



California ISO

Renewable Integration and Grid Needs

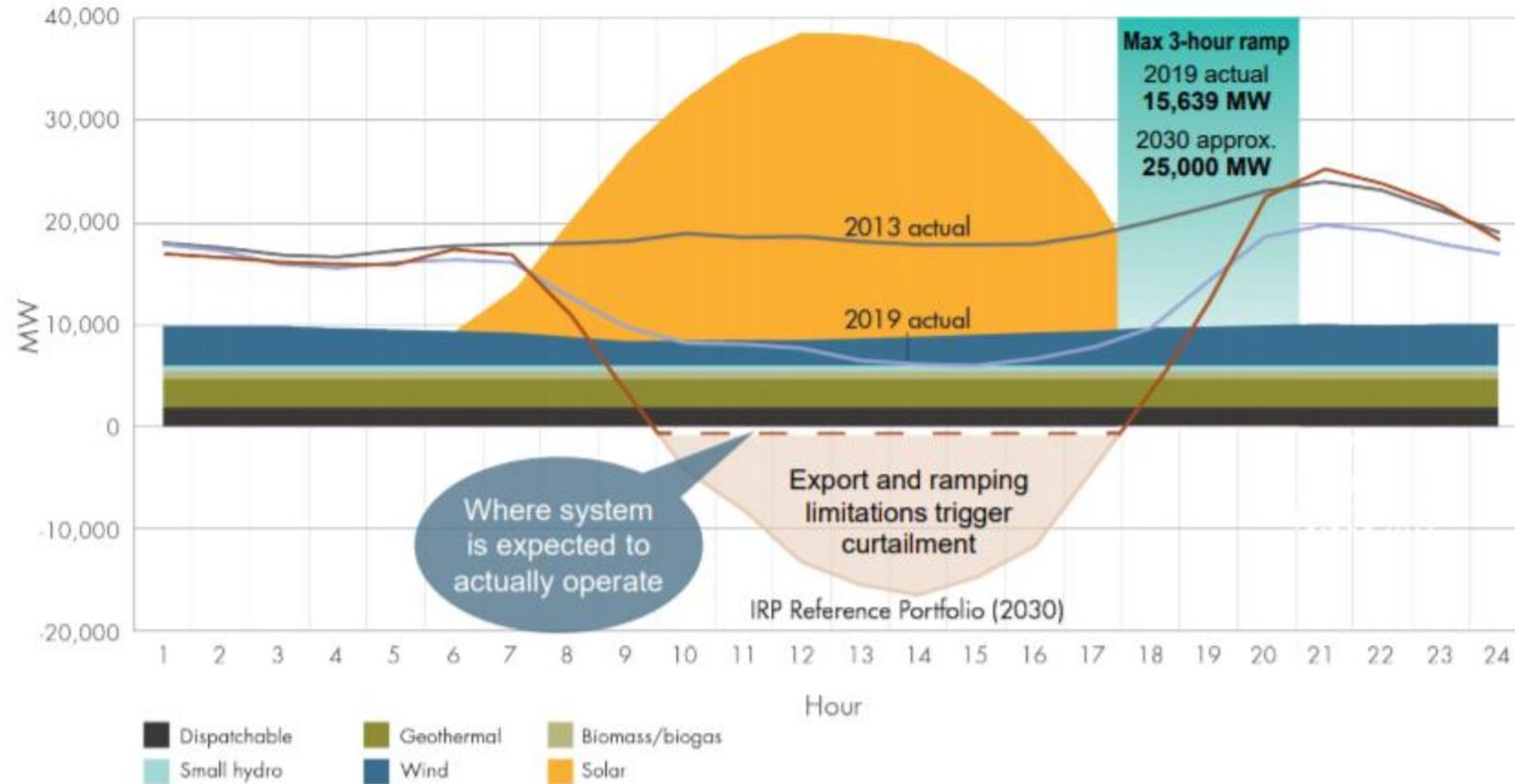
Delphine Hou

Director, California Regulatory Affairs

CPUC Workshop on Advanced DER & Demand Flexibility Management

