

#### Summer Readiness July 2022 Performance

Market Analysis and Forecasting California ISO August 30, 2022

#### Reminders:

- This call is being recorded for informational and conveniences purpose only. Any related transcription should not be reprinted without the ISO permission.
- Calls are structured to stimulate open dialogue and engage different perspectives with the understanding that stakeholder have reviewed the material.
- Please raise your hand if you have a question or comment at any time during the meeting and the facilitator will call on you.
- Please start by stating your name and affiliation
- In the interest of time, please refrain from repeating or reiterating what has already been said.

Thank you for joining us, and we look forward to an engaging discussion.

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#### Instructions for raising your hand to ask a question

- If you are connected to audio through your computer or used the "call me" option, select the raise hand icon located on the top right above your chat window.
- Note press#, then 2 only works if you dialed into the meeting.
  - Please remember to state your name and affiliation before making your comment
- You may send your questions via chat to either Brenda Corona or to all panelists.

### Summary of summer enhancements in place for summer 2022

Summer enhancement	Date Implemented	Trigger	Dates Triggered
EIM resource sufficiency test	1-Jun-2022	Permanent feature	All the time
Import market incentives during tight system conditions	15-Jun-2021	Warning or Emergency	Not triggered
Intertie schedules information on OASIS	26-Jul-2021	Permanent feature	All the time
Enhanced real-time pricing signals during tight supply conditions	15-Jun-2021	Warning or Emergency	Not triggered
Management of storage resources during tight system conditions	30-Jun-2021	RUC undersupply	Not triggered
Reliability demand response dispatch and real- time price impacts	4-Aug-2021	Activation of RDRR	Not triggered
Load, export and wheeling priorities	4-Aug-2021	Permanent feature <sup>6</sup>	All the time
CAISO's public communication protocols	29-May-2021	System Event driven	Not triggered
Today's Outlook displays	Aug 18-2021	Permanent feature	All the time
Resource sufficiency test Enhancements to supporting resources for	Jun 1, 2022	Permanent feature	All time
exports	June, 2022	Permanent feature	All time
Further visibility for supporting resources	June, 2022	Permanent feature	All time
Additional transparency for load conformance	June, 2022	Permanent feature	All time

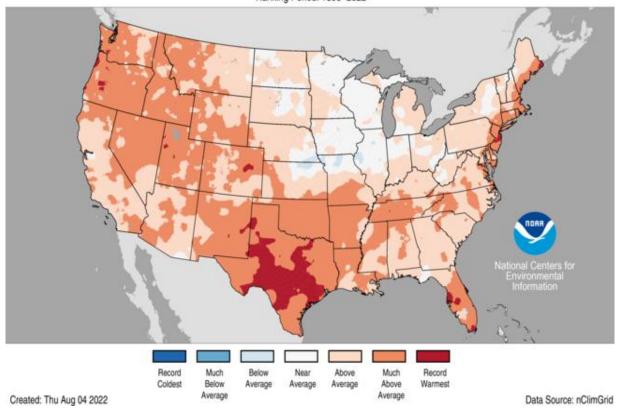
<sup>\*</sup> The wheeling through priorities the CAISO placed into effect are interim with an original sunset date of May 31, 2022. CAISO filed at FERC to extend these provision from June 1, 2022 through May 31, 2023 while it develops a long term policy for Forward Scheduling.



## Above Average and much above average were observed throughout the Southern Western United States

#### Mean Temperature Percentiles

July 2022 Ranking Period: 1895–2022





#### CAISO's loads in July were relative mild

60,000

The CAISO's load peak for the month happened on July 18 at about 41,810 MW, below the CEC forecast of 48,387 MW

50,000

40,000

20,000

10,000

10,000

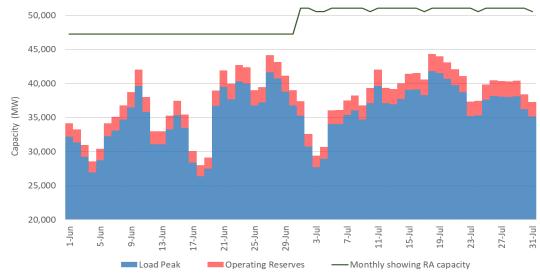
10,000

10,000

Monthly CEC Forecast

12,7nl | Monthly CEC Forecast

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





### July's conditions were mild and did not require use of further actions to handle stressed supply

- There were no energy warning or EEAs
- CAISO did not trigger scarcity pricing
- There were no undersupply conditions in the day-ahead market
- The minimum state of charge constraints were not enforced
- Reliability demand response was not activated



