



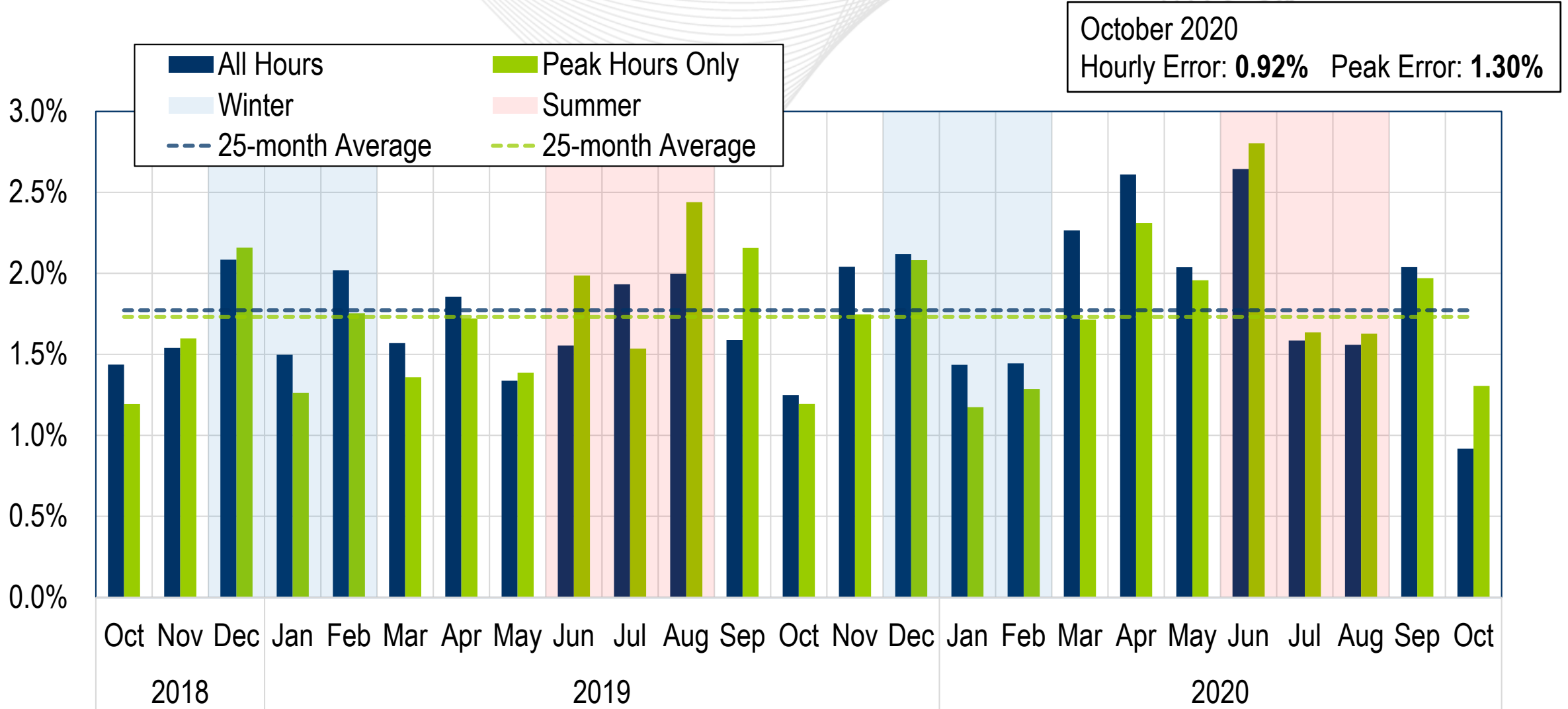
# System Operations Report

Hong Chen

