

2018 Preferred Resource LCR Procurements

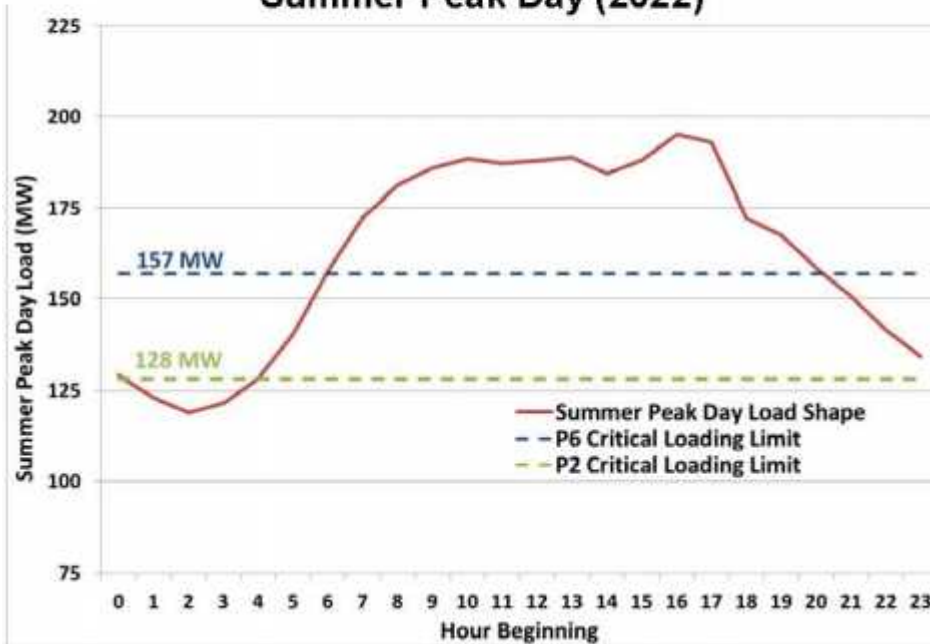
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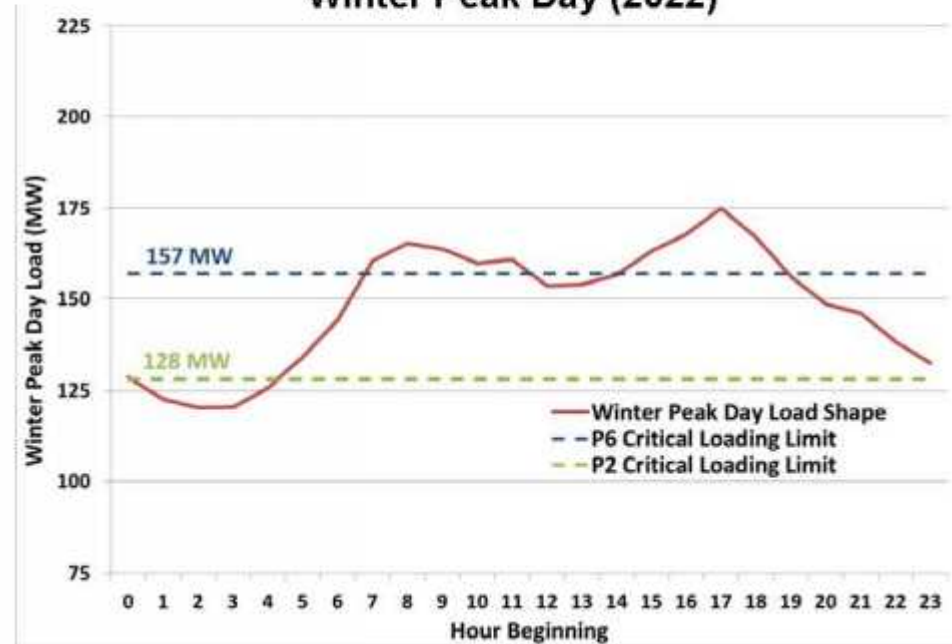
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- Santa Clara/Goleta area in Ventura/Santa Barbara County replacing the cancelled Puente plant (SCE) and downtown Oakland replacing the retiring Oakland peaking plants (PG&E).
- The metric is NOT the sum of individual resources NQC, but on-peak mwh of energy plus sufficient max capacity. The LCR value of the portfolio is NOT the sum of the individual resource NQC.
- If “short duration“ batteries are used in a hybrid resource portfolio:
 - The batteries do NOT need to be 4 hr duration and can be either a transmission or a generation asset.
 - The Demand Response does NOT need to be callable in 20 min
 - Solar PV ELCC is irrelevant but 100% of the energy has LCR value.
 - Energy efficiency targeted at peak demand has the highest value.

Summer Peak Day (2022)



Winter Peak Day (2022)



- **Single contingency event (P2)**
 - Cause: Loss of single element
 - To meet need: Resources must be instantaneously available.
- **Multiple contingency event (P6)**
 - Cause: Two overlapping single events (N-1-1), where operators have 30 minutes following the first outage to prepare the system for a second outage
 - To meet need: Resources must be instantaneously available or able to be dispatched within 30 minutes

Summary of Technical Need

	Summer P2	Summer P6	Winter P2	Winter P6
Peak	67.1 MW	38.1 MW	47.0 MW	18.0 MW
Duration	21 hrs.	15 hrs.	20 hrs.	9 hrs.
MWh	842 MWh	352 MWh	515 MWh	70 MWh

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- “Stand-by DR” counts for both Goleta resiliency target and Santa Clara LCR need.
- DR does NOT need to be dispatched pre-contingency. The battery can supply the spin.
- The CAISO can judge both the efficacy and the dispatchability of the portfolio post RFP.
- Resource acquisition subject to then current CAM rules.