



# System Operations Report

Paul McGlynn

Executive Director, System Operations

Members Committee

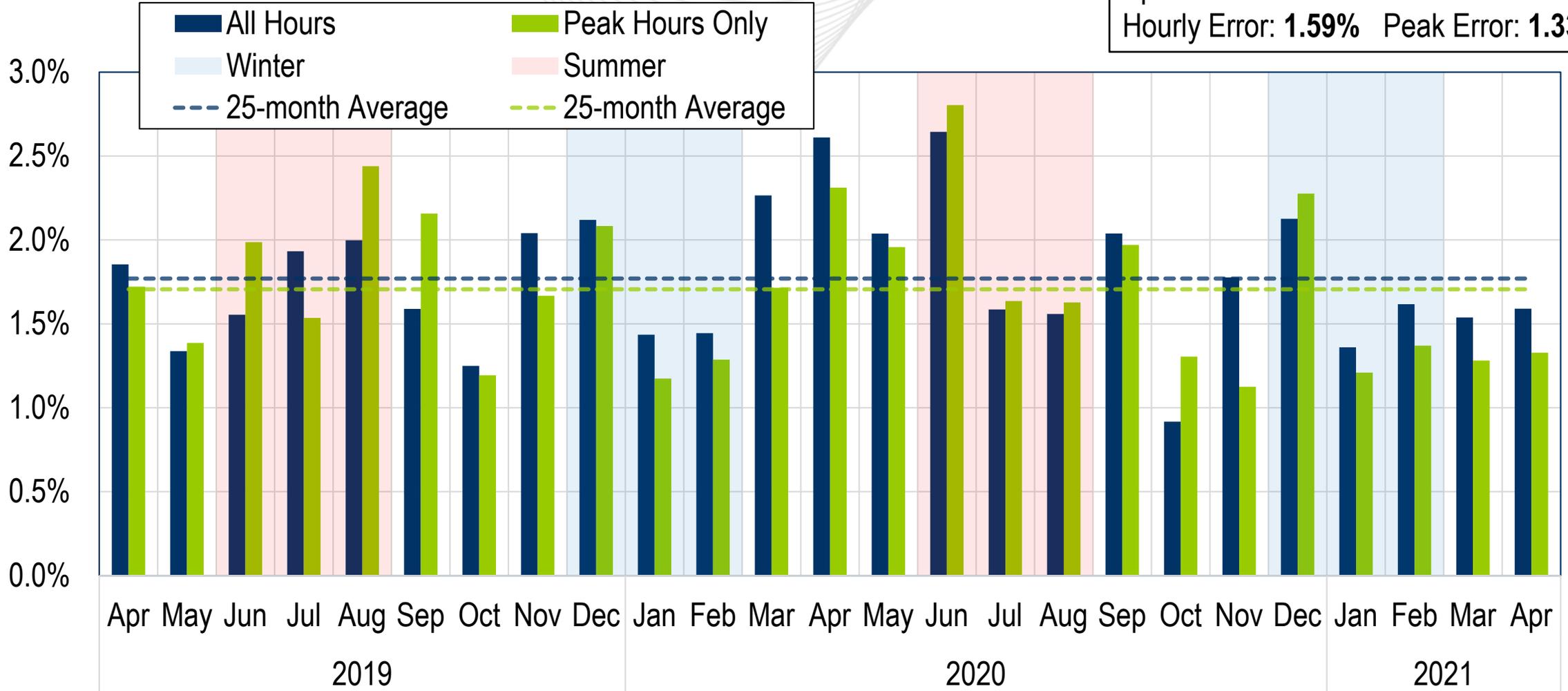
May 3, 2021

The following slides summarize system operations for April through the 22<sup>nd</sup>

