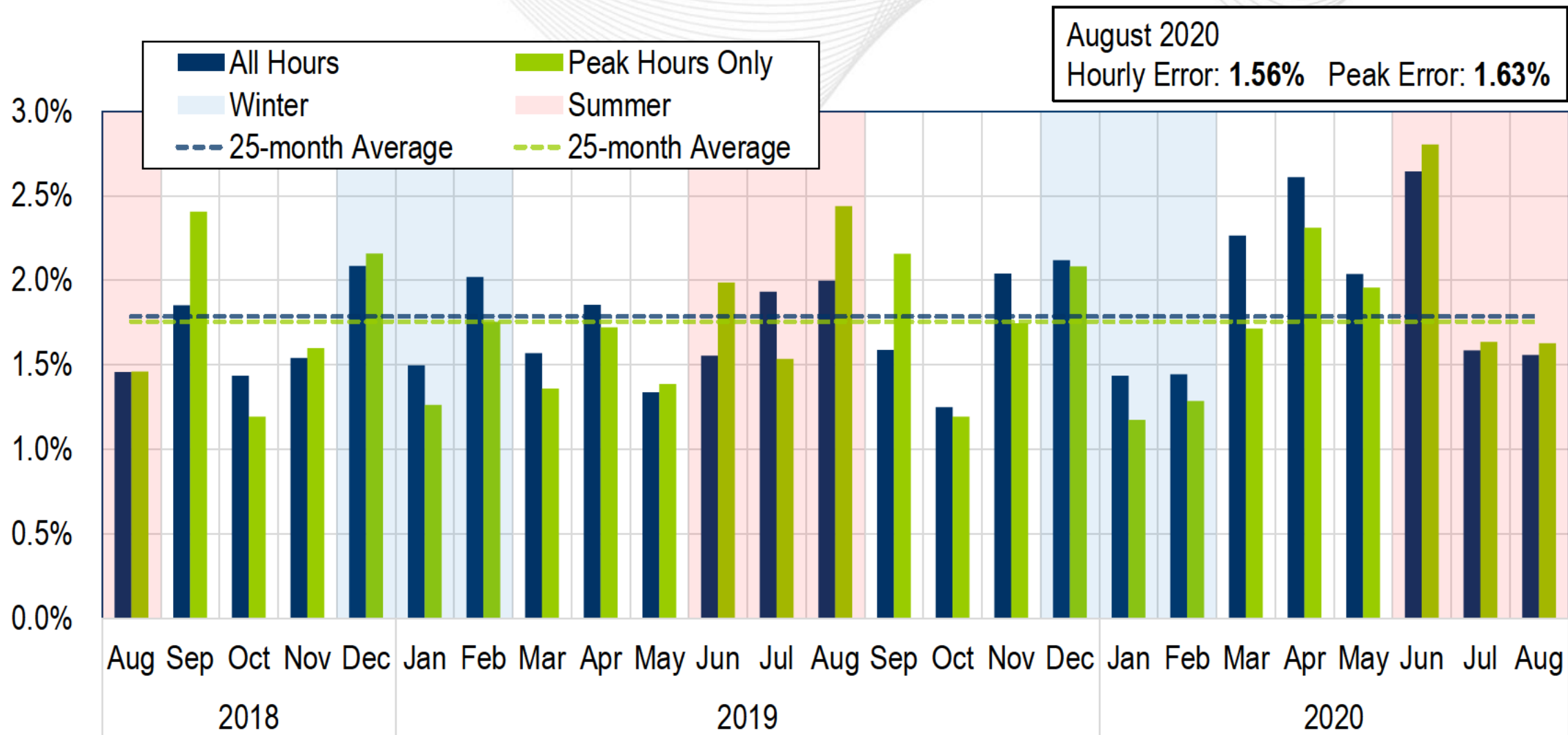
