



### System Market Power Mitigation

Submitted by	Organization	Date Submitted
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#### Summary:

As previously stated, Calpine feels that the simple structural tests for market power, as proposed by the CAISO, are blunt instruments that will likely result in false-positive indications of market power. Specifically, we contend that using the presence of lower-priced, constrained EIM BAAs to trigger possible mitigation of internal resources is inappropriate and fatally flawed. The likelihood of over-mitigation from this novel approach would affect the CAISO's ability to attract imports, create incentives for load under-scheduling in day-ahead markets, erode economic viability of resources needed for reliability and negatively affect participation by demand-side resources.

The CAISO has the time and clear precedent in east coast markets for how alternative mitigation measures (e.g., conduct and impact) can be effective. For the multitude of reasons stated below, we prefer – if mitigation is necessary at all – that the CAISO create a “conduct and impact” mitigation mechanism where mitigation would only apply to those resources seeking improper scarcity rents and if those bids were to be used, would significantly impact clearing prices.

#### 1. Pivotal Supplier Test Trigger

Please provide your organization's specific feedback on the ISO's proposal to perform the Pivotal Supplier Test when its Balancing Authority Area (BAA) is in the highest priced import-constrained region in the energy imbalance market.

Calpine does not support this trigger for the following reasons:

- EIM transfer capacity is a small fraction of the total transfer capability between BAAs. The existence of a binding constraints on this “donated RT capacity” is not indicative of overall system supply and demand imbalances, and certainly not dispositive of the potential for abusive market bidding within California.
- A blind comparison of system lambda prices across the entire West ignores fundamental costs that may be higher in delivering energy to California, such as

the costs of GHG allowances, transmission and losses. The system lambda (EIM area power-balance shadow price) in a constrained and remote EIM would presumably not reflect these costs, and would likely be lower than that of the CAISO not because of abusive bid behavior within the CAISO, but because of the absence of these costs outside the CAISO.

- The CAISO's proposal seems to place the mitigation trigger for resources inside CAISO in the hands of potentially self-interested external competitors. External entities may, in fact benefit by the downward pressure to west-wide prices that would result from mitigation in the demand-dominant CAISO markets.

Specifically, the amount of voluntary bids in the EIM and the export capacity provided by (generally) the merchant arm of integrated vertical utilities could be influenced by native-load interests. Withholding voluntary, yet economic bids or creating export constraints at the EIM level could benefit native load by limiting power-balance shadow prices (system lambda) within the EIM and may have the intended or unintended effect of triggering mitigation in the CAISO under the current proposal. In fact, one-half of the EIM Entities allow more imports than exports, suggesting that they may be willing to import cheap power into the EIM boundary, but less willing, or able to export optimal energy.

- The CAISO proposal is not directly scalable to implementation in the Day-Ahead market. It would require the expansion and implementation of EDAM, as well as dealing with the same thorny issues evidenced in this proposal such as the availability of transmission. A conduct-and-impact test, on the other hand is directly scalable from the RT to the DA without dependence on other market changes.

If the CAISO is to move forward with this triggering mechanism, which Calpine will not support and may actively protest, it should consider the following:

- Any comparison of system lambda should exceed a hurdle price before triggering a test of internal resource competitiveness. Current market costs (GHG, transmission and losses) would result in a ~\$10 per MWH price spread between the marginal cost of serving isolated native load outside the CAISO and delivering energy into CAISO.
- The CAISO should provide further analysis of the circumstances when the proposal would trigger (28 percent) the pivotal supplier test. What BAA or BAAs were lower priced? If consistent, what might be the driving factors to the isolation of the triggering BAAs? What were the supply and demand conditions in CA when the triggers tripped, and similarly, what were the conditions in the triggering BAA? Are they peak ramp situations in CA or randomly distributed? How often would the mitigation be triggered in the 5 minute market?

- The CAISO should also provide an analysis of how these triggering conditions would translate into RSI failures. That is, of the 28 percent of all 15 minute intervals triggered by the system-lambda comparison, how many intervals would also show pivotal suppliers (and hence trigger bid substitution)?