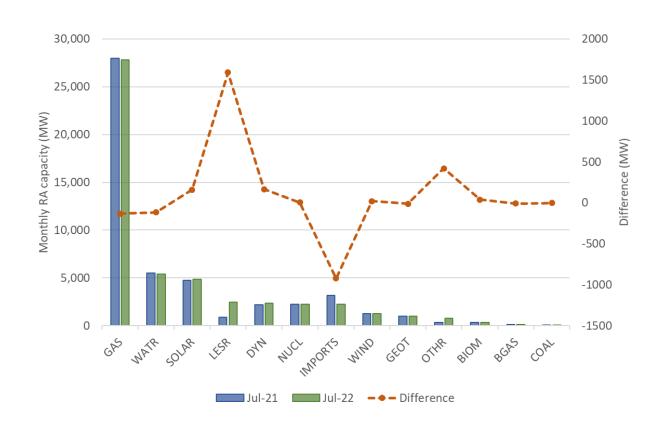
## Monthly RA showings for July 2022 RA is comparable to July's 2021 values

Gas: -132 MW

Hydro: -117 MW

Storage: +1590 MW

Imports: -921 MW

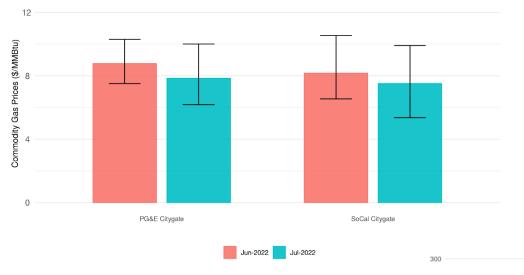


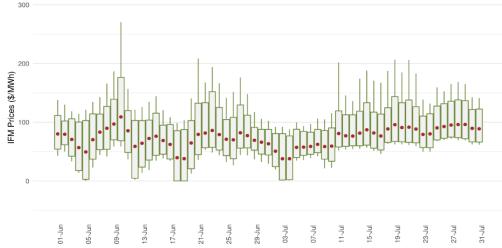
RA July 2021: 49,780 MW

RA July 2022: 50,988 MW



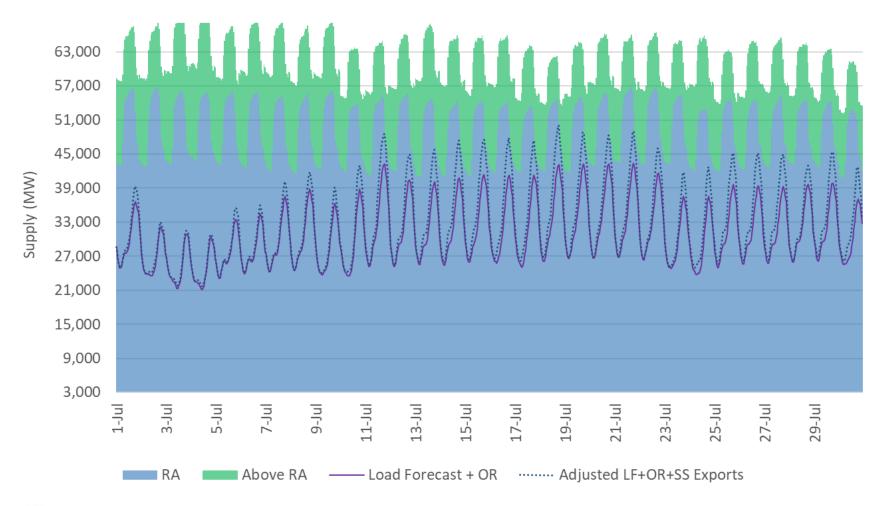
# Prices across CAISO's markets for the month of July relatively stable with relative high gas prices





