Commitment Cost Enhancements Initiative
July 29, 2014

Submitted by	Company	Date Submitted
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Pacific Gas and Electric Company (PG&E) respectfully submits the following comments on the California Independent System Operator's (CAISO) Commitment Cost Enhancements Second Revised Straw Proposal.

PG&E suggests the following changes to the Commitment Cost Enhancements second revised straw proposal:

1. CAISO should manually adjust the gas price input on days when there is a significant gas price decrease to assure reasonable costs and market efficiency.
2. CAISO should commit to filing a tariff waiver (similar to the emergency tariff filing last March) with sufficient time to go into effect prior to winter 2014/2015 to address updating the gas price input when there are large changes in the gas price, in the event that there are any delays in the implementation of this initiative.
3. CAISO should improve its process for reviewing the major maintenance adder component of the proxy cost calculation to better reflect the actual cost of unit maintenance.
4. CAISO should evaluate options to refine the proposed proxy cost buffer which is a.) Too generous for managing minor day-to-day gas price variation and b.) Unnecessarily high for most units in the market.
5. The Department of Market Monitoring should analyze alternatives to the proposed mitigation including adjusting the buffer downward in situations where there is the potential to exercise market power.
6. PG&E support's CAISO's decision to defer the development of an opportunity cost adder for use limited resources (ULRs) to a later date through a separate initiative.

PG&E also appreciates CAISO's responses to previous rounds of comments including clarifications on which elements of start-up and minimum load costs would remain unchanged in this proposal.

1. **Insufficient mitigation can lead to artificially inflated costs. CAISO should manually adjust the gas price input into the minimum load and start-up cost calculation on days when there is a significant decrease in day over day gas prices.**

February 7, 2014: Actual and Estimated Day-Ahead Prices	
Actual LMP	$94.68
Estimated LMP	$72.58
Difference	23%

When there is a significant decrease in gas prices day-over-day and CAISO uses a lagged gas price input in its optimization, market prices are significantly inflated. To demonstrate this effect, PG&E estimated the day-ahead LMP for February 7 had the CAISO optimization used a current gas price instead of the high, lagged gas price from February 6. This is likely a conservative estimate of what the cost impact would be under the proposed initiative because there were units on the registered cost option on February 7 that were not affected by the lagged gas price input into their minimum load and proxy costs. Nonetheless, the estimate[1] shows that prices faced by load were significantly higher than they would have been if the gas price input had been updated to the actual, lower price. For context, in PG&E territory alone on February 7 this resulted in estimated total excess costs of approximately $6 million[2] due to an inflated day-ahead price.

To minimize the risk of overly high bid-cost recovery charges on days when the gas price decreases and the associated inefficient commitment and dispatches, CAISO should manually update the gas price input on these days. PG&E recognizes CAISO's goal to minimize the number of days where the gas price is manually updated, but believes that protection against artificially inflated prices and inefficient dispatch as gas prices decrease outweigh concerns about the administrative burden. Further, historical data suggests that this would occur infrequently: since 2009, the gas price has decreased day-to-day by 25% or greater on only 3 occasions.

2. **CAISO should commit to filing a tariff waiver to implement the manual gas price input component of this proposal to be effective prior to December 1, 2014 in the event that this initiative is in any way delayed.**

[1] To estimate the hypothetical February 7, 2014 price, we calculated the implied heat rate for days with similar average load from February, 2013 (+/- 2%). Using this heat rate of 8,614 Btu/kWh and the actual gas price of $7.78/mmBtu (the ICE price + $0.05385/therm tariff charge), we backed out a hypothetical average day-ahead LMP had CAISO used the market run on that day with a more accurate (and lower) gas price input.

[2] This estimate was calculated using the average day-ahead forecasted PG&E TAC hourly load of 11,435 and the difference in the actual and estimated average PG&E DLAP LMP.

PG&E appreciates CAISO's desire to have this initiative approved prior to winter 2014/2015, but would like assurance that there will be an interim measure in place in the event that this process is delayed. CAISO should commit to filing a tariff waiver similar to the one filed in spring of 2014 if any issues appear to delay the implementation of this initiative. For an effective date of December 1, CAISO should commit to filing this waiver by October 1.

Given the magnitude of impact observed on February 6 and the potential efficiency implications from a sharp decrease in prices (as demonstrated above), the tariff waiver should be applicable for increases or decreases in day-over-day gas prices of 25% or greater. The waiver should be in place until the broader issues are addressed through the changes proposed in this initiative.

3. **CAISO should improve the proxy cost formula to better reflect unit-specific costs. One way to accomplish this is to improve its process and methodology for reviewing the major maintenance adder component of the proxy cost calculation to better reflect the actual cost of unit maintenance**.

PG&E understands that major maintenance adders (MMAs) are reviewed by comparing the submitted costs against a benchmark developed based on the costs of similar units. Scheduling coordinators (SCs) can then justify submitted costs by providing either detailed, unit-specific information on maintenance cycles or by providing a single cost such as a contract-based cost. PG&E understands that units that fail to provide the detailed, unit-specific information are scrutinized more stringently and afforded a narrower tolerance band.

However, in some cases, detailed, unit-specific maintenance cost information may not be available to the scheduling coordinator because it is considered proprietary by third party generators. This may result in Potomac Economics (Potomac), on behalf of CAISO, denying costs based on the absence of information (not necessarily on the fact that they do not represent actual operating costs). Currently, units have the opportunity to recover these costs using the registered cost option. The retirement of the registered cost option creates a gap for some of these units.

