

# Commitment Cost Enhancements Phase 2

## *Straw Proposal*

Dated: October 29, 2014  
Comments Submitted: November 19, 2014

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### **Summary:**

Calpine supports the development of opportunity costs for inclusion in the commitment and energy bid-cost-recovery mechanism. Including opportunity costs should allow all resources the opportunity, and the obligation, to bid (or schedule) in all hours, replacing the need for complicated, controversial and limiting “supply plans”.

While we appreciate the complexity of applying this methodology to MSG units, we seek the clarification that MSG units are not prohibited from using opportunity costs, but rather that they would merely not default to use-limited status.

Calpine supports the added functionality to add a start-related major maintenance adder to transitions. Indeed, a “transition” between configurations generally (maybe not exclusively) means that a new embedded generator is being started.

Finally in regard to major maintenance adders, because of confidentiality issues, Calpine renews its call for the development of “safe-harbor” cost estimates as an alternative to data submissions and disclosure.

### **Opportunity Costs, Generally**

Calpine supports the inclusion of opportunity costs in bid-cost recovery mechanisms (both for commitment costs and for mitigated default energy bids.) For some resources like hydro, inter-temporal opportunity costs are real and demonstrable. For others (like gas-fired resources) permitted environmental constraints could create start-based opportunity costs as starts are much more valuable during the summer compared to other times of the year. Being able to bid these costs without the fear of allegations of economic withholding or loss (if mitigated) represents a positive step forward in price formation.

Significantly, allowing the inclusion of opportunity costs should allow more units to be treated similarly with respect to offer obligations. Supply plans, which in some cases severely limit the offer obligation hours, can be relaxed or eliminated altogether. No longer will the fear of uneconomically “using up” a resource be a justification for discriminatory offer obligations.

Finally, the inclusion of opportunity costs, when paired with fewer offer restrictions, can provide more flexibility when needed on the grid. In other words, current “supply plans” limit the availability of resources and those limitations make the resource unavailable when the grid may need them the most. Increased bid availability will support the emerging challenges of integrating variable resources.

### **Opportunity Costs for MSG Units**

Calpine understands that the Straw Proposal does not, by default, include MSG units (or geothermal resources) in the category that would automatically qualify them for opportunity costs. That’s fine, for MSG units are complicated and local permitting conditions can be, well, idiosyncratic. But the absence of such a default designation should not exclude these resources from seeking opportunity costs. Calpine understands that the burden would be on the generator to demonstrate the basis of, and value of any opportunity costs. In most cases these units would be subjected to “negotiated opportunity costs”, as in the yellow box on page 13 of the straw Proposal.

### **Transition Costs**

Calpine supports the added ability to specify a MMA for a transition. That is, we understand the ISO proposal to allow the accrual of a dollar value for a turbine-start related transition. In fact, for some units major maintenance is triggered by the number of turbine starts and so this accrual is both logical and economically appropriate. In general, Calpine supports the other changes proposed to reasonably implement BCR policies.

### **Safe-Harbor MMAs**

Calpine has had confidentiality concerns in responding to certain requests for detailed historical and contractual major maintenance costs. The ISO’s proposal (and the PRR 782 modifications) clarify the roles of Potomac and the CASIO, but retains the difficult discovery and or disclosure process.

We anticipated these difficulties in our May, 2013 comments (included below for convenience). In those comments we suggested that we would have difficulty with both direct disclosure of major maintenance data and worse, indirect disclosure through maintenance competitors who are also tolling counterparties.

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These problems have come to roost and we suggest now, as we did then, that the ISO develop “safe harbor” estimates of MMAs.

We appreciate the apparent efforts of DMM to reach out to vendors and engineering firms seeking this information. Once established, if established, the safe harbor estimates could be used to avoid the problematic disclosure requirements now imposed. If a generator feels the MMA’s are too low, they would be free to provide cost-based support for their own estimates. We believe, however, that given that this is not a primary compensation mechanism for most (but rather just a BCR mechanism) few parties might avail themselves to the administrative burden.

Thanks and **Happy Thanksgiving** to all!!

