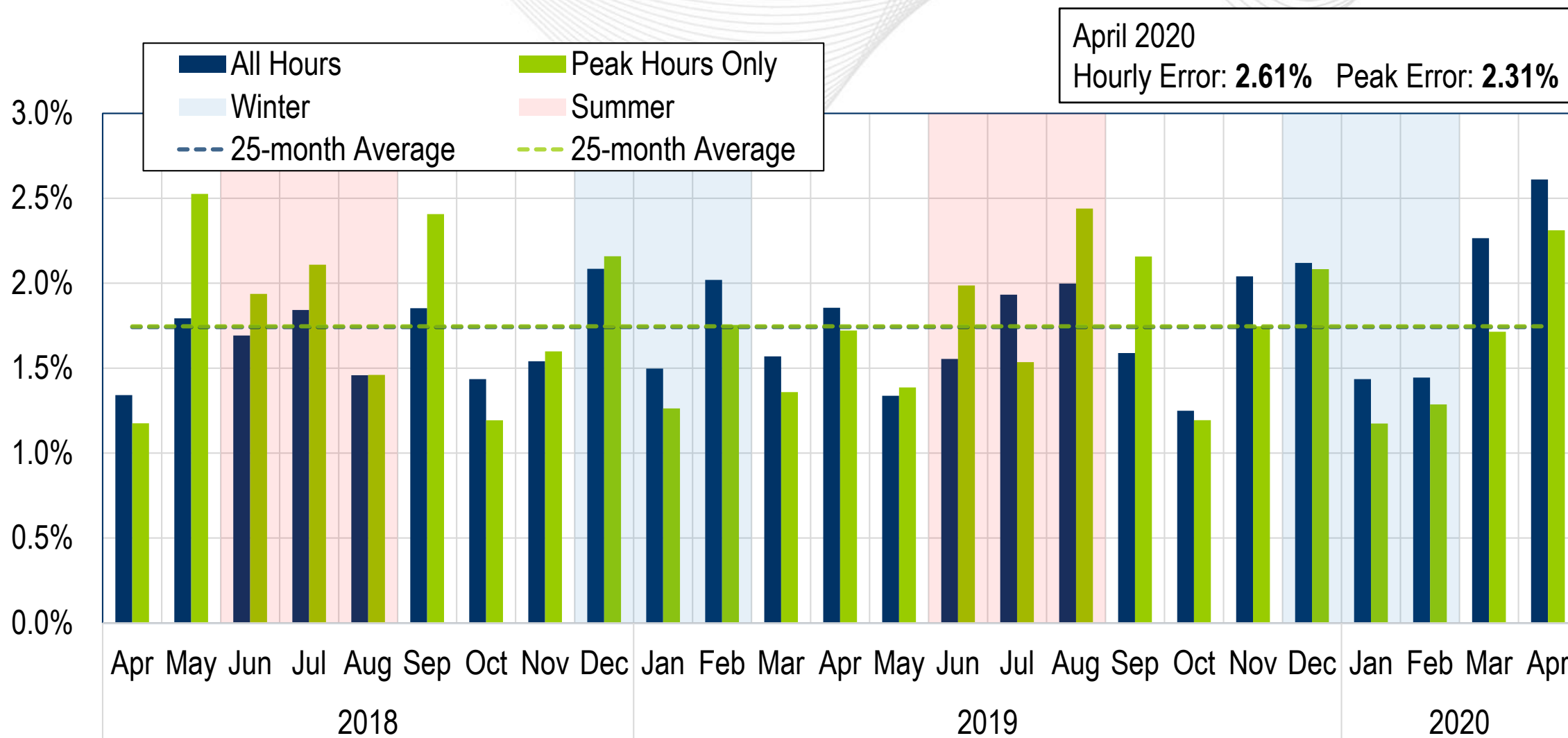




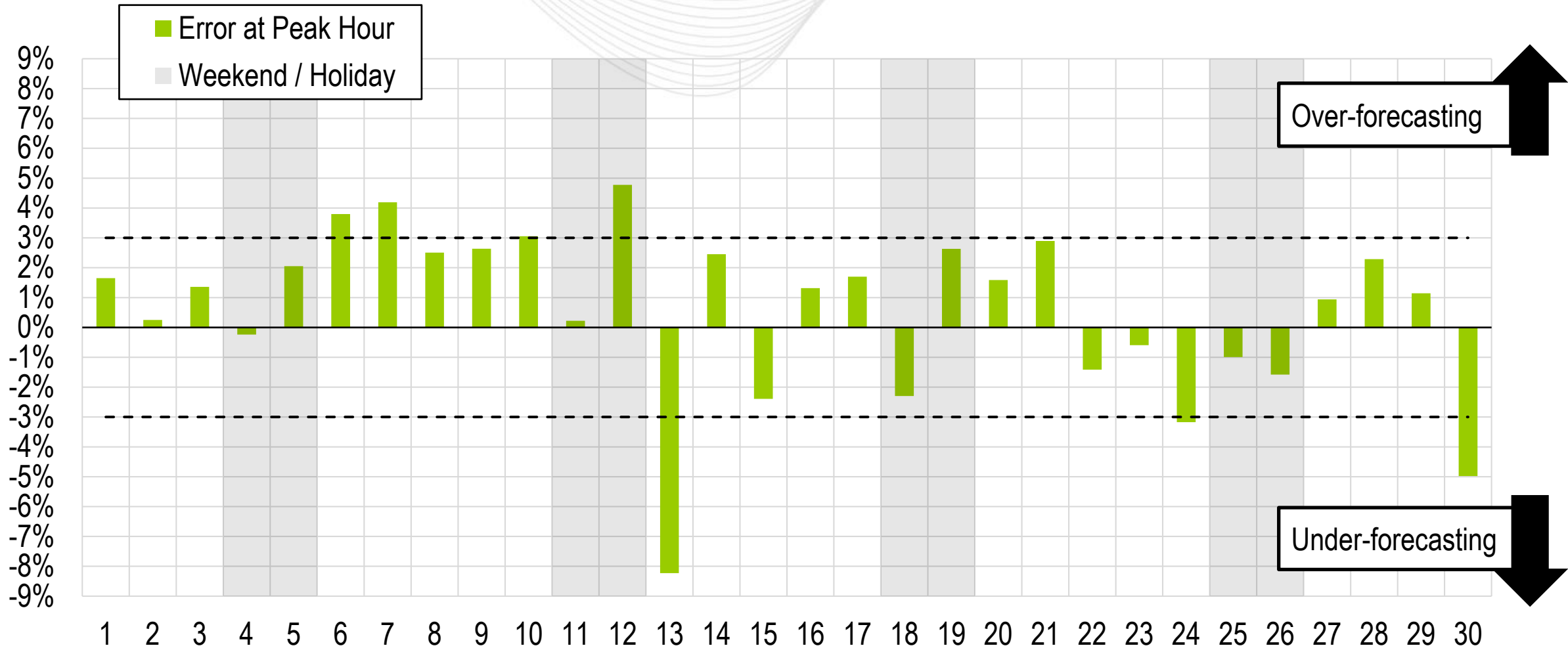
# System Operations Report

Stephanie Monzon  
Manager, Markets Coordination  
Operating Committee  
May 14, 2020

