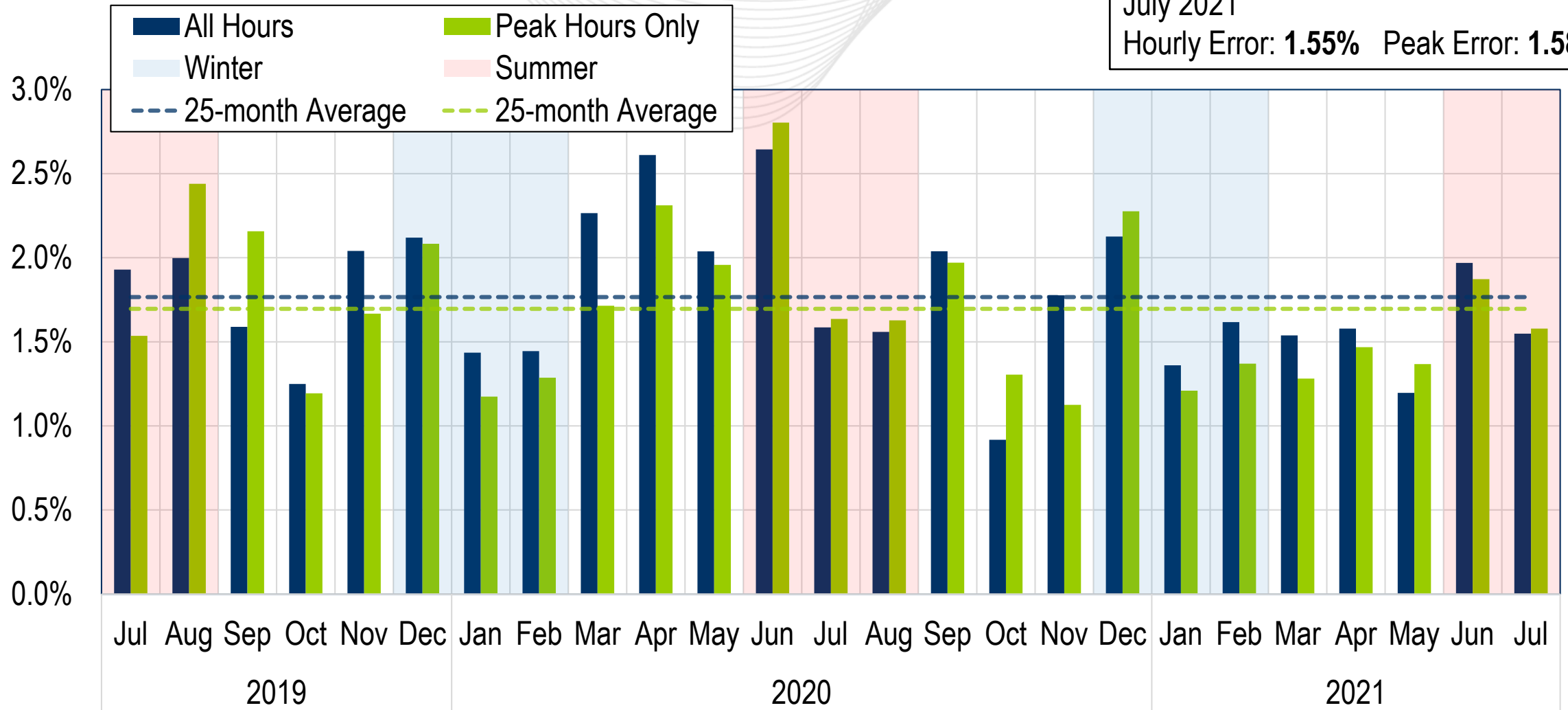


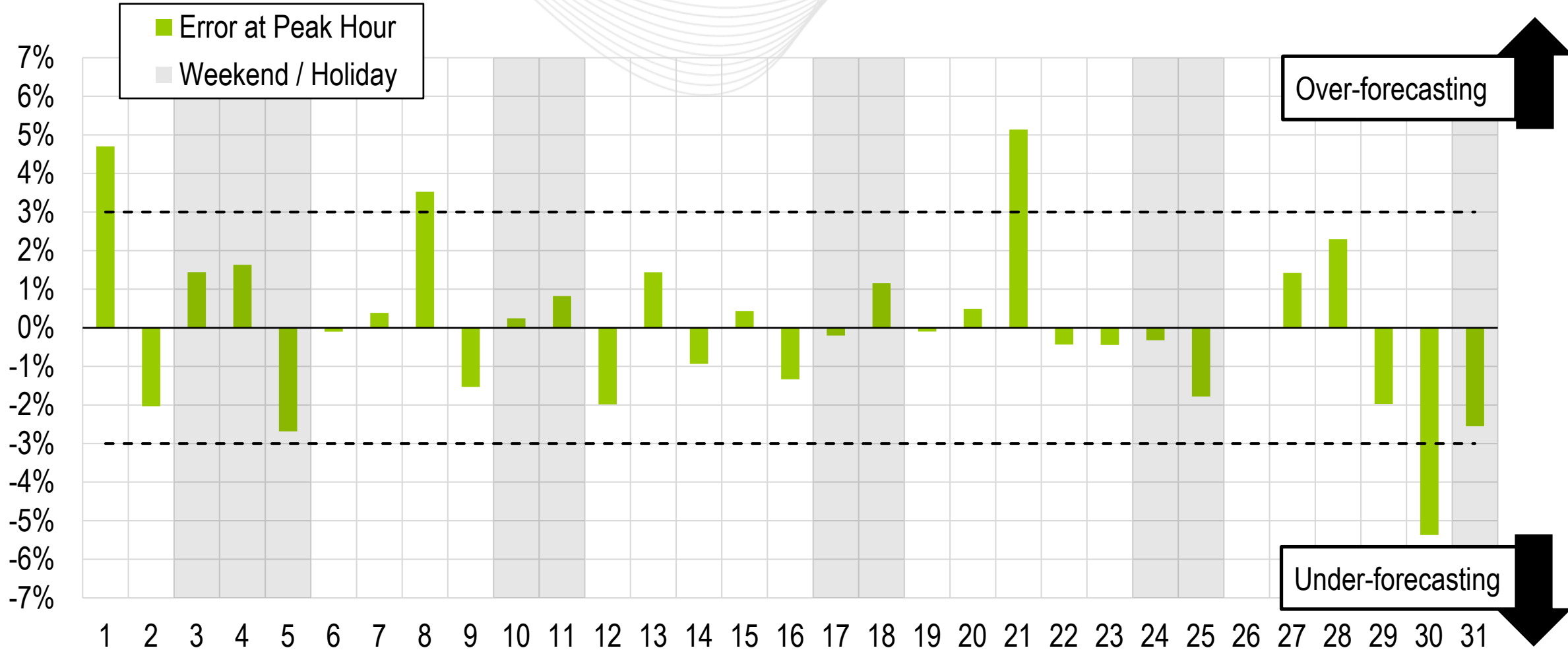


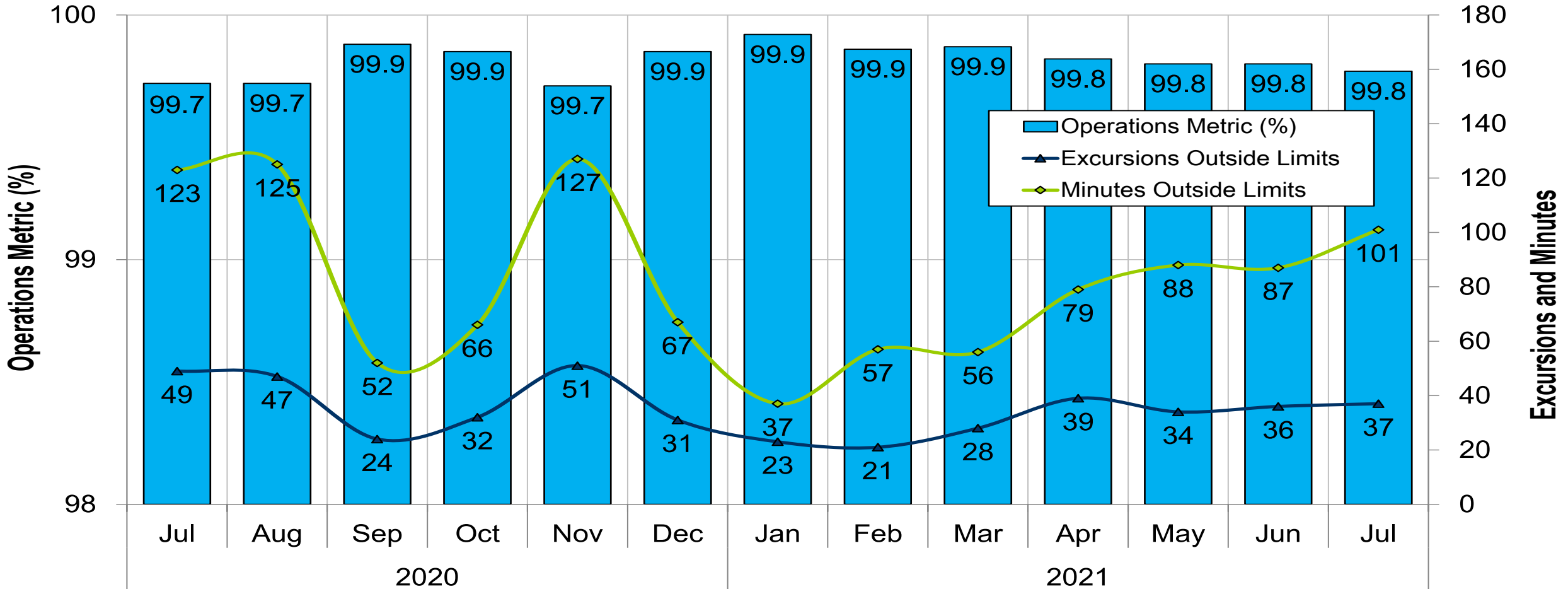
System Operations Report

Stephanie Monzon
Manager, Markets Coordination
Operating Committee
August 12, 2021