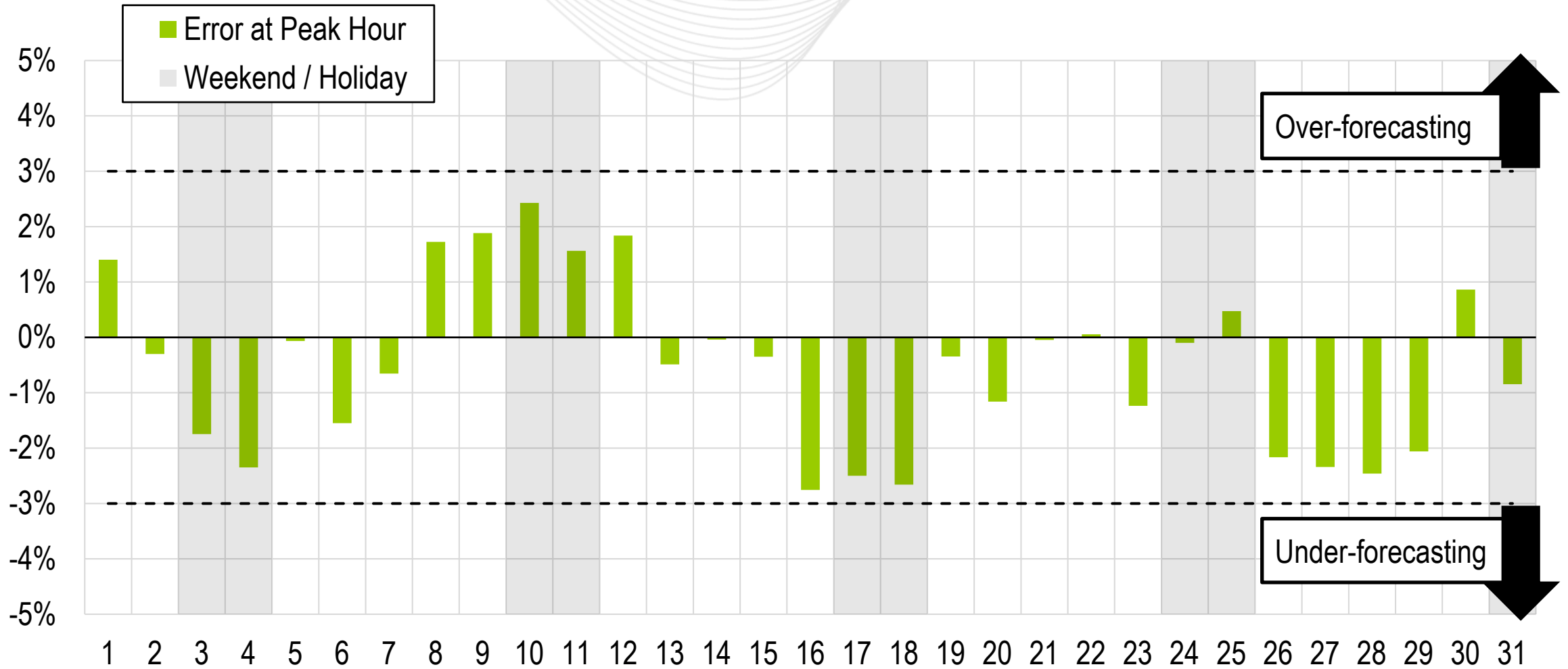
Senior Lead Engineer, Markets Coordination