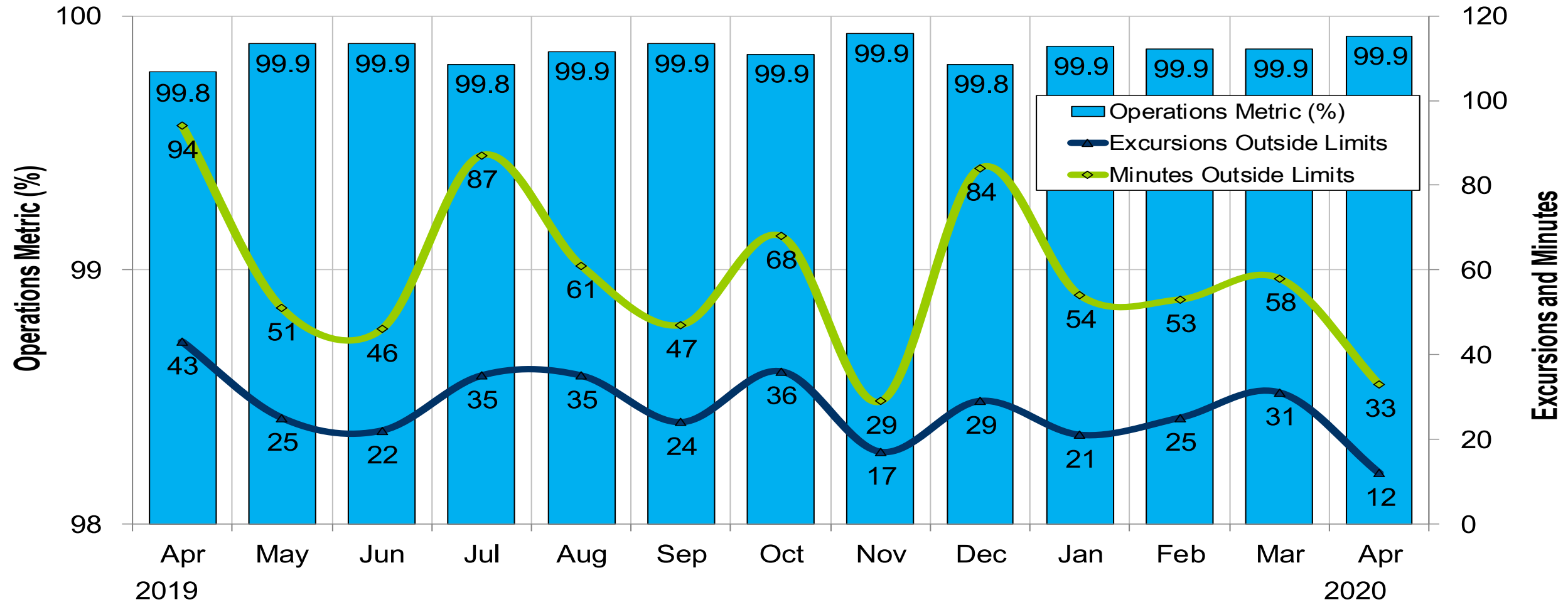
# Average Load Forecast Error



# Daily Peak Forecast Error (April)