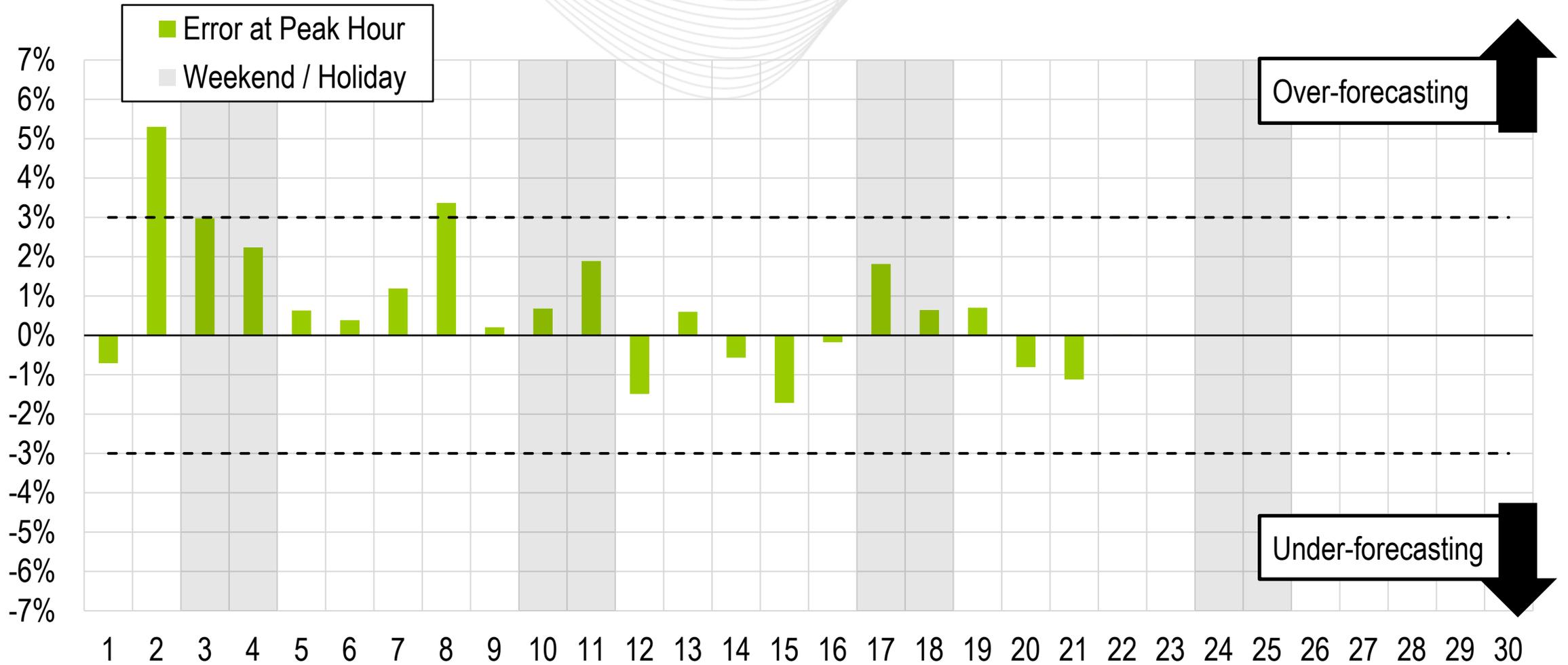
The slides will be updated with data for the whole month and presented to the Operating Committee on May 15th