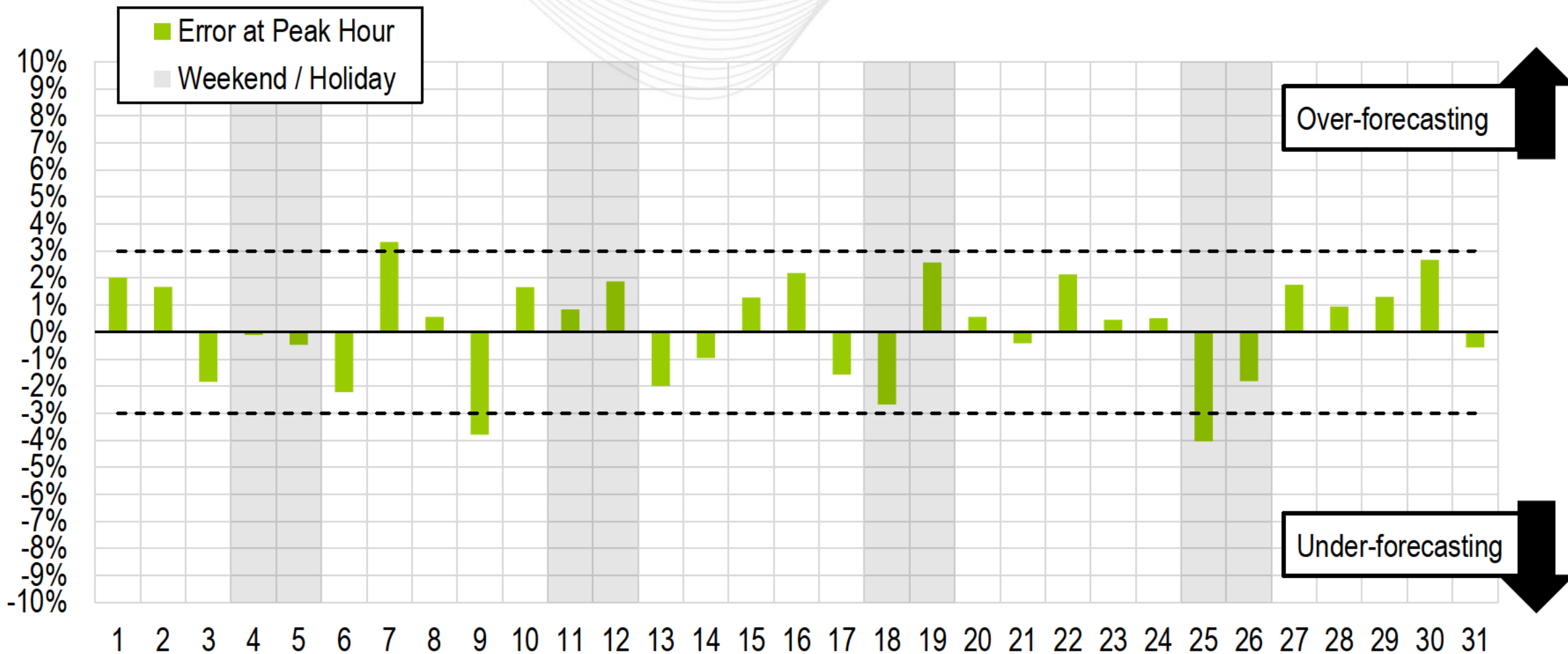