11/20/2014

Attachment:

Comments submitted on May 12, 2013

Comments of Calpine Corporation on

# Commitment Cost Refinements 2012

## *Major Maintenance Implementation Proposal*

Comments Submitted: May 12, 2013

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### **Summary:**

Calpine greatly appreciates this extraordinary step of the CAISO sharing its implementation plan with stakeholders.

Calpine continues to strongly support the inclusion of Major Maintenance (“MM”) costs in bid-cost recovery mechanisms. MM is an unavoidable and direct consequence of producing energy at the direction of the CAISO. If these costs cannot be recovered through market revenues (and the ISO’s studies indicate significantly decreasing energy margins with more variable resources) they must be compensated through bid-cost recovery (BCR) mechanisms.

As highlighted below, we believe the Potomac Template proposal, however, is overly burdensome, produces a false sense of accuracy, threatens competitive advantages held by Calpine and could expose highly confidential information to counterparties and/or competitors.

Rather, Calpine recommends technology-specific MM costs be included in BCR like other elements of proxy cost such as Start-up gas use and Variable O&M. That is, a benchmark MM cost should be established by Potomac and variations from the benchmark could be established by exception.

Alternatively, if a benchmark cannot be established, aggregate and simplified alternative metrics should be submitted such as dollars per start, dollars per hour, or dollars per equivalent operating hour. For MSG units, these metrics should be established by configuration. Reporting of these simplified metrics would be bound by the Rules of Conduct of the Tariff and would require truthful and factually accurate submissions. Submissions that Potomac finds to be outside the range of expectation could be, as they are today, subject to further scrutiny and confirmation.

### **The Proposed Template is Overly-Burdensome**

Calpine has reviewed the data requirements and forecast obligations of the proposed data Template in some detail and believes that the reporting obligation suggested is disproportionate and unnecessary for the intended task. The Template appears to require accounting and reporting of historic costs in ways that would require substantial effort. Forecasting for the lifecycle cost and timing of future MM elements, would exceed commonly applied and reasonable business and budgeting practices. Importantly, the Template implies not a static, but continuing obligation to report both costs and forecasts. Virtually every day, at one plant or another, Calpine is performing work that would be considered MM. The incurrence of cost and the concomitant modifications to forecast costs would presumably require continuous Template updates.

Admittedly, the balance of the burden and benefits of this Template rests with the conversion of this data into a usable format for BCR calculations. Based on the discussions to date, Calpine has no specific understanding of how Template data will be converted into BCR cost adders. We suspect, but do not know that Potomac will convert this data to the very same simplified metrics (e.g. \$ per Mwhr) that we suggest be submitted directly. If contrary to Calpine's proposal, the ISO continues with this Template approach, we ask that Potomac explain with some level of detail the mathematics that they will employ in order to convert the Template data into a usable form. Specifically, they should identify their methods for levelizing costs, financial factors, the relevance of historic costs, and variables to reflect emergent work (as discussed below). In addition, Calpine asks that if the Template approach is adopted, that Potomac, or the ISO describe in sufficient detail, how the resultant metrics will be included in Start-Up and/or Minimum Load costs for the purposes of BCR.

### **The Proposed Template Creates a False Sense of Accuracy**

The conversion of the substantially detailed historic costs and forecasts included in the Template to an estimate of MM costs ignores other factors leading to inaccuracy.

The intervals of major maintenance are not static and known with certainty. Publicly available OEM recommendations (or requirements if under warranty) are reasonable guideposts, however many factors affect the intervals of different forms of maintenance. These factors include, among other things, OEM technical advisories that identify design or operational modifications that require unscheduled attention, engine trips, failed starts, extreme ramps, seasonal

adjustments to avoid high power demand months, and the use of power augmentation.

Additionally, on most MM activities unanticipated work emerges (emergent work) when a gas turbine, steam turbine or boiler is inspected. This could be the identification of unanticipated component degradation, damage or failure. This emergent work can and does often result in substantial modifications to costs and maintenance scope or forecasts. Similarly, under certain circumstances it may be reasonable to defer certain maintenance work<sup>1</sup>.

Bottom line is, as with all forecasts, we know that the forecast of MM will be only an indication, possibly substantially inaccurate with respect to timing and scope. If, despite Calpine's objections, the CAISO moves forward with the Template, Calpine would seek assurance that the submission of a forecast of MM creates no binding commitment to perform the work with the timing or scope as projected.

