



# Summer Readiness

## August 2023 Performance

Market Performance and Advanced Analytics  
Short-Term Forecasting

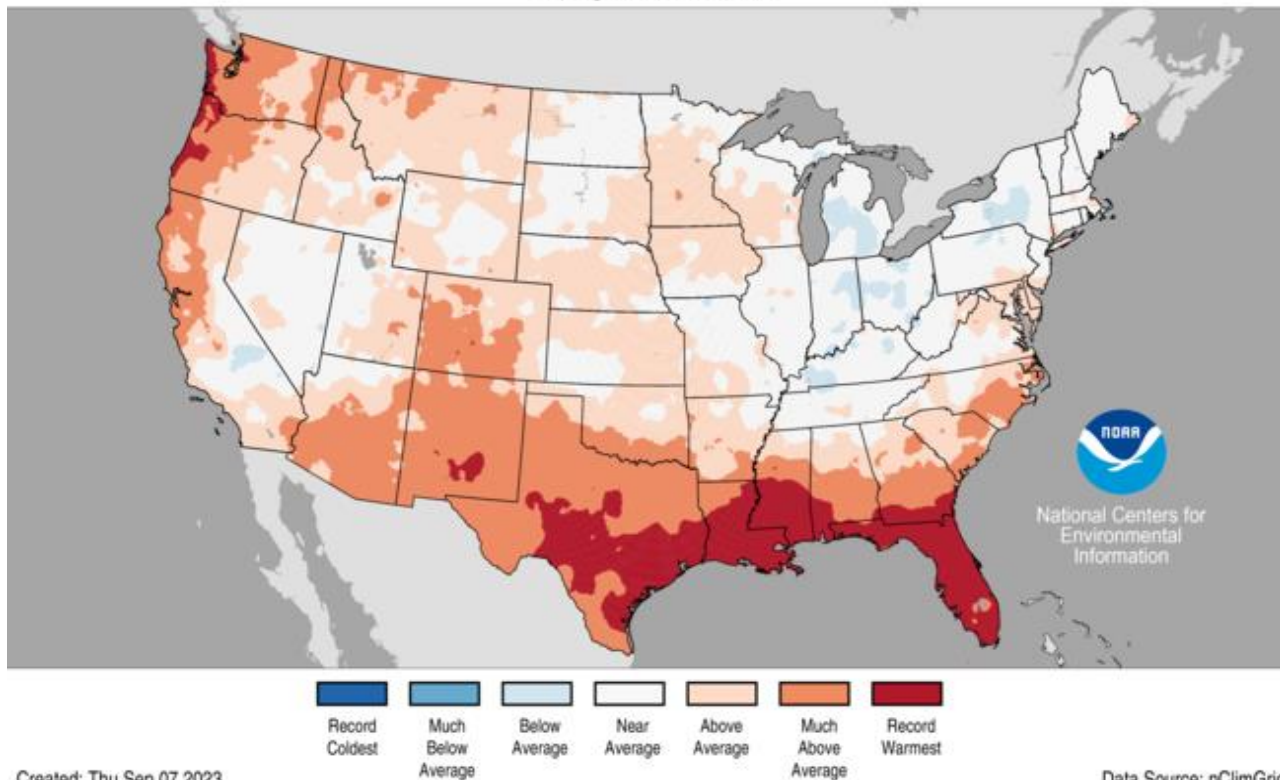
California ISO  
October 16, 2023

# August's conditions were moderate and did not require use of further actions to handle stressed supply events

- There were no energy emergencies
- August 15 and 16 observed undersupply conditions in the day-ahead market
- Scarcity pricing was not triggered
- Up to 5,000 MW of low-priority exports were reduced in the day-ahead market
- Reliability demand response was not triggered
- There were no wheel-through transactions reduced in the day-ahead or real-time market

# From below average up to record warmest mean temperatures were observed across most of California and the Southwest in August 2023

Mean Temperature Percentiles  
August 2023  
Ranking Period: 1895–2023



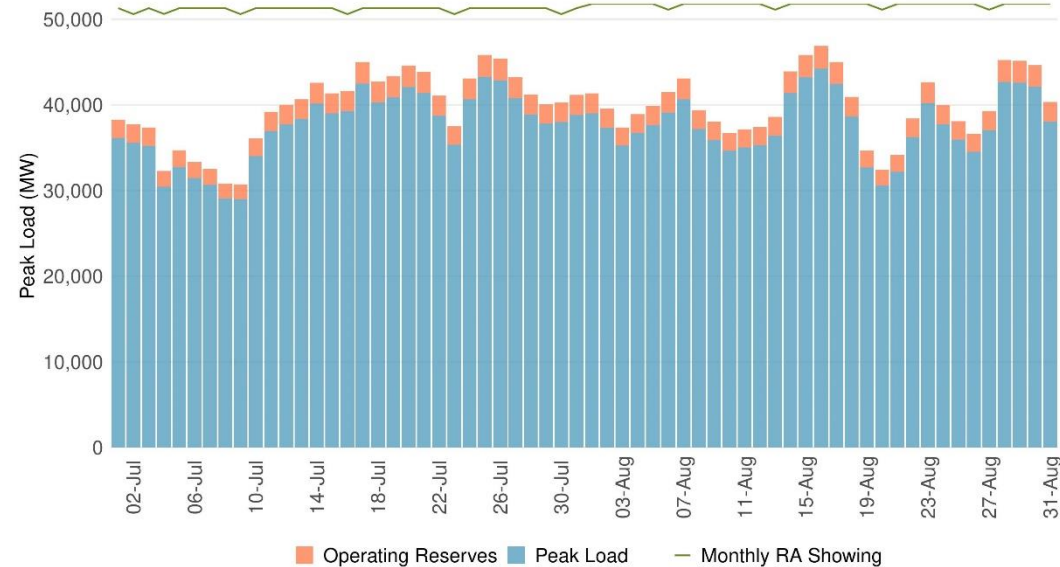
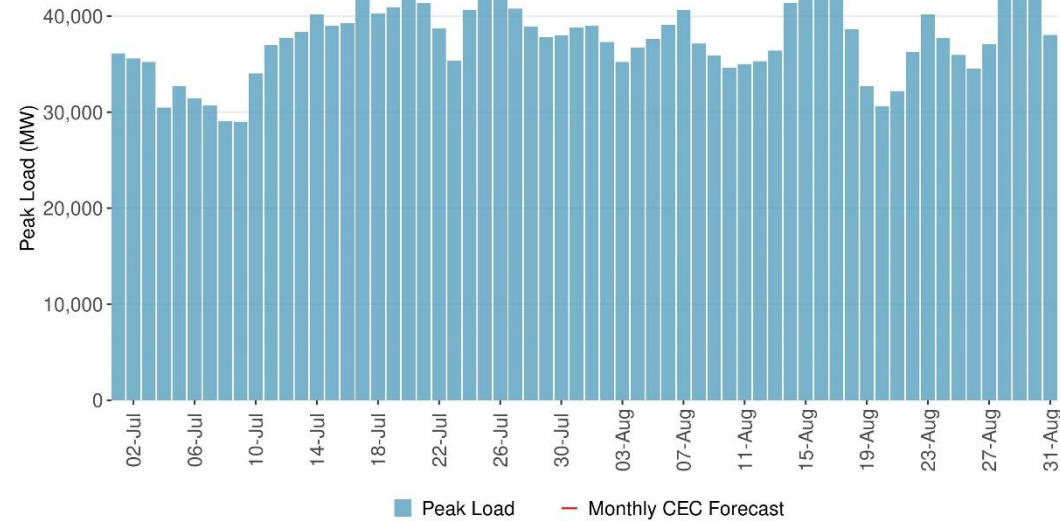
Created: Thu Sep 07 2023