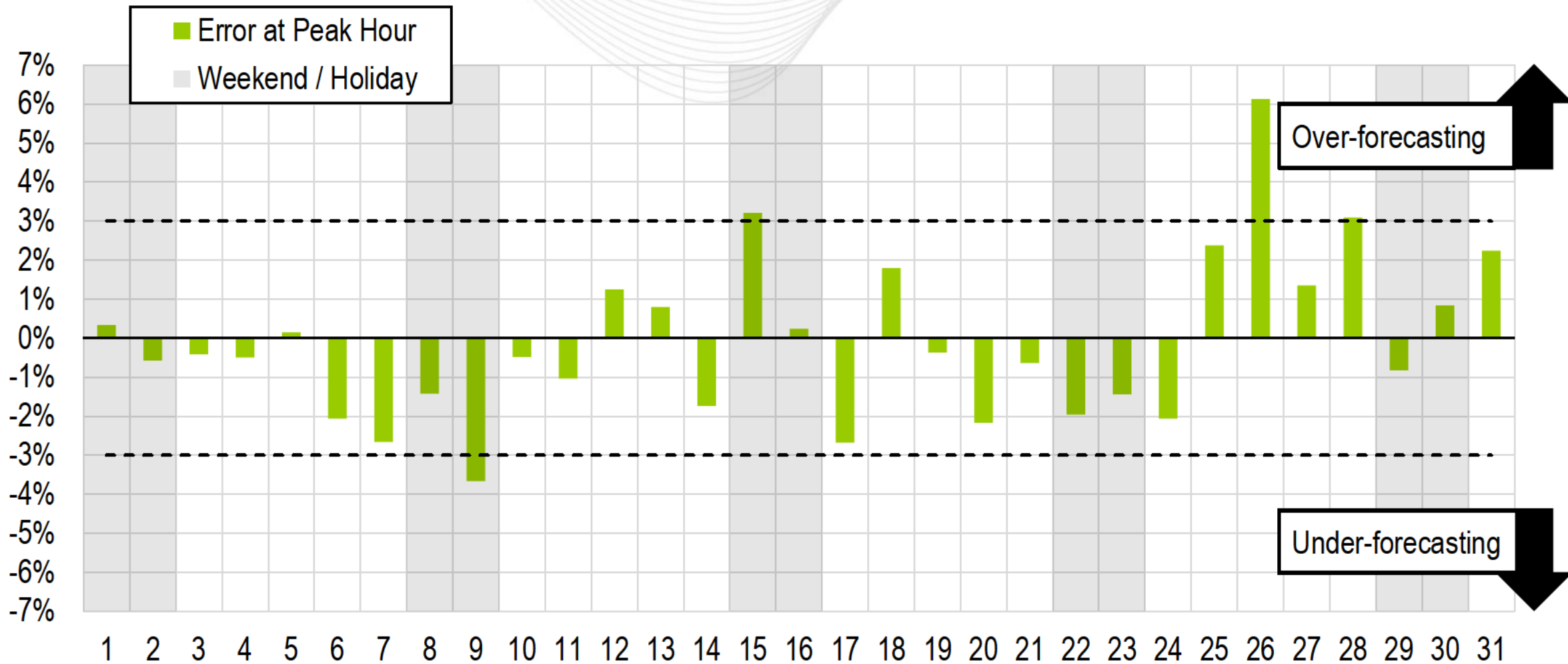
System Operations Report

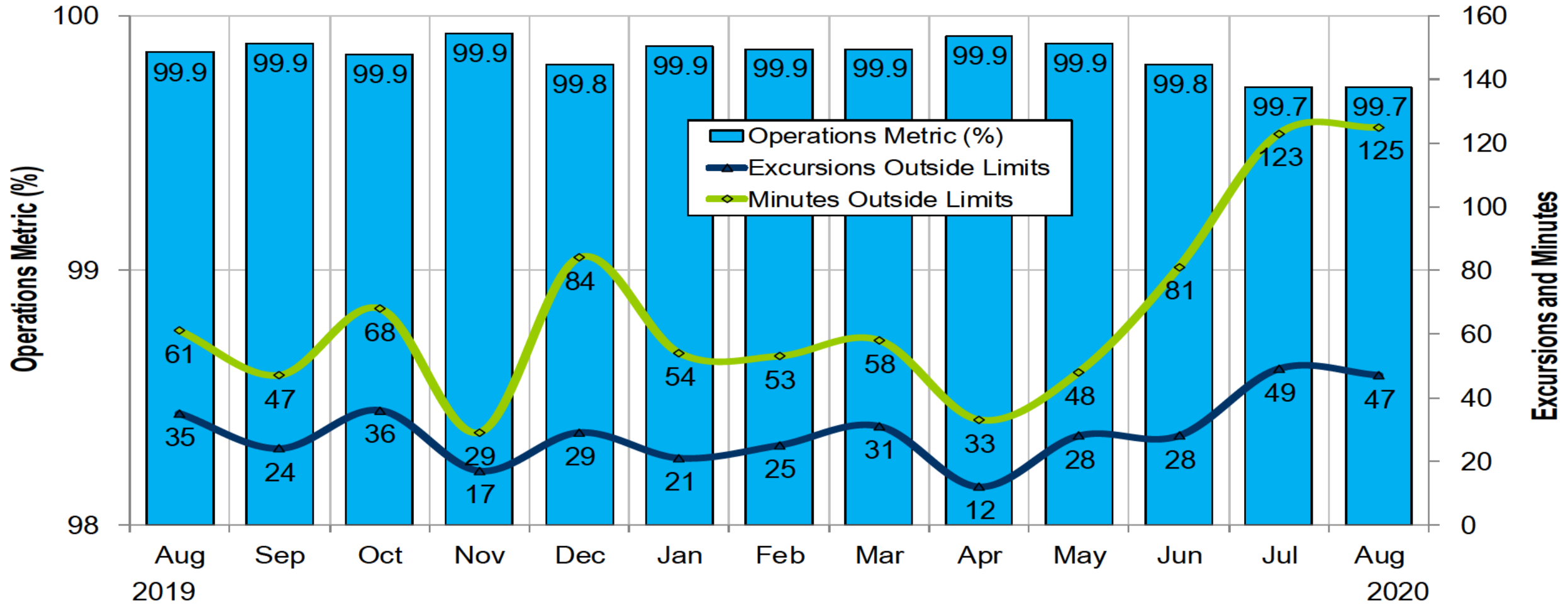
Hong Chen
Senior Lead Engineer, Markets Coordination
MC Webinar
September 14, 2020