July 2021
 Hourly Error: **1.55%** Peak Error: **1.58%**





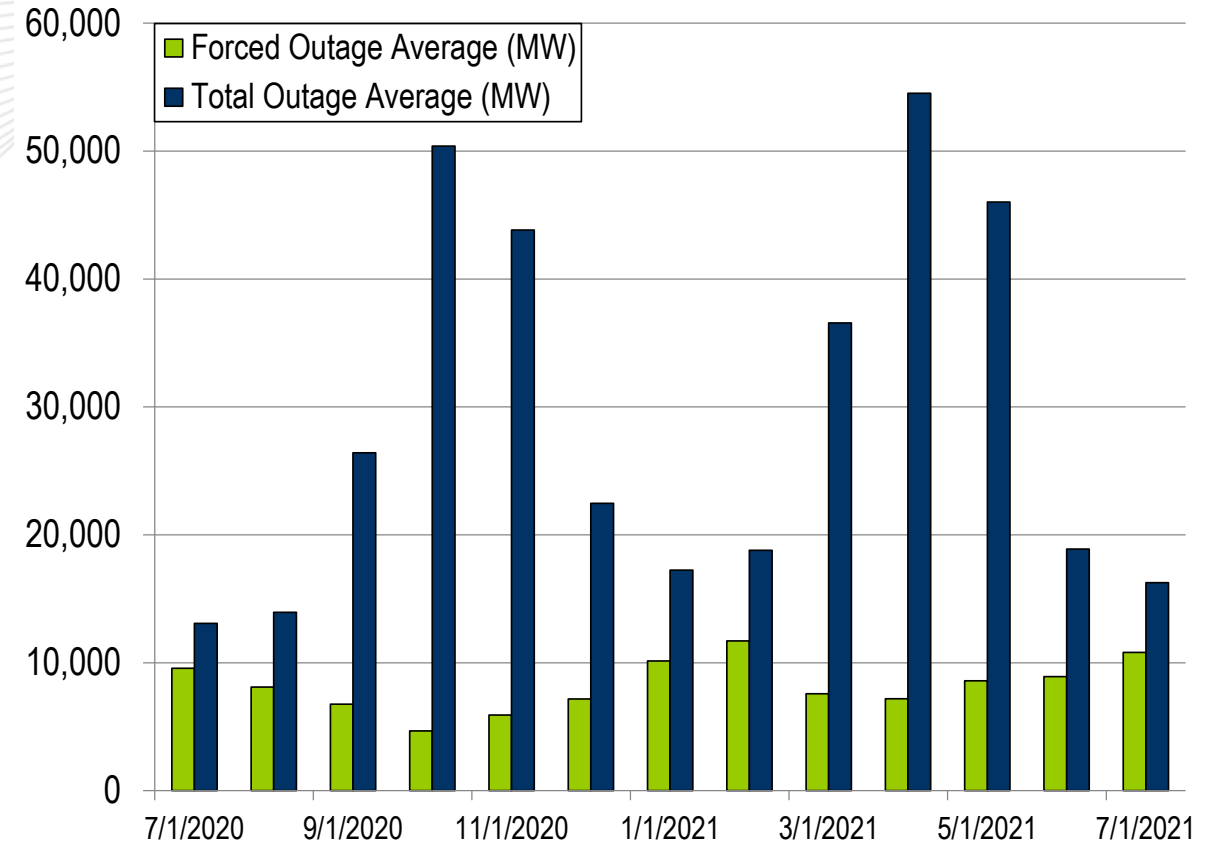
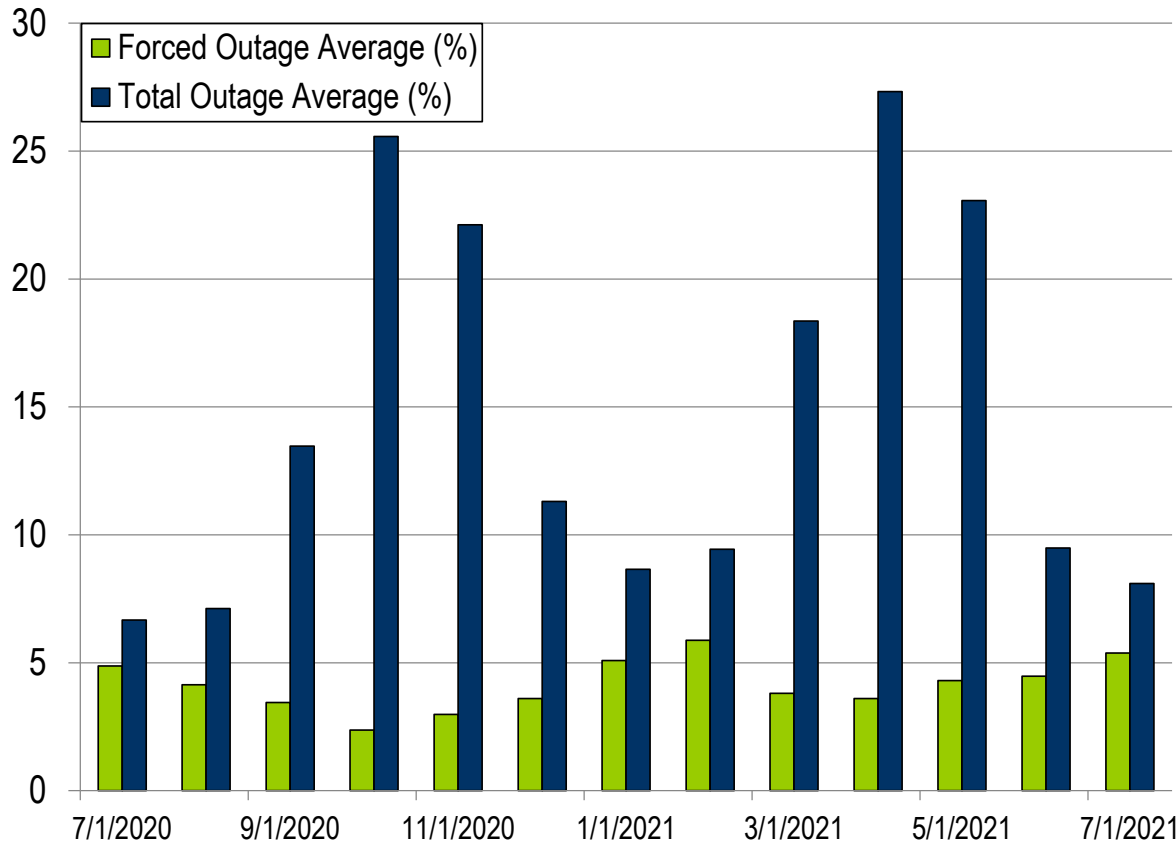


PJM's BAAL performance has exceeded the goal of 99% for each month in 2021.