## 2. Pivotal Supplier Test Design

Please provide your organization's specific feedback on the ISO's proposal to consider suppliers with resources within the CAISO BAA as potentially pivotal, treat economic import offers and offers from participating resources within the energy imbalance market as fringe supply, and account for net seller load-serving obligations.

Calpine would support the consideration of all supply available within the RTPD window (that is, the next ~3 hours) and not just the next binding dispatch period. This would allow the ISO to determine whether the current supply conditions are durable or transitory. Certainly, RSI failures in one interval might be quickly remedied in the next interval by ramping supply. If supply conditions are transitory and do not allow "*profitably maintaining prices above competitive levels for a sustained amount of time*<sup>1</sup>", the CAISO could recognize this in its application of mitigation and avoid the risks of over-mitigation.

Calpine agrees that all available EIM participating resources, imports, demand-side programs and other forms of supply or load modifiers should be included in the RSI calculation.

As stated above, Calpine recommends that the CAISO identify and share with stakeholders the frequency of RSI failures with the assumptions proposed by the CAISO.

Additionally, how would the "pivotal suppliers" identified by the test, and subjected to possible bid replacement, vary across hours? Given that the size of the owned and affiliated fleet matters, would large generators, such as Calpine, be disproportionately subjected to mitigation regardless of bid behavior?

Please confirm that RA and non-RA resources would be treated identically in the RSI test and subsequent exposure to mitigation. If so, please explain why a unit with no capacity compensation – given the lack of contracting -- but dispatched for reliability needs be subjected to mitigation. Ubiquitous mitigation of non-RA resources would seem to reduce incentives to contract with these resources at all ("...why buy the cow when you get the milk for free...")

Finally, we repeat our earlier comment that in conjunction with implementation of a SMPM, the CAISO should redouble their efforts to improve scarcity pricing mechanisms. It should reconsider:

- Increased adders and reduced triggers for Frequently Mitigated Units.
- Relaxation of limits on the units that can set LMP (e.g., peaker pricing)
- Elimination of the load-conformance limiter
- Establish new penalty parameters for certain out-of-market actions by operators

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<sup>1</sup> A definition generally used by antitrust agencies.

- Graduated parameter prices as the BAA approaches power balance and transmission relaxation violations.

### 3. Determining competitive LMP

Please provide your organization's feedback on the proposal to determine the competitive Locational Marginal Price (LMP) when the ISO mitigates bids for resources located within its BAA.

Other than our observation above, of the likelihood of systemic cost differences (GHG, transmission, losses) between internal and external resources, Calpine has no comment on the CAISO proposal to base the competitive LMP on the maximum of DEB and the minimum of next un-cleared import offer or the lowest EIM system lambda.

### 4. Applying mitigation to internal supply offers

Please provide your organization's feedback on the proposal to mitigate pivotal supplier resource offers within the ISO's BAA.

Calpine asks that the CAISO discuss the level of the inserted bid when both system *and* local conditions suggest mitigation.

Calpine had serious concerns with the earlier proposal to mitigate all supply offers when the RSI test suggested uncompetitive conditions. So in some respects the current proposal, which suggests only mitigating pivotal (and substitute pivotal) resources, could be viewed as an improvement. Nonetheless, this is still a very blunt instrument, one that in extension could result in significant volume of mitigated bids and lowering prices in the CAISO sufficiently to cause flow reversal as occurred in the Pacific Northwest.

Calpine still greatly prefers the development of a mechanism that identifies individual resources which have bids that appear to be seeking scarcity rents (conduct) and only mitigates those bids when a pre-identified price change threshold is met (impact). This approach is completely consistent with FERC-approved mitigation measures in the East, and establishes reasonable, well known guardrails balancing the important roles of scarcity pricing and consumer protection.

Calpine continues to dispute the CAISO claims that the only form of valid scarcity pricing is that created by the CAISO's own anemic, infrequent and short-lived mechanisms such as A/S, Power Balance and FlexiRamp.

### 5. Additional comments

Please offer any other feedback your organization would like to provide on the revised straw proposal and topics discussed during the web meeting.

Nothing further at this point. Thanks.