Daily Peak Forecast Error (August)

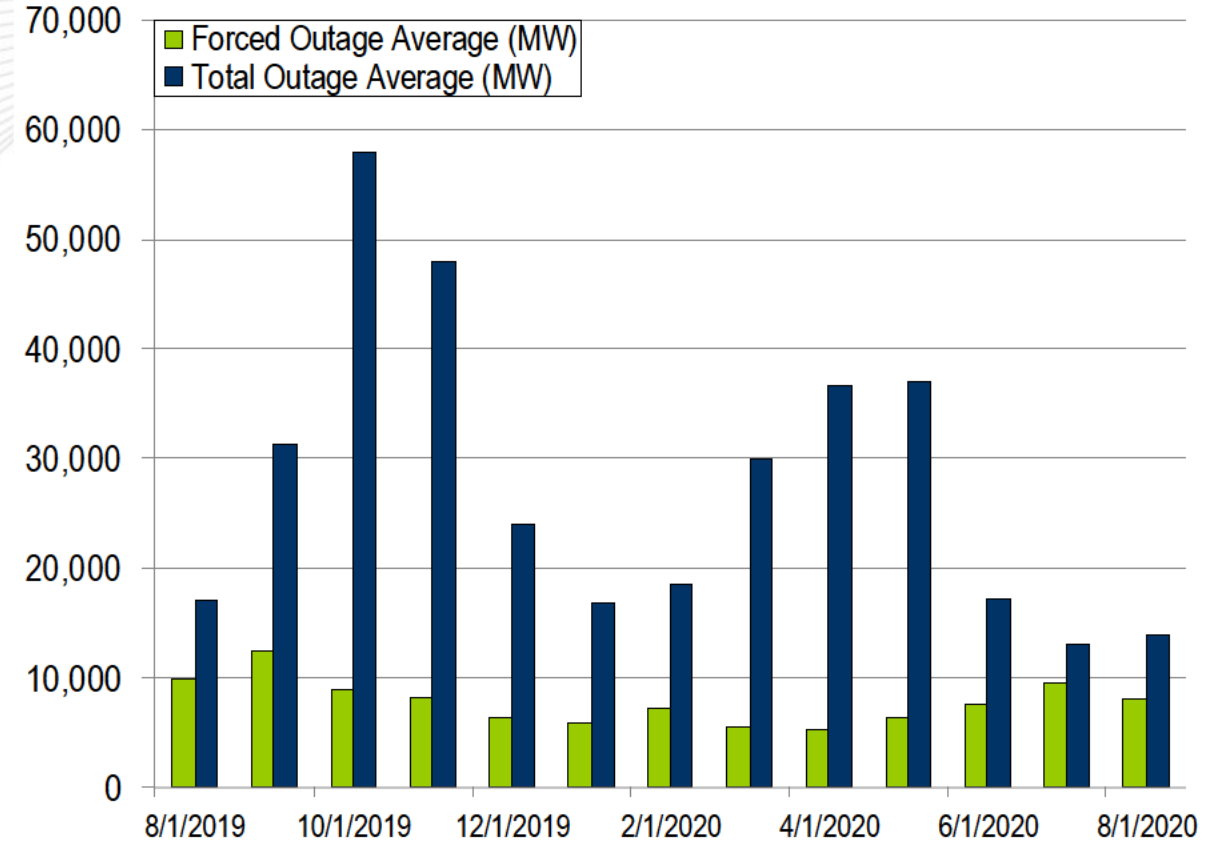
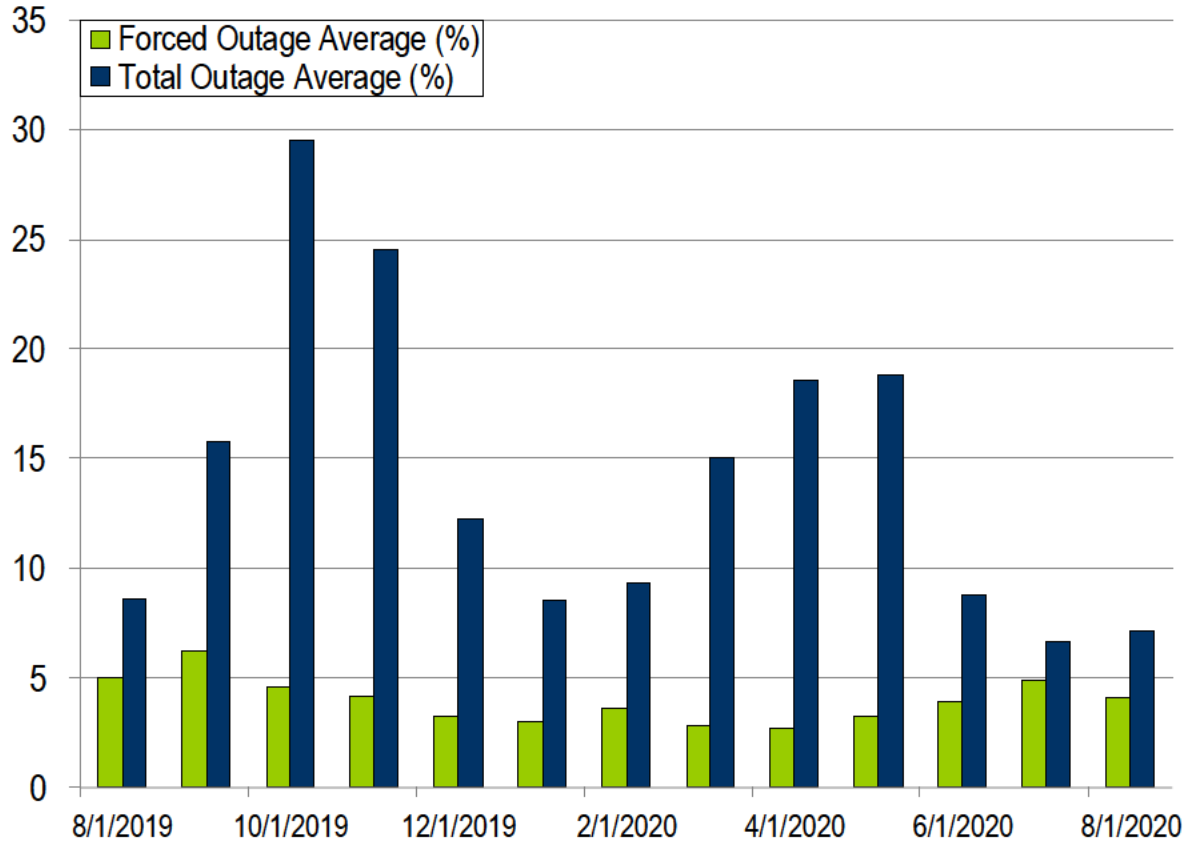