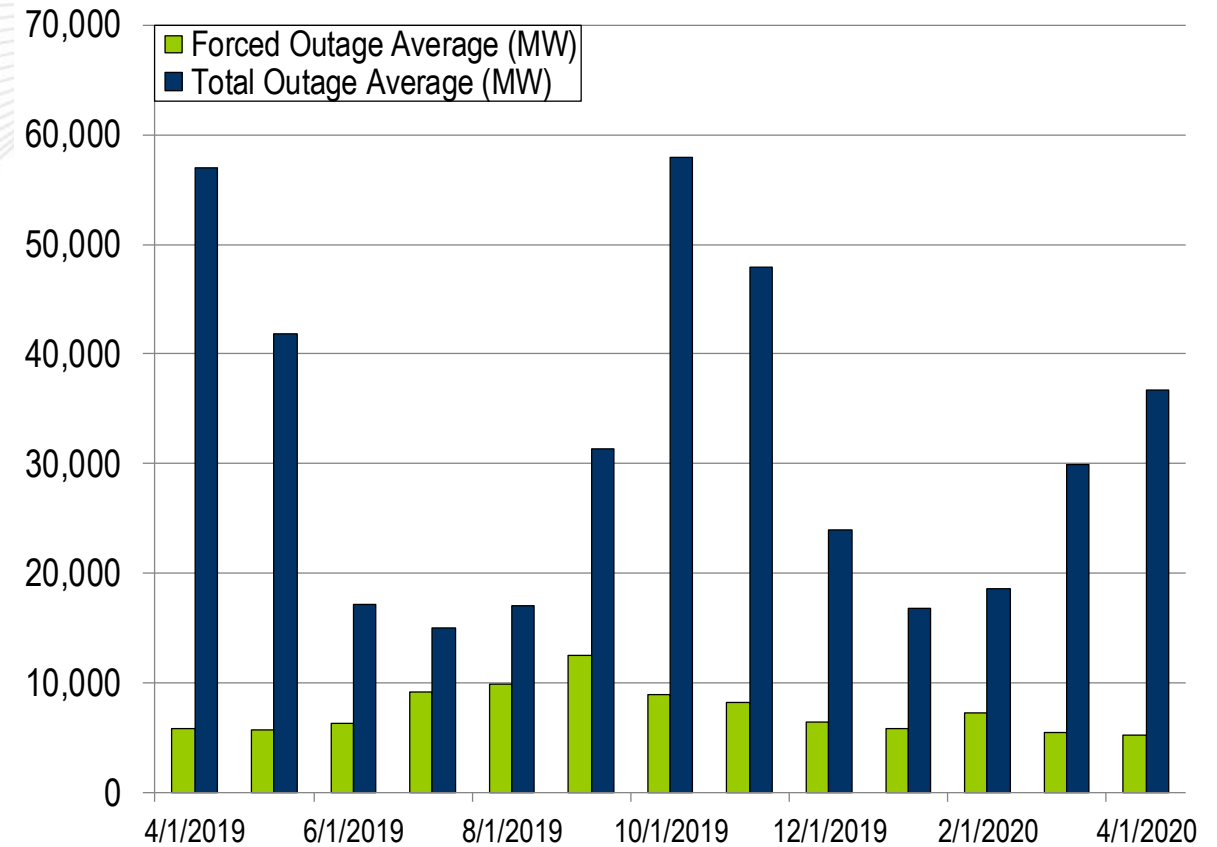
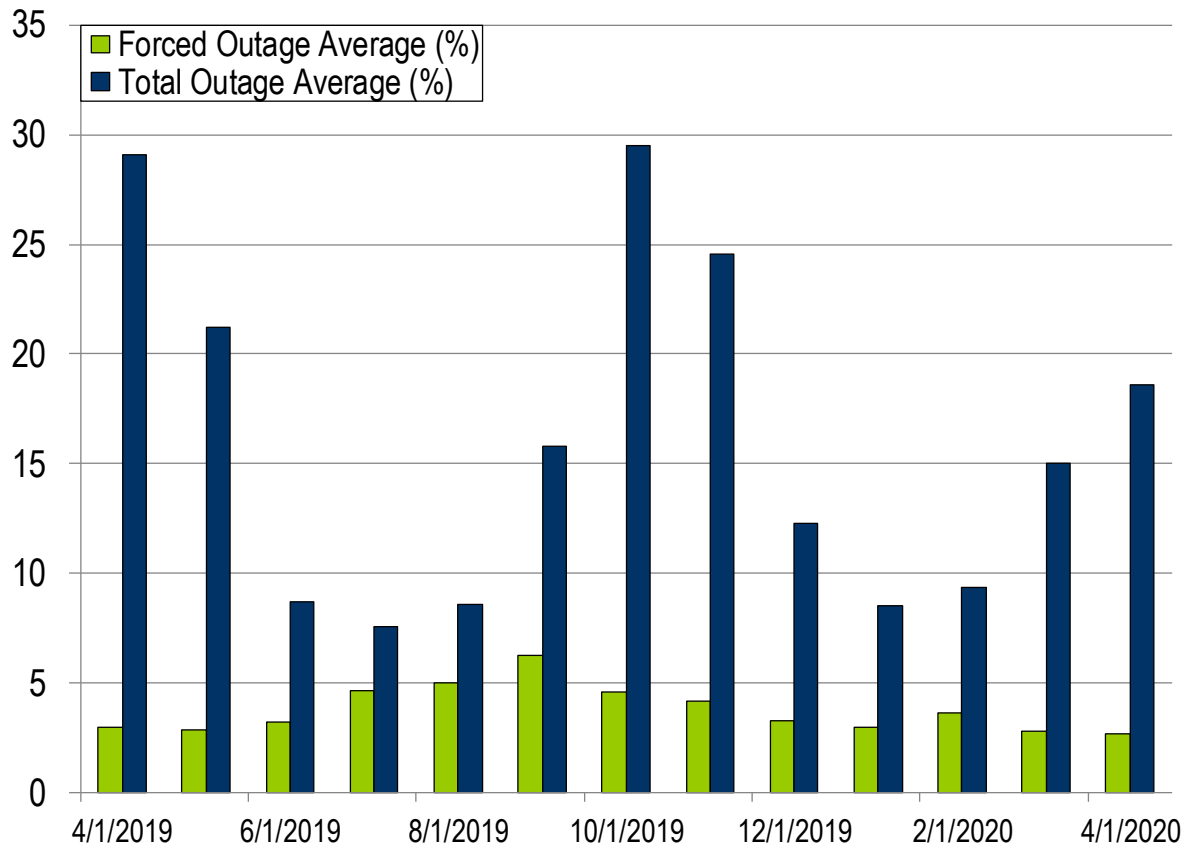
# Monthly BAAL Performance Score



