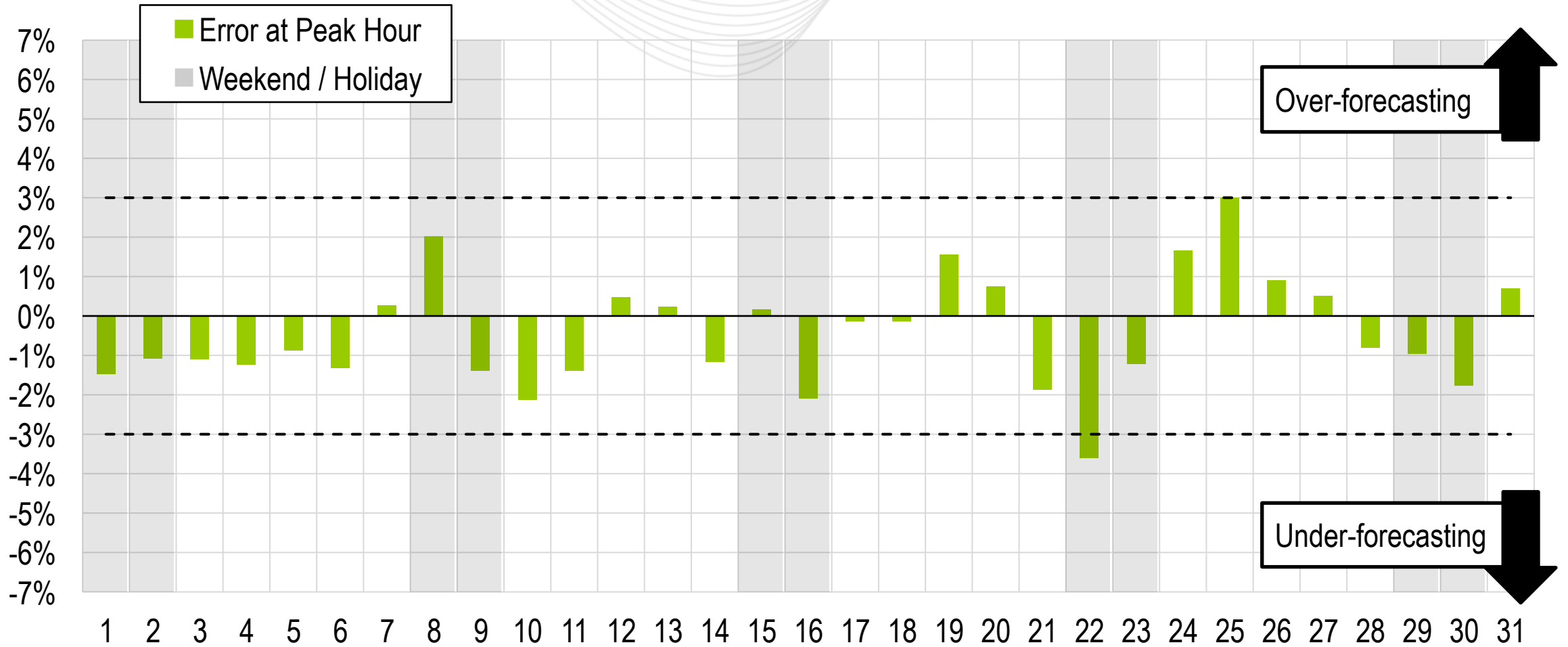
Hong Chen  
Principal Engineer, Markets Coordination  
MC Webinar  
November 14, 2022

