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Transmitted by Email

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Subject: CAISO's Flexible Resource Adequacy Criteria-Must Offer Obligation Pre-Straw-Proposal Comments

CESA applauds the CAISO's collaborative work with the California Public Utilities Commission ("CPUC") and stakeholders reflected in the CAISO's Fourth Revised Straw Proposal ("Proposal") to establish a technology neutral Flexible Resource Adequacy Criteria-Must-Offer Obligation ("FRAC-MOO") framework based on grid needs. With appropriate implementation, this framework will ensure fair counting of energy storage resources commensurate with their ability to deliver grid benefits. Based upon CESA's understanding of the preliminary presentation of flexible resource adequacy ("RA") capacity buckets at the workshop held jointly with the CPUC on December 18, 2013, CESA requests that the CAISO consider the following clarifications in its planned Fifth Straw Proposal:

- In order to account toward the need identified by the CAISO for regulation and 5-minute to 5-minute load following resources as part of flexible RA capacity, energy storage resources capable of delivering regulation energy management ("REM"), regulation, or 5-minute to 5-minute load following should count toward "Bucket 1" if they can provide those services for the entire duration of the proposed Must Offer Obligation period. If a limit is placed on counting regulation or load following resources in Bucket 1, any such limit should be dictated solely by grid operational requirements.
- Energy Storage resources capable of 3-hour discharge duration should count toward "Bucket 2" if they can deliver their full capacity in both the morning and evening 3-hour ramp periods by charging in the middle of the day. The CAISO should take full account of the fact that energy storage resources that add dispatchable mid-day load through charging can actually reduce the grid's overall ramping needs. Energy storage resources should be counted for both their charge and discharge range.

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- Energy storage resources that are capable of ramping from 0 to pMax over 3 hours, using 1.5 MWh per MW of capacity over that time period, should count toward “Bucket 3”.
- Flexible capacity and standard capacity should be unbundled for RA counting purposes. There is no operational or policy reason why energy storage resources should not be permitted to offer flexible capacity in excess of standard capacity.
- Flexible capacity resources should be rated by their ability to perform the service or services required to count toward their respective buckets. This means that energy storage resources that can bid their full flexible range into the CAISO’s markets should be counted for the full flexibility range that they offer. It also means that a resource that can deliver all of the requirements of Bucket 1 eligibility need not have an additional energy requirement.