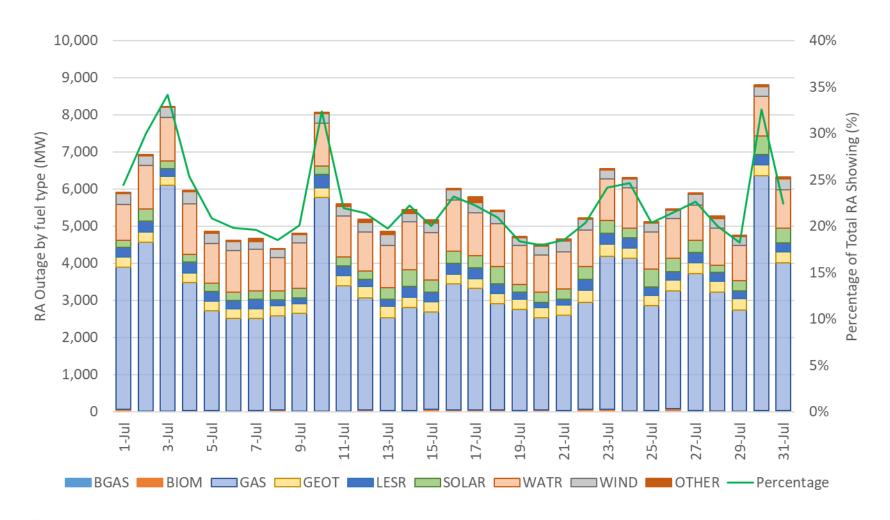


### RA capacity was generally sufficient in July to meet load needs



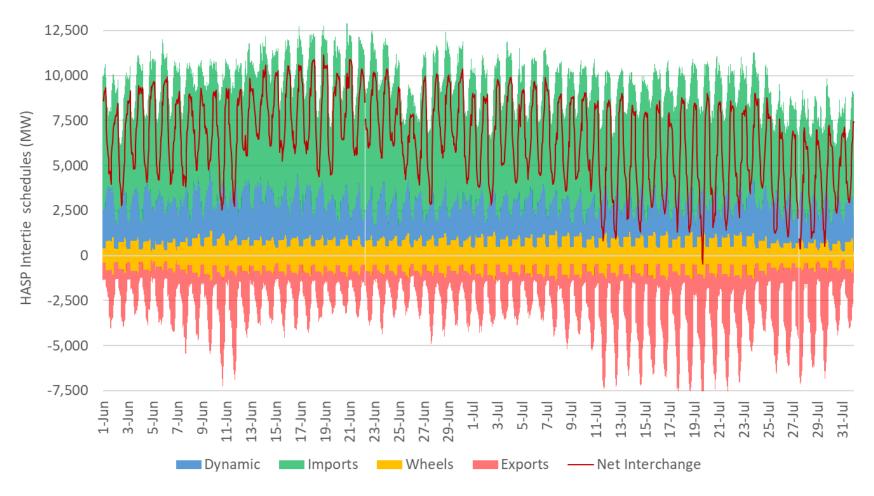


### Majority of unavailable RA capacity is from the gas – fired resources



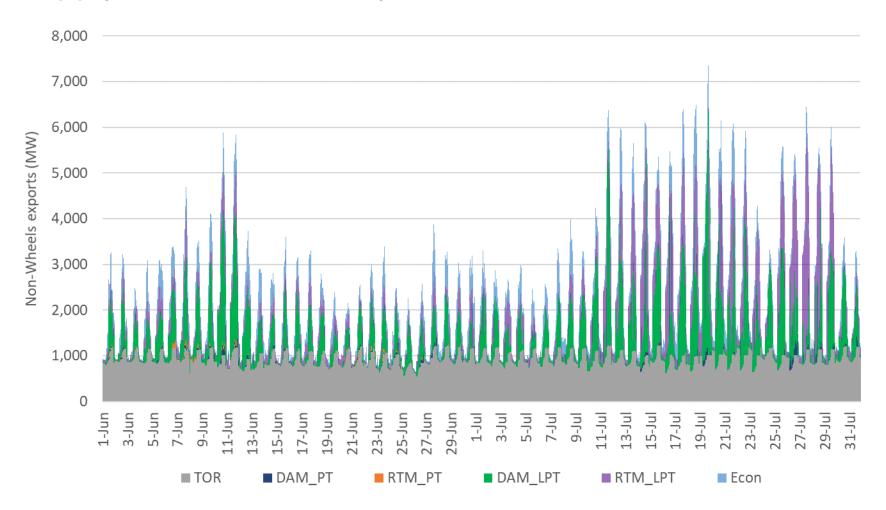


### Average net intertie schedules for peak hours was about 5,700 MW for July



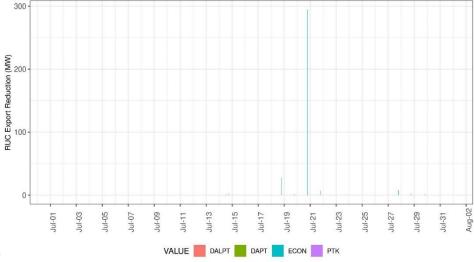


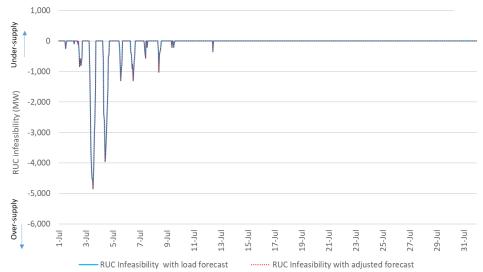
# Volume of exports in CAISO's market reflects overall supply conditions in July





