



**Commitment Cost Enhancements Initiative
May 21, 2014**

Submitted by	Company	Date Submitted
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Pacific Gas and Electric Company (PG&E) offers the following comments in the stakeholder process on the California Independent System Operator’s (CAISO) April 30, 2014 Commitment Cost Enhancements Issue Paper and Straw Proposal and May 7, 2014 conference call.

PG&E appreciates the CAISO efforts to improve the efficiency of the dispatch in the Commitment Cost Enhancements straw proposal, and offers minor suggestions to refine the CAISO’s proposal. PG&E believes it is important to address the market design flaw that resulted in the inefficient dispatch and commitment of generation resources in winter 2013/2014 prior to winter 2014/2015. However, PG&E believes it is also important to ensure that the appropriate controls are in place to prevent market participants from exercising market power that could result in inefficient commitment and dispatch on an ongoing basis. Any design change to the way start-up and minimum load costs are capped must balance the flexibility to protect generators from gas price volatility risk and allow adequate cost recovery with appropriate measures to prevent participants from exercising market power. The modifications suggested in these comments would better address market power concerns while maintaining the flexibility and implementation feasibility of the CAISO’s initial proposal to ensure generators can recover their costs particularly when there is a sharp change in gas prices.

The adjustments proposed by PG&E are designed to move toward a more accurate reflection of generator’s costs in the proxy cost calculation and to address market power concerns. These include the following:

1. Replace the current lagged gas price input based on two gas price indices with an input based on the single IntercontinentalExchange, Inc. (ICE) gas price index. If this is infeasible due to software or other logistical issues, adopt a gas price update threshold of 20%;

2. Evaluate whether it is appropriate to adjust the proxy cost cap to less than 125% of proxy costs, particularly if the CAISO lowers the update threshold and when conditions allow participants to exercise market power;
3. Enhance the proxy cost calculation to better reflect unit specific costs and use the most up-to-date gas price input available so that a lower proxy cost buffer would be reasonable;
4. If the changes are made as proposed by the CAISO, the Department of Market Monitoring (DMM) should review submitted minimum load and start-up costs for unexplained increases or to identify units that area unable to fully recover costs; and
5. Provide more clarification as whether retiring the registered cost option for non-gas fired units would affect the ability of hydropower facilities to recover minimum load costs.

Comments

1. **CAISO should replace the current lagged gas price input based on two gas price indices with an input based on the single ICE gas price index published at 10:00 AM on the day that the day-ahead market optimization is run. If an automatic daily update of the gas price index is infeasible to implement prior to winter 2014/2015, CAISO should adopt a gas price increase threshold of 20% to trigger updating the gas price input.**

CAISO should use the ICE gas price index daily as an input into the optimization instead of using a lagged gas price based on two indices. Using the most accurate gas price input minimizes risk to gas-fired generators, ensures the efficient dispatch of generation, and better ensures gas system reliability. As noted in the FTI Consulting presentation at the May 19, 2014 CAISO Market Surveillance Committee meeting, "Mitigation of offer prices based on out-of-date gas prices can make it uneconomic for gas fired generators to buy gas and lead to uneconomic dispatch of gas fired generation, potentially undermining gas system reliability."

The daily ICE gas index price is based on a weighted average of gas traded for scheduled delivery on the electric trading day and, therefore, more accurately reflects actual gas prices than the lagged gas price that CAISO currently uses. Further, due to the volume of trades that comprise the ICE index price. PG&E believes the morning ICE index is sufficiently robust, reflects competitive markets, and should replace CAISO's current method.

PG&E understands that CAISO has concerns about the timing of the publication of the ICE gas price index and the ability to automatically update the gas price input into the market optimization without delaying the day-

ahead market results. If it is infeasible to change to using the ICE gas price index prior to winter 2014/2015, CAISO should adopt a threshold of 20% (lower than the 50% threshold adopted in the spring 2014 tariff waiver) to trigger updating the gas price input in order to improve market efficiency and protect generators against risk associated with significant gas price volatility.

A 20% increase in gas price from one evening to the next has occurred infrequently enough historically to not cause unnecessary market process disruptions but is still a substantial enough increase to expose gas-fired generators to significant risk and to potentially distort commitments and dispatch if the accurate gas price is reflected in energy bids, as occurred on February 6, 2014. Based on CAISO published data, a greater than 20% change in the CAISO gas index price has occurred only 7 times since 2009.

Further, the retirement of the registered cost option and the ability to update default energy bids and generated bids alleviates some of the downsides discussed in the emergency tariff waiver filed in the spring of 2014. Without a registered cost option, CAISO will not have to delay the close of the day-ahead market in order to allow for registered cost units to submit bids. Additionally, if CAISO is able to coordinate with the third party consultant that produces default energy and generated bids prior to the market optimization as CAISO has stated they intend to do, commitments will be more efficient than they would have been under the spring, 2014 gas price tariff waiver that addressed these cost calculations ex-post. Updating the gas price input should therefore be a less complicated process that would result in more efficient results than when proposed under the spring, 2014 tariff waiver, and it would be reasonable to adopt a lower threshold.