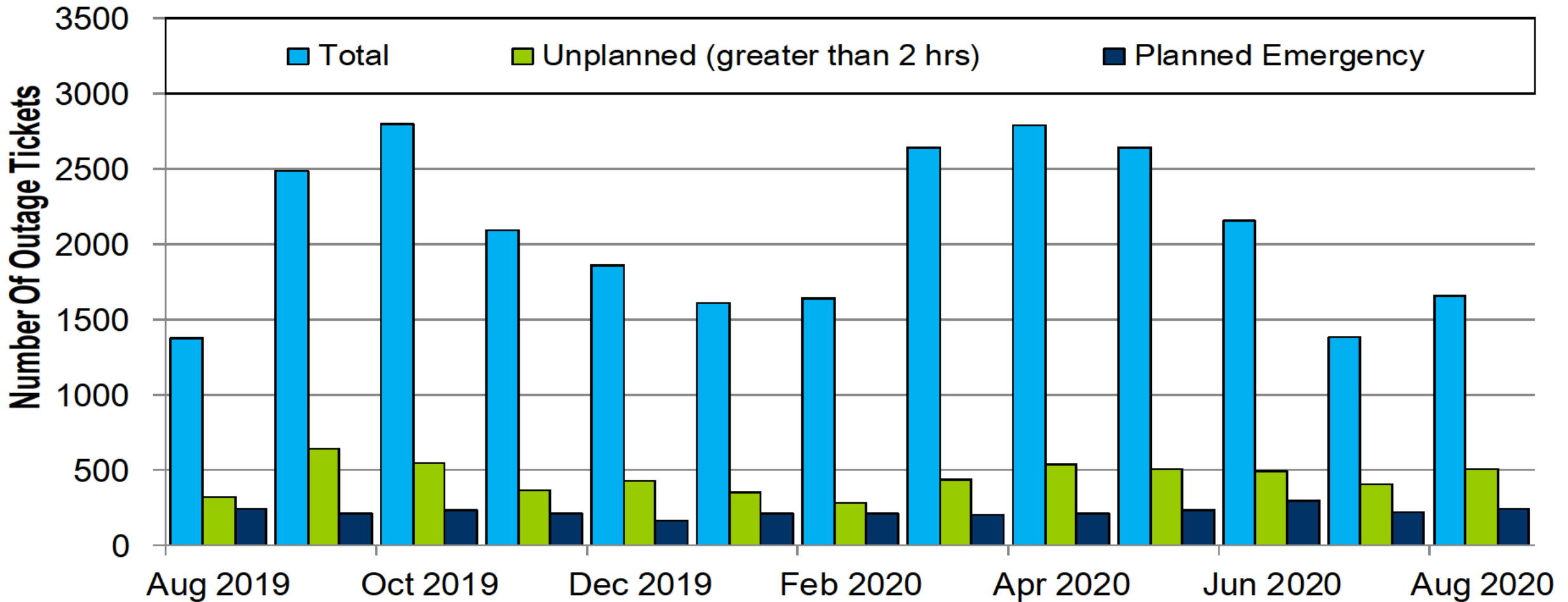
PJM's BAAL performance has exceeded the goal of 99% for each month in 2020.