Data Source: nClimGrid

# CAISO's loads in August were relative moderate

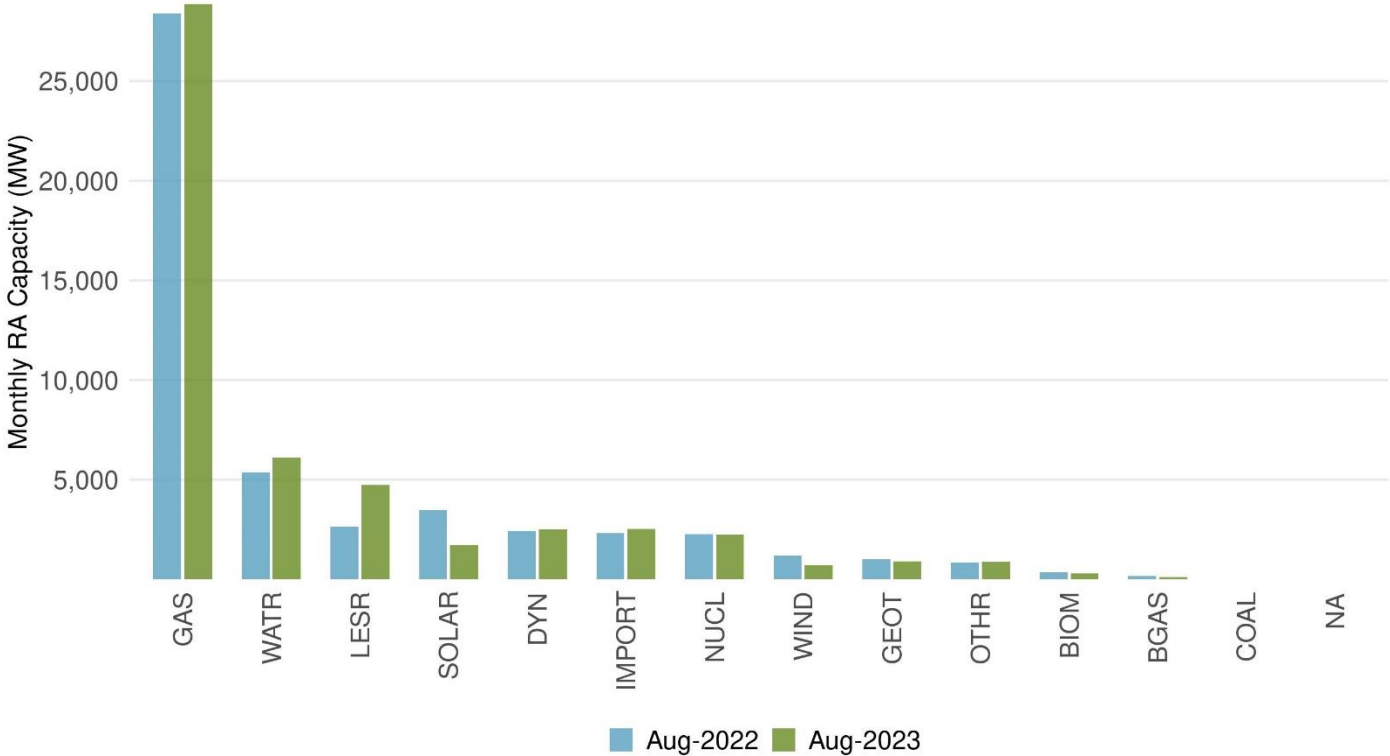
The CAISO's load peak for the month happened on August 16 at 44,226 MW, below the CEC forecast of 46,256 MW

CAISO's load did not exceed the monthly CEC forecast, and monthly RA showings were above CAISO's load plus operating reserves



# Monthly RA showings for August 2023 RA is comparable to June's 2022 values

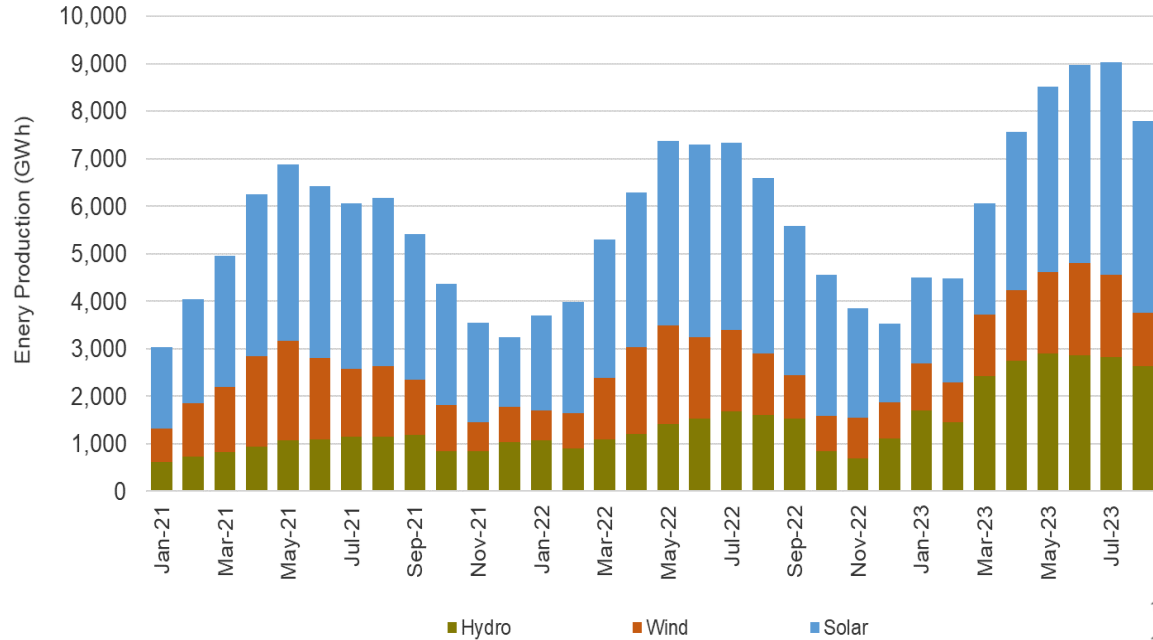
Gas: +486 MW  
 Hydro: +729 MW  
 Storage: +2.097 MW  
 Imports: +228 MW