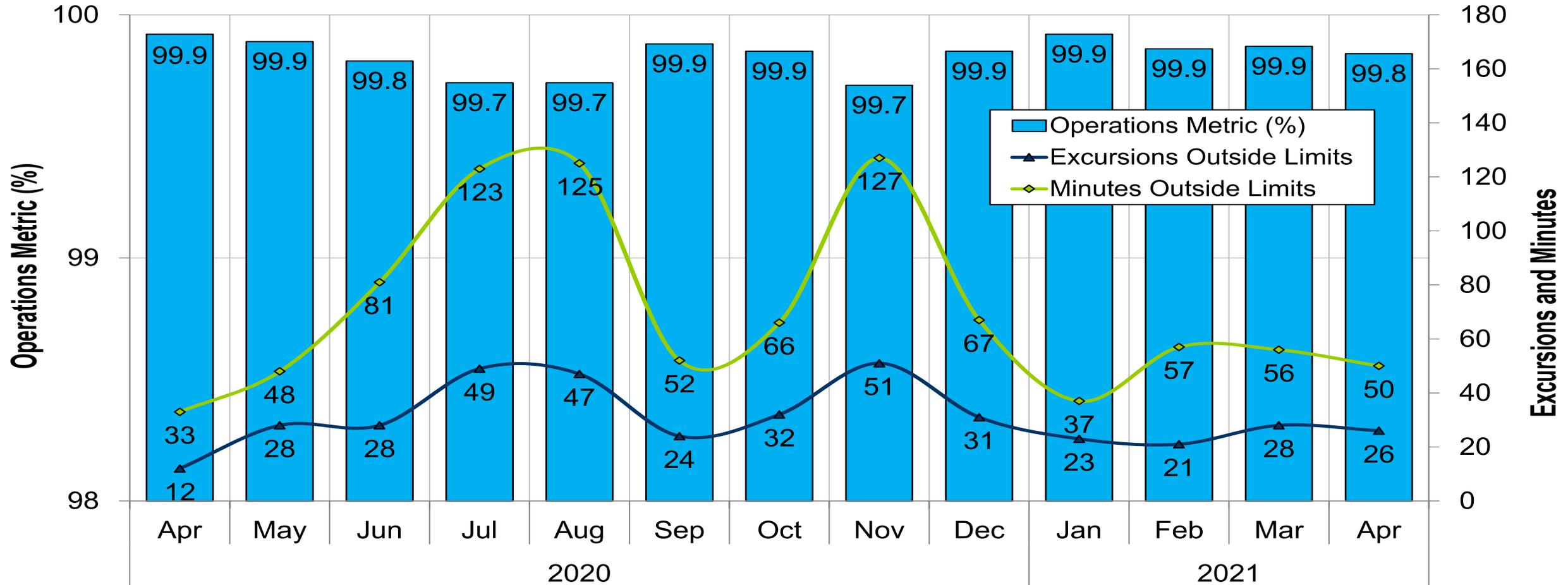
# Average Load Forecast Error

April 2021  
 Hourly Error: **1.59%** Peak Error: **1.33%**



