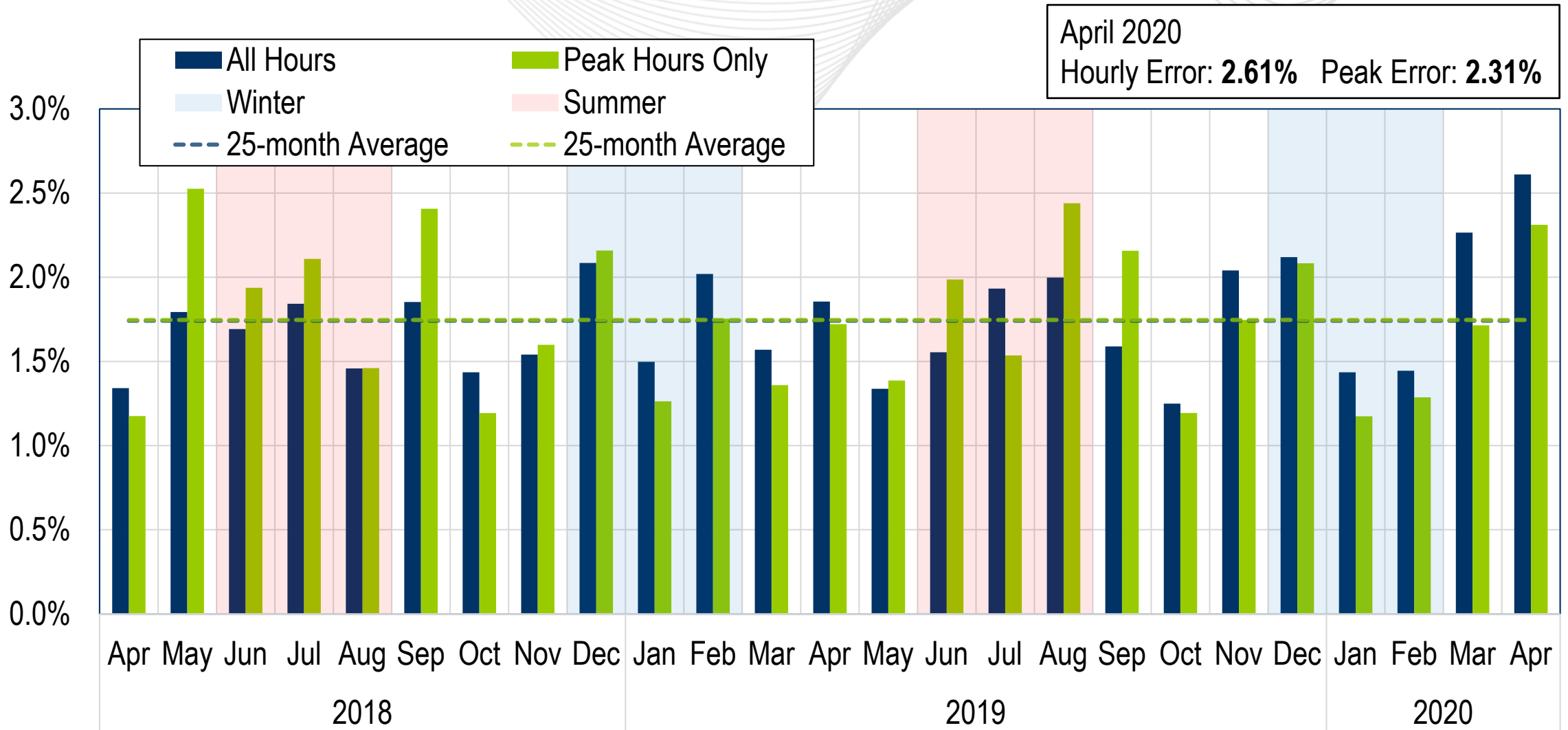


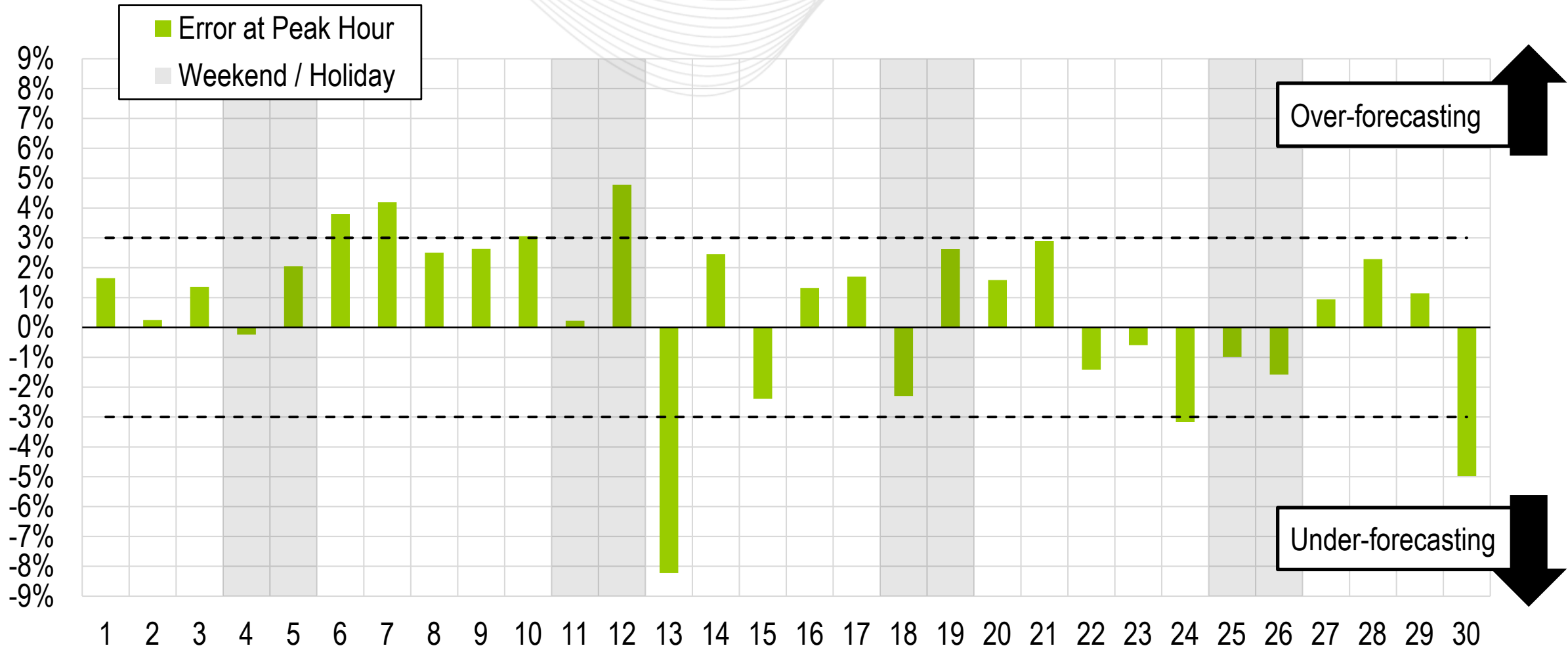


System Operations Report

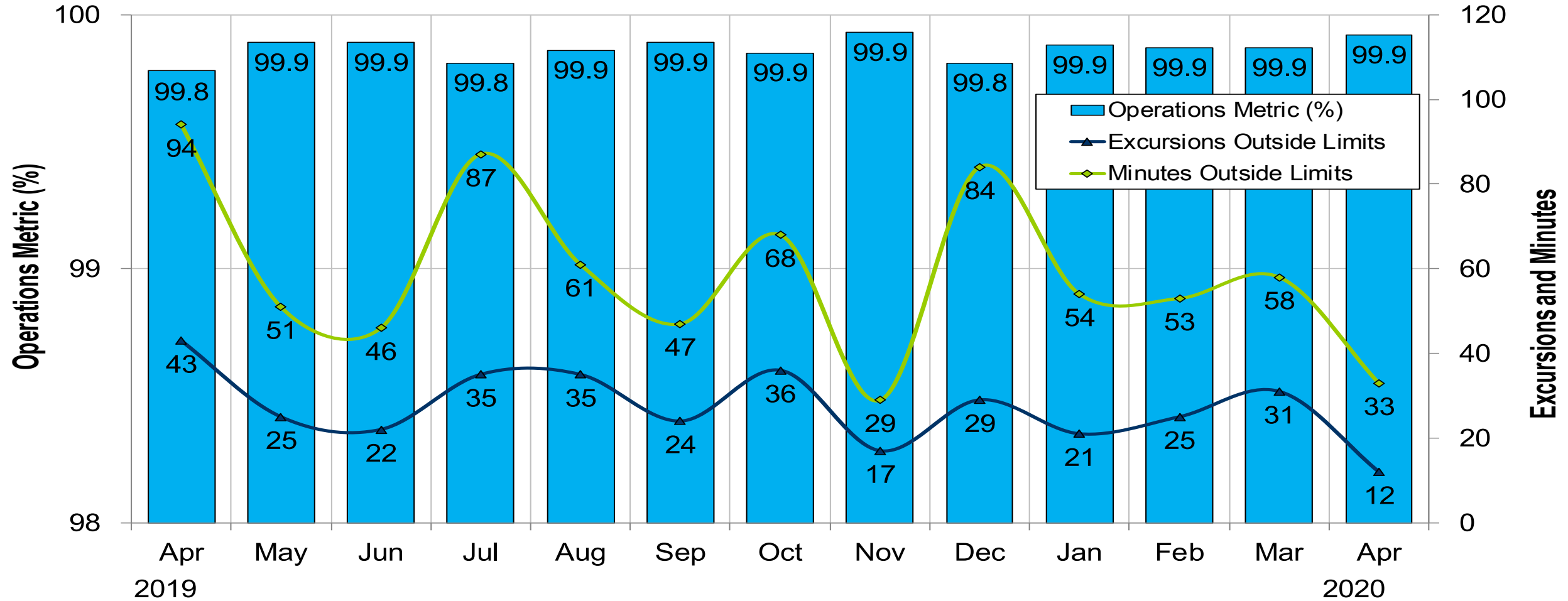
Hong Chen
Senior Lead Engineer