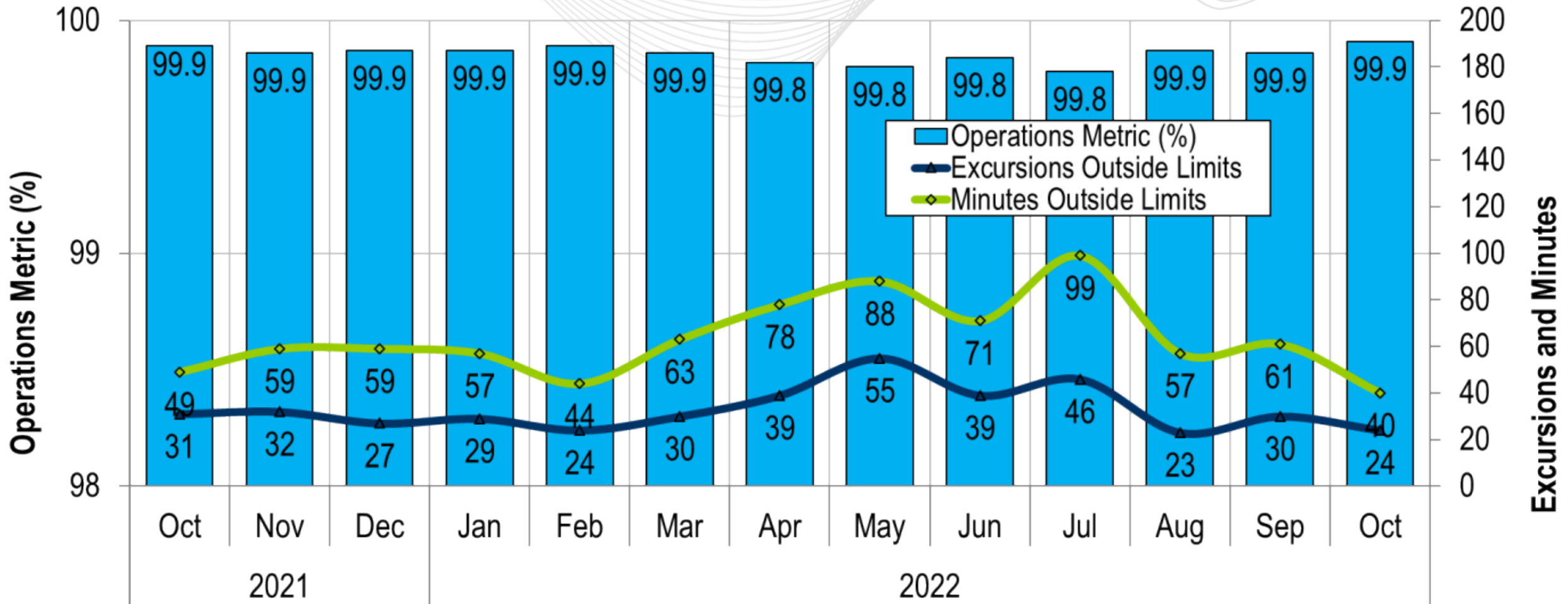


# Daily Peak Forecast Error (September)



# Daily Peak Forecast Error (October)