- Two spinning events in the month of July
- Two reserve sharing events with the Northeast Power Coordinating Council (NPCC)
- The following Emergency Procedures occurred in July:
 - 10 Post-Contingency Local Load Relief Warnings (PCLLRW)
 - 6 Hot Weather Alerts
 - 1 High System Voltage

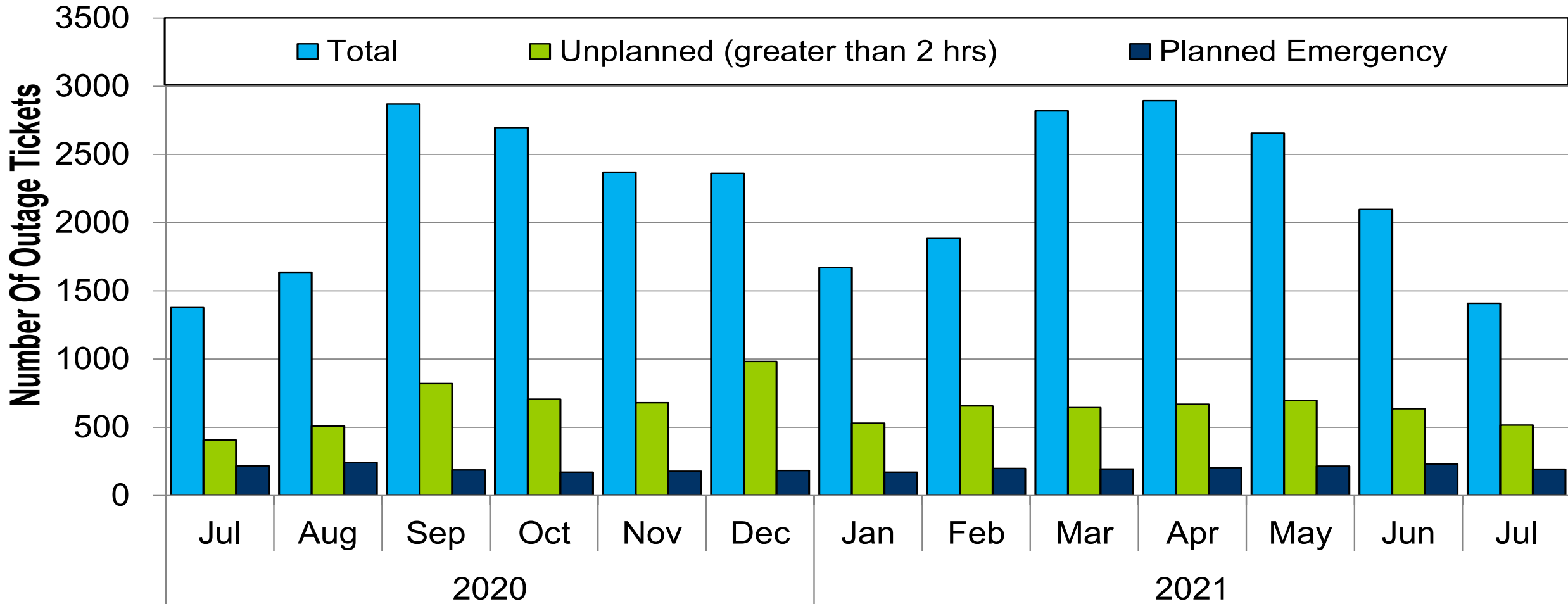
PJM experienced no shortage case approvals during the month of July 2021.