Markets Coordination
MC Webinar
May 26, 2020



Daily Peak Forecast Error (April)



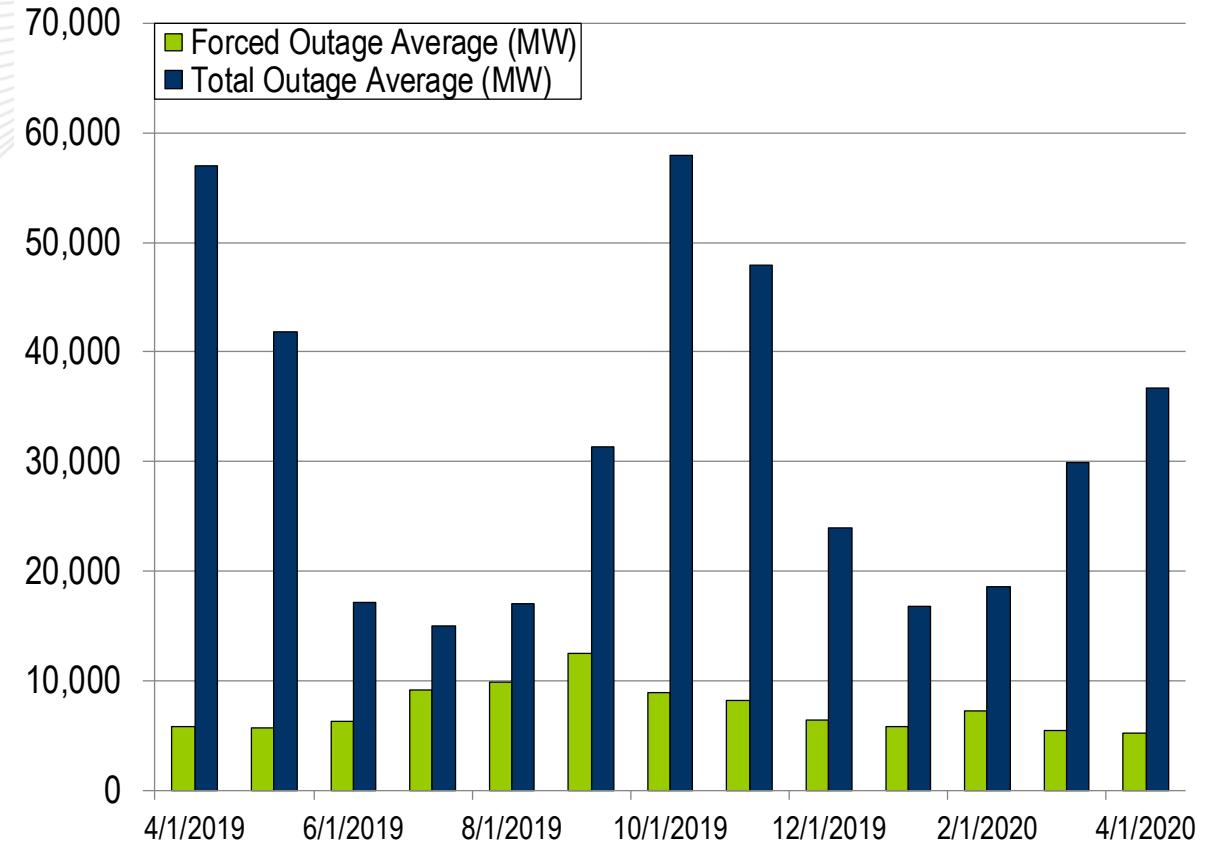
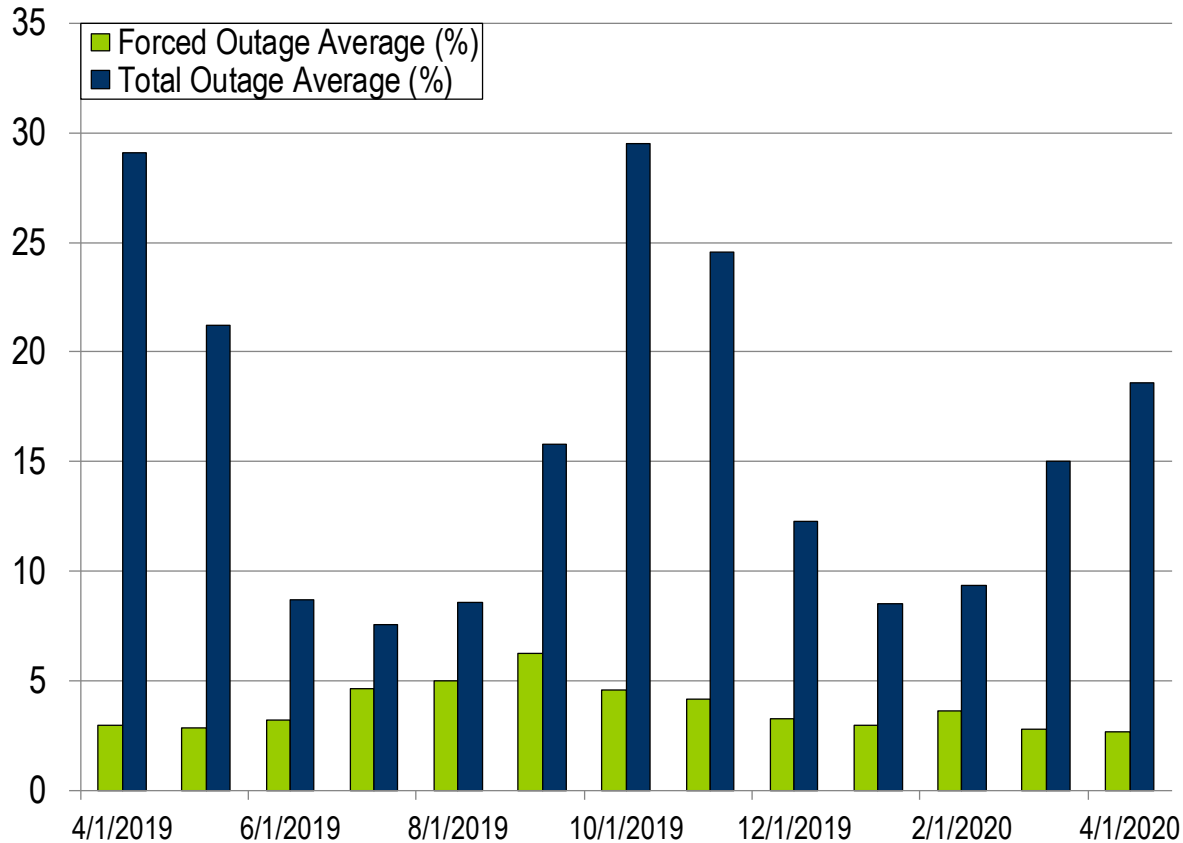