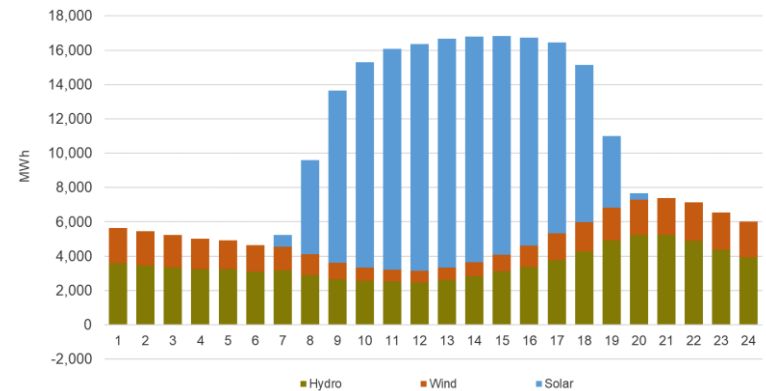
RA August 2022: 50,445 MW

RA August 2023: 51,685 MW

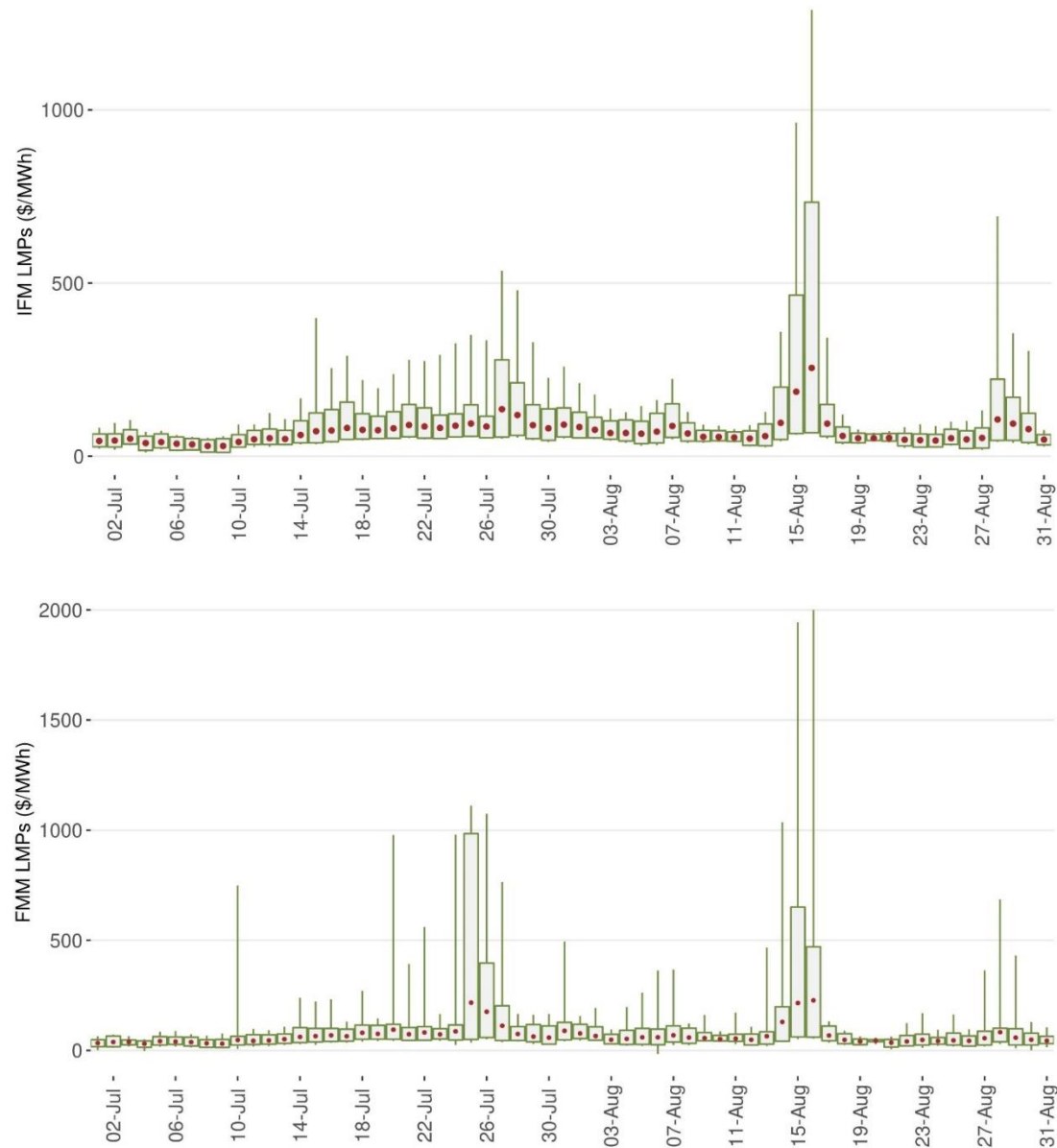
# Hydro production has improved significantly in the summer 2023