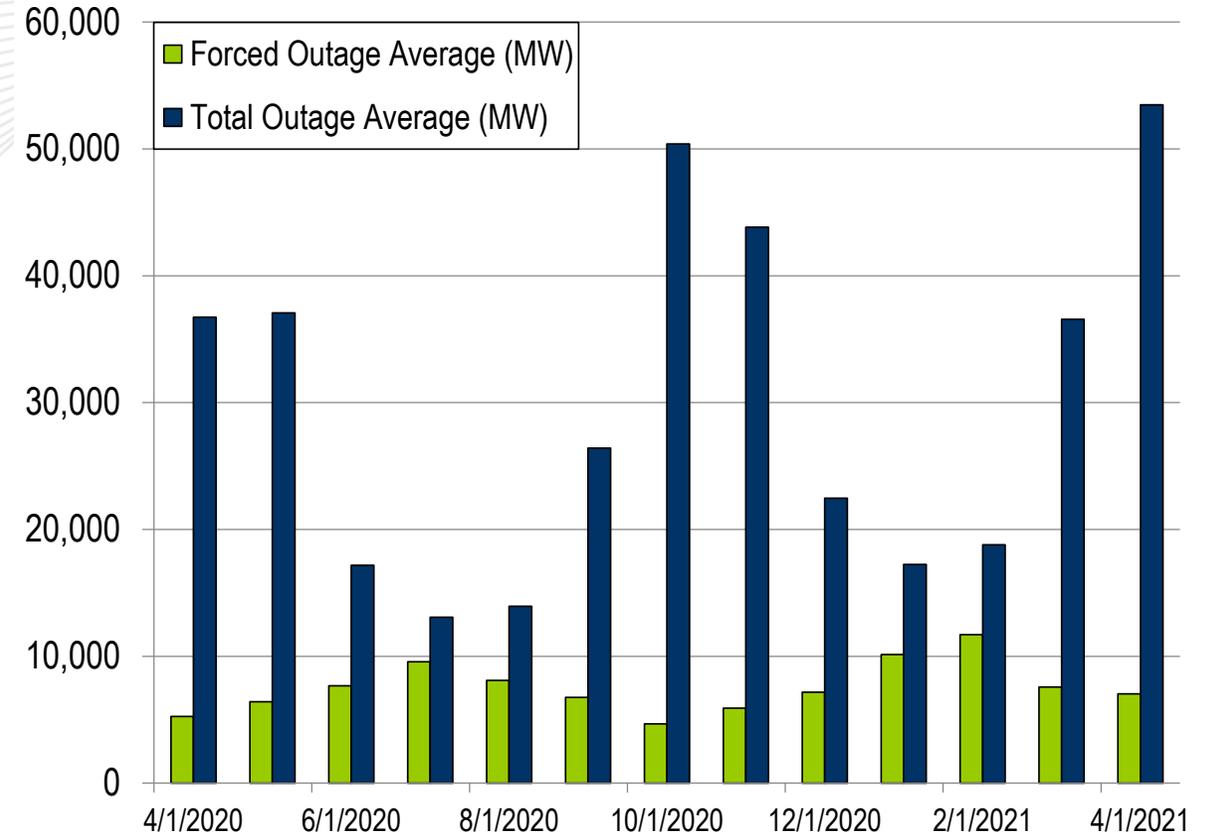
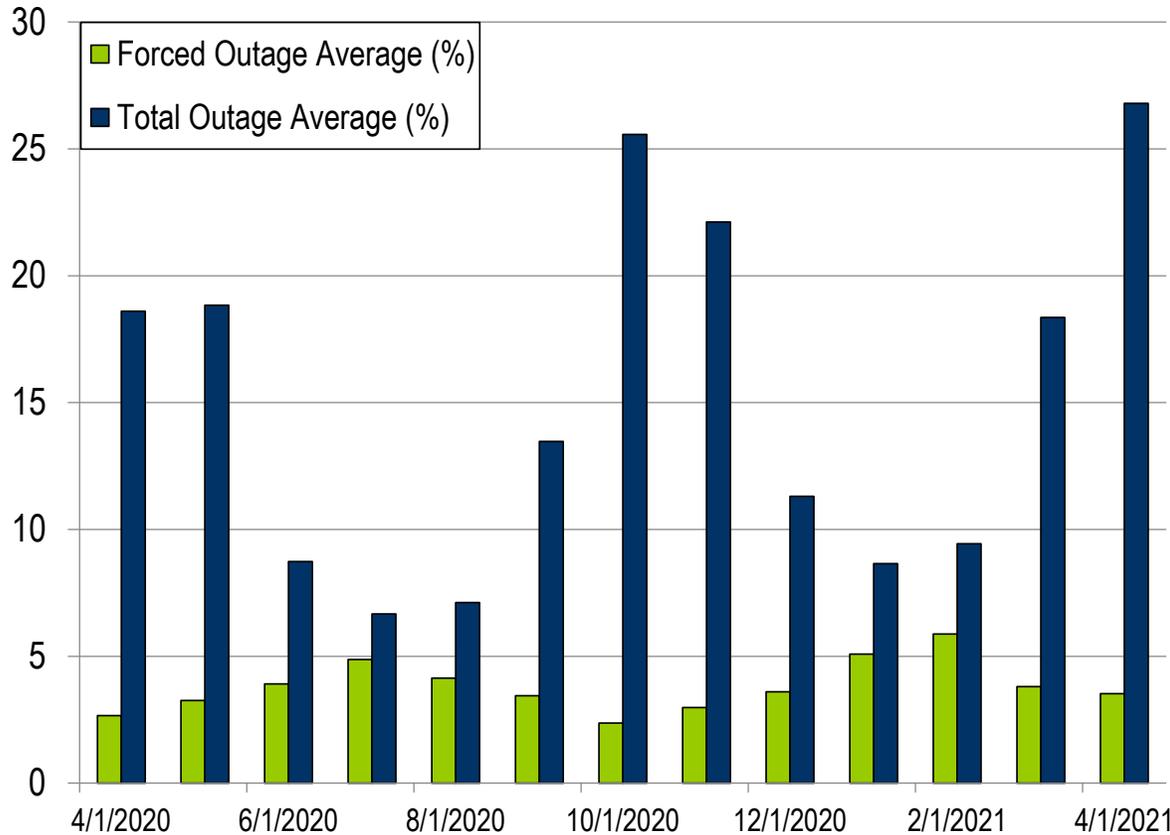
# Daily Peak Forecast Error (April)