Monthly BAAL Performance Score



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

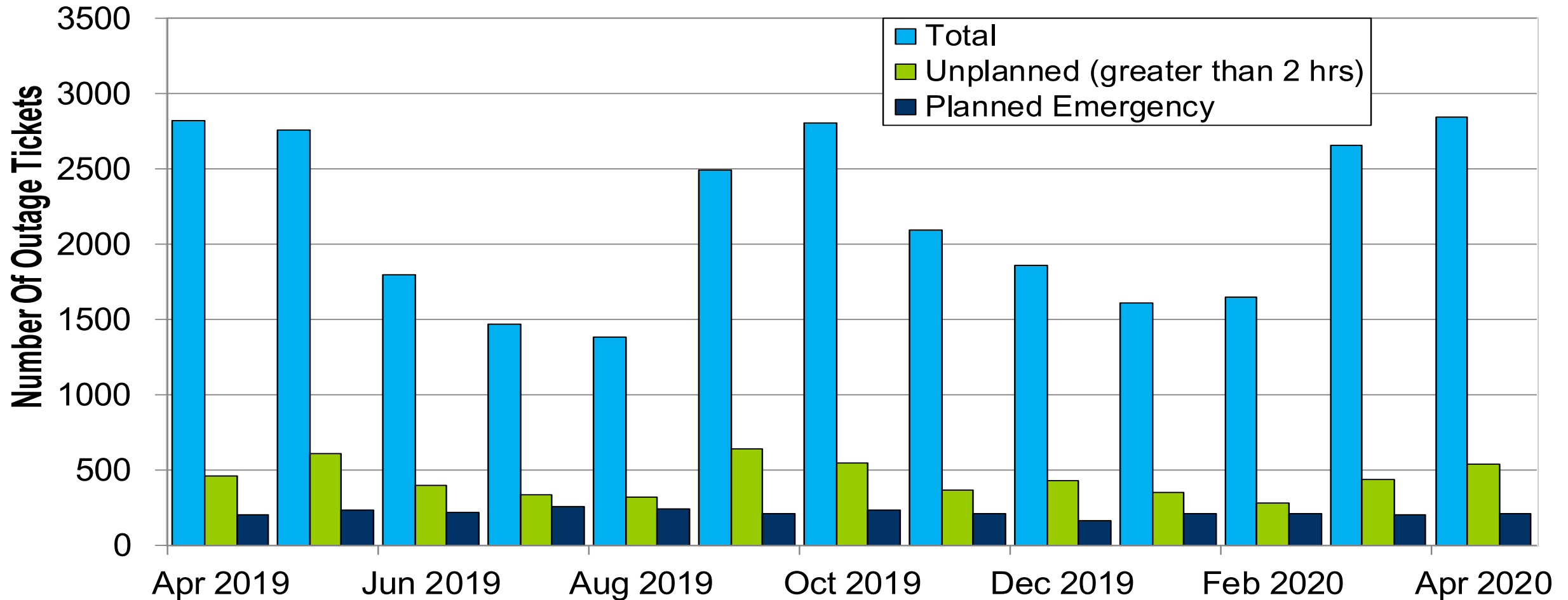
- One spinning event in the month of April