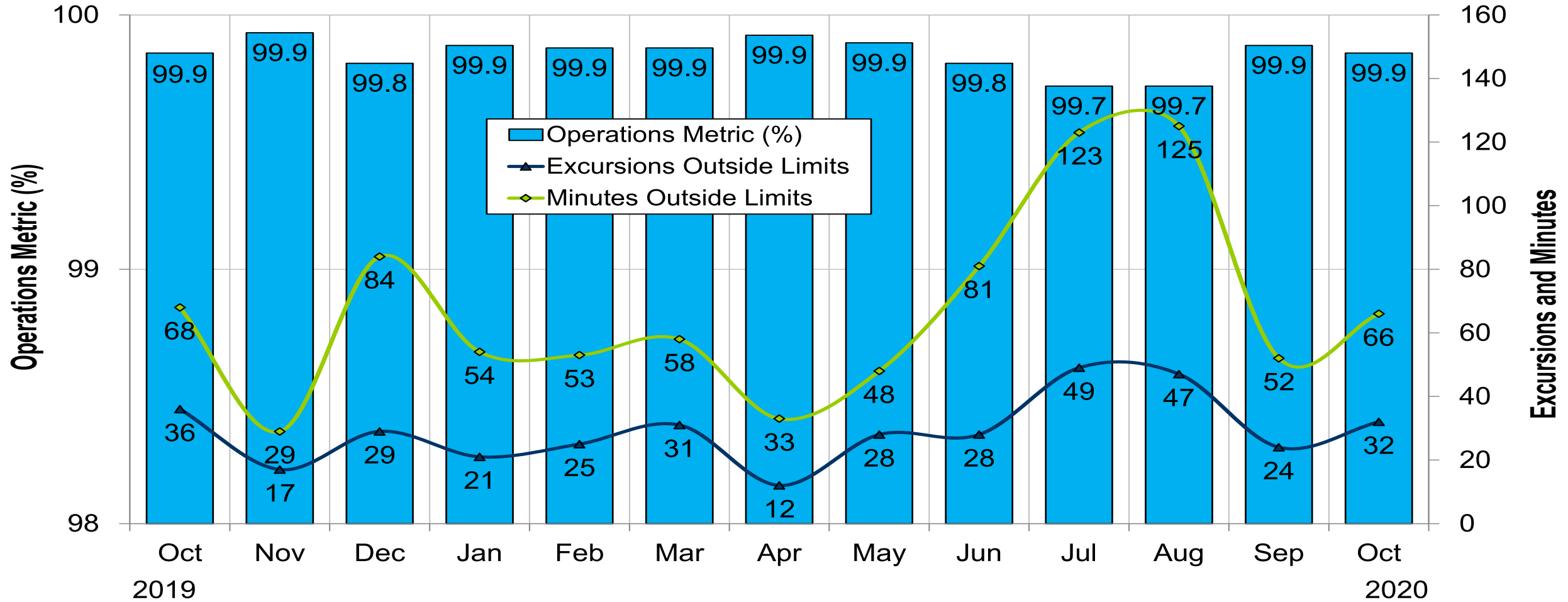
MC Webinar

November 16, 2020



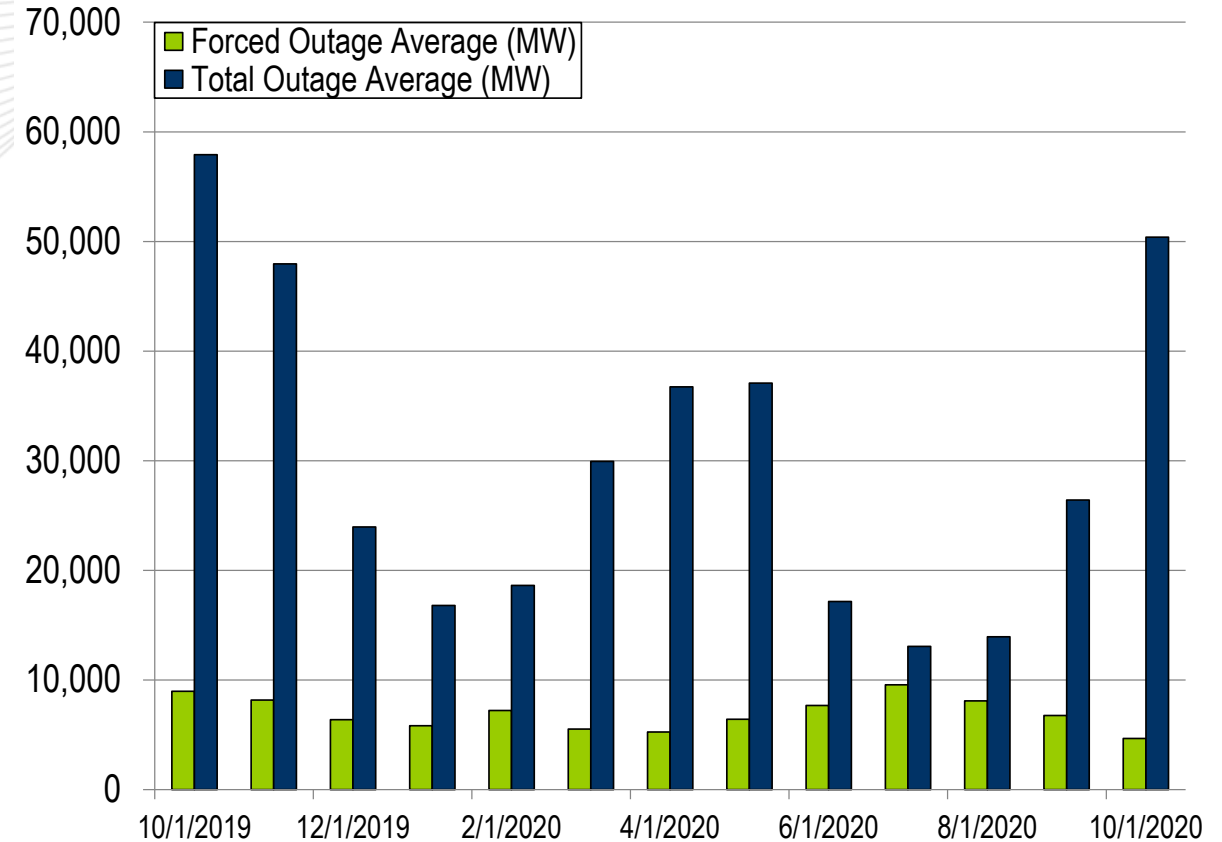