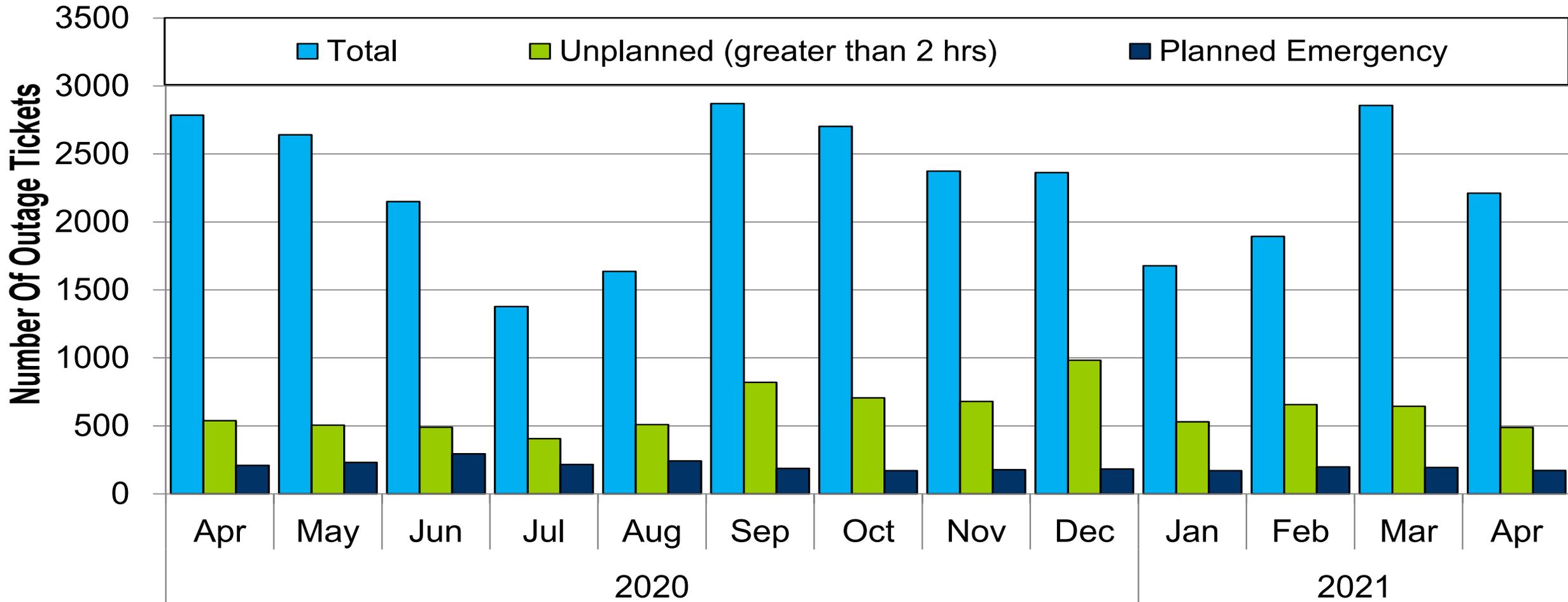
PJM's BAAL performance has exceeded the goal of 99% for each month in 2021.

- One spinning event in the month of April
- One reserve sharing event with the Northeast Power Coordinating Council (NPCCC)
- The following Emergency Procedures occurred in April:
  - 12 Post-Contingency Local Load Relief Warnings (PCLLRW)
  - 4 High System Voltages