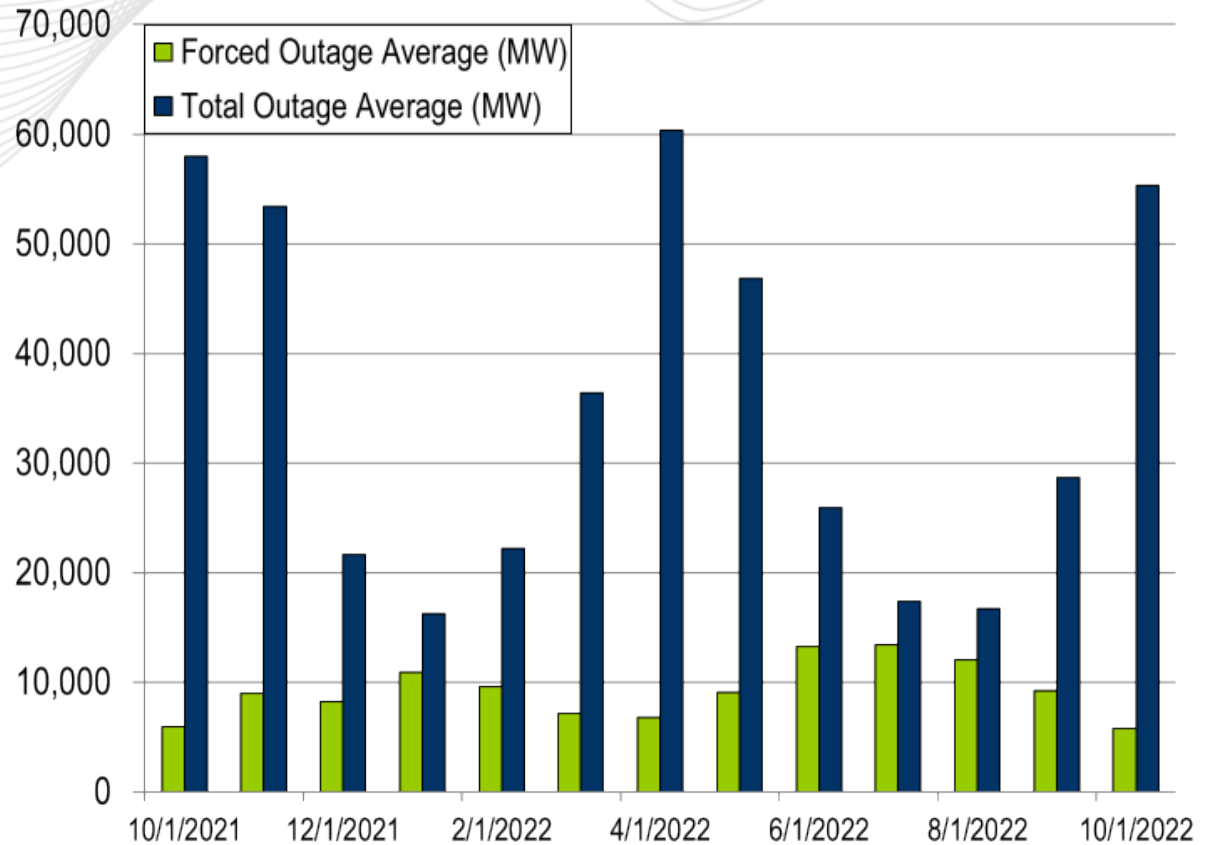
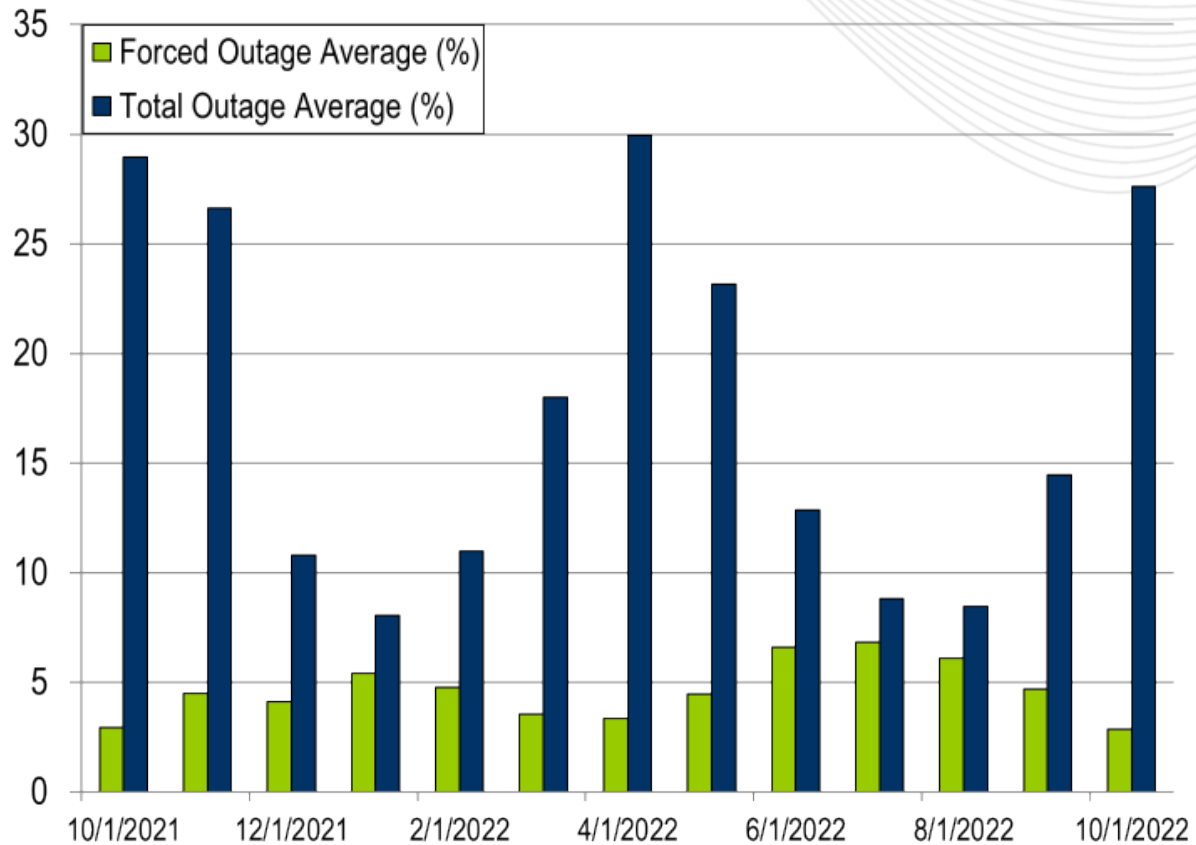
PJM's BAAL performance has exceeded the goal of 99% for each month in 2022.