- Five reserve sharing events with the Northeast Power Coordinating Council (NPCC)
- The following Emergency Procedures occurred in April:
 - 12 Post-Contingency Local Load Relief Warnings (PCLLRW)
 - 8 High System Voltages
 - 2 Shortage Cases Approved

RTO Generation Outage Rate - Monthly



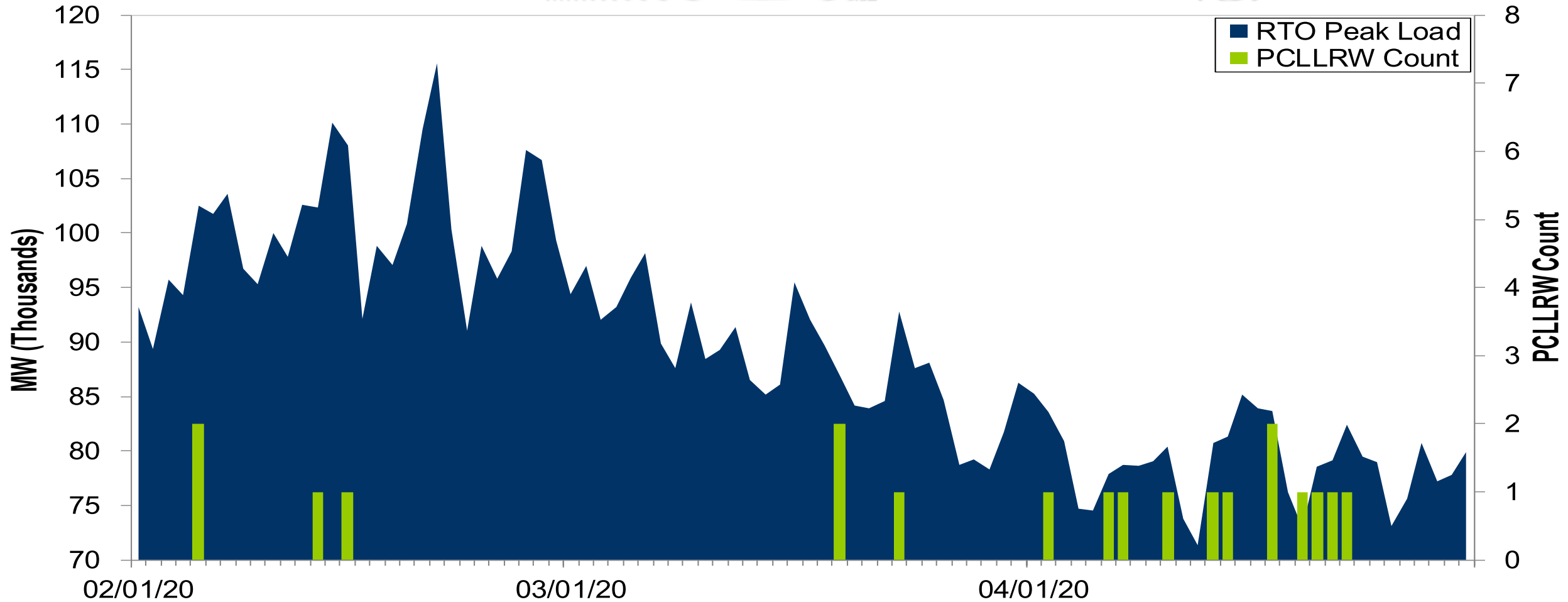
The 13-month average forced outage rate is 3.77% or 7,446 MW.
