### Comments of Calpine Corporation on

# **Bidding Rules Enhancements**

## Straw Proposal

Dated: April 22, 2015 Comments Submitted: May 13, 2015

#### Summary:

Section	Issue	Proposal	CPN Comment
5.3.1	Changing bids after a commitment decision during an inter-temporal constraint	Settle on bid that led to the binding commitment	Oppose unless modified
5.3.2	Changing bids after a commitment decision without an inter-temporal constraint	Monitor	Support
6.2.1	Commitment cost mitigation	Survey other ISO and RTO mitigation methodologies	Support
6.2.3	FERC Order 809	Work with stakeholders to determine DA market close	Comments submitted 5/6/2015
6.3.1	Inefficient accounting for minimum load costs after a Pmin rerate	Scale minimum load costs to the rerate capacity or calculate based on heat rate	Support
6.3.2	Resources without a day-ahead schedule cannot rebid commitment costs	Allow resources without a day- ahead schedule to rebid commitment costs in RT	Support, strongly.
6.3.3	Gas price index may not reflect real-time gas purchase costs	Allow for real-time consideration of gas purchases above the gas price index	Support
7.1	Differentiated bidding headroom	Allow for differentiated bid caps on proxy cost items	Oppose unless modified
7.2	Greenhouse gas costs for natural gas suppliers	Follow CPUC regulation	No Position
7.3	Adjusting gas transportation adders	Allow for differentiated adders based on proximity to backbone and other refinements	No Position
7.4	Improvements to the energy price index calculation	Simplify and clarify existing calculation	No Position
8.1	Proposal for resource characteristics	Allow for "market" resource characteristics in addition to physical characteristics	Support

#### 5.3.1 Changing Bids When Constrained.

Calpine understands that the intent of this proposal is to prohibit SCs from changing RT bids while a resource is temporarily constrained. This prohibition is intended to prevent SCs from artificially increasing the price spread between bids and LMPs solely for the purpose of increasing BCR payments.

Calpine supports the intent of the proposal, but is concerned with unintended effects of the CAISO's implementation.

The first-best solution to this problem is simply to lock out RT rebidding during inter-temporal constraints. However, the ISO reports that this solution could be difficult from a software and bid-validation perspective. Should those obstacles prove less daunting than initially imagined, Calpine could support this solution conceptually but would want assurances that refreshed RT bids would be accepted immediately after the temporal constraint expires.

As a second-best alternative, the ISO proposes to make settlement adjustments during inter-temporal constraints to "neutralize" BCR impacts. The details of this adjustment are unclear, as they are described very differently:

- The Straw Proposal states that the ISO will "settle on the bid that caused the commitment"; and,
- The PowerPoint used in the Stakeholder call states that settlement will be "at the bid cost of the RT LMP."

Proper functioning of the BCR mechanism during RT inter-temporal constraints is critical to resource operational indifference. In other words, ideally, an SC should be indifferent to the RT operation of a supply resource as long as that RT operation does not expose the resource to unrecoverable cost – including importantly in this case, a financial position awarded in the DA market.

While the rules for BCR, especially for MSG units are highly detailed, a very simple example may be helpful. An MSG unit is awarded a DA output level that places it in C2, a high configuration. In RT, load falls off and the unit is transitioned down to a lower configuration, C1 where is must operate until a minimum off time for C2 expires. During that constraint, load unexpectedly returns and LMPs skyrocket. During that constraint, BCR should ensure that the unit is protected from buying back its DA position at the skyrocketing prices, for it was the decision of the ISO market model to transition the unit down. Absent such protection, assets would be encouraged to bid in a manner that discourages downward transitions – an incentive very much counter to the interests of the CAISO. The second bullet point, above, does not seem to afford this protection.

Calpine encourages the ISO to clarify the settlement changes that if proposes, provide bid-to-bill examples and ensure that the principle of preserving RT operational indifference is maintained.

#### 6.2.1 Commitment Cost Survey

Calpine supports the ISO proposal to investigate and evaluate alternative forms of mitigation for commitment costs. As often stated, Calpine supports daily bidding and particularly seeks the ability to change commitment costs bids hourly so as to reflect the differences between gas and electric trade days.

#### 6.2.2 A Shell Game Without a Pea

In this section the ISO characterizes several costs categories as related to "capacity obligations" and therefore concludes that these costs should be recovered through Resources Adequacy (bilateral) markets rather than through CAISO energy markets. Calpine recognizes that many of the cost categories are difficult to quantify or verify, but that makes them no less real. The ISO's conclusion that these risks should be included in the dramatically over-supplied RA market leaves little opportunity for recovery and therefore is inappropriate.

#### 6.3.1 Scaling of Minimum Load Costs with Pmin Re-rates

While in Calpine's experience Pmin re-rates are fairly rare, the BCR consequences can be substantial as highlighted by the CAISO. Calpine supports a scaling of the Minimum Load costs to match the new, higher Pmin. We could support either a linear scaling, or a scaling based on filed heat rates. In the theme of reducing complexity, the former method seems much simpler.

#### 6.3.2 Rebidding Commitment Cost with No DA Schedule.

The ISO proposes to allow units with no DA or RUC schedule a single opportunity (at 00:00 – 75 minutes, or 22:45) to re-bid their commitment costs for the RT market of the trade day. Calpine supports this proposal, as it allows for a better representation of the cost and volatility of natural gas costs in the intra-day markets. As we understand, the total commitment cost rebid can include both gas price changes and inclusion of a different escalator (up to 125 percent for proxy cost resources).

Calpine does a seeks a clarification of the limitation, which would state that any commitment that does not overlap, or extend a DA commitment would qualify for this re-bid commitment cost. For example, assume the ISO awards a single commitment from HE 7 to HE 14 for a unit. The unit re-bids its commitment costs and is committed in RT for HE18 to HE 22. That second commitment should be optimized using the RT re-bid costs.

#### 6.3.3 Demonstrable Gas Costs

The ISO proposes to investigate methods by which a generator could demonstrate that their costs were higher that the RT index of natural gas prices. We support this initiative and will participate in further discussions.

#### 7.1 Differentiated Bidding Headroom.

The ISO proposes to further scale back the commitment cost adders with the apparent intention of reducing BCR payments.

Calpine believes that doing so adds complexity without clear benefit, and includes potential harm to suppliers when costs vary from the estimates included in the Masterfile. Unless specific and substantial benefit can be shown by the ISO, Calpine believe that enforcing false precision to these estimates only increases the risk on suppliers.

In any regard, and as the ISO implies, action on this initiative should be deferred pending the review of the ISO's survey of commitment cost mitigations measures across the US.

#### 8.1 "Market" Resource Characteristics

Calpine conceptually supports the development of a range of reasonable resource characteristics. We have long struggled with the implication of the tariff that there is a single, unquestionable value for many of the Masterfile characteristics. The physical capability of the machines can be different than the capability recognized through economic and operations judgment. For example, while your car is physically capable of being driven continuously in first (low) gear -- and the operating manual probably doesn't prohibit doing so – it is not likely to be economically or operationally prudent to do so.

The proposal suggests that the physical characteristics should always be available to ISO dispatch and can be called upon through the mechanism of Exceptional Dispatch. Rather than allow this relatively unfettered discretion, Calpine would recommend that reliance on physical characteristics should be limited to Significant Events, such as the declaration of an emergency.

Finally, Calpine would anticipate that there is a larger set of characteristics that should be included in the list of potential candidates for "market characteristics". For example, if daily starts is included, why not daily transitions?

Thanks