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California Department of Water Resources State Water Project	7/29/2014	
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On July 15, 2014, CAISO published second revised straw proposal for the Commitment Cost Enhancements. On July 22, 2014, CAISO hosted a conference call to discuss the second revised straw proposal. California Department of Water Resources State Water Project (SWP) appreciates the opportunity to submit comments on this Proposal. SWP is concerned that the Proxy Cost calculation does not correctly represent hydro generators. Additionally, SWP requests further clarity on the method of calculations and details for the Proxy Cost. SWP has submitted queries to our Client Rep and is awaiting additional information.		
ISO Response		
The ISO appreciates your comments. The ISO has responded directly to SWP to address your specific concerns.		

Company	Date	Submitted By
CalPeak Power LLC	7/29/2014	
Opening Comments		
CalPeak Power LLC ("CalPeak") appreciates this opportunity to provide comments on the CAISO's *Commitment Cost Enhancements Second Revised Proposal* ("Second Revised Proposal"), dated July 15, 2014, and respond to questions posed by the CAISO in the response to the comments by CalPeak on the *Commitment Cost Enhancements Revised Proposal* which were filed July 1, 2014 ("Initial Comments"). CalPeak's subsidiaries, CalPeak Power – Border LLC, CalPeak Power – Enterprise LLC, CalPeak Power – Panoche LLC, and CalPeak Power – Vaca Dixon LLC, operate four substantially identical peaker plants. Two of them, CalPeak Power Border Unit 1 ("Border") and CalPeak Power Enterprise Unit 1 ("Enterprise"), are located in SDG&E's electric and gas service territories. The other two, CalPeak Power Panoche Unit 1 ("Panoche") and CalPeak Power Vaca Dixon Unit 1 ("Vaca Dixon" and collectively with Border, Enterprise and Panoche, the "CalPeak Units"), are in PG&E's electric and gas service territories. All four utilize Pratt &		

Whitney, Model FT8-2 (DLN), Twin-Pac gas turbine engines, in which each unit is comprised of two combustion turbines that, singly or together, turn a single generator. In a 2-in-1 configuration, *i.e.*, with both CTs operating at each unit, the PMin in this configuration for each power plant is 44 MW and the PMax values range between 48 and 52 MW, depending on the unit.

The CalPeak Units have heat rates, in the range of 10,588-12,370, again depending on the configuration as a multi-stage generator (MSG) unit. As a result they are seldom called upon to run by the CAISO. Because CalPeak's subsidiaries only operate peakers which run seldomly and unpredictably, the natural gas used to run their power plants is purchased on the spot market.[1]

CalPeak encourages CAISO to quickly adopt an interim approach that can be realistically implemented in time for the winter of 2014-15. With that in mind, CalPeak suggests several improvements to the current proposal.

ISO Response

The ISO appreciates your comments. Please see our responses below.

I. The CAISO Should Act Quickly on Interim Tariff Changes for the Winter of 2014-15

The CAISO began this process in order to make changes to the commitment cost provisions of its tariff which cause under recovery in the event of natural gas price spikes. While in principle CalPeak supports the CAISO's efforts to make changes to the commitment cost provision to reflect the actual cost of natural gas, as CalPeak explained in its Initial Comments and further explains below, the Second Revised Proposal will not accomplish its intended goal since it will not provide adequate compensation for units such as the CalPeak Units.

CalPeak recognizes that it is very difficult for the CAISO to write better rules now since there are several other CAISO and CPUC proceedings pending that will affect how the cost commitment rules should be written. CAISO has indicated that it: (1) intends to propose new language

[1] Unlike many other generators in California, CalPeak also has no affiliates that operate natural gas-fired power plants in California or purchase significant quantities of natural gas, so it is not in a position to share natural gas supplies with its affiliates.

relating to operational flow orders; (2) will conduct a new stakeholder proceeding to make changes to its bidding rules; and (3) is conducting a stakeholder proceeding relating to when it will set administrative prices. Meanwhile, the CPUC has received an application from SoCalGas and SDG&E to change provisions of their tariffs relating to operational flow orders. Time is of the essence, however, particularly for generators like CalPeak's subsidiaries with generating facilities in Southern California where increased use of natural gas due to the retirement of SONGs make the threat of natural gas price spikes during the winter of 2014-15 very real.