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

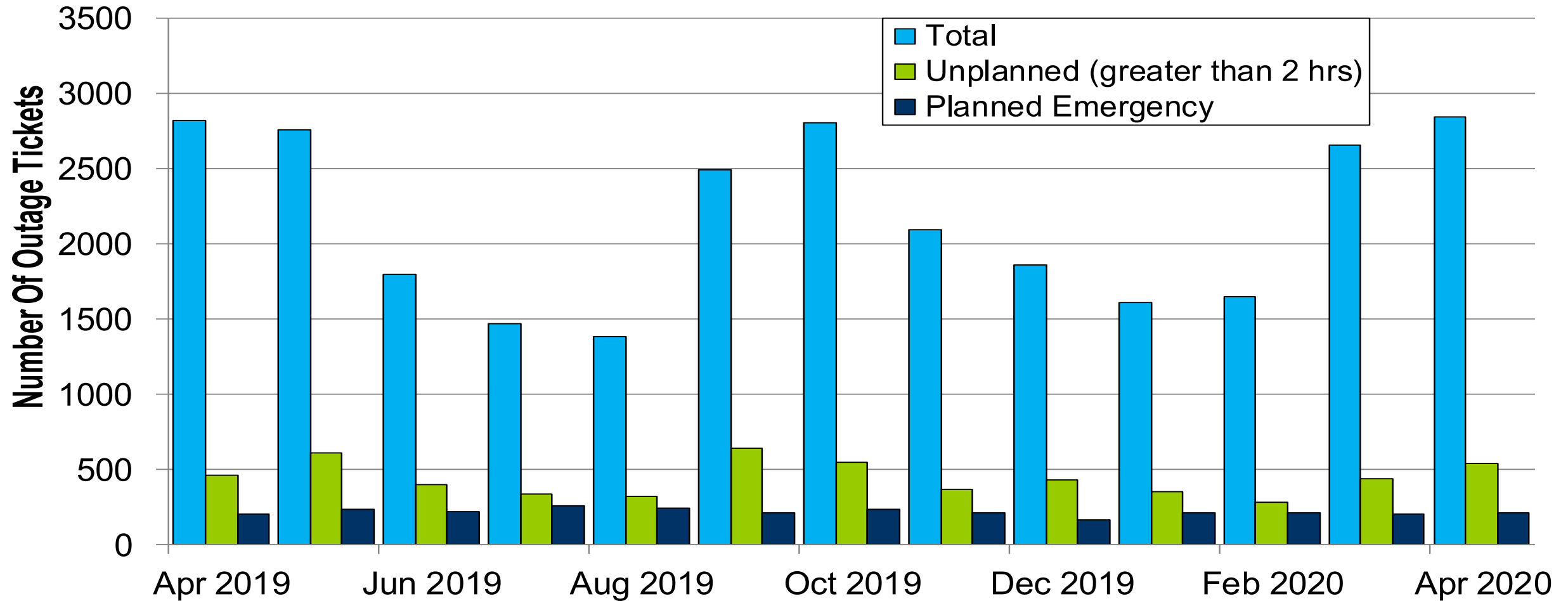
- One spinning event in the month of April
- Five reserve sharing events with the Northeast Power Coordinating Council (NPCC)
- The following Emergency Procedures occurred in April:
  - 12 Post-Contingency Local Load Relief Warnings (PCLLRW)
  - 8 High System Voltages
  - 2 Shortage Cases Approved