- Two Spinning Events
- The following Emergency Procedures occurred:
  - 1 Hot Weather Alerts
  - 1 Geomagnetic Disturbance Warning
  - 13 Post-Contingency Local Load Relief Warnings (PCLLRW)

- One Spinning Event
- One Shared Reserve Event
- The following Emergency Procedures occurred:
  - 1 Emergency Load Management Reduction Action
  - 1 NERC EEA Level 2
  - 10 Post-Contingency Local Load Relief Warnings (PCLLRW)

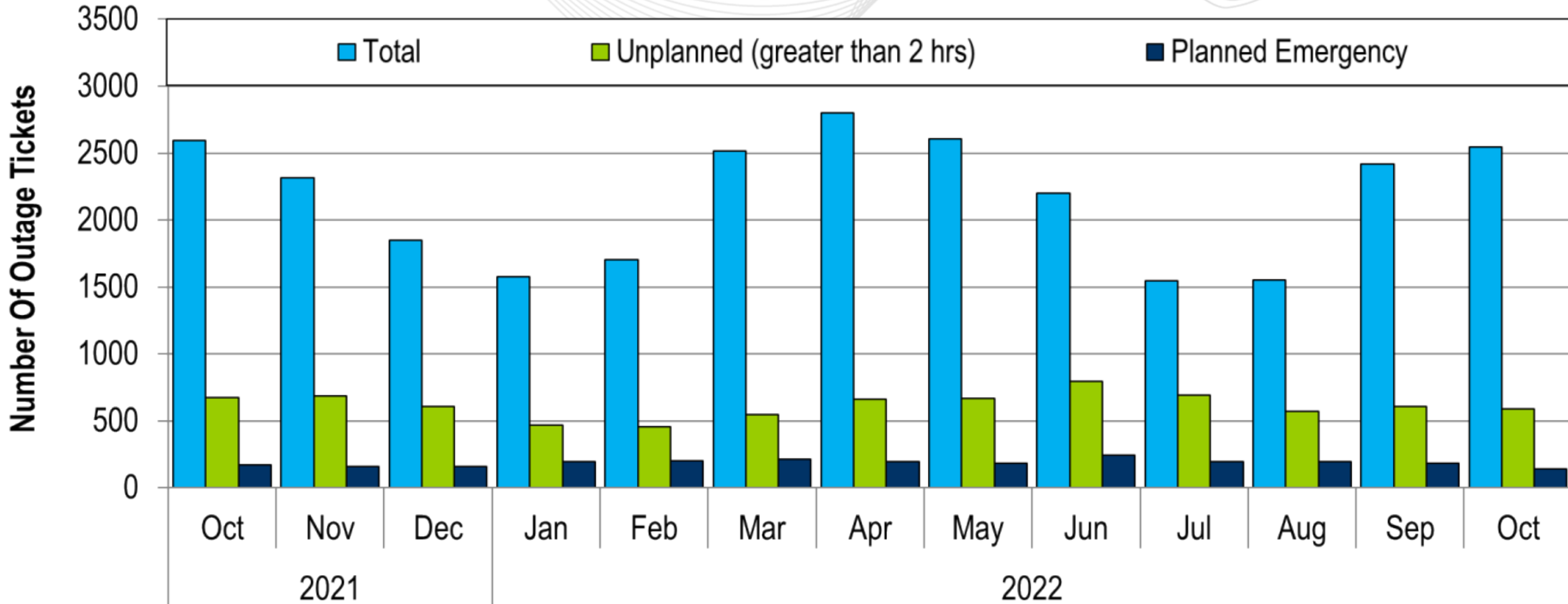
- 1 Shortage Case Approved
- The approved Shortage Case occurred on:
  - 10/12/22:
    - 1 Shortage Case for 14:10 interval
    - Due to load increase





