Comments on the 3rd Revised Straw Proposal for Flexible Resource Adequacy Criteria and Must-Offer Obligation Department of Market Monitoring October 31, 2013

The Department of Market Monitoring (DMM) appreciates this opportunity to comment on the newest version of the ISO's proposal for Flexible Resource Adequacy Criteria and the Must-Offer Obligation. The revisions that have gone into the 3rd revised proposal are significant, and DMM appreciates the responsiveness that the ISO has displayed during this process.

As a general matter, DMM notes that many of the remaining issues are dependent on empirical details and analysis that individual stakeholders are not well positioned to address. Provided below are DMM's comments on specific issues, in which we note several areas where additional data and analysis appear to be important for helping to guide market design decisions.

Allocation of Flexible Capacity Requirements

One issue regarding allocating flexible capacity requirements is the idea of seasonal, instead of monthly, determination of requirements and allocations. Some stakeholders question whether there is sufficient data to project meaningful differences in monthly needs. Discussion has also focused on the ability of LSEs to better protect themselves against costs if the allocations are seasonal instead of monthly, because there will be fewer changes to the allocations over a given year. It may be true that seasonal allocations would make hedging easier for LSEs, but it is not clear that easier hedging is a goal of the FRAC-MOO stakeholder initiative. Additionally, the use of longer time periods would create either shortages of flexible capacity (if the average over the period was used) or excess costs for part of the period (if the maximum need for the longer time period is used). The inefficiencies from either of these could easily outweigh the benefits of the different risk hedging opportunities afforded by the seasonal outlook.

Must-Offer Obligations: variable energy resources

DMM would like to reiterate that extending the must-offer obligation for Variable Energy Resources that provide flexibility to the overnight hours would provide the ISO with a significant tool to manage changes in net load that frequently lead to over generation. DMM has noted this in all sets of comments we have submitted on the FRAC-MOO initiative, and was explored in detail in a study conducted by DMM in 2011.[1]

Flexible RA is intended to help the ISO manage net load. The current issue of over-generation in the off-peak hours may persist into the future as additional variable energy resources are integrated. Limiting the offer obligation to on-peak hours leaves out the potentially significant value from this program in helping manage off-peak over-supply conditions.

In the stakeholder comments reply matrix, the ISO says that it has worked to tailor the must-offer hours of VERs to more closely resemble the times when their energy is available for curtailment. However, there is still no indication that wind resources procured as flexible capacity would have any obligation to offer to decrement between 10:00 pm and 5:00 am.

Must offer obligations: dispatchable, gas-fired, use-limited resources

DMM supports the ISO's effort to improve the use-plan submission process as described in section 7.1.2.2. In particular, DMM agrees that the opportunity cost adder should be available only for resources with current and verified physical or regulatory use restrictions on file with the ISO and that the use-limitations the ISO takes into account should be limited to this verified set of use restrictions. DMM suggests that the ISO extend this requirement to encompass daily use limitations. Resources that may be managing annual or monthly limitations through a daily maximum start limit should be encouraged to use the appropriate annual or monthly use limitation instead.[2]

Based on stakeholder comments, it appears that there are resources that may have monthly or annual use limitations that have not yet applied for use limited status. It is not clear why those resource owners / operators would not have come forward and identified a different use limitation through this stakeholder process. Despite the existing opportunity in the current initiative, DMM encourages the ISO to identify these resources and to better understand the nature of their limitations to ensure that the ISO's proposed methodology would be appropriate for these resource limitations.

[1] http://www.caiso.com/Documents/Over-supply%20and%20shortage%20of%20downward%20ramping%20supply%20in%20off%20peak%20hours

[2] The BPM definition of a maximum daily start limit is the "maximum number of times a Generating Unit can be started up within one day, due to environmental or physical operating constraints." However, currently, there does not appear to be any documentation requirement or verification procedure in place regarding maximum daily operating limits submitted by participants.