To ensure that units are able to recover legitimate costs, CAISO's assessment MMA costs should consider allowing maintenance costs within a wider tolerance band of Potomac's benchmark if the scheduling coordinator can demonstrate that the contract-based costs were evaluated and approved by a regulatory agency. For example, PG&E's contract-based maintenance costs result from a competitive solicitation process that is approved by the CPUC[3] and have been fully vetted for

[3] Under Public Utilities Code 454.5, the CPUC approves each utilities procurement plan including "a competitive procurement process under which the electrical corporation may request bids for

reasonableness[4]. Additionally, PG&E is subject to a regulatory requirement to minimize energy costs by bidding at cost in the market.[5]

A wider buffer to recover regulatory approved contractual costs for maintenance adders would be appropriate in the limited circumstances where it maintains the effectiveness of mitigation by limiting its use to circumstances in which the SC a.) does not have access to confidential unit-specific information and b.) can demonstrate that the costs were developed under regulatory oversight. Further, if the proxy cost formula better captures these unit-specific costs, a tighter proxy cost buffer (discussed under Comment 4) would be appropriate as the proxy costs would better reflect the prudent costs stakeholders incur.

4. **CAISO should evaluate options to refine the proposed proxy cost buffer which is a.) Excessive for managing minor day-to-day gas price variation given the changes the CAISO is making to the gas input and b.) Unnecessarily high for most units in the market.**

a.) Some buffer on the proxy cost calculation is appropriate to capture day-to-day gas price variation, but, given CAISO's proposal to update the gas price input on days when there is a significant gas price increase, a lower buffer would be sufficient to accomplish this. Because the proxy cost buffer applies to entire proxy cost formula and not just to the gas price input, there is overlap in the protection provided to generators against cost incurred due to gas price volatility.

b.) Under the status quo, most units in the market already bid under the amount that would be allowed by the buffer. The majority of units participating in the market likely do not need a 25% buffer on the proxy cost calculation. These include both units currently on the proxy cost option with no buffer and units on the registered cost option that bid significantly below the registered cost cap. According to the DMM 2013 Annual Report, with the implementation of the major maintenance adder in November 2013, 22% of gas-fired units elected the proxy cost option for start-up costs and 37% of gas-fired units elected the proxy cost option for minimum load costs. Further, half or nearly half of registered cost bids were at

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procurement-related services, including the format and criteria of that procurement process." California Public Utilities Code 454.5(b)(5).

[4] For example in addition to internal review, under CPUC D.02-08-071 utilities are required to establish a Procurement Review Group (PRG) to review overall procurement strategy, processes (including RFOs), and proposed contracts before the contracts are submitted to the CPUC for review. PRG participants include the California Department of Water Resources, CPUC Energy Division, the Natural Resources Defense Council, the Union of Concerned Scientists, CPUC Division of Ratepayer Advocates, Aglet Consumer Alliance, Coalition of California Utility Employees and The Utility Reform Network.

[5] Pacific Gas and Electric Company. Conformed 2010 Long-Term Bundled Procurement Plan. Decision No. 12-01-033, 12-04-046. Pp. 16-17.

120% or less of the proxy calculated costs.[6] This data suggests that well over half the gas-fired units in the market do not need a 25% proxy cost buffer.

Improving unit-specific cost calculations instead of applying a higher buffer for all units will prevent the over-recovery of costs for units that do not need a large buffer. While units can bid below the cost cap and units face incentives to bid at cost to increase the likelihood of being dispatched, PG&E notes that in the past market participants exploited the CAISO market bid cost recovery rules creating large uplift costs borne by load.[7] As shown above in Comment 1, there can be significant cost implications when mitigation levels are insufficient. For this reason, CAISO should implement the lowest possible buffer that reasonably allows units to recover their costs.

5. **The Department of Market Monitoring should analyze alternatives to the proposed mitigation going forward. A better mitigation would adjust the buffer downward in situations where there is the potential to exercise market power.**

Given the concern that PG&E and other stakeholders have raised about the mitigation buffer proposed in this initiative, it would be reasonable for the DMM to analyze alternatives to mitigating market power going forward. A better mitigation would not only reflect unit-specific differences but would also adjust under circumstances in which units have the opportunity to exercise market power.

PG&E supports mitigation bands that vary depending on market conditions. For example, under conditions when market power may exist, the band could be lower. These include minimum online commitment constraints that may commit units at minimum load based on location or during increasingly frequent low net load conditions where thermal resources are kept at minimum in anticipation of a ramp. Situational-dependent mitigation would be consistent with CAISO's approach to mitigating energy bids based on the presence of congestion.

6. **PG&E support's CAISO's decision to defer the development of an opportunity cost adder for use limited resources (ULRs) to a later date through a separate initiative.**

PG&E agrees with CAISO that developing the opportunity cost adder is too complex to be addressed within the timeline of this initiative.

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[6] The DMM 2013 Annual Report. Section 7.4: Start-up and Minimum Load Bids

[7] From September, 2010 through November, 2012, JP Morgan violated FERC's anti-manipulation rule by intentionally submitting bids that appeared falsely economic and was paid tens of millions in Bid Cost Recovery and Exceptional Dispatch payments. Order Approving Stipulation and Consent Agreement. July 30, 2013. 144 FERC ¶ 61,068.