May 25, 2021

Ramping needs will likely continue to increase through 2030



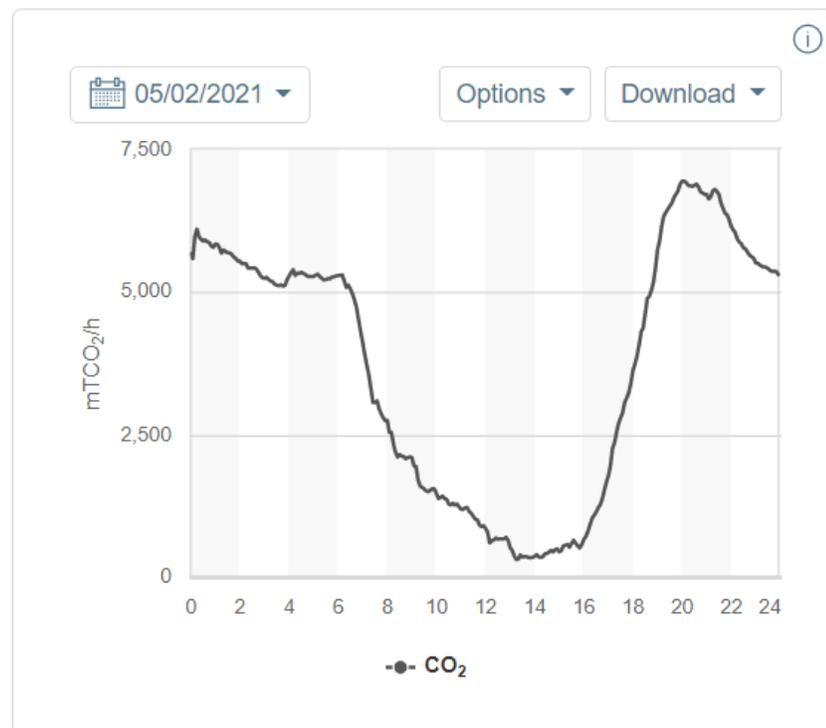
In the CAISO markets, operations, supply/demand, and emissions are well aligned with wholesale price signals