In light of the need to make more progress in related proceedings, CalPeak believes that the CAISO should refocus the stakeholder proceeding to make only interim tariff changes that will take effect in time for the winter of 2014-15. CalPeak believes that there are only two key changes to the Second Revised Proposal which would make it acceptable as an interim approach: (1) change the bid cap from the proposed 125% of the proxy cost calculation to 150% of the proxy cost (this will leave in-place the current bid cap that is used in the registered cost calculation); and (2) in the event of a natural gas price spike that requires re-running the day-ahead market, provide for setting an administrative price which includes all costs generators incur for securing natural gas supplies. If the CAISO decides to limit availability of the relief proposed in clause 2 of the preceding sentence, it should be at a minimum offered to all resources with high heat rates (and which therefore run infrequently) and not just to units whose operation is limited by permits, which is an arbitrary limitation.

ISO Response

The ISO appreciates your comments. Please see Section 5.1 for why the 150% cap on registered is not equivalent to 150% on proxy given the different rules and functionalities available under each option. In the event of a natural gas price spike greater than 125%, the manual process described in Section 5.3 will update the gas price index. The application of an administrative price would be limited to instances of severe system emergencies and major market disruptions such as the September 8, 2011 blackout. The stakeholder initiative discussing administrative pricing (see *Pricing Enhancements* stakeholder initiative) seeks to determine the parameters of such emergencies and market disruptions. While a gas price spike may occur simultaneously with these events, it does not necessarily follow that any gas price spike would require the use of administrative prices. Please see our comments below related

to information provided under NDA.

II. The Second Revised Proposal Should be Improved

- ***The Bid Cap Is Too Low***

As CalPeak explained in its Initial Comments, the CAISO's proposal to remove the Registered Cost option and set a bid cap of 125% of the Proxy Cost will ensure that generators such as CalPeak's subsidiaries will not be adequately compensated. While the prior version of the proposal suggested that at least use-limited resources might get a higher bid cap, the Second Revised Proposal eliminates this possibility. The bid cap should be raised to 150% of the proxy cost. The CAISO recognized last year when it set the Registered Cost cap at 150% of the Proxy Cost that there are generators for which this is necessary for them to recover their costs. Parties have entered into commercial arrangements assuming that they would be subject to this higher cap.

ISO Response

In addition to Section 5.1, we have also noted some of the variables that led to the higher 150% proxy cap (originally 125%) in the introduction to Section 5 and why those concerns do not exist today.

- ***The Proposal for Addressing Price Spikes Does Not Ensure Recovery of Natural Gas Costs***

The CAISO's proposal for addressing natural gas price spikes by running the day-ahead market model again will not provide assurance that generators recover their actual natural gas costs. As CalPeak explained in its Initial Comments, when generators like the CalPeak Units which have low capacity factors and face winter balancing rules are selected to run in the day-ahead market they often have no choice but to immediately purchase gas on the spot market. The Second Revised Proposal does nothing to ensure that generators that are selected to run in the day-ahead market and who are prevented by the CAISO's rules from bidding an energy sale price that compensates them for the risk of natural gas spikes will be able to recover the cost of the gas they purchase. In the event of a natural gas price spike, it would be more equitable and better for a properly functioning electricity market to set an administrative price after the fact which ensures recovery of all natural gas costs incurred.

ISO Response

The clarify, the ISO is not proposing to rerun the day-ahead market under the proposed manual process. The ISO will delay the close of day-ahead market bid submission to account for updates from the ICE natural gas price index and resubmission of bids, if any, from scheduling coordinators.

If resources are selected to run in the day-ahead market, there is still an additional gas market for next-day purchases. Generators are not automatically forced into the intra-day spot market.

The ISO has requested from stakeholders actual gas costs incurred over a period of time (preferably a year or more to understand trends) in order to inform this initiative and the longer term bidding rules initiative. This type of data could help the ISO better understand the financial decisions participants need to make that may require an increase in the proxy bid cap. Based on confidential information requested by and provided to the ISO under this initiative, the ISO believes that the proposed 125% proxy bid cap will cover the vast majority of gas price volatility between the day-ahead gas price index and intra-day gas prices. The proposed manual process in this interim stakeholder process should address the remaining extraordinary events. Beyond this interim stakeholder initiative, the ISO will use the information provided under NDA and outreach to stakeholders to better understand gas price volatility and how market participants manage such volatility to inform the longer term bidding rules initiative.