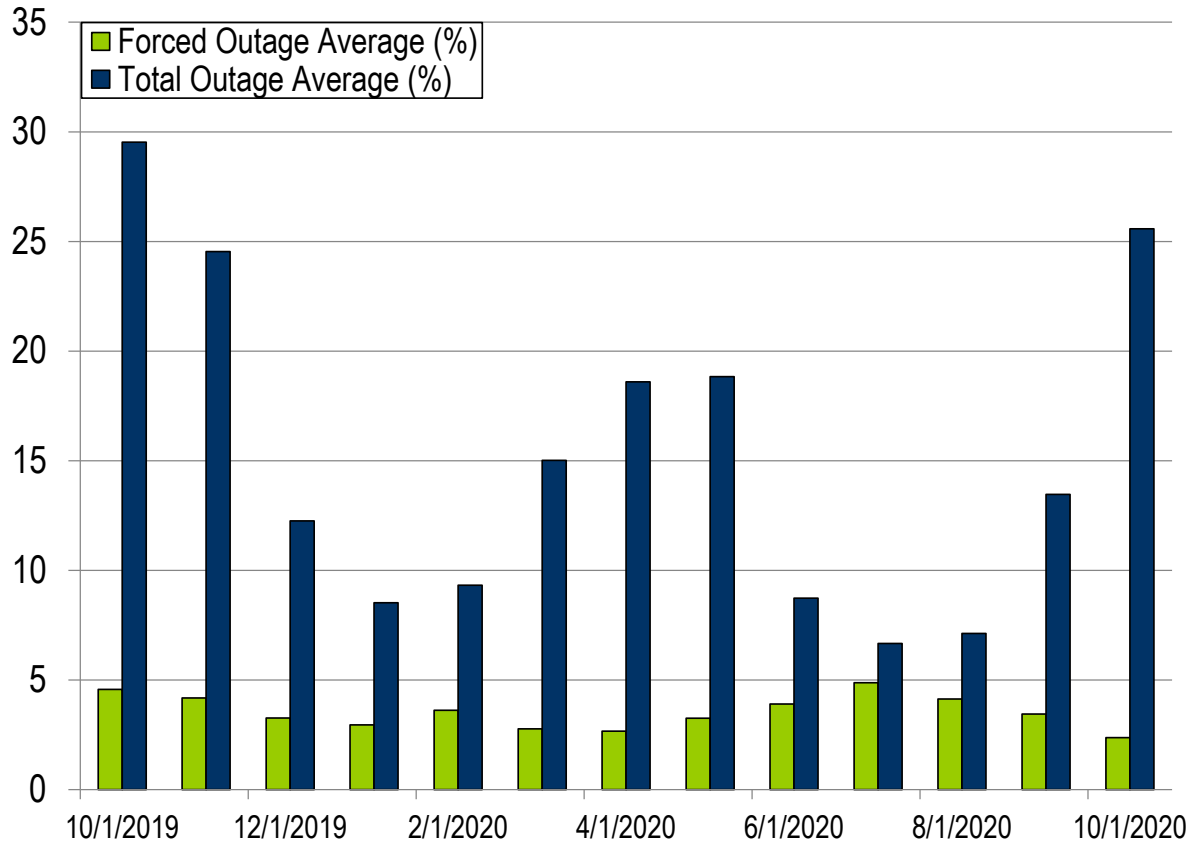
# Daily Peak Forecast Error (October)