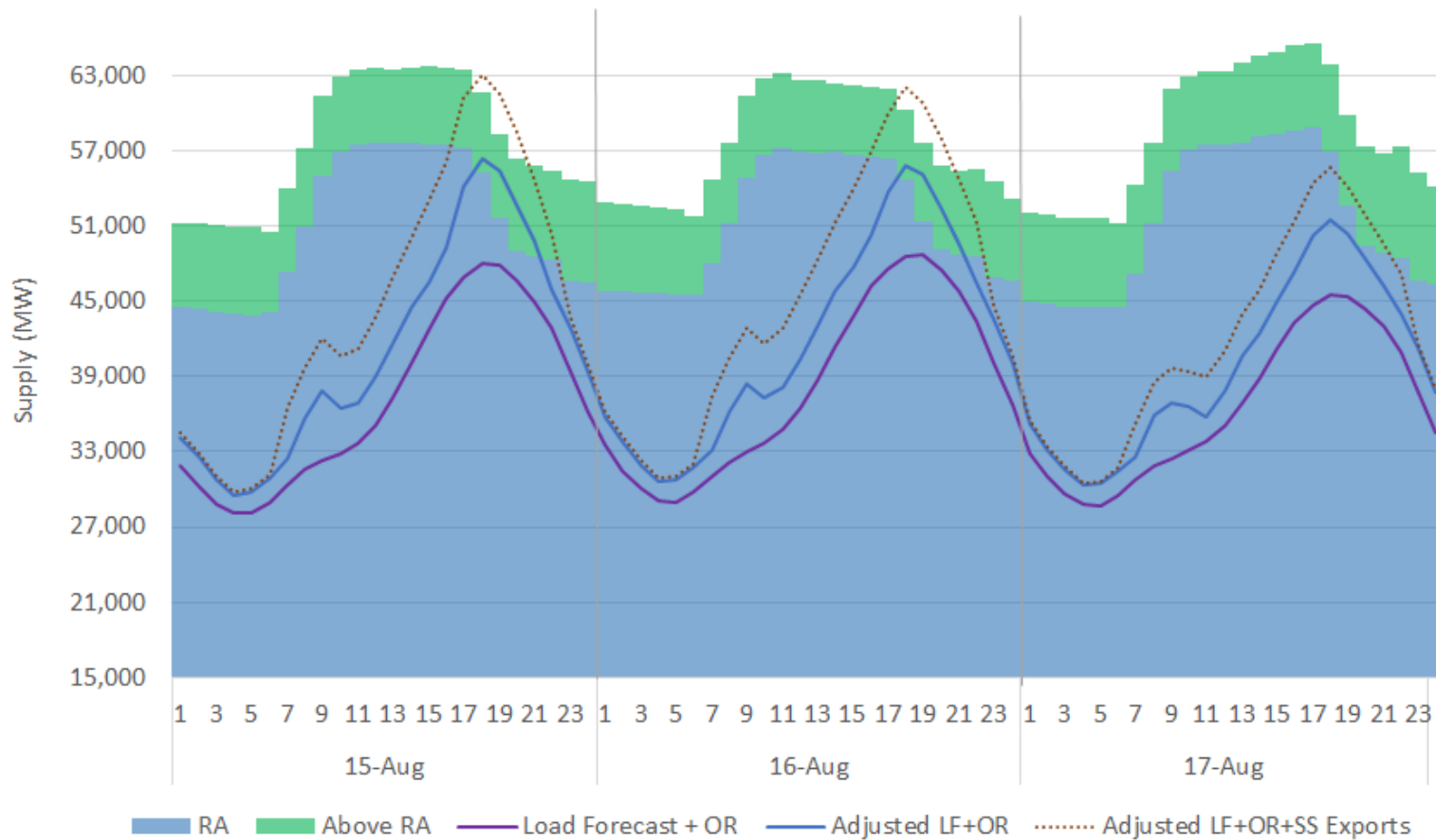
August 2023 saw an 63% increase of hydro relative to August 2022



Prices across CAISO's markets for the month of August remained steady but increased during higher-load days of August 15 and 16

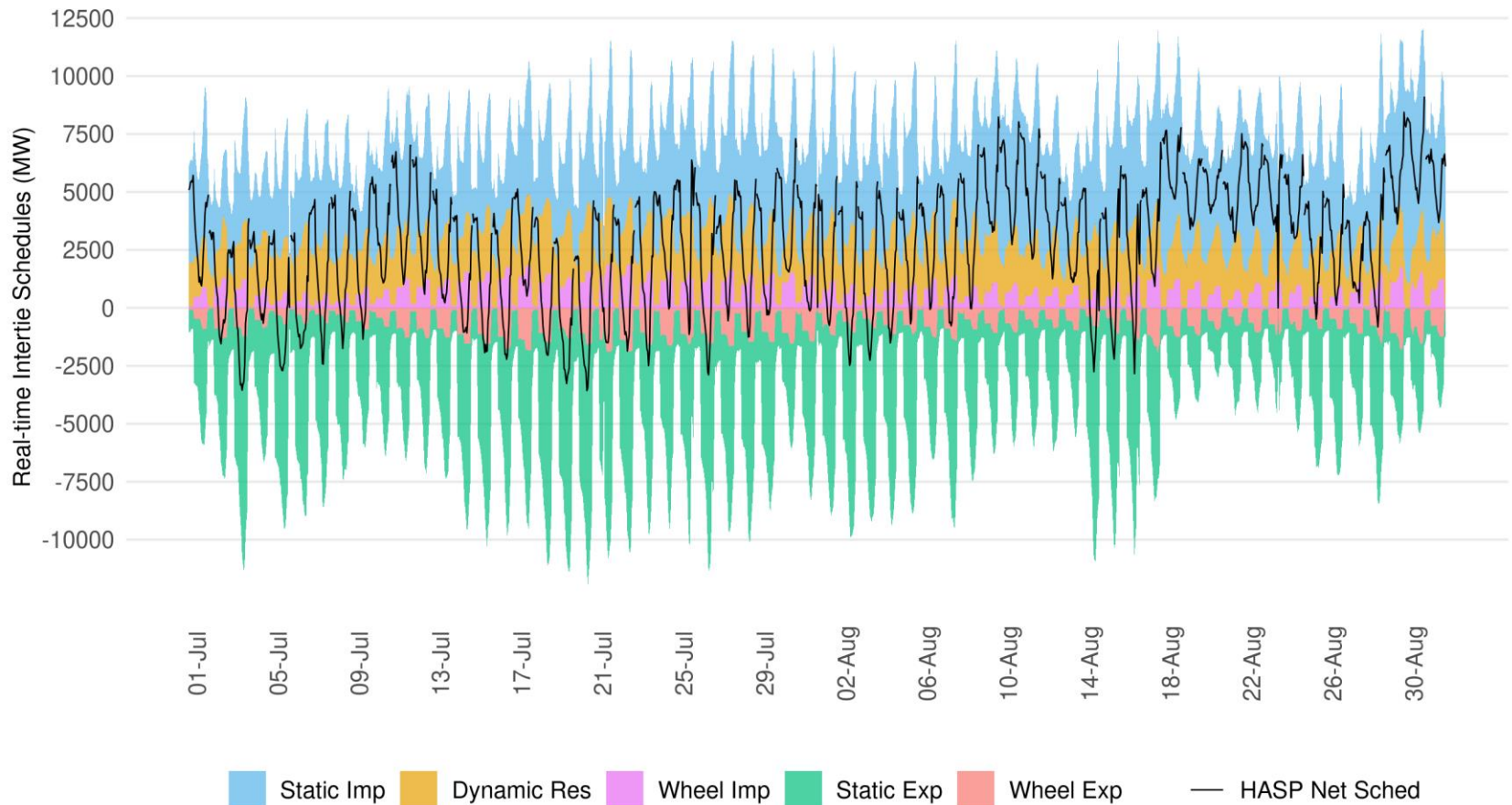


RA capacity was sufficient in August to meet load needs, including August 16 when CAISO observed the peak load