RTO Generation Outage Rate - Monthly



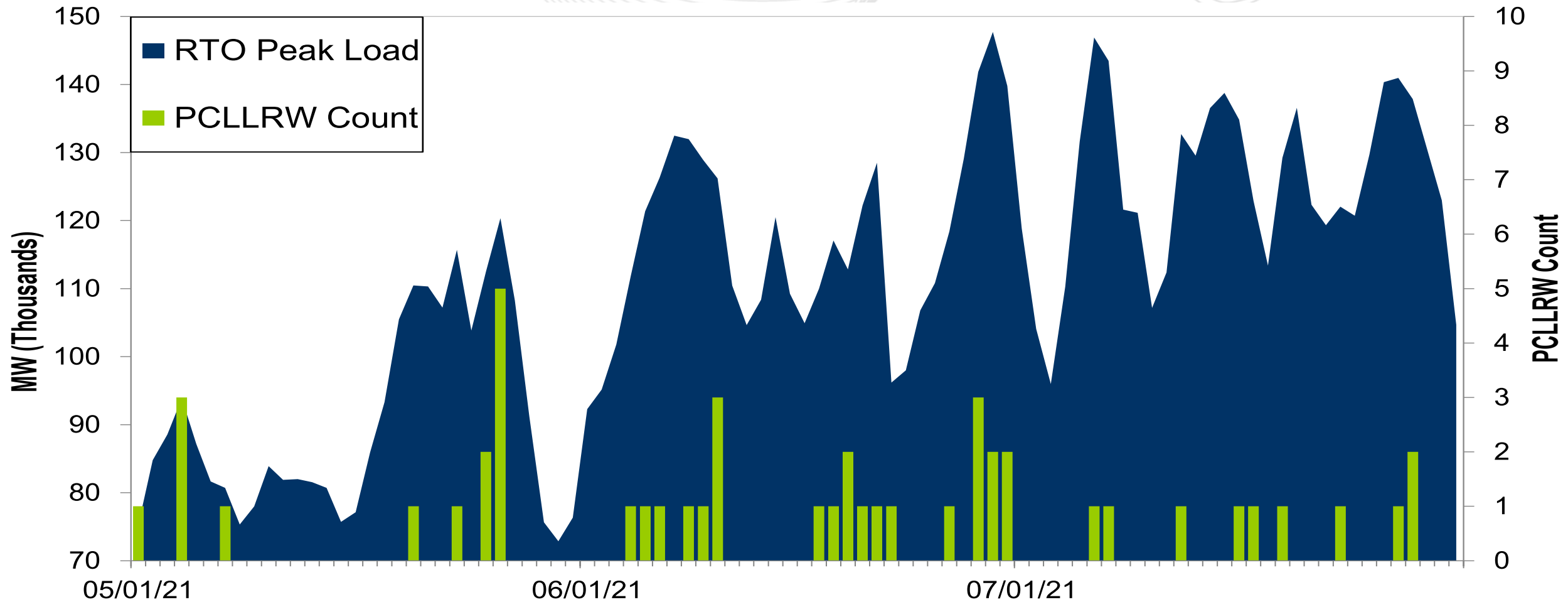
The 13-month average forced outage rate is 4.14% or 8,222 MW.
 The 13-month average total outage rate is 14.67% or 29,122 MW.

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	07/21/21	18:27:45	18:32:43	00:04:58	RTO	837.8	290.8
2	07/25/21	16:16:56	16:23:02	00:06:06	RTO	708.7	418.8