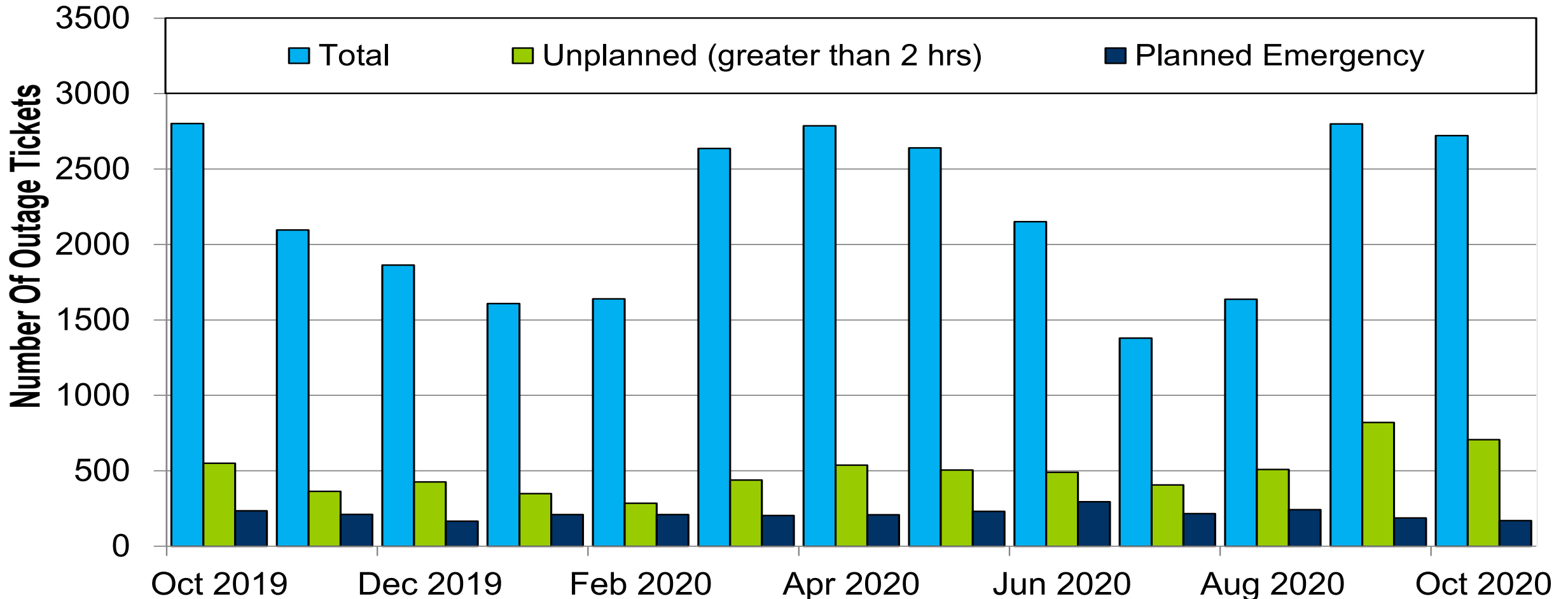


PJM's BAAL performance has exceeded the goal of 99% for each month in 2020.

- Two spinning event in the month of October
- One reserve sharing events with the Northeast Power Coordinating Council (NPCC)
- The following Emergency Procedures occurred in October:
  - 17 Post-Contingency Local Load Relief Warnings (PCLLRW)
  - 7 High System Voltages
  - 2 Shortage Cases Approved

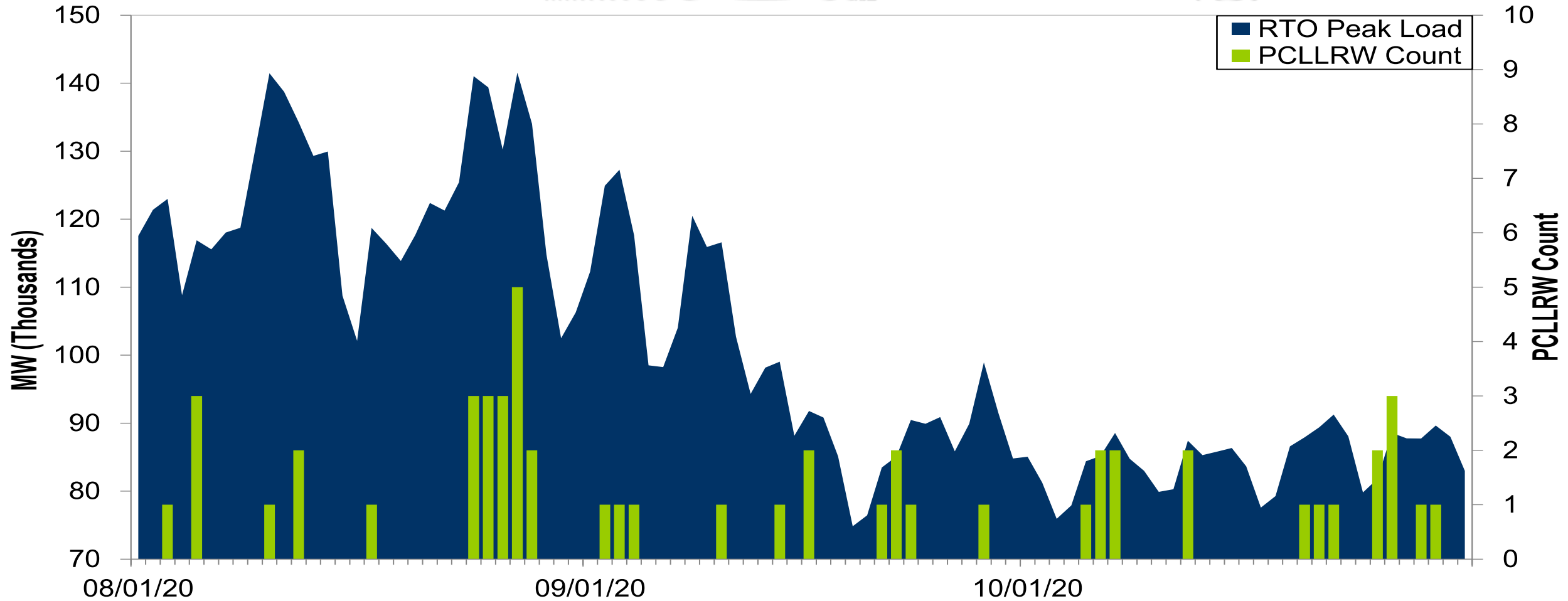


The 13-month average forced outage rate is 3.54% or 6,968MW.  
 The 13-month average total outage rate is 15.28% or 30,068 MW.