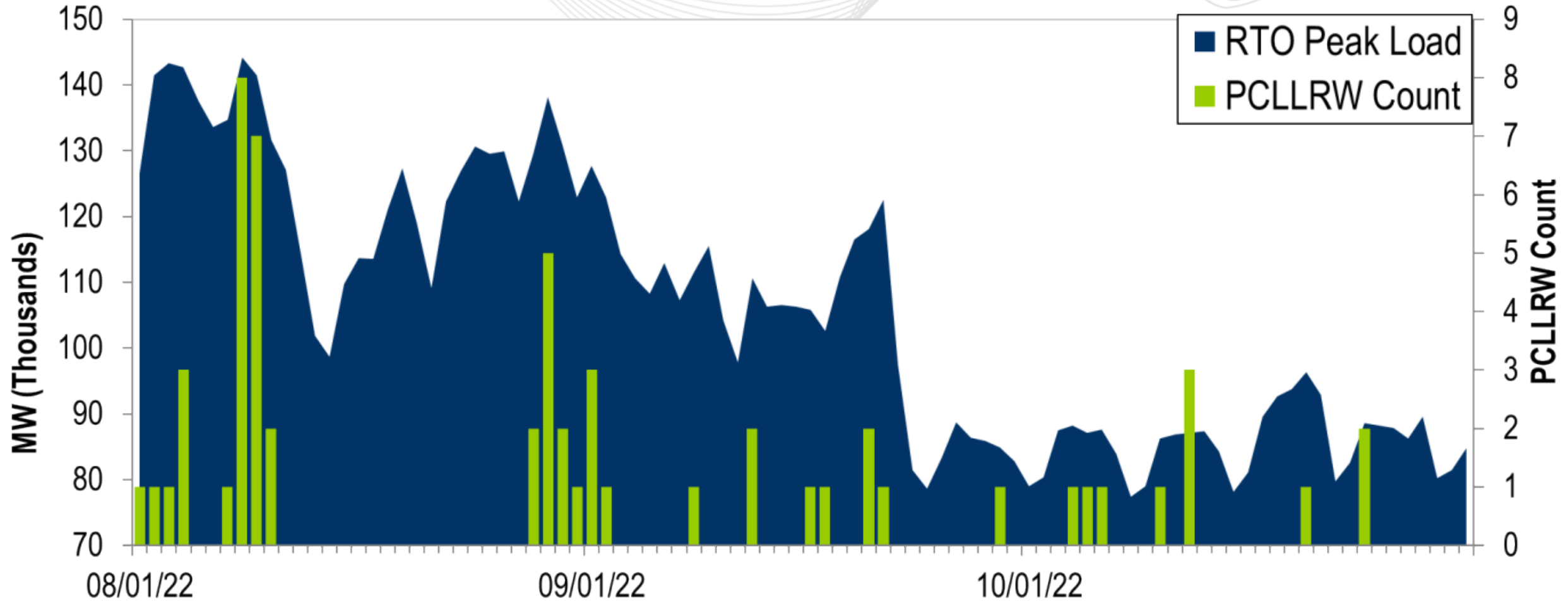
The 13-month average forced outage rate is 4.63% or 9,267 MW.  
 The 13-month average total outage rate is 17.61% or 35,332 MW.

