Stakeholder Comments
Commitment Costs and Default Energy Bid Enhancements Revised Straw Proposal

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Southern California Edison (SCE) offers the following comments on the Commitment Costs and Default Energy Bid Enhancements (CCDEBE) Straw Proposal1 and Technical Update2 of the California Independent System Operator (CAISO).

SCE recommends that the CAISO should test the Market Power Mitigation (MPM) proposal prior to any increase in bid caps
SCE thanks the CAISO for providing details of the Market Power Mitigation (MPM) proposal. Given the myriad of outstanding items that can impact the MPM, it is advisable that the CAISO proceed conservatively in implementing this new process and use initial testing to identify any issues in addition to the ones already raised by stakeholders. SCE agrees with the concerns identified and asks that they be addressed prior to a final design. In addition, SCE urges testing of the MPM prior to any increase in bid caps.

During the August 11th Technical Update call, the CAISO proposed that it needs flexibility to identify additional constraints for the commitment cost MPM test. SCE supports that the CAISO extends the set of testing constraints since the proposed methodology is new. Further, SCE suggests that the CAISO explicitly define that the set of testing constraints should include the

2 http://www.caiso.com/Documents/Agenda_Presentation_CommitmentCosts_DefaultEnergyBidEnhancements_Aug112017.pdf
four types of constraints listed by the CAISO\(^3\). Finally, since the proposed MPM methodology is new and since the number of additional constraints may vary from time to time, SCE strongly urges initial testing of the new methodology to ensure that the MPM is sufficiently accurate in performance.

**Outstanding items and clarifying questions**

The following is a non-exhaustive list of concerns, supported by SCE, raised regarding the MPM proposal:

1. Lin Xu\(^4\), supported by the DMM, noted that the pivotal supplier mix may change hourly and thus will change withheld capacity. Further, he questioned the appropriateness of using the fifteen minute ramp rate rather than a longer time horizon, to more accurately determine withheld capacity.

2. In developing the originally proposed mitigation criterion\(^5\) for commitment costs, there may be a potential issue as the CAISO did not consider the magnitude of impact of different non-binding constraints. For instance, a resource’s commitment cost would have been mitigated when there is one major uncompetitive path (say, a 500kV line) for which the resource can provide counterflow; however, if an additional line (say, a 69kV line) is considered, the shift factor of this new line may offset that of the major path, resulting in the resource not being mitigated. During the Technical Update call, the CAISO proposed to include a default shadow price calculation in the mitigation criterion so the magnitude of the impact of non-binding constraints are not omitted. SCE believes the change is in the right direction. The CAISO should clarify how this new formulation will work when the calculated SMEC has the opposite sign of the reference SMEC\(^6\).

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\(^3\) I.e., critical constraints, constraints from static structure competitive test, constraints from local capacity study and seasonal assessments, and constraints from using D+1 or IFM results and static SF for non-binding constraints to each node to calculate RSI for every constraint in an off-line tool. Page 11 of the Technical Update.

\(^4\) During the August 3 meeting.

\(^5\) I.e., NEC\(i > 0\), where NEC\(i\) is the sum of the resource’s shift factors to critical constraints multiplied by the negative constant integer 1, where “[t]he negative constant integer of 1 represents the key assumption that if all constraints are considered “binding” for purposes of commitments that there would be a cost savings to the objective function of relaxing the constraint by one unit.”. Page 95, Straw Proposal.

\(^6\) Slides 13 & 14, Technical Update.
its calculation of a default shadow price of a non-binding constraint, the CAISO should
clarify that the worst case of the actual shadow price is used\(^7\).

3. The impacts of several interacting constraints and design components, such as,
   Contingency Modeling Enhancements, Generator Contingency and Remedial Action
   Scheme Modeling, etc., have not been addressed in the proposal.

4. The existing proposal mitigates for MLC by hour rather than by minimum run time of the
   resource. SCE recommends mitigation by minimum run time.

5. Consider a short-start unit with a mitigation advisory in three hours from the current
   hour, will the unit MLC bid be locked in the current hour? If the bid is not locked, the
   unit has the opportunity to exploit BCR through inflated bids.

6. Consider a unit that is self-scheduled in certain hours and economically bid in other
   hours, during a day. The CAISO should elaborate the treatment of such a unit in terms of
   bid mitigation and BCR.