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	10/10/20	14:52:57	15:00:39	00:07:42	RTO	2134.3	1234.3
2	10/12/20	00:29:30	00:38:45	00:09:15	RTO	1625.8	670.5

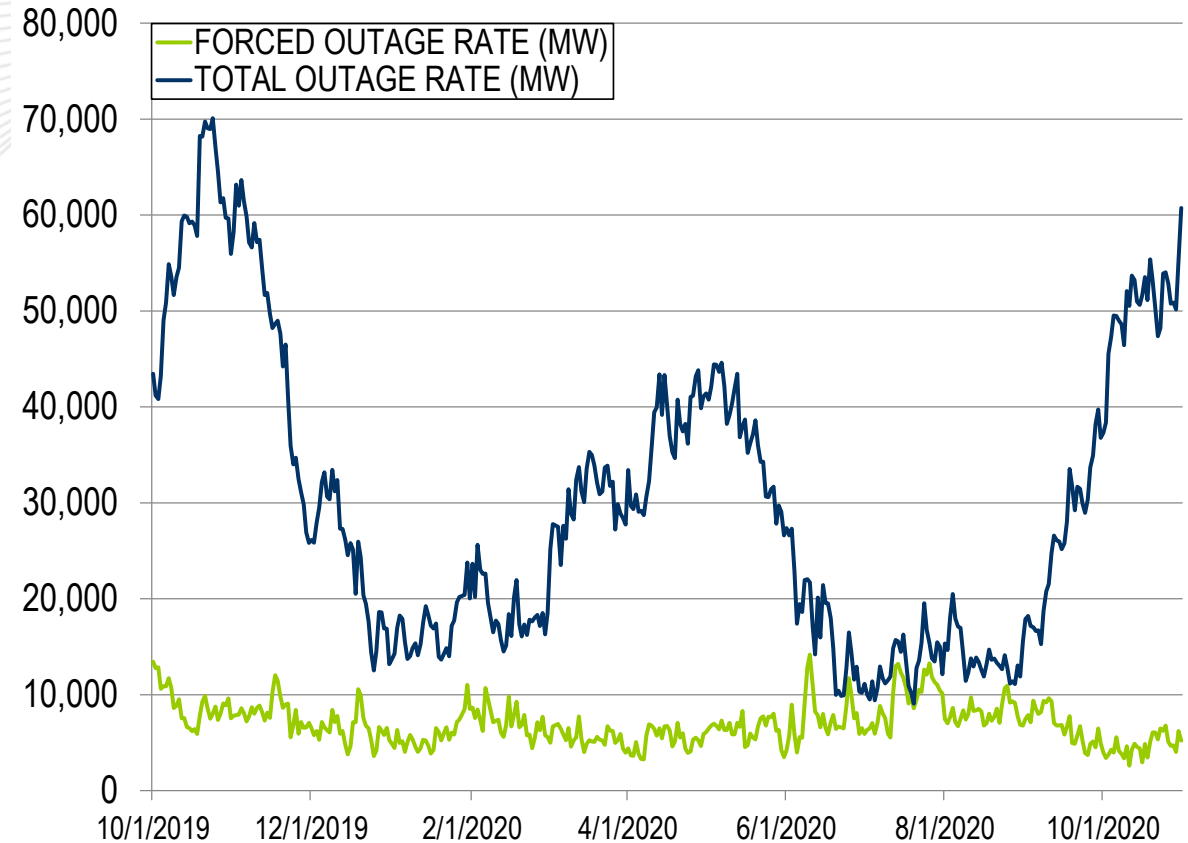
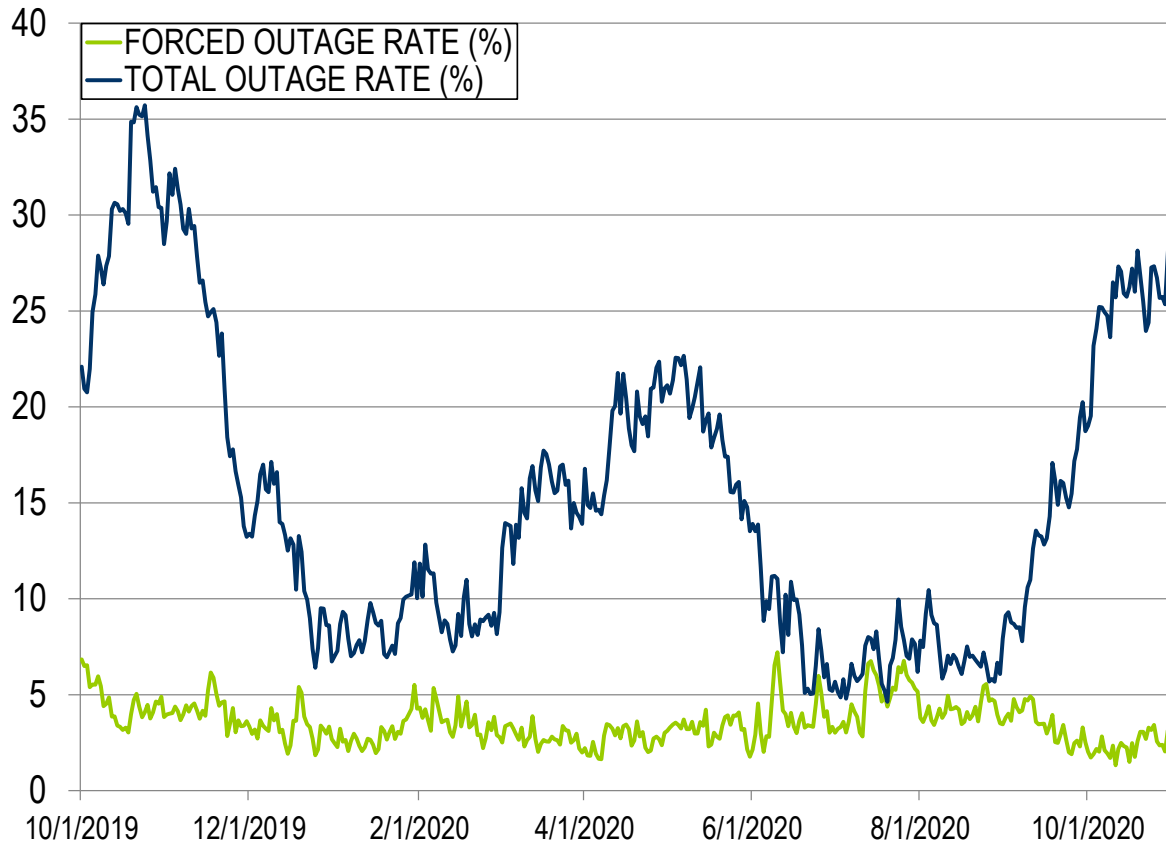
Event	Date	Start Time	End Time	Duration	Region	Tier 2 Assigned (MW)	Tier 2 Response (MW)	Tier 2 Penalty (MW)
1	10/10/20	14:52:57	15:00:39	00:07:42	RTO	328.7	328.7	0.0
2	10/12/20	00:29:30	00:38:45	00:09:15	RTO	236.4	236.4	0.0

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

# 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 3.54% or 6,968MW.  
 The 13-month average total outage rate is 15.28% or 30,068 MW.

# PCLLRW Count Vs. Peak Load – Daily Values For 13 Months