### There were no RUC undersupply infeasibilities in July, but very low volume of economic exports were reduced on July 19-21

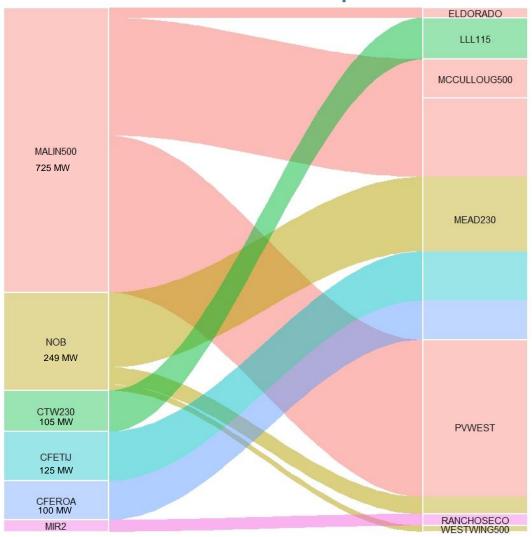






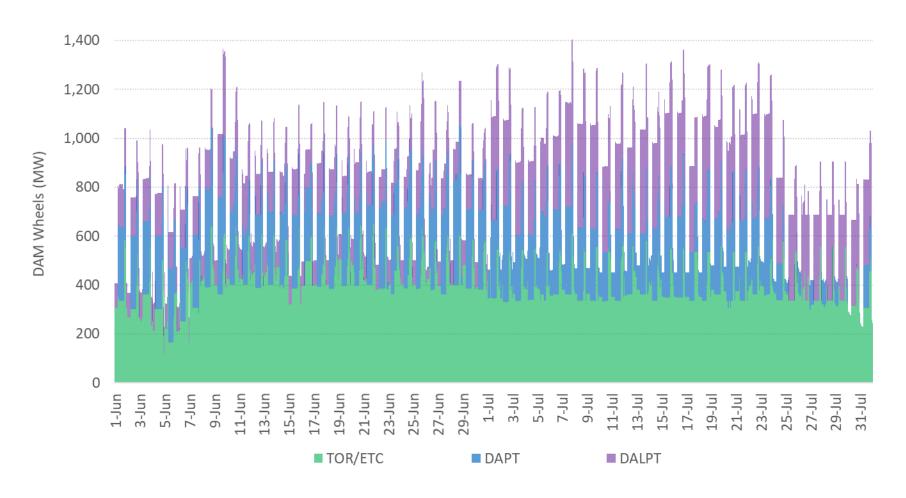
# About 408 MW of 1,334 MW registered wheels were bid in the day-ahead market; this is about 30 percent utilization