Example from May 2, 2021

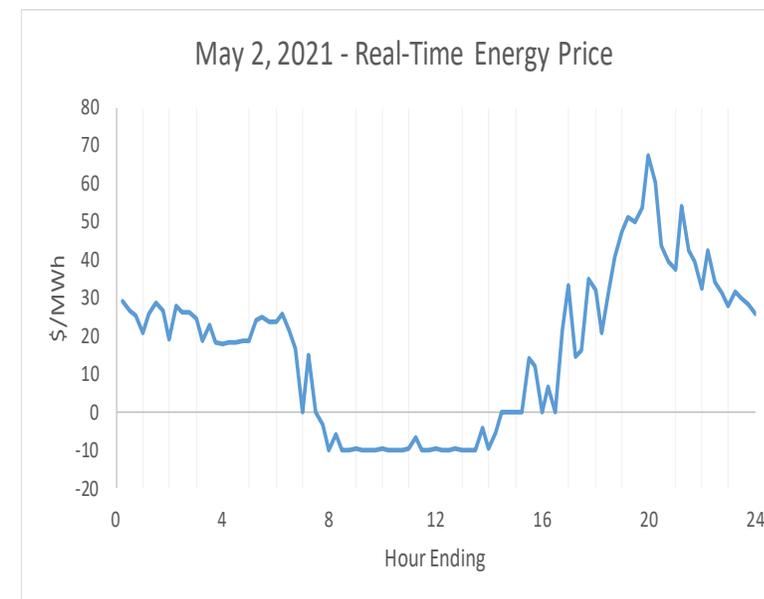
Net demand



CO2 emissions

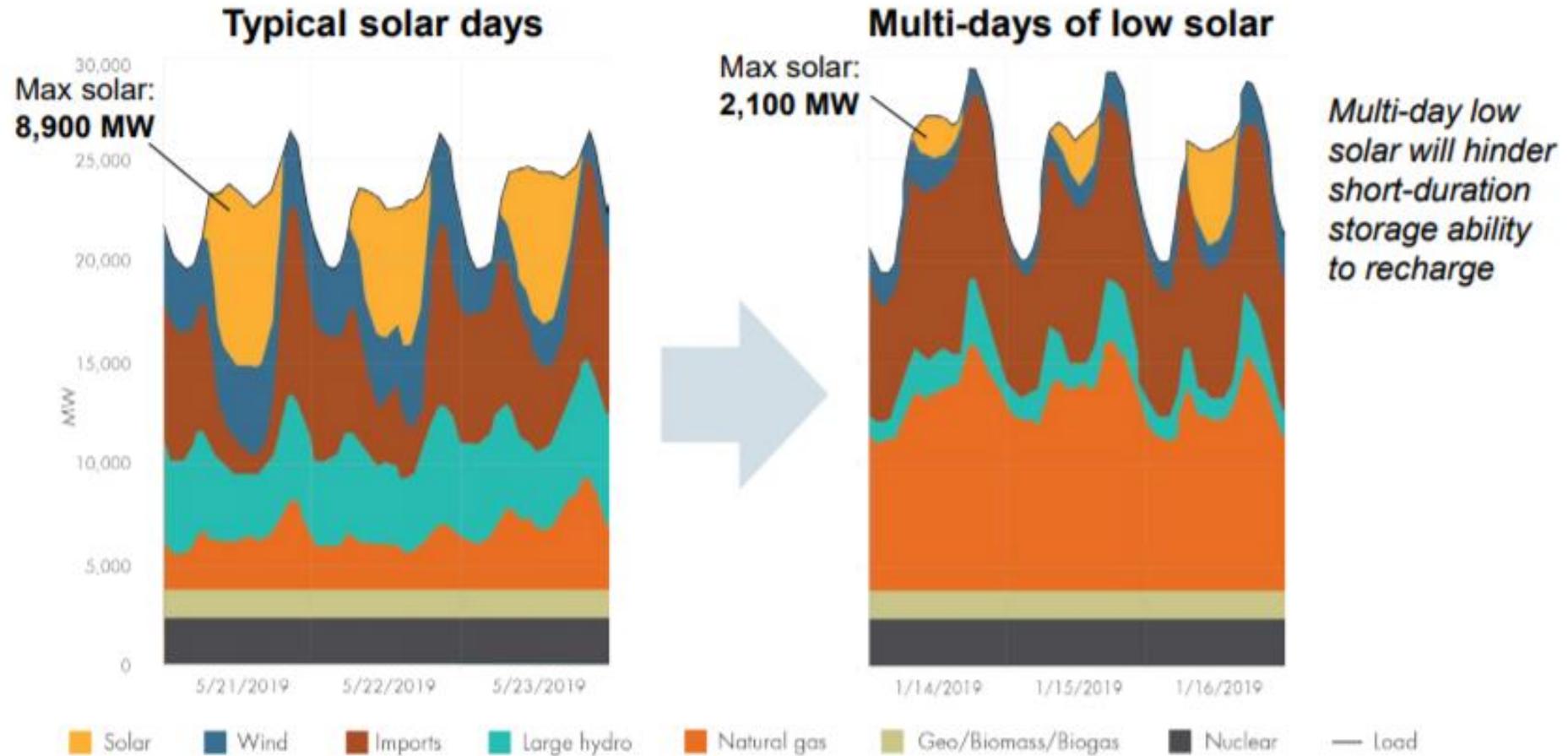


Real-time Wholesale Energy Price



Energy component of locational marginal price only from fifteen minute market

Low renewable energy production from multi-day weather events



Addressing renewable integration requires a highly flexible solution to address grid needs across 8760 hours

- CAISO strongly supports greater demand flexibility and new “grid informed” rate options that can generate beneficial flexible demand across all days and hours of the year
- At the CPUC, CAISO supported time-of-use rates that aligned with operational needs
- CAISO further supports implementing dynamic pricing policies that shift load