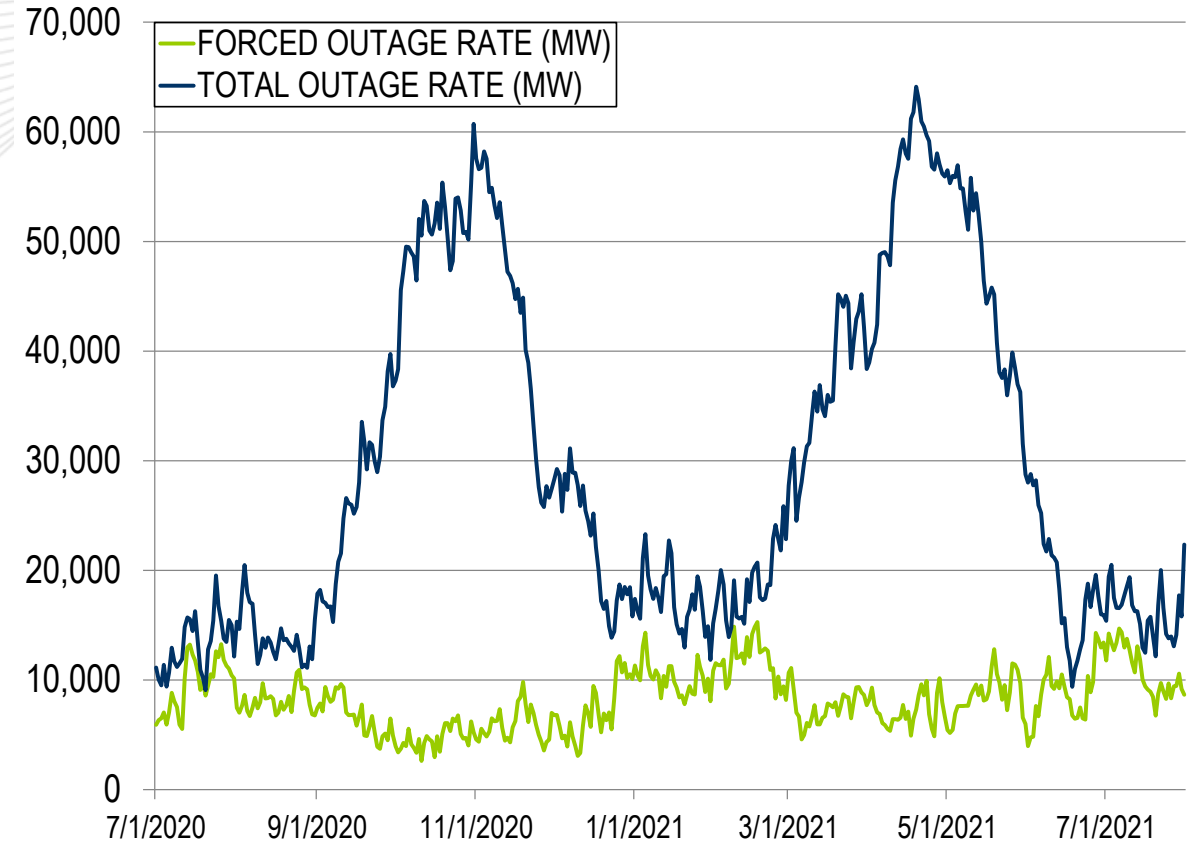
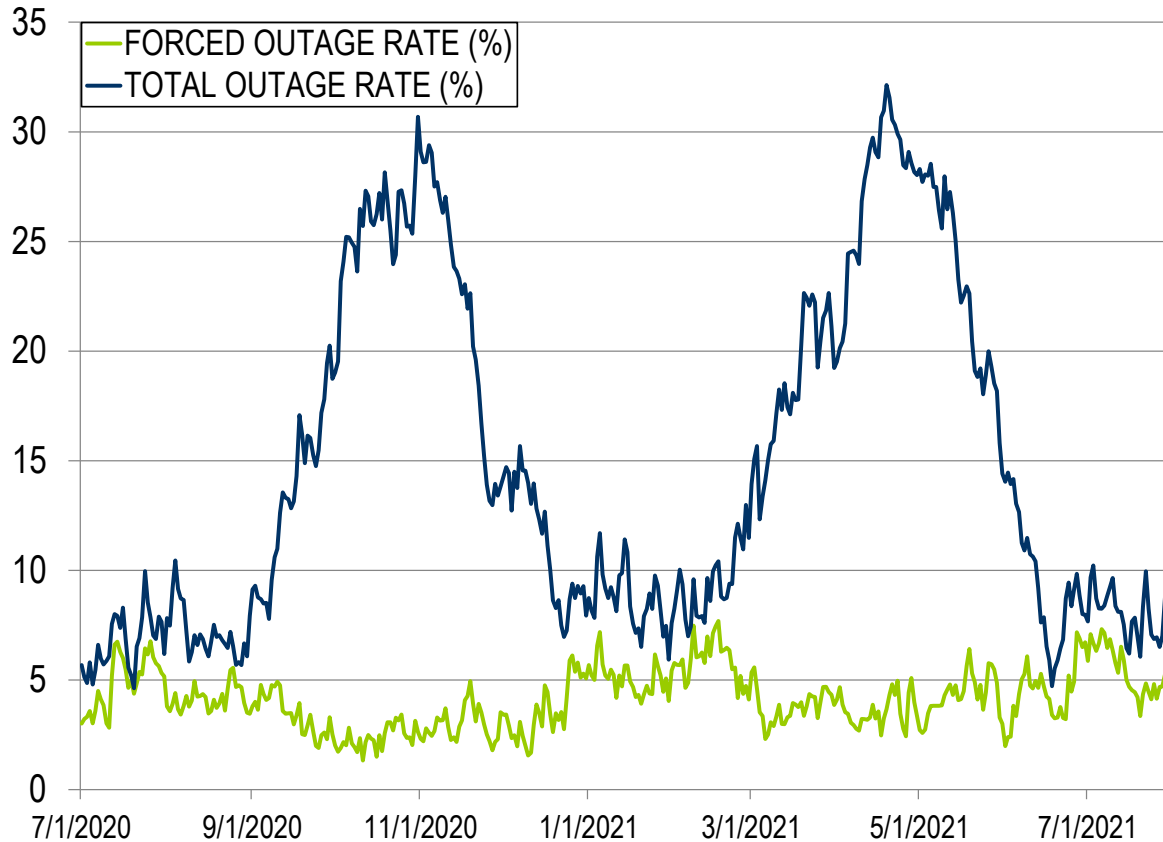
Event	Date	Start Time	End Time	Duration	Region	Tier 2 Assigned (MW)	Tier 2 Response (MW)	Tier 2 Penalty (MW)
1	07/21/21	18:27:45	18:32:43	00:04:58	RTO	1000.9	1000.9	0.0
2	07/25/21	16:16:56	16:23:02	00:06:06	RTO	862.6	862.6	0.0