# 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	Tier 1 Estimate (MW)	Tier 1 Response (MW)
1	09/26/22	03:39:07	03:45:09	00:06:02	RTO	2543.3	1593.1
2	09/29/22	10:25:06	10:31:17	00:06:11	RTO	437.6	619.2

Event	Date	Start Time	End Time	Duration	Region	Tier 2 Assigned (MW)	Tier 2 Response (MW)	Tier 2 Penalty (MW)
1	09/26/22	03:39:07	03:45:09	00:06:02	RTO	0.0	0.0	0.0
2	09/29/22	10:25:06	10:31:17	00:06:11	RTO	1167.7	1167.7	0.0

\*Tier 2 Response is equal to Tier 2 Assigned for events with duration less than ten minutes

Event	Date	Start Time	End Time	Duration	Region	Assigned (MW)	Response (MW)	Penalty (MW)
1	10/29/22	02:12:11	02:24:03	00:11:52	RTO	1857.9	567.1	1290.8

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

Presenter:  
Hong Chen,  
[Hong.Chen@pjm.com](mailto:Hong.Chen@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

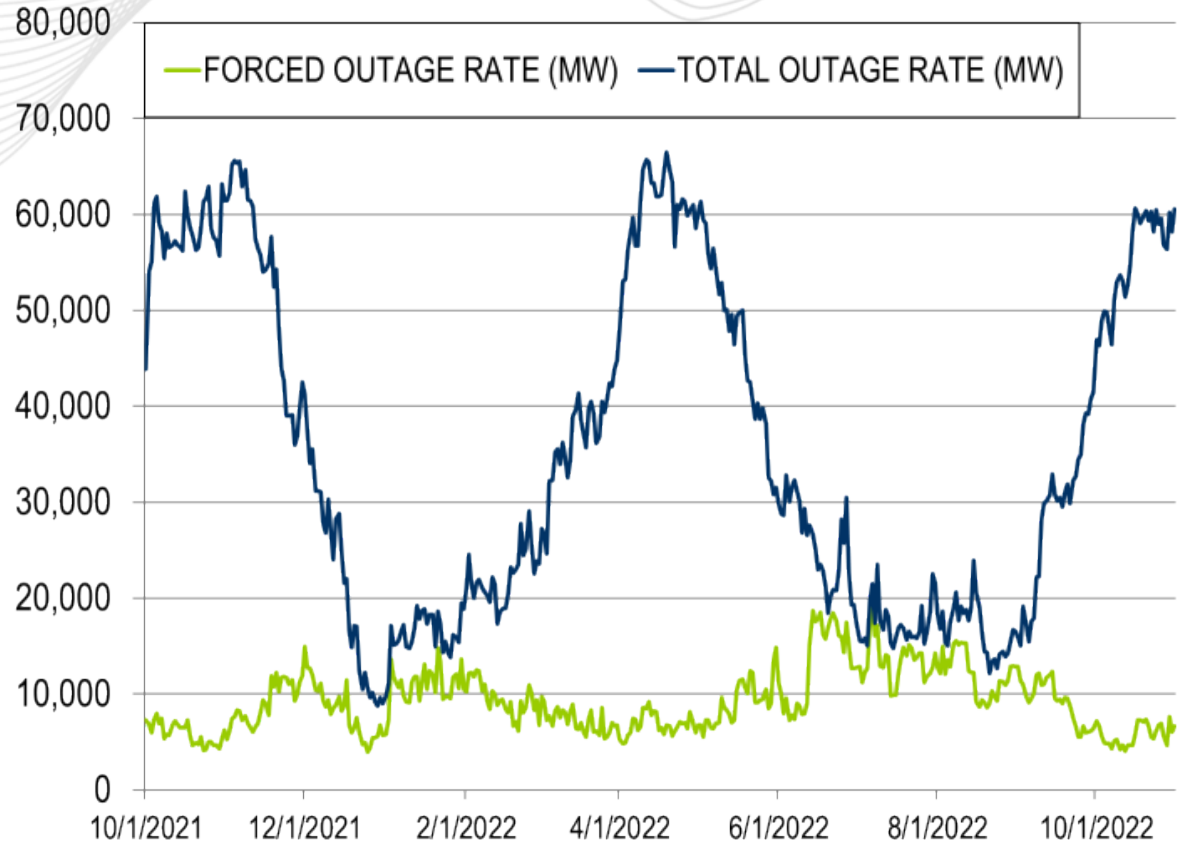
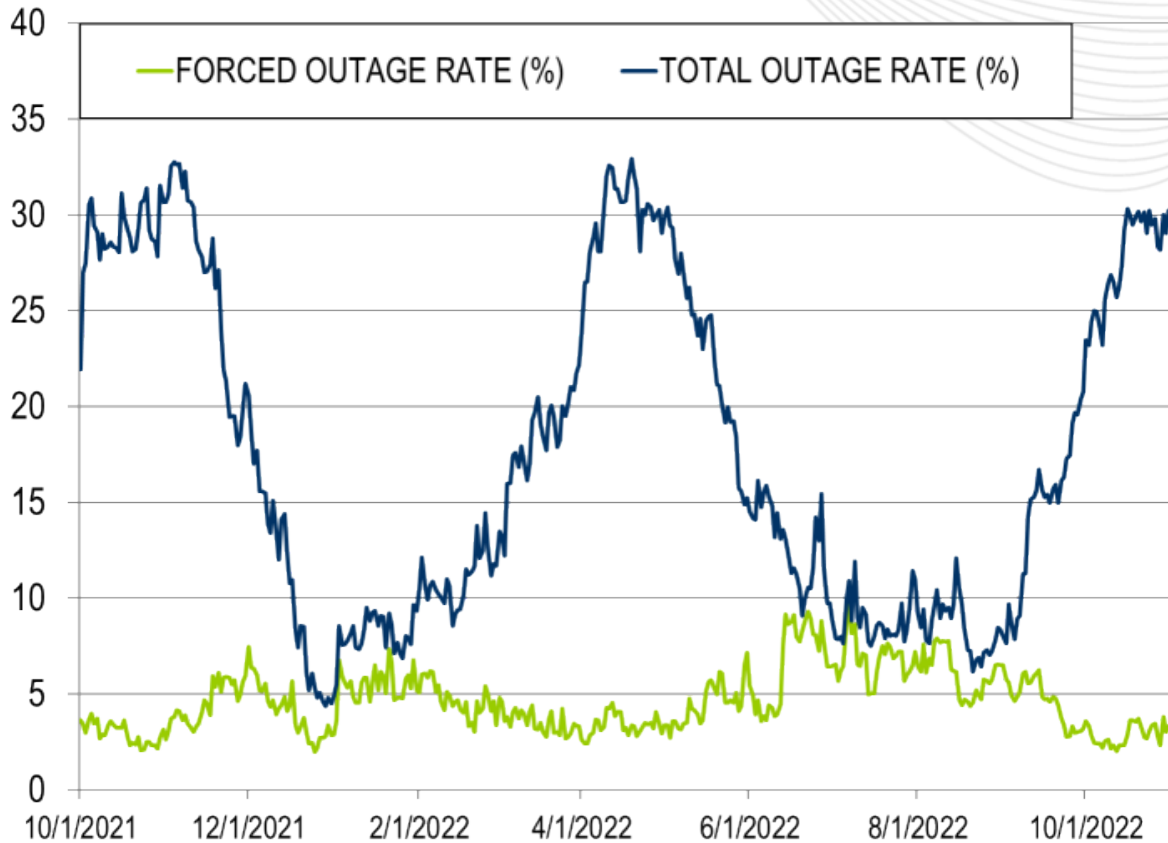
[custsvc@pjm.com](mailto:custsvc@pjm.com)