The Template, will presumably produce a single, very precise estimate of MM costs; however, this precision must not be confused with accuracy. Calpine strongly believes that accuracy can be reasonably established with the direct submission of simple cost metrics.

### **The Template Inappropriately Discloses Confidential and Proprietary Data**

In its pursuit of becoming the premier power generation company in the US, Calpine has spent an enormous amount of effort consolidating, streamlining, and coordinating its MM function. Our fleet of roughly 27,000 MW of generation is dominated by GE and Siemens natural-gas-fired turbines. Our growing knowledge of these machines (along with the balance of plant equipment) is the envy of the manufacturers themselves and a distinct competitive advantage in the market. Additionally, we believe our total MW capacity and national turbine fleet allows us significant leverage when negotiating supply contracts with both OEM and maintenance vendors.

With this context, we turn back to the ISO implementation proposal which would require the disclosure of this competitive advantage. The information release to Potomac, alone and even with appropriate non-disclosure agreements may be troubling. In fact, many of Calpine's relationships with its parts and services vendors contain non-disclosure conditions. Negotiating such a disclosure to Potomac would simply add to the undue burden of this proposal and could affect our ability to continuously obtain beneficial discounts.

However, the much more troubling disclosure of this information would be to counterparties who are also competitors in related markets. This kind of

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<sup>1</sup> Emergent work and deferred maintenance seems to create a need to continuously update the Template, adding to the already undue burden

disclosure would occur in any instance where Calpine does not serve as the SC for the generation resource, but the ISO continues to require the SC to provide MM data. Take the simple example in which Calpine tolls<sup>2</sup> a unit to an LSE. The only access to Template data would be through disclosure by Calpine to the LSE-SC. The LSE is of course, a direct competitor to Calpine for other uncontracted Calpine generating resources and is very likely a direct competitor with Calpine for OEM parts and services. Requiring Calpine to release its MM costs (both historic and forecast) to its competitors is entirely inappropriate. Such disclosure could be entirely foreclosed by vendor non-disclosure agreements and would certainly affect Calpine's ability to extract beneficial terms in the future.

### **Calpine's Preferred Alternative**

In the development of this stakeholder initiative, Calpine envisioned – and still supports -- a process in which MM estimates would be established similarly to other metrics necessary for BCR. In that process, for instance, standard metrics are established and a generation owner (or SC) may submit evidence supporting a variance from the standard. We envision MM costs the same way.

Potomac should be tasked with identifying benchmark costs using simple but relevant metrics. Those benchmark costs by technology could be established through literature research and discussion with vendors<sup>3</sup>. We would expect that if Potomac had the following background data (which could be supplied by either the SC or the generation owner) and data from the RDT it could develop simple and accurate estimates for alternative metrics:

- Technology and Configuration
- Fuel
- Summer Dependable Rating
- Model Information

In order to conveniently include the cost adders in Start-up and Minimum Load Cost calculations, the metrics should be any one of the three following alternatives -- each of which could be directly related to an individual unit's MM cost:

- Dollars per Operating Hour; or
- Dollars per Start; or

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<sup>2</sup> In this case we simply mean that the generation owner is the slave to wishes of the counterparty, and the counterparty assumes all scheduling (SC) responsibilities for the generation.

<sup>3</sup> Calpine may be able to assist in identifying vendor contacts and information resources if needed.



- Dollars per Equivalent Operating Hour<sup>4</sup>.

The metrics themselves would be MSG-configuration specific when relevant. That is, and as described in the Implementation Details Paper, MM benchmark costs would be higher when two embedded generators are running than when only one is operating.

We believe that Potomac's independent evaluation of these metrics would avoid the complicated issues of sensitive information disclosure. There seems to be no mention in the stakeholder documents that such a determination of average metrics could not be made by Potomac.

SCs could submit the same aggregate metrics based on its own proprietary information as generation owner, or conditions of the tolling PPA. If the PPA is insufficient, the SC could request the aggregate metrics be reported to the ISO directly by the generation owner. Without limitation, our initial view is that the generation owner reporting aggregate metrics to Potomac or the CAISO would not compromise proprietary information.

Thanks

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<sup>4</sup> An Equivalent Operating Hour includes actual run time with a run time penalty applied for other factors such as starts, trips and failed starts.