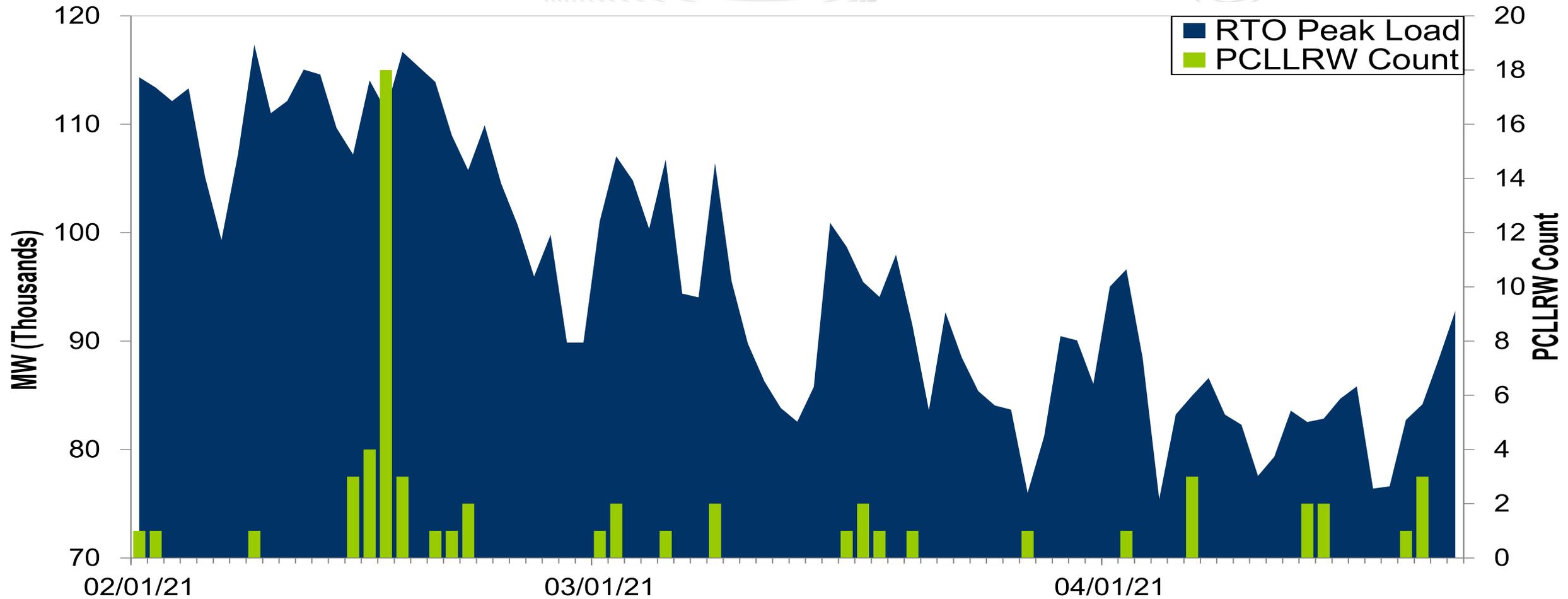
The 13-month average forced outage rate is 3.81% or 7,528 MW.  
 The 13-month average total outage rate is 14.82% or 29,307 MW.