 The 13-month average total outage rate is 16.07% or 31,666 MW.

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

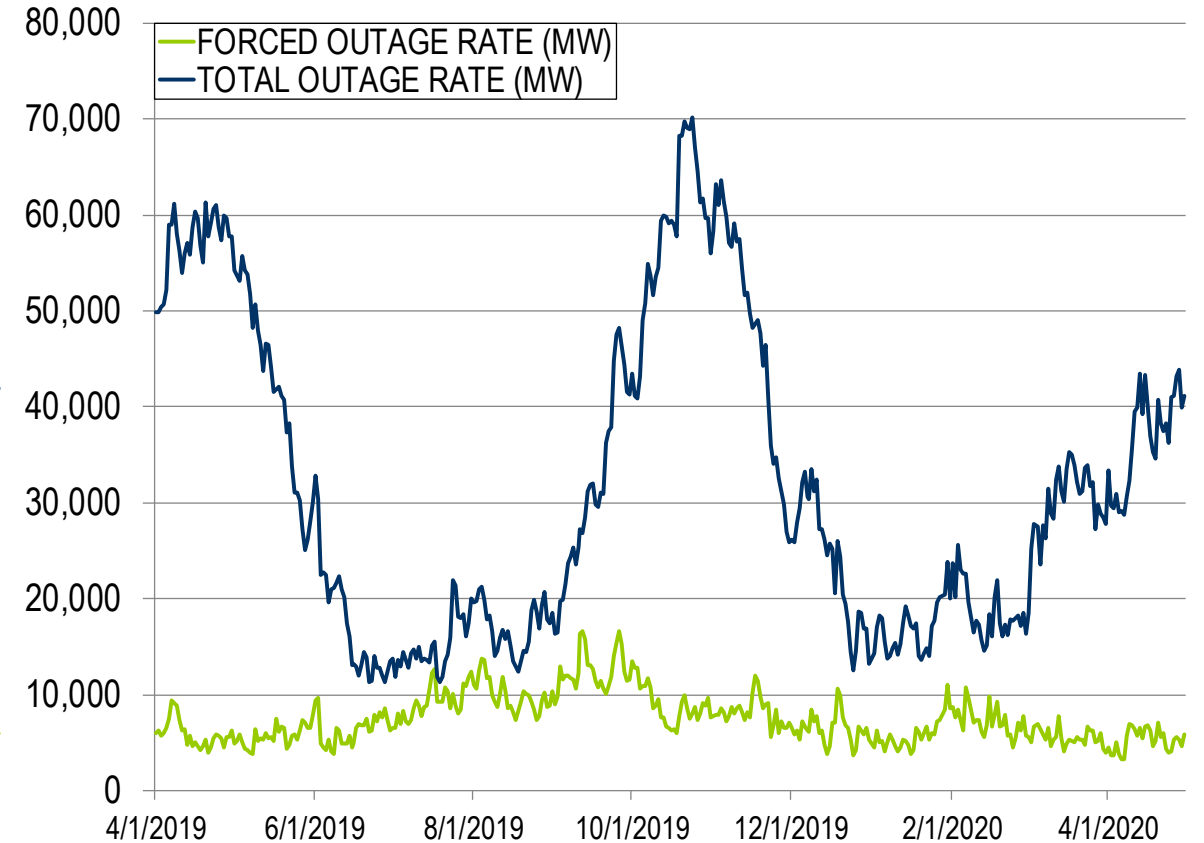