# RTO Generation Outage Rate - Monthly



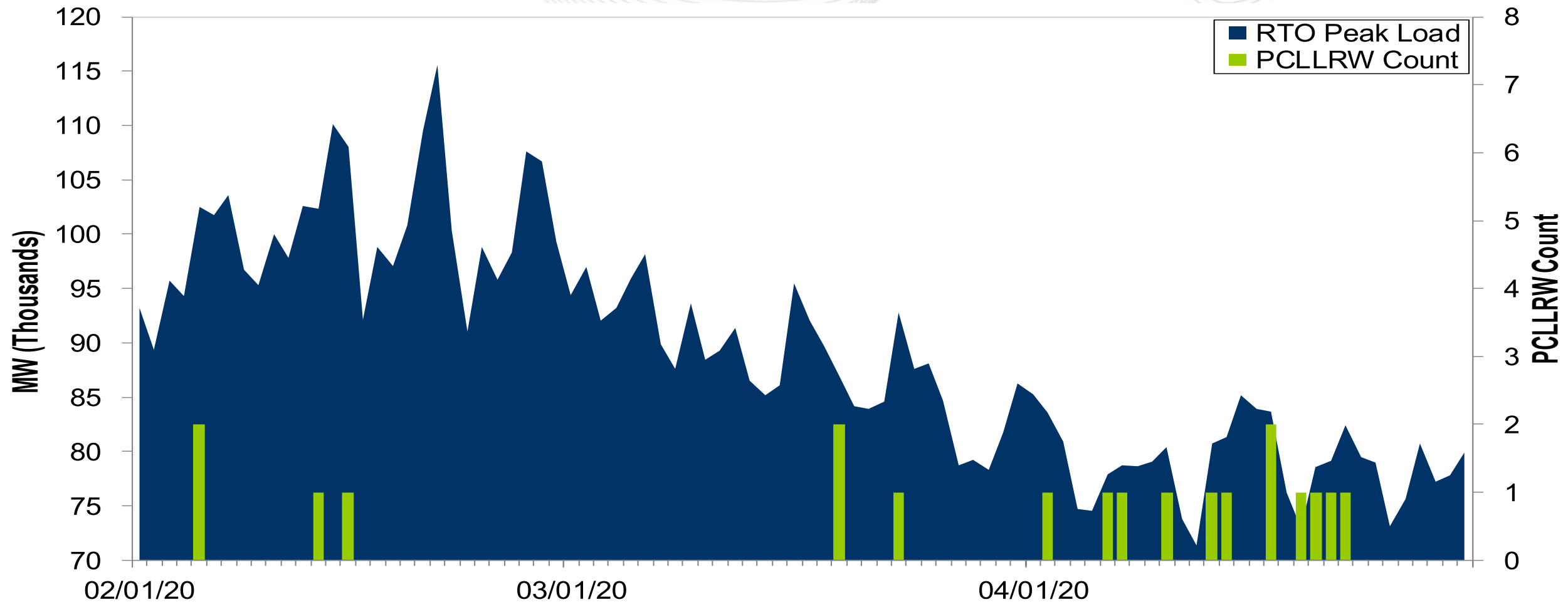
The 13-month average forced outage rate is 3.77% or 7,446 MW.  
The 13-month average total outage rate is 16.07% or 31,666 MW.