**SCE continues to support the DMM’s proposal on updating the market with early morning
gas trades**

SCE does not see any incompatibility between the CAISO’s and the DMM’s proposals. SCE
fails to understand why making permanent the measures that are already used in temporary form
under the *Aliso Canyon Gas – Electric Coordination*, will be burdensome to the CAISO.
Finally, SCE cites the flexibility of the DMM’s proposal:

“If the ISO is concerned that DMM’s approach would not be approved by FERC because it
involves calculating a gas “index,” based on ICE prices, DMM’s proposal can be easily modified
so that it is clear that this approach simply allows the ISO to utilize available market information
to develop its own estimate of what gas price should be used in pre-validating any commitment
cost bids or cost-based energy bids submitted by participants that exceed the caps currently
calculated using next day price indices. This approach is the same as that used by other ISO

\(^7\) I.e., in the formula on Slide 14, Technical Update, max(shadow price actual) should mean the worst case (shadow
price actual), given that a shadow price can be negative and then max(shadow price actual) should mean the
minimum binding case.
market monitors to validate bids used in mitigation, and should clearly be approved by FERC.\(^8\)

**SCE does not support the proposed 300% commitment cost cap**

During the meeting, the CAISO stated that the 300% figure was based on the conduct test levels in other organized markets. However, Table 3, page 24, of the Revised Proposal lists only six out of twenty one instances that use the 300% figure, indicating that 300% is not the norm in other markets.

**SCE continues to be concerned with the CAISO proposal for liquidity for ex ante supplier provided adjustments**

While buyers may be incentivized to look for the lowest price quotes, it is not necessary that they will be offered the lowest price quotes. This is why larger sample sizes are used to reduce the chances of outliers influencing the descriptive statistics. For example, a buyer could have missed the trading that is largely representative of the market, with the only supply offers being far from favorable. Being able to garner any price quotes at all would not be indicative of liquidity. SCE urges the CAISO to consider a more statistical approach toward designing a liquidity measure that is empirically robust.

An example to consider, as a starting point, is the industry accepted methodology outlined in the Edison Electric Institute Master Agreement that deals with price determination for certain market events (e.g. termination). The CAISO and the DMM should develop a similar methodology that uses some average of a sample\(^9\) of price quotes from unaffiliated parties. To the extent they cannot get at least three quotes from Reference Market-Makers, then some administratively set price, that is acceptable to the DMM, could be considered.

**The Proposal should address both global and local market power issues.**

As stated previously, SCE would like an analytical study performed to assess the default assumption of the competitiveness at the system level. There are several reasons to question the validity of such an assumption.

\(^8\) http://www.caiso.com/Documents/DMMComments_CommitmentCosts_DefaultEnergyBidEnhancementsStrawProposal.pdf

\(^9\) That can be consistently demonstrated to be judiciously sampled.
1. The mandated retirement of OTC units will result in replacement by a small number of gas units.

2. The state’s goals for increasing reliance on renewable generation will result in significantly fewer dispatchable resources. While the remaining dispatchable fleet may have sufficient supply/ramping capability, the ownership concentration of these dispatchable resources is unclear. Thus, while the capability of the system may be sufficient, it is not clear that the number of suppliers within the market will be sufficient to produce competitive outcomes.

3. SCE believes that the CAISO should review and report on the recent ~$600/MWh DA price event to determine if it is contrary to the assumption of system competitiveness. Further, resources may be committed for capacity, e.g., ancillary services or flexibility or both, regardless of whether the commitment creates congestion or not. The proposal does not seem to be able to address global market power issues, or any market power issues unrelated to increased flow on a transmission constraint.

**SCE requests the CAISO clarify the treatment of hourly MLC bids**

SCE remains unclear on whether MLC bids will be honored by the STUC process while making a commitment. SCE understands that the STUC will lock bids until a resource can be recommitted. However, SCE is unclear, if minimum run time were not a constraint, would the STUC honor bids for each hour? SCE understands that the CAISO proposes to average bids, in that case, will all bids be considered as-submitted to calculate the average?

Specifically, SCE notes that there are resources within the CAISO that operate in gas regions where the gas day is not aligned with the DA market time horizon and thus face intra-day variation of MLCs between different hours. For example, El Paso’s gas day starts at 7am. A resource operating in this region may have different MLC bids for HE1-7 than for HE 8-24. Given the CAISO representation of the proposal of treatment by STUC in section 7.1.3.1 of the Straw Proposal, will all of the hourly MLC bids submitted at the time of unit commitment be honored or will STUC lock-in the MLC for the hour of unit commitment and ignore the subsequent MLC bids? For example, in Figure 2 (page 18) of the Straw Proposal, before the commitment decision is made, the minimum load costs for HE 7, 8 and 9 are all distinct. When
the model commits the unit, will the minimum load cost recovered in HE 8 and 9 be the same ~$1500 that was bid for HE7? Or, will the unit recover its hourly specific minimum load bids for HE 7, 8 and 9?