

Comments on the Variable Operations and Maintenance Cost Review

Department of Market Monitoring

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The Department of Market Monitoring (DMM) appreciates this opportunity to comment on the ISO's discussions for the Variable Operations and Maintenance Cost Review. DMM continues to support the ISO's effort to clarify definitions of various operations and maintenance costs, and to update the current default Variable Operations and Maintenance Adders. The following are DMM's comments on specific issues.

Establish default values for Major Maintenance Adders (MMAs) for start-up and minimum load cost for various categories of units.

DMM agrees that it is worthwhile to clarify the definitions of operations and maintenance related costs included in reference cost calculations. Doing so in a transparent manner will reduce the burden of applying for negotiated major maintenance adders and will help ensure that major maintenance and other variable operations and maintenance costs used in reference calculations are mutually exclusive.

As the ISO more clearly defines each of these components, DMM believes it is viable and important to develop default MMA values for generation groups. There are a number of reasons for this:

1. As some maintenance costs are excluded from the default operations and maintenance (O&M) value, resources will likely seek to incorporate these costs in other components of their market bids. Some resources will have to negotiate MMAs or custom O&M adders for the first time. Others will have to renegotiate or update existing MMA values. This poses a significant administrative burden to market participants, the ISO and DMM -- who currently negotiates MMA values on behalf of the ISO.
2. As previously noted in DMM's comments on the *Commitment Costs Enhancements Phase 2 Proposal*, DMM has found use of cost schedules from power purchase agreements to be highly problematic and believes that in many cases these do not reflect actual maintenance

costs.¹ Default MMAs would provide a more fair and reasonable basis of actual major maintenance costs than the current approach.

3. Many market participants have expressed concern about providing confidential data to the ISO and DMM, particularly as resource ownership, operation, and affiliation changes for units. There is also an additional challenge and administrative burden of ensuring the MMA values are confidential to the scheduling coordinator for whom they were negotiated. Implementing default values reduces the need for scheduling coordinators and resource owners to provide confidential information and for the ISO to administer this confidential data.

Default major maintenance values could be set as follows. The ISO, in coordination with a consultant with appropriate engineering and cost expertise, could develop values that are close to or below the median cost within different technology groups. Like the default O&M adder, generators could opt to include MMAs up to these values, or to negotiate a higher value as is done under the current process by submitting more detailed data on actual resource-specific costs. Similar to the O&M defaults, the default MMA values would be subject to periodic updating. These default values would also provide a basis for setting MMAs for units with Power Purchase Agreements, service agreements or other contractual arrangements that cannot provide actual cost data or estimates.

Clarify the categorization of capital equipment replacement costs as variable or fixed, clearly defining the distinction between the two.

DMM supports the ISO's effort to categorize different maintenance action items into the following three categories: (1) major maintenance costs, (2) other variable maintenance costs or (3) fixed maintenance costs. One distinction that was not clear and has potentially significant implications, is whether all of the actions (inspections, repairs and overhauls, and replacement) are applicable to all of the equipment listed.

In particular, the greatest potential area for concern involves capital costs associated with replacing equipment components. While participants may highlight a piece of equipment (e.g. Combustion Turbine) green to indicate that it should be included in major maintenance, it is not clear whether they are indicating whether inspections, repairs and overhauls, *and/or* replacements should be included in major maintenance. DMM suggests that particular

¹ *Comments on the Commitment Cost Enhancements Phase 2 Revised Straw Proposal*, Department of Market Monitoring, January 15, 2014.

http://www.caiso.com/Documents/DMMComments_CommitmentCostEnhancementsPhase2-RevisedStrawProposal.pdf

attention is focused on ‘replacement’ costs that are substantial and may be considered fixed or variable.

Capital costs are of particular importance because, in addition to the potential overlap between O&M and MMAs, there is also potential for overlap and additional cost recovery if these costs are also included in going forward fixed costs which may form the basis for backstop capacity procurement references in the ISO’s market (e.g. CPM soft offer cap and RMR compensation). This year, the ISO is considering revising the CPM soft offer cap based on an updated study completed by the California Energy Commission. These studies introduce fixed versus variable operations and maintenance costs as part of their calculation of the cost of new entry of various generating resources.

Capital equipment costs, in particular, may be a source of overlap between costs that are recovered as variable costs in ISO day ahead and real time markets and as going-forward fixed costs through CPM or RMR cost payments. To ensure these different cost/payment categories are mutually exclusive, DMM suggests that the ISO confirm with participants of the VOM workshops whether they consider costs associated with replacing items in the provided equipment lists as capital fixed costs, or variable.

Other comments and suggestions on cost and adder definitions and other areas of consideration.

Finally, DMM has a few minor comments related to the cost definitions and concepts laid out in the discussions.

- DMM suggest including the following element into the definitions of cost adders: *adders should reflect going forward maintenance costs that are likely to be incurred within the lifespan of the unit.*
- DMM requests that the ISO clarify that *‘Other Maintenance’ costs may truly be a function of starts or run hours, but are not major by the definition of major maintenance.* In the diagram provided by the ISO, it appears that there is a suggestion that ‘Other Maintenance’ costs could only feasibly be considered as a function of energy (MWh). DMM believes it may be possible that there are Other Maintenance costs that may not fit the definition of major, but are truly incremental marginal costs that may be incurred with respect to starts, run hours, or MWh.
- It may be worthwhile to consider one additional area that may require further consultation with stakeholders: costs that are incurred once in the lifetime of a unit. While these costs may be incurred because of starts or run hours, it may be infeasible for the cost to reasonably be incurred more than once in the lifespan of the unit rendering them potentially fixed (i.e. no matter how much they are committed, they will still only be incurred once).