- Three spinning events in the month of July
- Seven reserve sharing events with the Northeast Power Coordinating Council (NPCC)
- The following Emergency Procedures occurred in July:
 - 31 Post-Contingency Local Load Relief Warnings (PCLLRW)
 - 15 Hot Weather Alerts

- Zero spinning events in the month of August
- Five reserve sharing events with the Northeast Power Coordinating Council (NPCC)
- The following Emergency Procedures occurred in August:
 - 24 Post-Contingency Local Load Relief Warnings (PCLLRW)
 - 2 Hot Weather Alerts

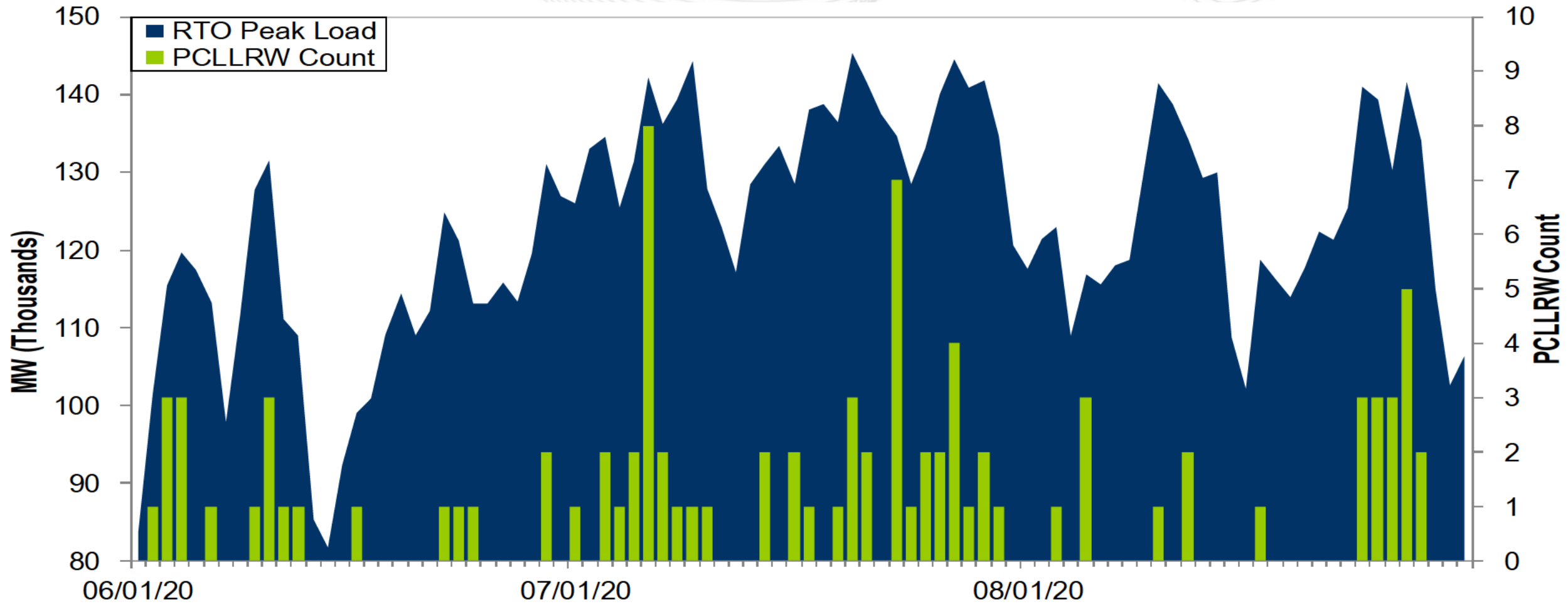


The 13-month average forced outage rate is 3.96% or 7,811 MW.
 The 13-month average total outage rate is 14.12% or 27,824 MW.



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	07/06/20	17:22	17:32	00:10	RTO	1464.0	526.1
2	07/23/20	21:03	21:12	00:09	RTO	1562.7	852.8
3	07/25/20	12:39	12:50	00:11	MAD	868.4	421.6

Event	Date	Start Time	End Time	Duration	Region	Tier 2 Assigned (MW)	Tier 2 Response (MW)	Tier 2 Penalty (MW)
1	07/06/20	17:22	17:32	00:10	RTO	479.7	415.1	64.6
2	7/23/2020	21:03	21:12	00:09	RTO	743.2	743.2	0.0
3	7/25/2020	12:39	12:50	00:11	MAD	302.3	264.8	37.5