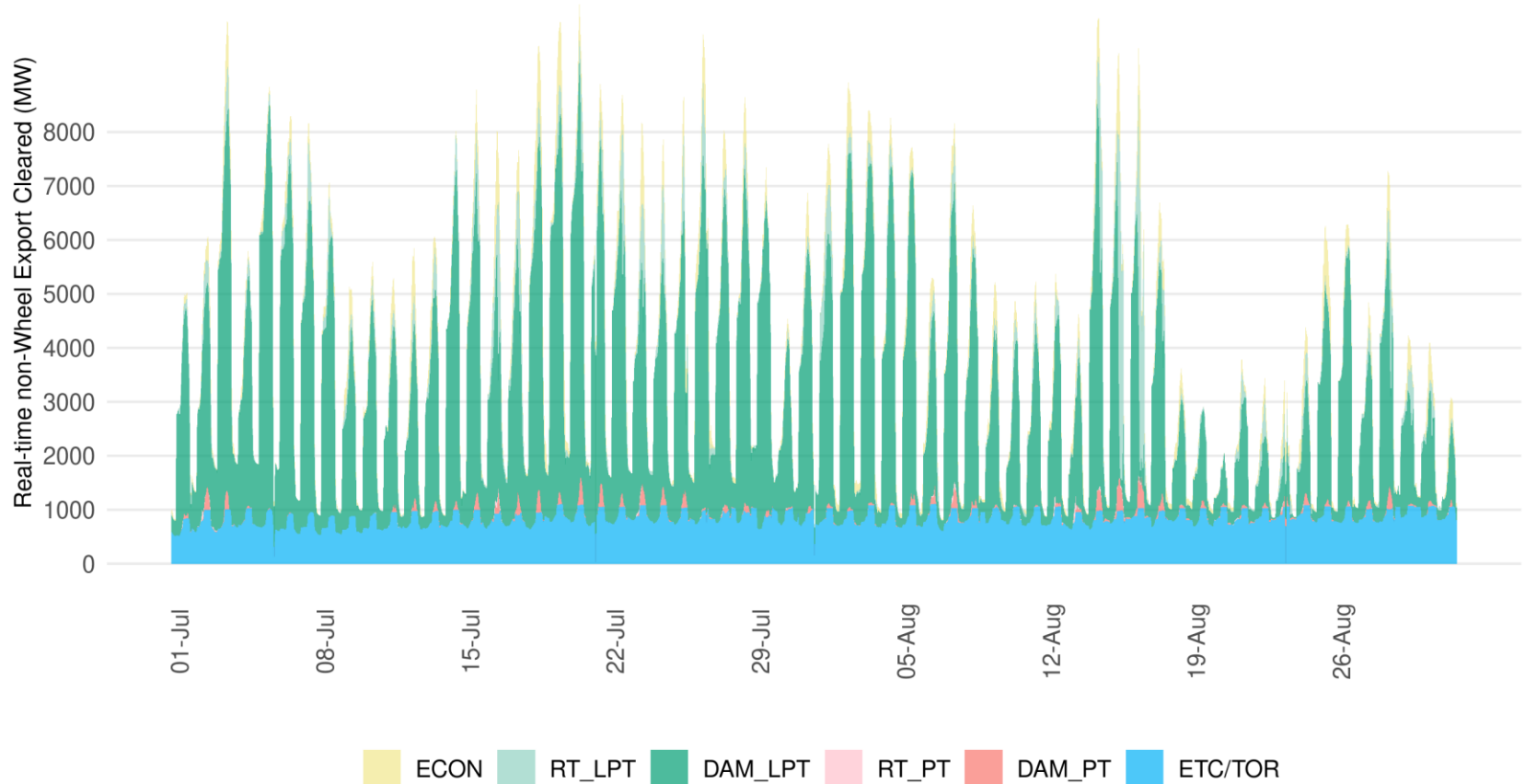




# Net intertie schedules in August were negative ( net export) during August 16 due mainly to higher level of exports

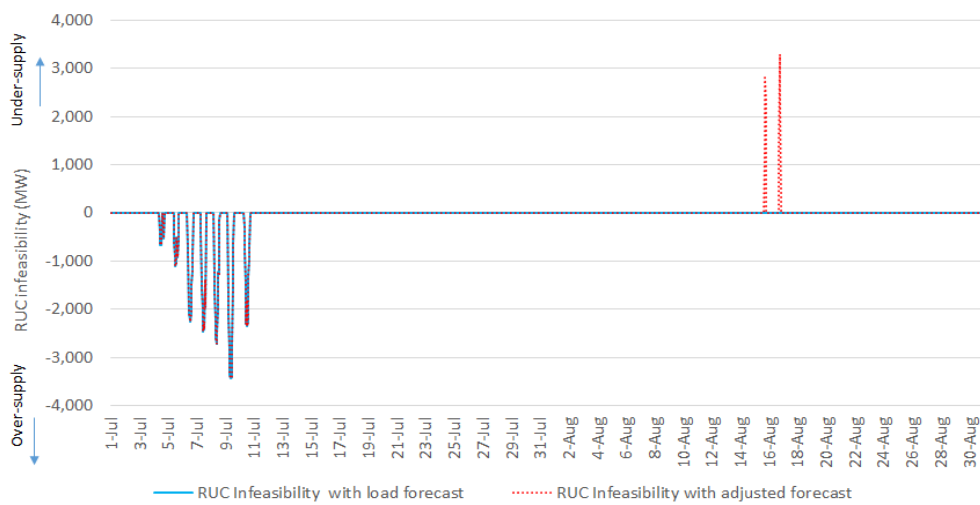
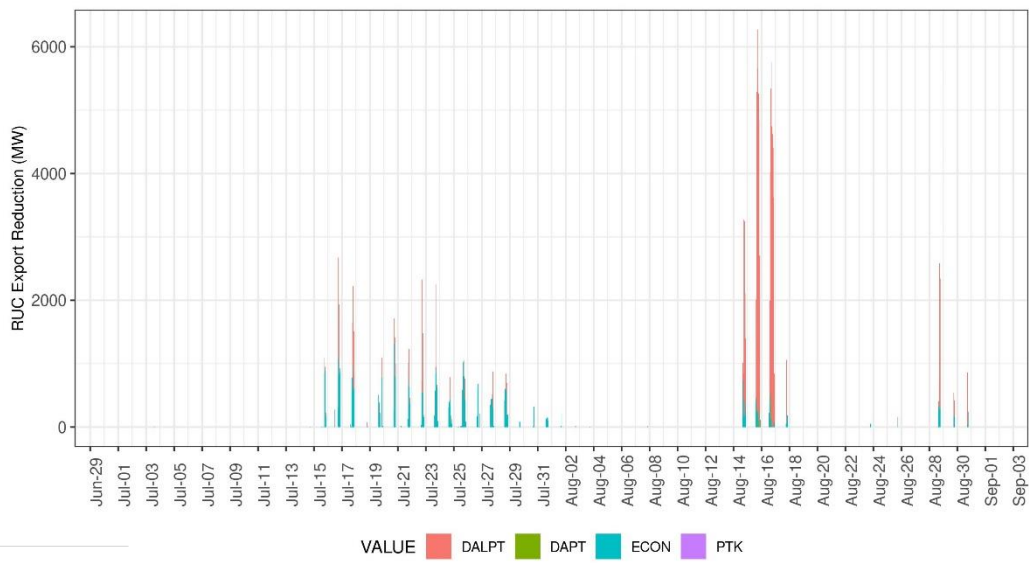