No wheel-through transactions were curtailed in July



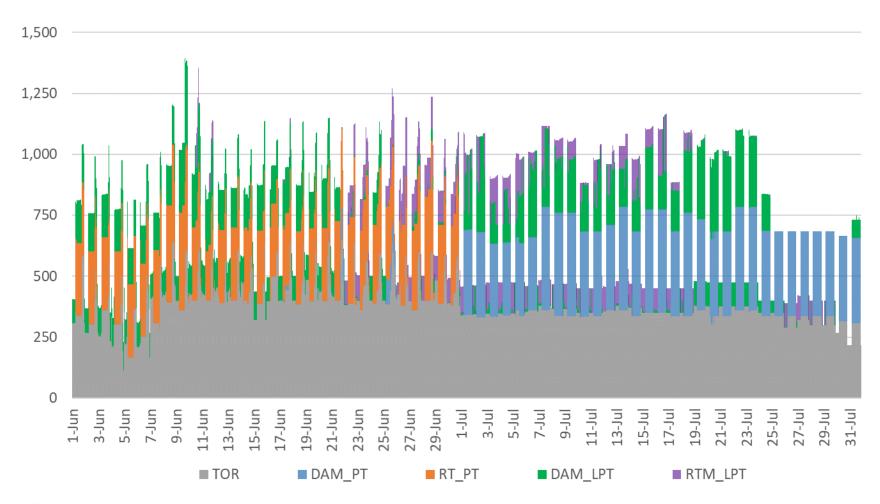


#### Volumes of DAM cleared wheels peaked at 1,404 MW on July 7



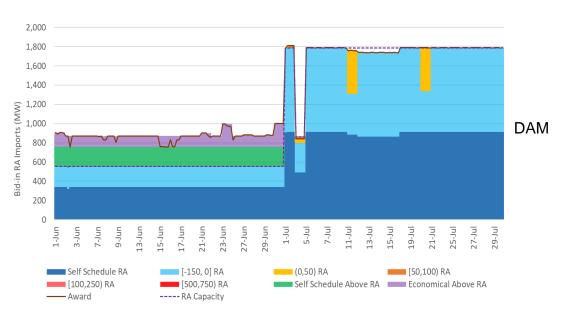


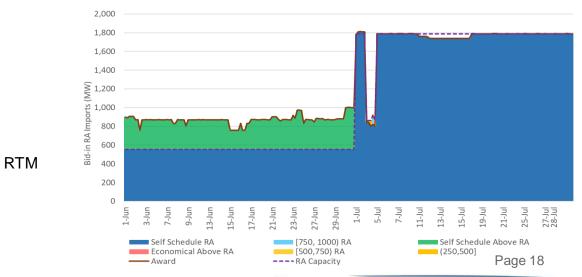
### Wheels cleared in real time market were mostly from the day-ahead market





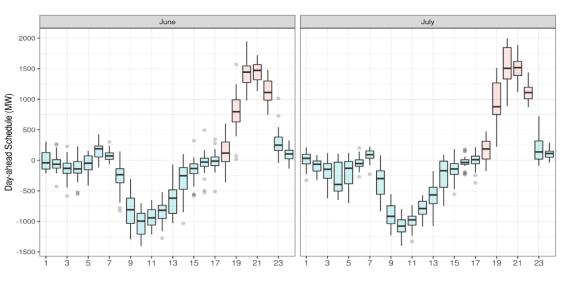
#### Over 97 percent of RA imports bid in at or below \$0/MWh in July

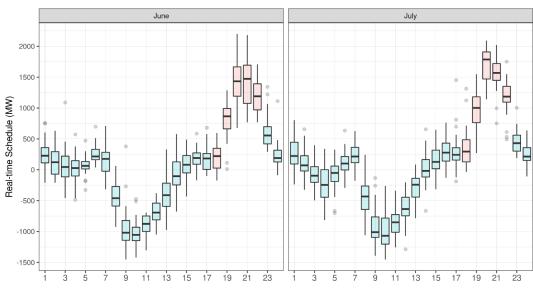






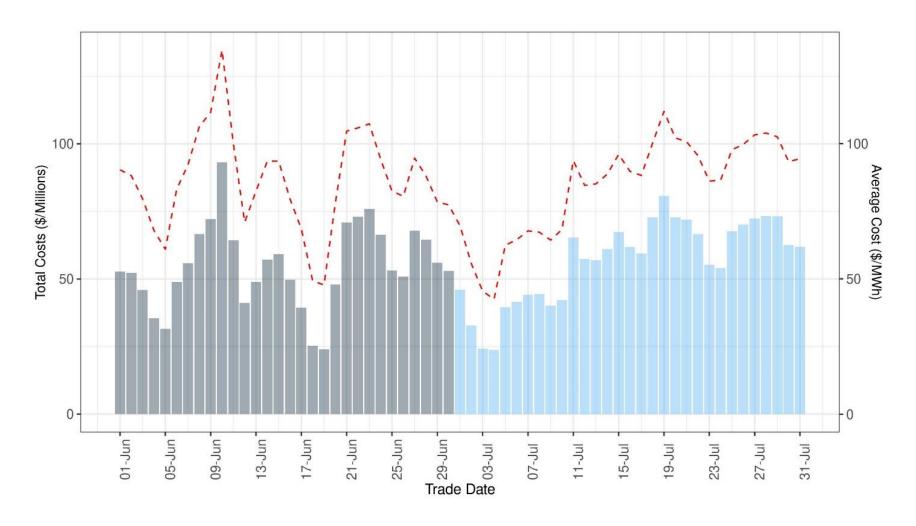
#### Storage resources exceeded 2,000MW of energy dispatches







### Average daily wholesale cost in July was about \$56.89 million





#### **NEXT STEPS**



#### **Next Steps**

 All related information for the Miscellaneous stakeholder meetings is available at:

http://www.caiso.com/informed/Pages/MeetingsEvents/MiscellaneousStakeholderMeetings/Default.aspx



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