- 2. A proxy cost calculation buffer is appropriate to manage minor day-to-day gas price fluctuations and minor costs that are not accounted for in the proxy cost calculation. However, to alleviate concerns about market power CAISO should consider a.) adjusting the buffer to reflect conditions where market power could be exercised and b.) enhancing the proxy cost calculation to better reflect actual costs and, if feasible, adopting a smaller buffer altogether particularly if the CAISO lowers the update threshold to 20% or lower.**

Allowing generators the ability to submit minimum load and start-up bids up to an amount higher than CAISO's calculated proxy cost both mitigates risk to generators due to gas price volatility and allows generators to capture costs that are not captured in the proxy cost calculation. However, increasing the proxy cost cap also introduces the potential for participants to submit minimum load and start-up bids higher than their actual costs. To the extent that these participants may have market power, such as with minimum online commitment (MOC) units or minimum load energy during

low net load conditions, the proposed increase in the proxy cost cap could allow for market power to be exercised.

- a. In recognition of market power concerns, CAISO should evaluate whether certain circumstances warrant tighter mitigation than afforded by the proposed buffer. Before increasing the proxy cost cap market-wide, CAISO and the DMM should assess under what conditions market power could be exercised (such as MOCs of minimum load energy as described above) and consider tighter mitigation in certain geographic areas or during certain times. This would be consistent with current the CAISO mitigation practice of applying stricter mitigation in situations where the potential for market power is identified.
- b. PG&E understands the expediency of adopting a proxy cost cap to protect generators against gas price volatility risk and allow generators to capture costs that are not currently captured in the proxy cost calculation. However, a better solution would be to eliminate the need for a proxy cost cap buffer by ensuring that appropriate unit-specific costs are included in the proxy cost calculation and by using the most up-to-date gas price.

Accurately reflecting unit-specific costs is preferable to establishing a buffer that allows for cost recovery above actual costs for some units while not allowing for full cost recovery for other units. If CAISO is able to reflect all costs to generators in the proxy cost calculation and uses a more accurate gas price, CAISO should consider whether a lower proxy cost buffer than the proposed 25% may be appropriate.

As noted by the DMM in its 2013 annual report in reference to past changes made to the registered cost option, lower limits help “to limit potential gaming or manipulative practices aimed at profiting from high bid cost recovery payments.”¹ Despite proxy costs better capturing gas price volatility, a high percentage of units that remained on registered cost for either start-up costs, minimum load costs, or both. CAISO’s May 2014 Gas Events and Market Results of February 6, 2014 technical bulletin stated that even after the ISO allowed expedited switching from the registered cost option to the proxy cost option in February of this year, only 39% of gas-based resources were under the full proxy option.² For this reason it would be appropriate for CAISO to assess whether the reformulated proxy cost calculation is appropriately capturing all costs incurred by generators and whether

¹ Department of Market Monitoring. 2013 Annual Report on Market Issues and Performance, April, 2014: p.262.

² Alderete, Guillermo. Gas Events and Market Results of February 6, 2014. May, 2014: p. 13-14.

the process for approving adders is expedient enough to address unresolved cost calculation issues prior to retiring the registered cost option.

Similarly, if CAISO uses the most up-to-date gas price, a lower proxy cost buffer than the proposed 25% may be appropriate. Using the daily ICE gas price index as the optimization or adopting a lower gas price update threshold (as proposed above) would reduce the risk gas-fired generators face from price volatility. These changes would address one of the primary drivers for increasing the proxy cost cap. Additionally, regardless of what gas price input update threshold is adopted, on days when there is a significant gas price increase and the gas price input into the proxy calculation is updated, it may be reasonable to have a proxy cost cap of less than 125%. This is because updating the gas price input should mitigate the gas price risk associated with participating in the day-ahead market.

- 3. If the suggestions outlined in comment #2 above are infeasible, to alleviate concerns about market power manipulation through the over-recovery of minimum load and start-up costs under a higher proxy cost cap, the DMM should commit to comparing minimum load and start-up bids before and after the introduction of a higher cap.**

As noted above, a proxy cost calculation buffer introduces the potential for market participants to recover costs higher than those actually incurred, particularly in conditions where there are market power concerns such as with MOCs and minimum load energy. To alleviate market power concerns, the DMM should perform period reviews of minimum load and start-up bids including whether units currently on proxy costs increase their bids and whether units currently on registered costs alter their bids to reflect the reduced gas price volatility risk of the proxy cost option. If the assessment finds unexplained increases in minimum load and start-up costs, CAISO should reexamine the appropriateness of the higher proxy cost cap and identify any circumstances in which tighter mitigation is appropriate.

Additionally, as noted previously, a large number of units are currently on the registered cost option in order to recover costs for expenses not captured by the proxy cost formula. CAISO and DMM should further review on a case by case basis if other costs are not being reflected such that generators still cannot recover their costs.

- 4. CAISO should provide more clarification as to whether retiring the registered cost option for non-gas fired units would affect the ability of hydropower units to recover costs.**

PG&E appreciates the CAISO's efforts in addressing the potential effect of retiring the registered cost option on hydroelectric and gas-fired units. At this time, PG&E would appreciate further clarity as to how the proxy cost calculation captures start-up and minimum load costs for units that run on hydropower so that stakeholders can assess how retiring the registered cost option would affect these units.

For example, the existing proxy cost calculation for gas-fired units varies as a function of the gas price input, but there is no corresponding variable for calculating the start-up and minimum load costs of hydropower units nor is there unit-specific information akin to a heat-rate for these units. Minimum load costs for hydropower facilities such as pumped storage are primarily a function of the opportunity cost of water and the consumption rate of the unit. The opportunity cost of water is a watershed specific calculation that is not available in a published index such as the ICE gas price index. Further, the CAISO master file does not currently include a water consumption rate for hydroelectric or pump storage units.

Providing additional clarity as to what variables comprise current the start-up and minimum load calculations for hydropower units, including pumped storage, would allow stakeholders to better assess the potential effects of the proposal.