# Volume of exports in CAISO's market has been relatively higher in the summer, reaching up to 8,000 MW in August



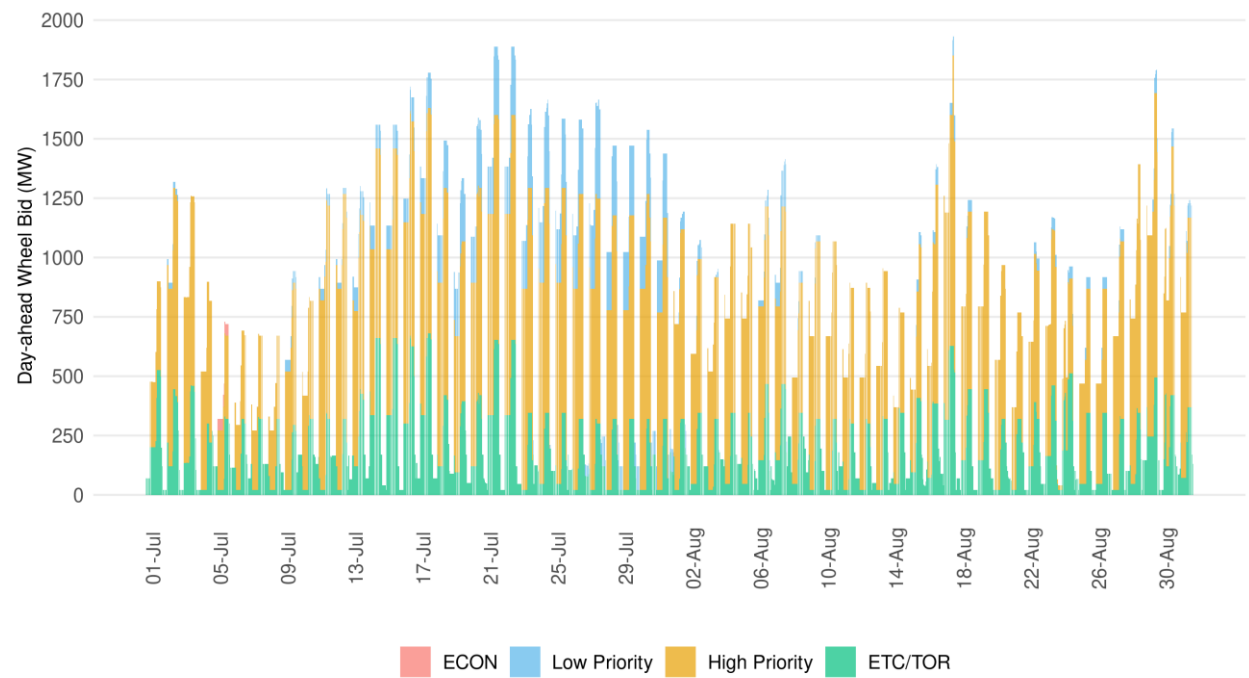
Maximum levels of exports are typically observed in midday hours when solar supply is plentiful

# RUC undersupply infeasibilities were observed on August 15 and 16, concurrent with significant level of low-priority export reductions



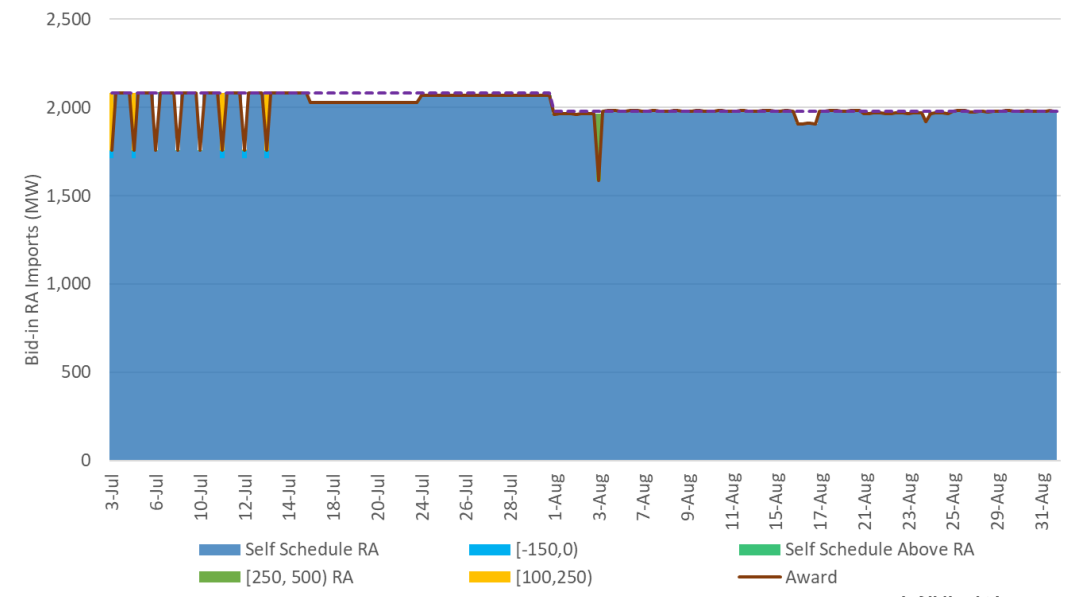
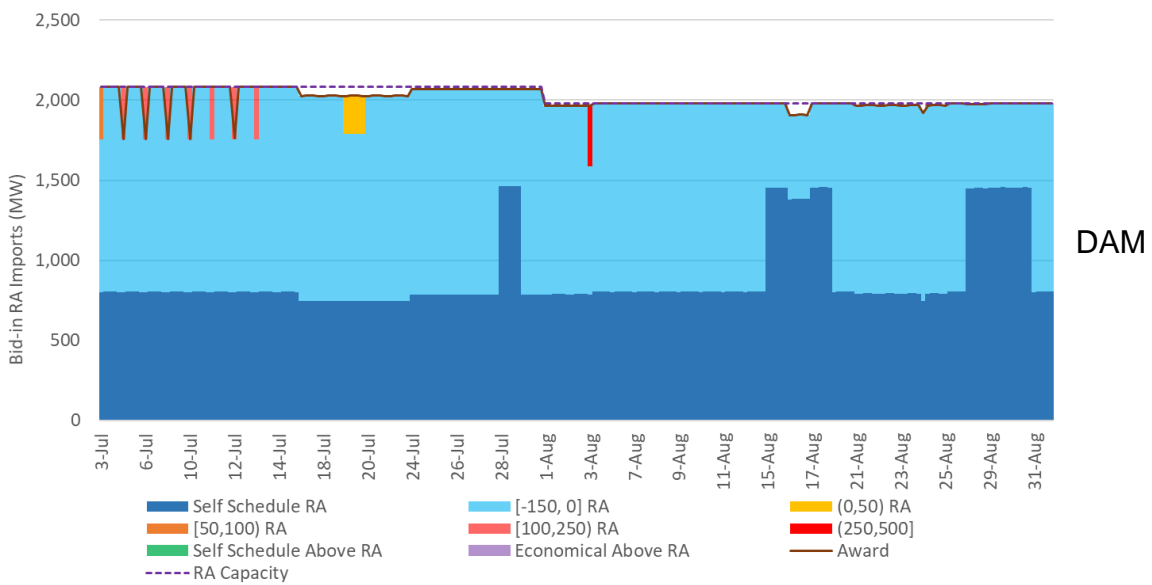
# Up to 1,223 MW out of 1,776 MW of wheel-through transactions were bid in and cleared in the day-ahead market