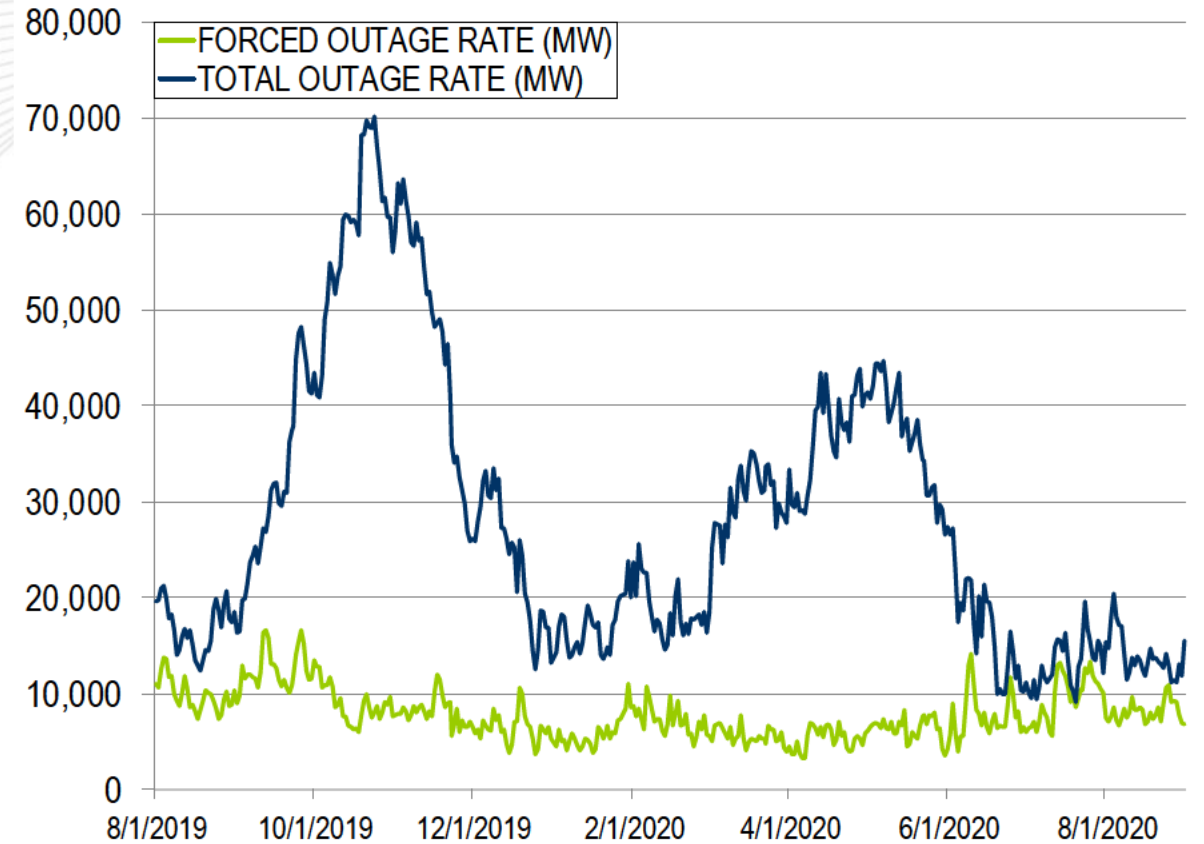
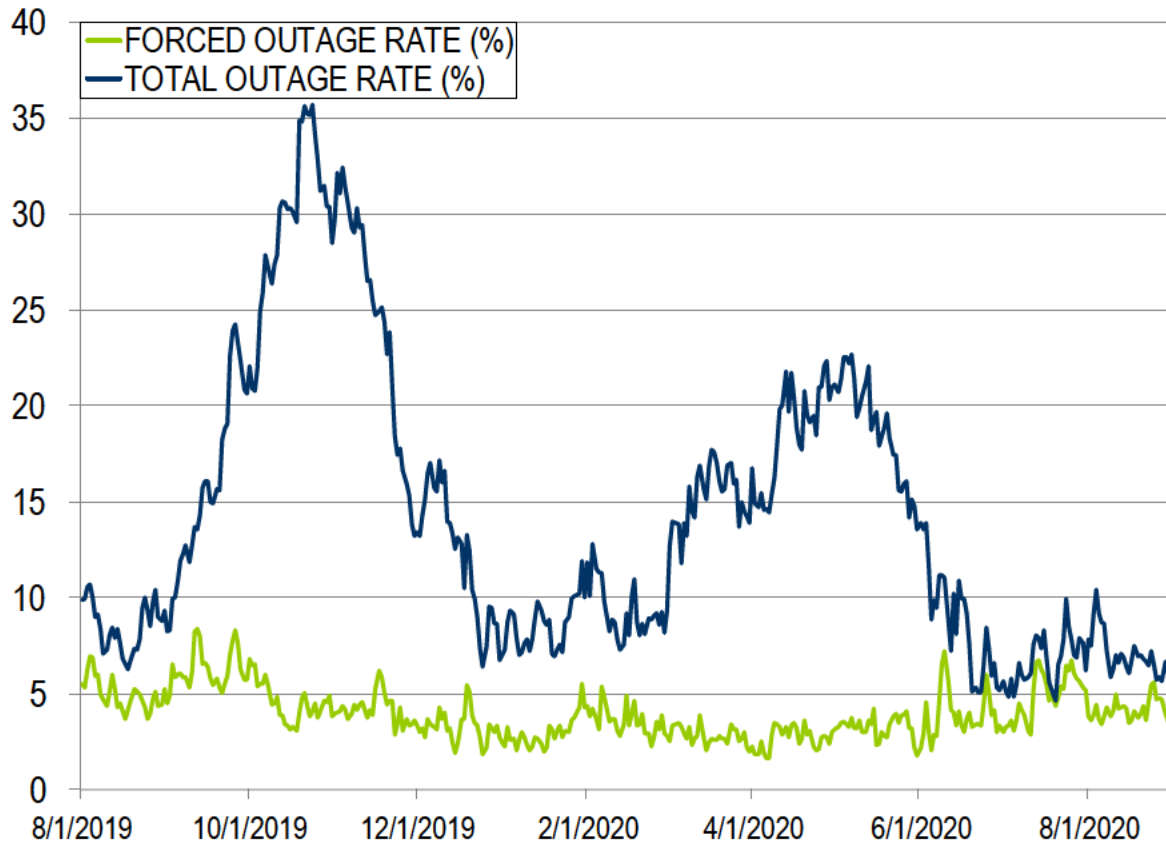
*Tier 2 Response is equal to Tier 2 Assigned for events less than ten minutes

PJM experienced no spinning events during the month of August 2020.

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 3.96% or 7,811 MW.
 The 13-month average total outage rate is 14.12% or 27,824 MW.

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