# 2020-2021 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



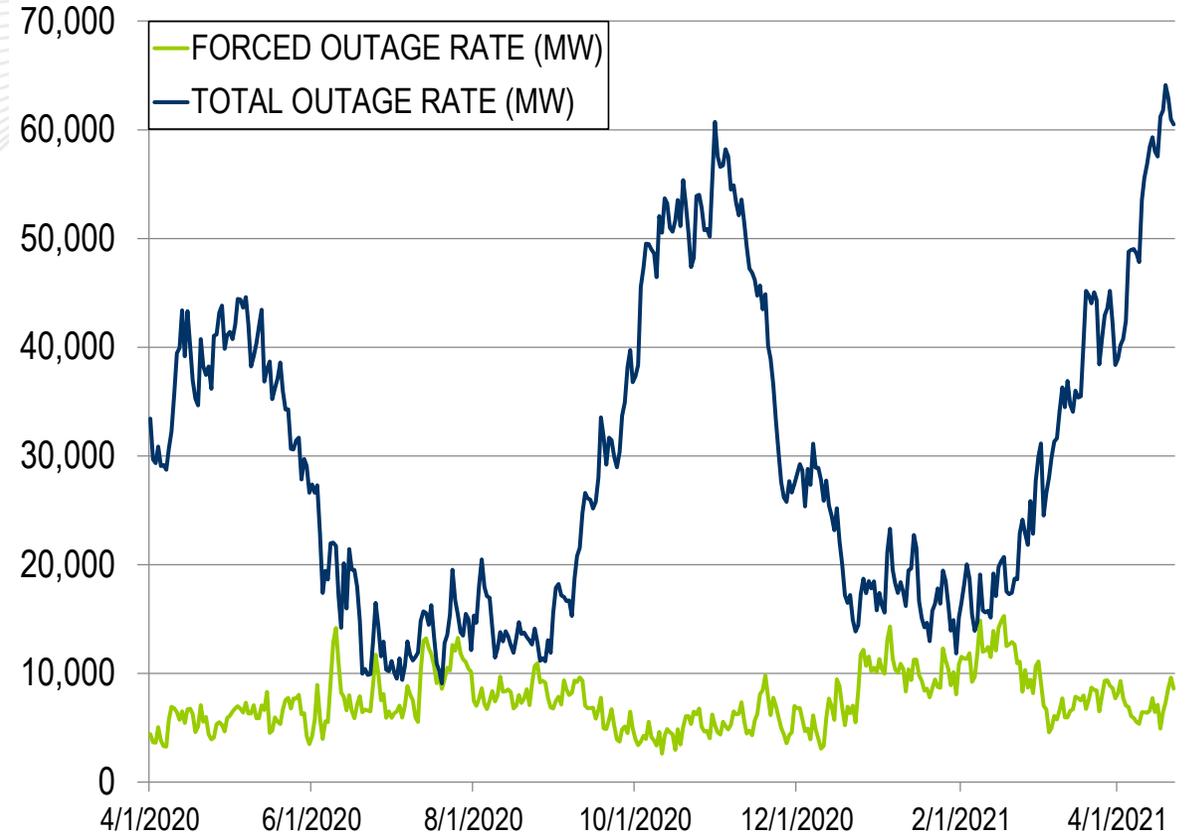
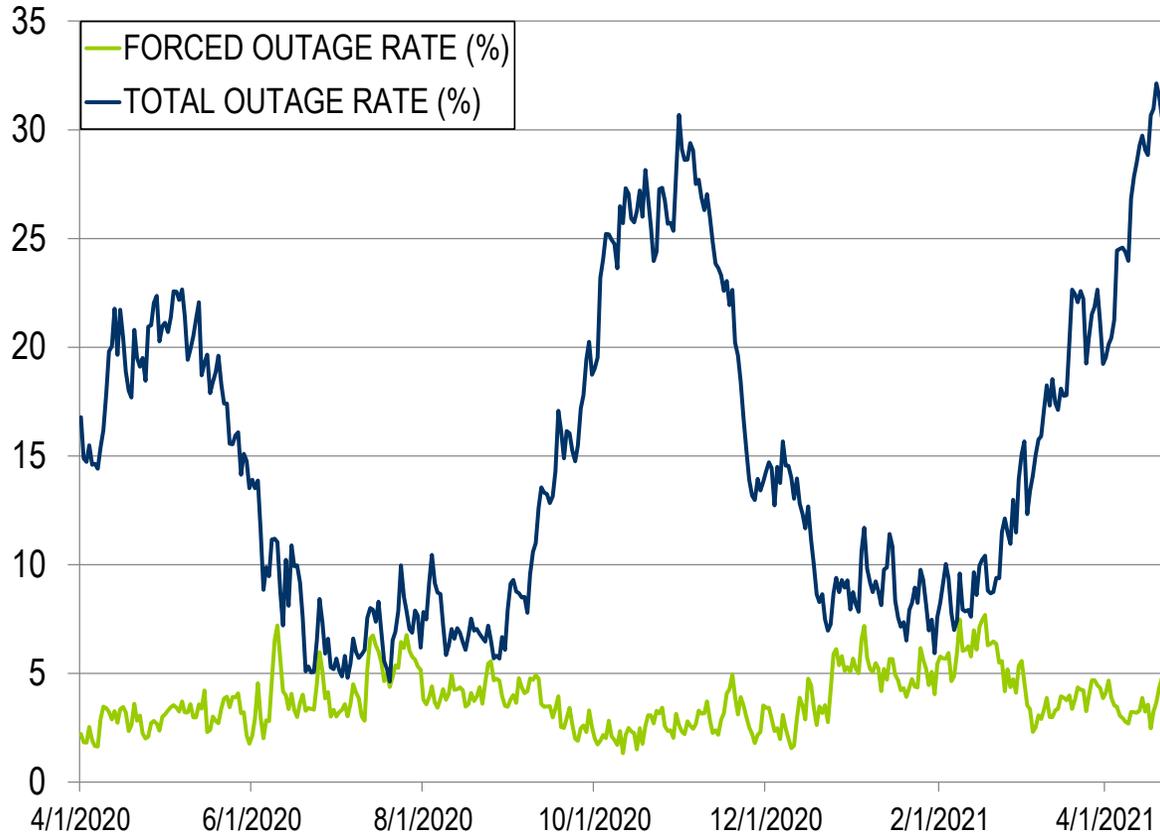
Event	Date	Start Time	End Time	Duration	Region	Tier 1 Estimate (MW)	Tier 1 Response (MW)
1	04/13/21	16:05:53	16:14:44	00:08:51	RTO	2093.4	975.6

Event	Date	Start Time	End Time	Duration	Region	Tier 2 Assigned (MW)	Tier 2 Response (MW)	Tier 2 Penalty (MW)
1	04/13/21	16:05:53	16:14:44	00:08:51	RTO	345.3	345.3	0.0

# 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 3.81% or 7,528 MW.  
 The 13-month average total outage rate is 14.82% or 29,307 MW.

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

