

2024 ACC Staff Proposal: Energy Division Staff Follow-Up Response
(questions 2.a-2.c) to CUE Data Request #2

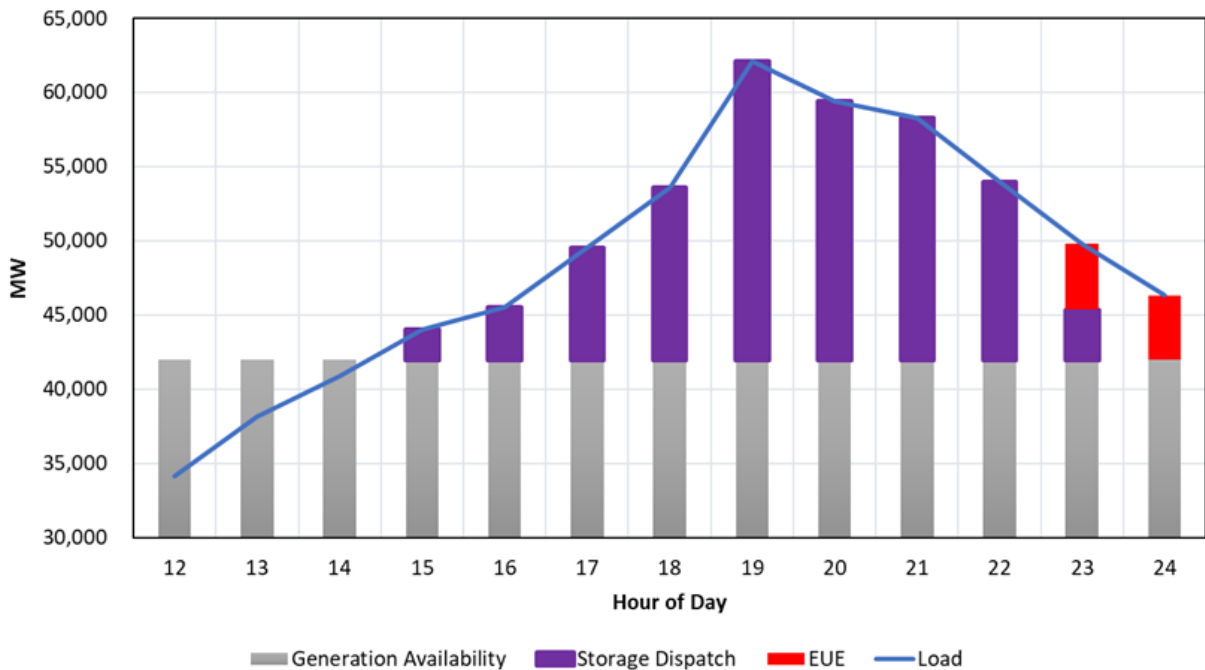
November 7, 2023

1. Allocation of Generation and Capacity Value

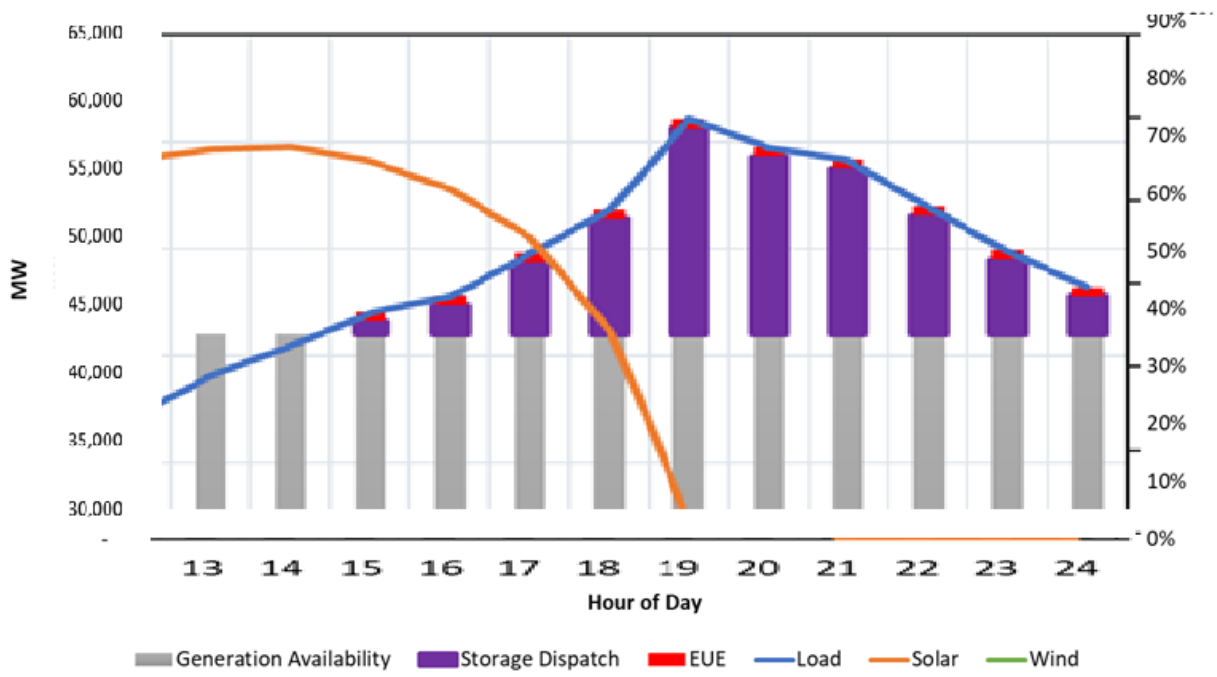
- a. **Page 15 of the Staff Proposal states “On days in which there is a projected shortfall of energy available to serve load, the preliminary battery commitment schedules charging and discharging to shave the net load peak such that the energy shortfall is spread equally across all battery discharge hours.”**
 - i. **Please provide evidence from SERVM runs for the days on which there is a projected shortfall of energy available to serve load. Please include the hours and days in which there is a projected shortfall and the amount (MWh) of shortfall for each hour and day.**

These charts illustrate the before and after dispatch of batteries in an illustrative run that contains EUE hours. See before –EUE (in read) is concentrated late in the evening events, and in the after change, EUE is spread out across the full five hours of the ramp and discharge period.

Hourly production from storage and generation before dispatch change



Hourly production from storage and generation after dispatch change



b. Page 16 of the Staff Proposal states “Staff proposes to adopt the alternative storage dispatch logic in SERVM to more accurately capture the reliability value that resources can provide by generating energy in non-loss-of-load hours and preserving energy that can be used to reduce loss of load in later hours.”

i. Please provide evidence that using the alternative storage dispatch logic results in these “resources operat[ing] as seen in CAISO historical market outcomes.”