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

Appendix

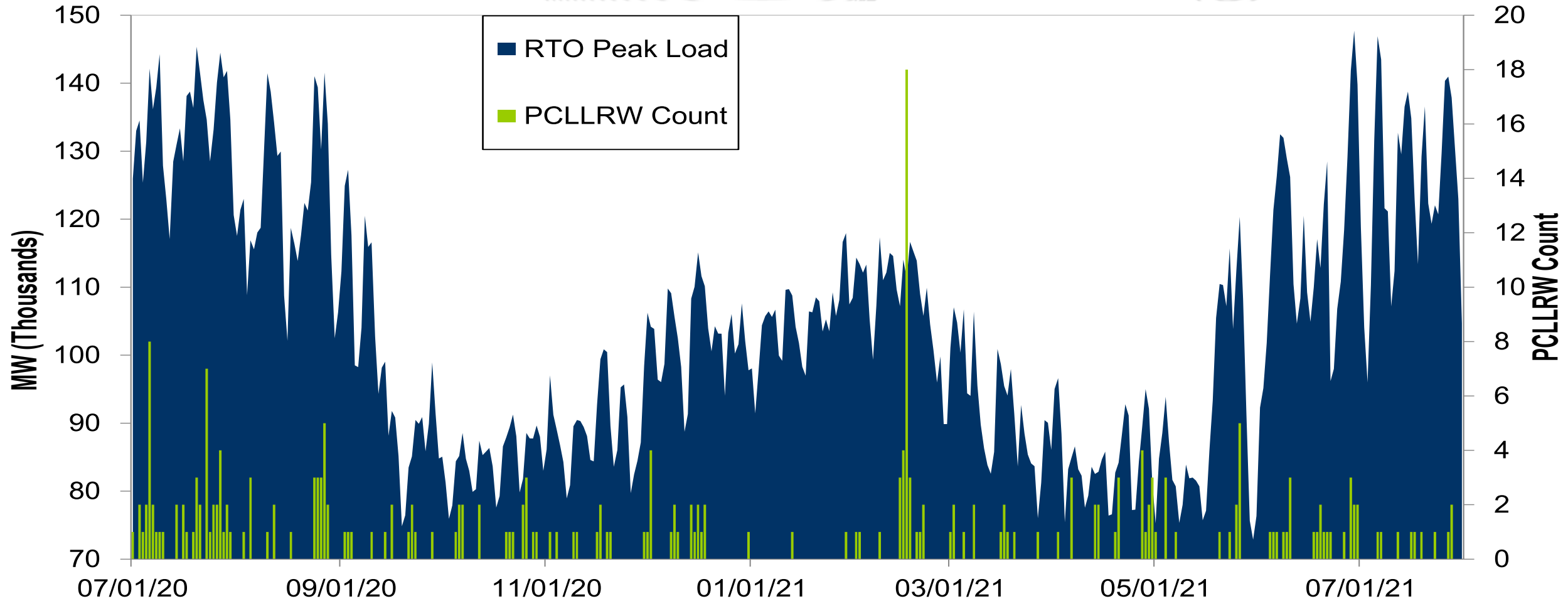
Goal Measurement: Balancing Authority ACE Limit (BAAL)

- 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 4.14% or 8,222 MW.
 The 13-month average total outage rate is 14.67% or 29,122 MW.

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



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System Operations Report



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