# 2019-2020 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	04/13/20	15:53	16:01	00:08	MAD	433.0	207.2

Event	Date	Start Time	End Time	Duration	Region	Tier 2 Assigned (MW)	Tier 2 Response (MW)	Tier 2 Penalty (MW)
1	04/13/20	15:53	16:01	00:08	MAD	623.3	623.3	0.0

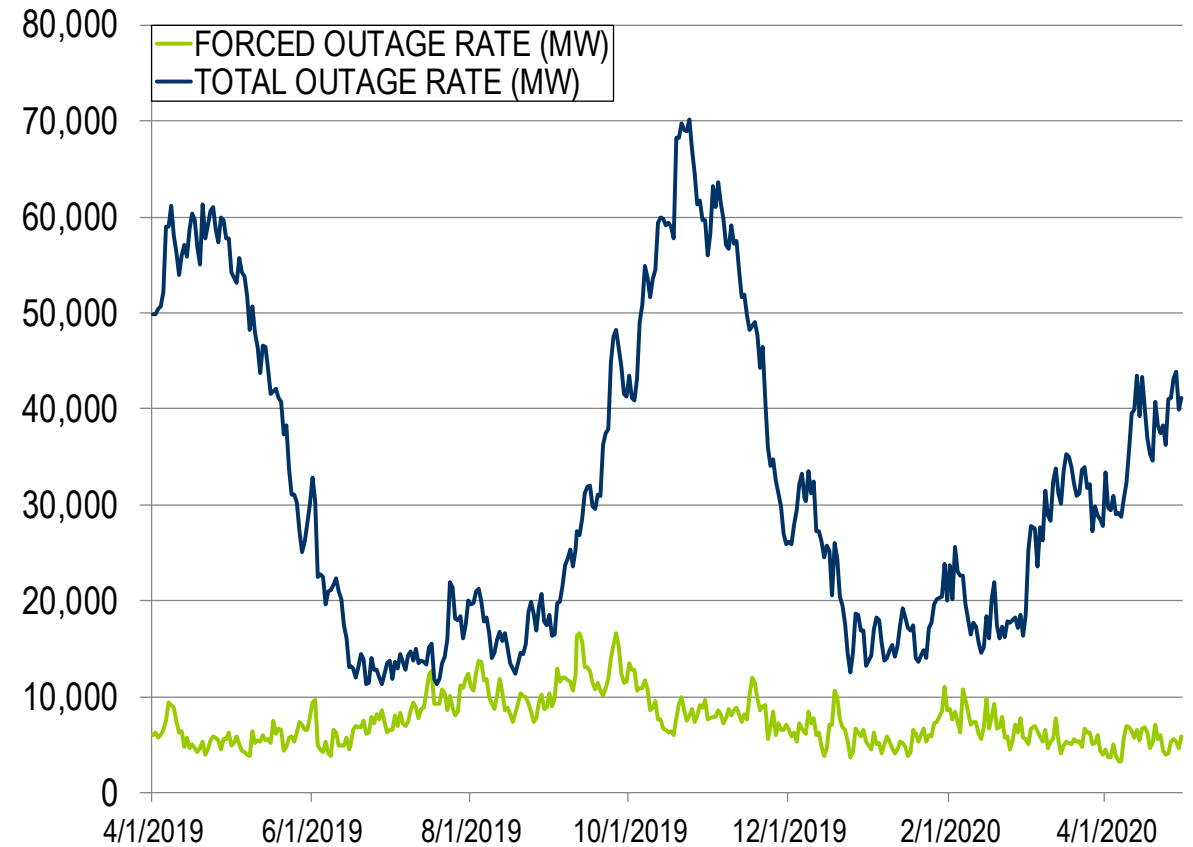
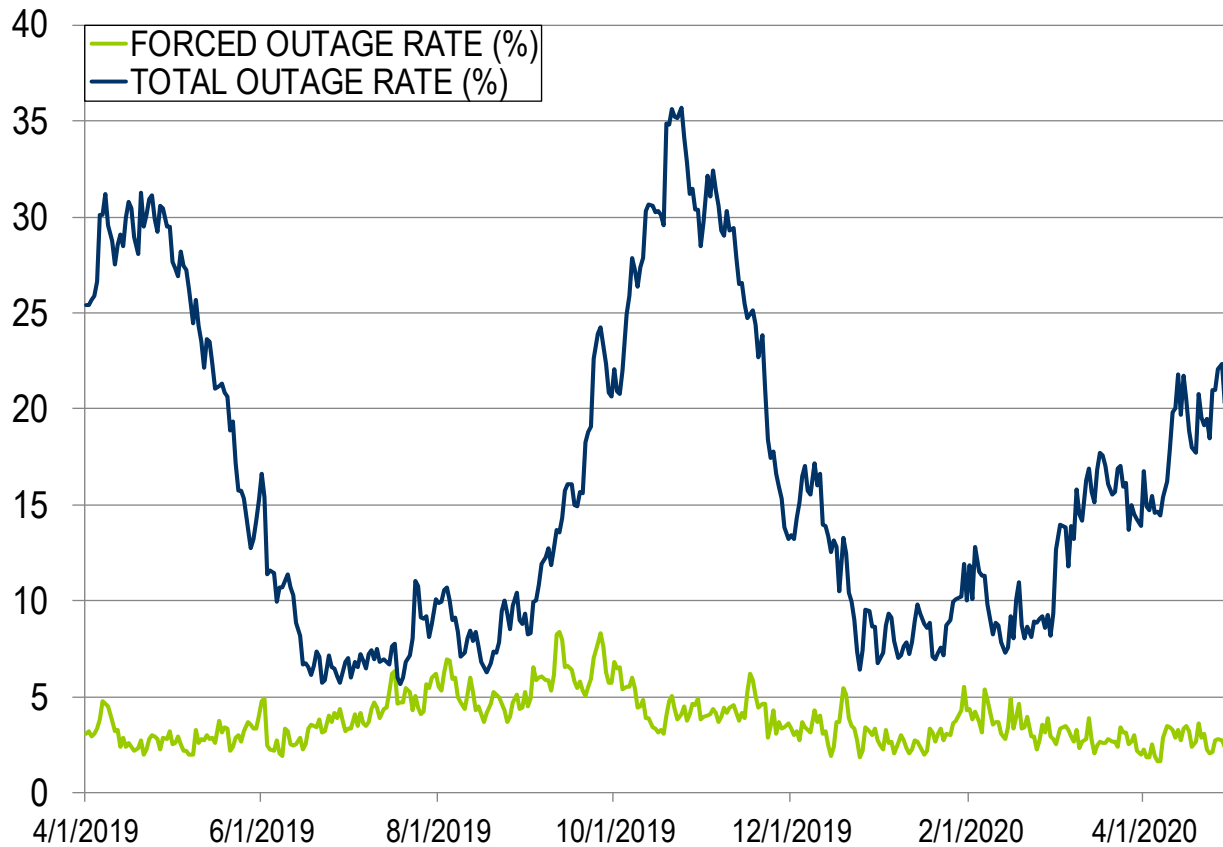
\*Tier 2 Response is equal to Tier 2 Assigned for events less than ten minutes

# 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.

# RTO Generation Outage Rate - Daily



The 13-month average forced outage rate is 3.77% or 7,446 MW.  
The 13-month average total outage rate is 16.07% or 31,666 MW.

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