This methodology will be different than how the batteries are used in actual practice. It is meant to highlight the hourly reliability value accurately reflected in a single run. To remain consistent with actual CAISO operations and calculate hourly reliability value would require separate runs for each hour of the day and month.

ii. Please provide evidence that using the alternative storage dispatch logic results in these resources better matching CAISO historical market outcomes in their operations compared with the current SERVM storage dispatch logic.

See prior response.

iii. Has Staff calculated the reliability value that resources can provide by generating energy in non-loss-of-load hours and preserving energy that can be used to reduce loss of load in later hours? If so, please provide the results of that calculation along with supporting workpapers? If not, please explain why Staff has not quantified this value?

This value will be calculated through the proposed alternative storage dispatch method.

iv. Why do energy market prices not provide the appropriate signal for dispatch of storage? If there is a market failure, please specify with evidence what that market failure is.

We expect that energy market prices will reflect the appropriate signal for dispatch of storage and will be consistent with the pricing identified through the alternative dispatch logic. There are times however when high price events are longer or earlier than reliability events, leading to battery dispatch tied to high prices rather than minimizing reliability events.

c. For Figures 6 and 7 in the Staff Proposal please provide the underlying data and calculations in Excel format, the expected EUE for each cell.

Please find the data provided in excel format [here](#).