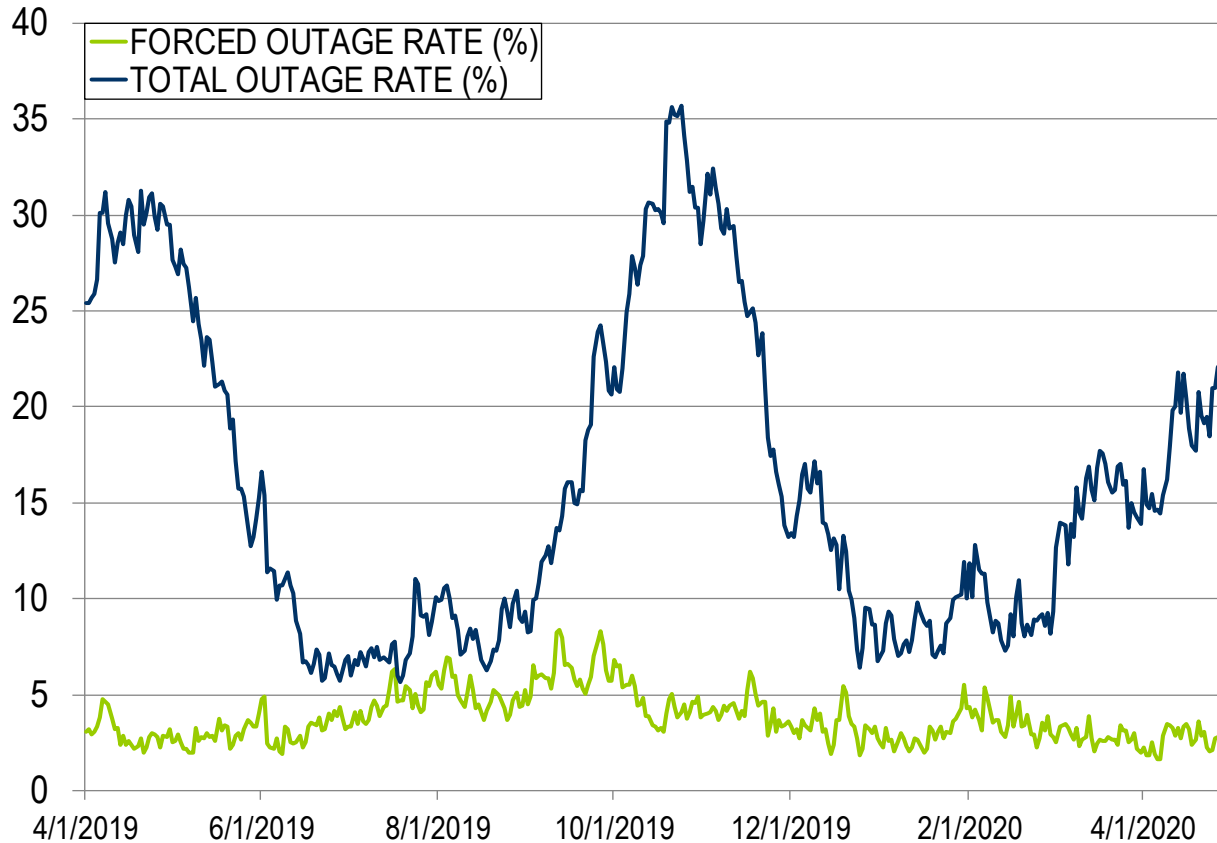
*Tier 2 Response is equal to Tier 2 Assigned for events less than ten minutes

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