# Appendix

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

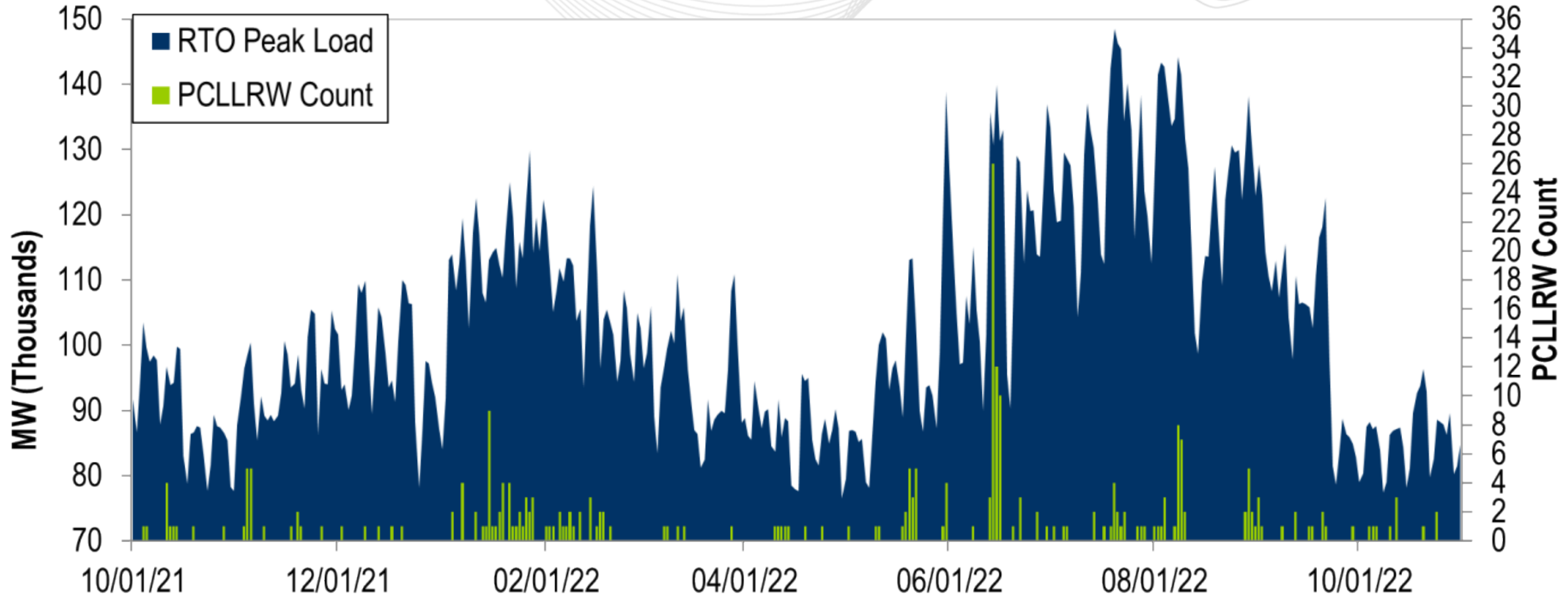
- The purpose of the new BAAL standard is to maintain interconnection frequency within a predefined frequency profile under all conditions (normal and abnormal), to prevent frequency-related instability, unplanned tripping of load or generation, or uncontrolled separation or cascading outages that adversely 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 4.63% or 9,267 MW.  
 The 13-month average total outage rate is 17.61% or 35,332 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)