Source	Sink	MW
CFEROA	PVWEST	50
CFETIJ	MEAD230	75
CTW230	LLL115	105
IPP	SYLMAR	25
MALIN500	MEAD230	425
MALIN500	MCCULLOUG500	100
MALIN500	PVWEST	400
MIR2	RANCHOSECO	30
NOB	MEAD230	208
NOB	MCCULLOUG500	150
NOB	PVWEST	198
PVWEST	SYLMAR	10
<b>Total:</b>		<b>1776</b>

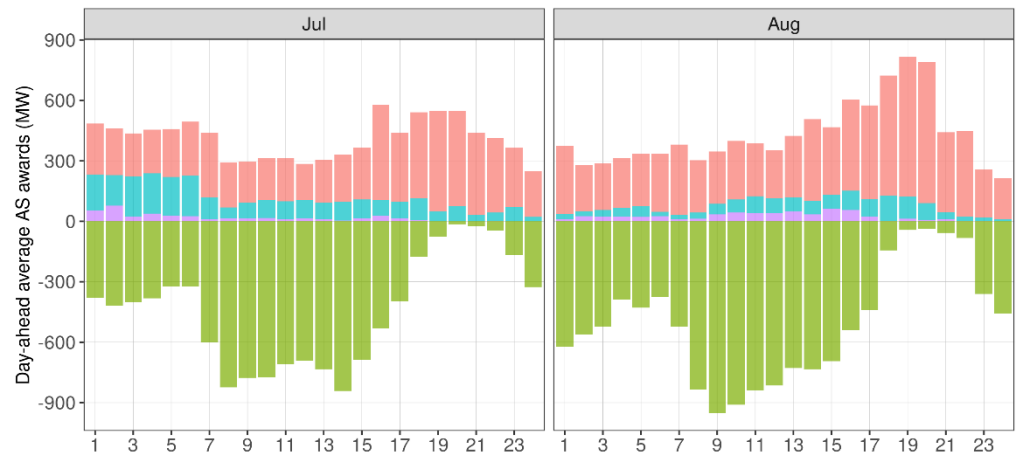
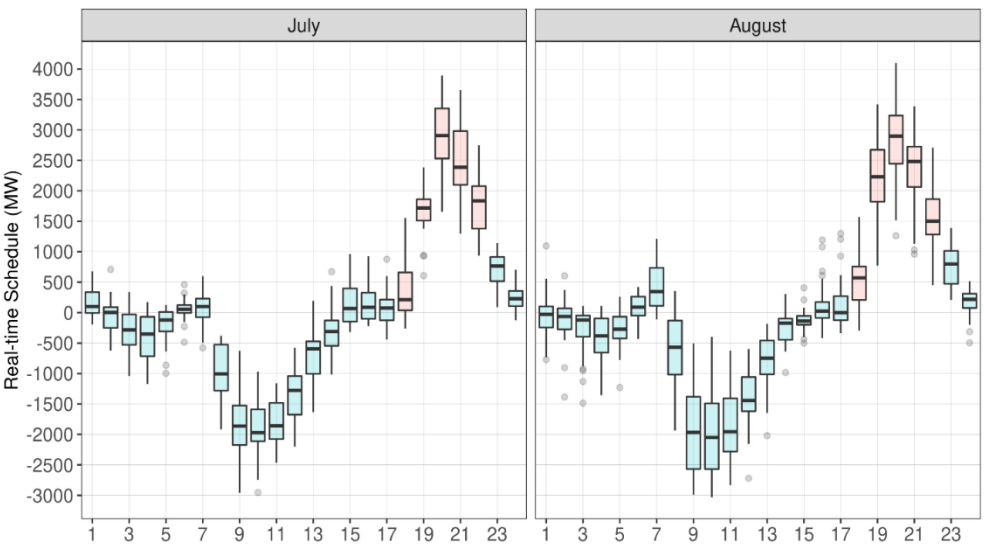