DMM believes that it is difficult to assess the best approach for applying opportunity cost calculations into minimum load and startup costs until the ISO has developed the methodology by which it will calculate these opportunity costs and has assessed how well this methodology will work when applied to actual generation units and market data. For instance, if the ISO's analysis suggests that this methodology yields highly accurate results (i.e. will not significantly over- or underestimate opportunity costs and will, at least, result in efficient unit commitment), these costs could be directly incorporated in start-up and minimum load bids. However, if the analysis suggests it is difficult to develop standard methodologies to estimate these costs for some units or scenarios, it may be appropriate to modify the manner in which these estimates are used to set limits for startup and minimum load bids.

Because this analysis has not yet been completed, DMM cannot at this time comment further on the two methods outlined in the ISO proposal. However, DMM notes that based on clarifications from ISO staff, the approach described as method B in the ISO's proposal was intended to reflect an approach previously suggested by DMM for consideration. With this approach, ISO's proposed opportunity cost calculations would be directly applied (with no adders) when local market power mitigation is triggered and requires the use-limited resource to provide counter-flow to resolve a local constraint that is uncompetitive. When units are subject to local market power mitigation, the ISO's calculated opportunity cost-based bids would apply to bids for minimum start-up costs, minimum load costs and default energy bids for energy above minimum load. In all other instances, scheduling coordinators could include their own assessment of opportunity costs associated with use limitations within specified bounds (e.g., 200 percent of the opportunity cost-based bids calculated by the ISO).

If this is the approach that method B is designed to reflect, DMM suggests that the ISO restate the description of method B so that it is consistent with this proposal as originally intended. Section 7.1.2.2 page 31 point 2 should be revised to state (changes in **bold**):

- *Method B: (1) Allow resources to daily bid-in their start-up and minimum load cost with a higher cap (**200%**) and (2)mitigate start-up and minimum load bids to proxy costs (**including a measure of** opportunity cost **calculated by the ISO**) in the event the market's local market power mitigation process is triggered. This would be a change as the current local market power mitigation process only mitigates bids for energy above minimum load.*

DMM looks forward to reviewing these and other potential options once additional details and analysis of the methodologies for determining opportunity costs is completed.

The Flexible Capacity Requirement Error Term

In the latest comments template, the ISO asks stakeholders to evaluate what might be the appropriate bound for the error term that will be included in the determination of flexible capacity requirements. They also ask what actions would be appropriate in the case that those bounds are reached. The ISO suggests that the purpose of the error term is to provide a reserve margin and to overcome outages. In this case, it seems like the ISO could estimate the outage rate for flexible capacity to serve as a starting point.

In their comments on the second revised straw proposal, CEERT suggests that the error term will generally be negative. The basis for this suggestion is that many resources that are not procured as Flexible RA will be bidding into the market and so there will be more flexible resources available than have been procured. DMM's view is that the existence of voluntary participation by un-contracted resources does not reduce the requirement and that compensating these resources for their availability up to the set requirement ensures that operational needs will be met. The purpose of FRAC-MOO is to ensure that the ISO has all the necessary resources available to reliably operate the grid. If the ISO decides that it is necessary to use more resources than anticipated to meet the grids flexibility needs, the fact that these resources have, for a time, been available without compensation does not guarantee that they will continue to be available and participating the market when needed.

Standard Flex capacity product and availability incentive mechanism and the 'adder' method

Overall, the system proposed by the ISO for an availability incentive mechanism seems appropriate. DMM agrees with the ISO that the 'adder' method, is an appropriate way to identify and track the characteristics and behavior of capacity resources. The ISO needs to work out a better price for the value of flexible capacity.

DMM suggests that additional clarification be provided on how the proposed SFCP price will be calculated. Specifically,

- Will the ISO continue to use the $0.96/yr growth assumption, or will a converted a rate of growth be used?
- Should this growth rate be based on or related to measured changes in required flexibility?
- What accounts for the difference between the growth rate applied to the SFCP price and the growth rate for the CPM price? The CPM price is scheduled to grow at about 5 percent over a two year period, whereas the SFCP price seems set to grow at about 5 percent each year.

DMM notes that these prices will play a very important role in the capacity construct and that it is important to establish accurate administrative prices, when those are necessary, in order to allow the remainder of the design to function as intended. DMM understands that this is a very challenging question, but believes that the ISO can find a reasonable way to address this. Options being discussed relating to flexible ramping prices seem to merit more consideration and elaboration.