

### **Comments of Boston Energy Trading and Marketing LLC on CAISO's Effective Flexible Capacity Ratings Process Clarification**

Boston Energy Trading and Marketing LLC ("Boston Energy") appreciates the opportunity to provide comments on the CAISO's Effective Flexible Capacity (EFC) rating process clarification presentation discussed on May 14, 2019. In these comments Boston Energy seeks clarification from the ISO on how the change for Combined Heat and Power (CHP) resources would apply to a CHP resource that participates in the ISO's market under a Net Scheduled Participating Generator Agreement. We also ask the ISO to update the Reliability Requirements BPM to reflect and clarify the impacts the EFC clarification will have on Energy Storage resources MOO and RAIM availability assessment.

#### **Combined Heat and Power EFC Clarifications**

The ISO's presentation intends to set the lower bound of the EFC formula for CHP resource at the lesser of RDT Pmin or the RDT Regulatory Must Take (RMT) value. The upper bound of the calculation will continue to be the CHP resources NQC value. The clarification makes sense for traditional CHP resources, but doesn't work for CHP resources that participate in the ISO market under a Net Scheduled Participating Generator Agreement. Boston Energy requests the ISO recognize the specific nature of the Net Scheduling Participating Generator Agreement protocols/requirements and determine EFC's for such resources that reflects actual resource capability as described below.

Resources participating in the ISO's market under a Net Scheduled Participating Generator Agreement are modelled by the ISO market, bid into the ISO market, and dispatched into the ISO market on a gross basis. Modelling the unit on a gross basis provides the ISO with the complete flexibility and operating capabilities of the resource. Net Scheduled Participating Generator Agreement resources are required to provide the ISO with gross real-time generation, net real-time generation, and real-time load metering. Net Scheduled Participating Generator Agreement resources are also required to submit the load value with its day-ahead and real-time bids in order for the ISO to conduct net settlements of the resource. Consistent with this modelling, the NQC associated with a Net Scheduled Participating Generator resource takes into account of the load served by the resource (i.e. is net of load served).

The problem with the ISO's proposed clarification for Net Scheduled Participating Generator resources is the mismatch between a NQC that nets out the impact of load served by the resource and the ISO modelling of the resource (including RMT value), which is done on a gross basis. As a result, the delta between a net-load NQC and a gross RMT value result in an EFC value that doesn't reflect the flexible capability a Net Scheduled Participating Generator Resource can provide to the ISO market.

Therefore, Boston Energy requests the ISO determine the EFC for a Net Scheduled Participating Generator resource either by (i) using the Pmax of the resource as the upper bound of the EFC calculation instead of the net-load NQC value or (ii) include a load adjustment to the RMT max value used for the EFC determination. Both methods ensure that for the EFC determination in a consistent manner (i.e. gross vs. gross or net vs.net) the Either option results in an EFC value that more accurately reflects the flexibility a Net Schedule Participating Generator resource can provide to the ISO market compared to the ISO's proposed calculation.

### **Energy Storage Resources EFC Clarification**

The clarification change will now include the charge range of an energy storage resource, adjusted for efficiency, in the calculation of an EFC. Boston Energy doesn't oppose the change, but asks the ISO to provide more details in the Reliability Requirements BPM regarding the impact to the Must Offer Obligation (MOO) and associated impacts to the RAAIM availability assessment. On the call the ISO indicated that it assumed the MOO and RAAIM availability impacts would be consistent with the new EFC MW value, but Boston Energy requests this be documented and fully described. CAISO should provide specific examples of how the RAAIM availability economic bid MW checks will be conducted for an energy storage resource. Is it as simple as the MW bid range from pmin to pmax?

Submitted by,

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