No wheel-through transactions were curtailed in August

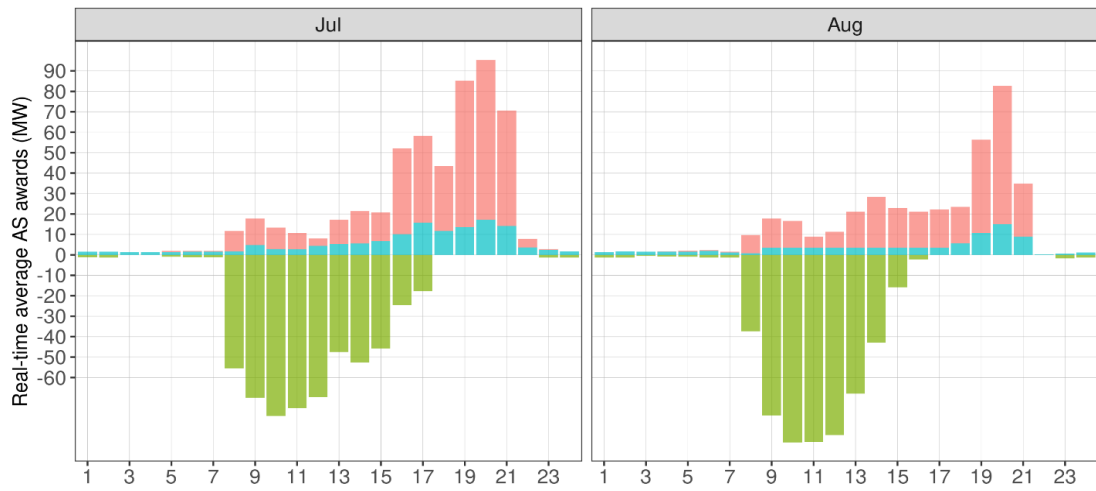
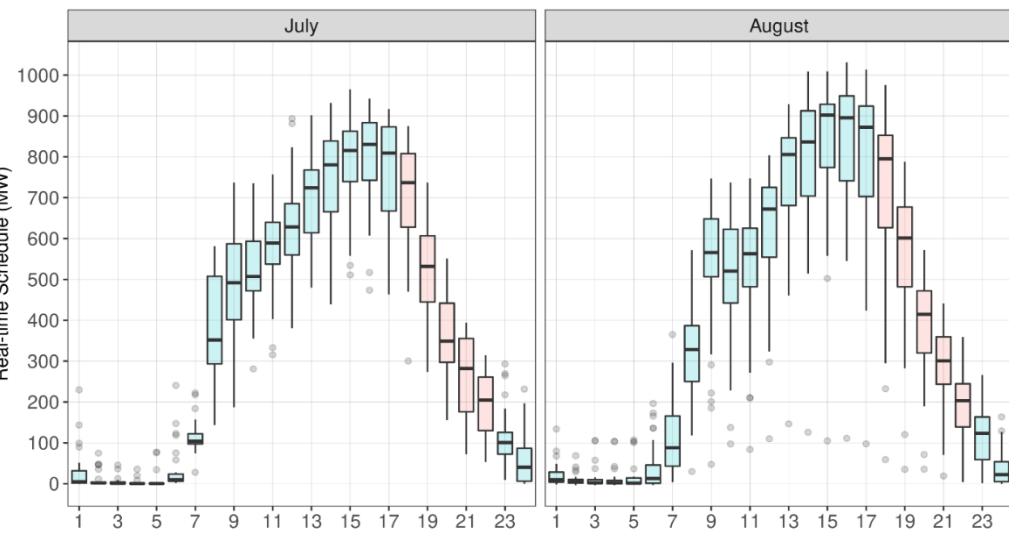
# About 99 percent of RA imports bid in at or below \$0/MWh in August



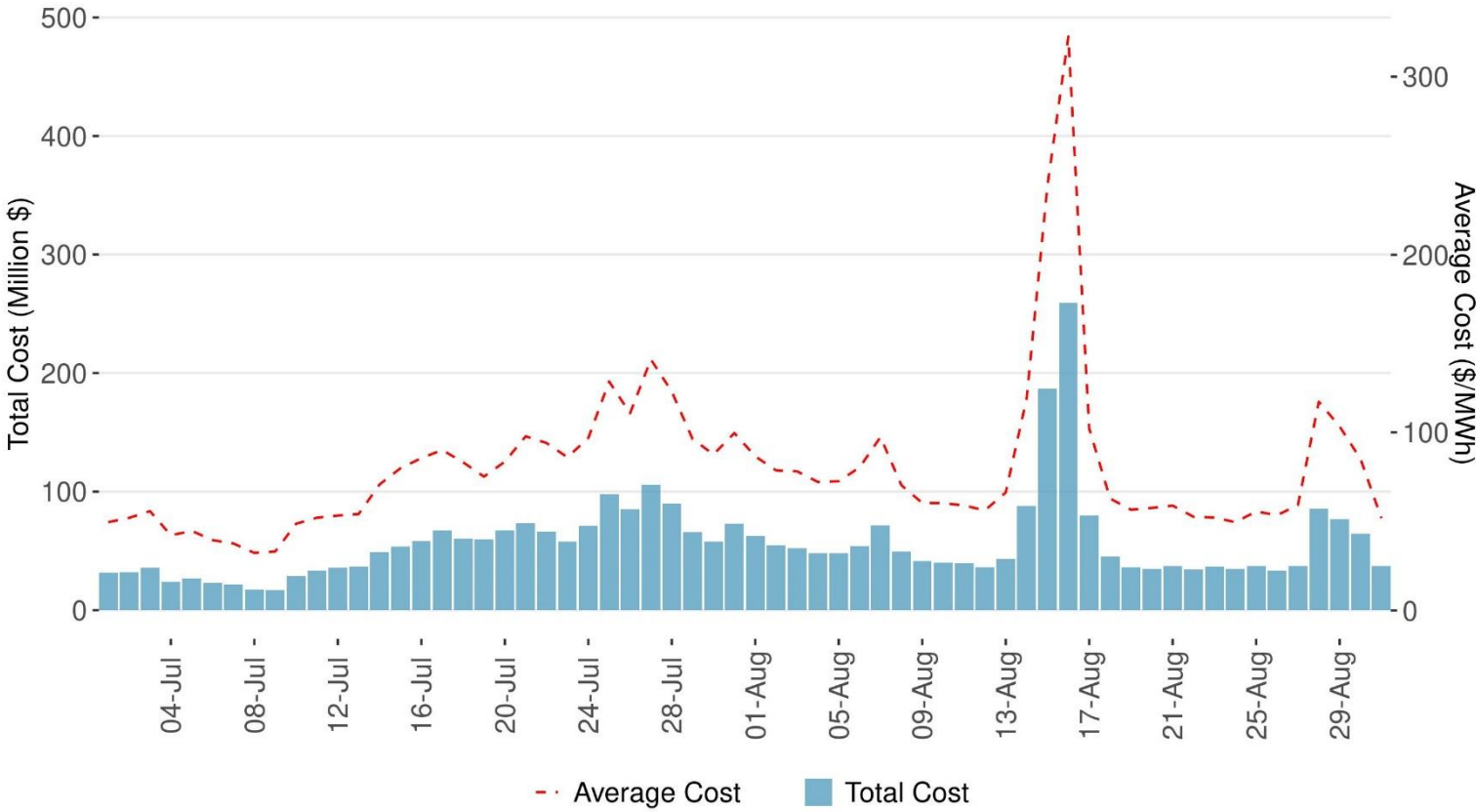
# Storage resources reached 3,000 MW of energy dispatches and provided a significant portion of the regulation requirement



# Hybrid resources contributed with up to 1,000 MW in midday hours, following a pattern of extended solar production



# Average daily wholesale cost in August was about \$60 million



Metric based on preliminary settlements information and subject to change



# Five balancing areas opted in for the Assistance Energy Transfer in August