- ***The Proposal Should Not Assume that CalPeak Can Reduce its Risks by Hedging***

Questions asked by the CAISO appear to assume that CalPeak and its subsidiaries can reduce their own risks by hedging. As CalPeak explained in its Initial Comments, "[h]edging is not feasible for resources such as the CalPeak Units since the units run very infrequently, and it is not possible to accurately predict when the units will be called upon to run. Moreover, physical hedging is precluded by natural gas pipeline company balancing requirements." Initial Comments at 4. The CAISO responded with questions:

> Would the following interpretation be correct: CalPeak believes hedging is not feasible for its resources because it would not be economic to do so?
>
> Can CalPeak explain why physical hedging is "precluded" by natural gas pipeline balancing requirements? What mechanisms, if any, can CalPeak use to hedge (either financially or physically) the cost of buying gas in the intra-day market when the generator is not scheduled to operate day-ahead? For each hedging mechanisms identified, please explain how CalPeak would be able to recover the cost of the hedge.

CAISO, *Commitment Cost Enhancements - Revised Straw Proposal Comments*, at 12.

In short, the CAISO's interpretation of CalPeak's initial comments is correct -- given the operating profile of the CalPeak Units, CalPeak believes any hedging strategy would be uneconomic. To further explain: it is not possible for CalPeak's subsidiaries to hedge economically due to the unpredictability of when and how frequently the CalPeak Units will run. As a result, any hedge provider will charge a significant risk premium, particularly in light of the fact that the CalPeak Units are only called upon when infrequent and unpredictable events happen, such as extreme weather events, transmission outages, and outages of other lower heat rate generators.

The following is instructive of this point. For the past several years, the two CalPeak units in the San Diego area (CalPeak Border Unit 1 and CalPeak Enterprise Unit 1) have had capacity factors of less than 5%. Yet their hours of operation in any given month varied dramatically. While the days on which the units ran in any given month have followed a general seasonal

trend, they do not reflect a predictable pattern on particular days or even months, making it extremely difficult for CalPeak or hedge counterparties to make reliable predictions of gas demand at the facilities over any period. As part of this effort, CalPeak would be happy to include further operational data under the terms of an NDA to elucidate this point further. The bottom line is that it is impossible to find a hedging product that would be economic given the low capacity factor of the units.

With respect to physical hedging, it is not possible for CalPeak to hold natural gas in reserve. There are few natural gas storage facilities in Southern California and none south of Los Angeles, making it very difficult to flow the gas to the units. Moreover, the ability of CalPeak's subsidiaries to contract for delivery of natural gas supplies in advance is limited since under the winter balancing rules there is a substantial risk that CalPeak's subsidiaries will incur significant penalties for overestimating or underestimating how much gas they will need on a daily basis since it is difficult to predict when they will be called upon to generate electricity. CAISO's rules provide no means for CalPeak's subsidiaries to recover these costs.

Even if it were possible to financially or physically hedge, the costs of hedging are not part of the proxy price calculation so CalPeak would not be able to recover these costs, particularly if the price cap remains at 125% of the proxy price as the CAISO has proposed.

ISO Response

The ISO appreciates the explanation, which helps to place CalPeak's situation into the broader gas-electric industry context. Understanding the actual gas costs incurred over a period of time (preferably a year or more to understand trends, especially for low capacity factor resources) will inform this initiative and the longer term bidding rules initiative. This type of data could help the ISO better understand the financial decisions participants need to make that may require an increase in the proxy bid cap.

Company	Date	Submitted By
DMM	7/29/2014	

Comments

The Department of Market Monitoring (DMM) appreciates this opportunity to comment on the ISO's second revised straw proposal on commitment cost enhancements. We continue to support the ISO's efforts to eliminate the registered cost option and modify the proxy cost option.

DMM supports removing the opportunity cost adder from this initiative, given the lack of progress that has been made on developing a complete and well-designed model and process that would allow this option to be implemented. However, DMM notes that this market

enhancement has already been dropped from several prior stakeholder initiatives over the last few years because of the time and work needed to develop the necessary rules and tools for incorporating opportunity costs into commitment costs for use-limited resources. Since developing an opportunity cost calculation model is a significant undertaking, we believe the ISO, with input from market participants, should use the additional time that currently exists to resolve implementation issues and to develop and deploy an opportunity cost calculation model as soon as possible.

As DMM has noted in its previous comments, we are supportive of the ISO's general approach to calculating opportunity costs.[2] DMM supports the ISO's efforts to move from the existing prototype to a platform that will allow the ISO to include additional features. We recommend that the ISO continue further refining and developing their model and continue to engage stakeholders in developing and refining the calculations.

ISO Response

The ISO appreciates your comments. As noted in Section 5.4, the ISO aims to start the opportunity cost initiative in October and bring the issue to the February Board.

Company	Date	Submitted By
NRG Energy, Inc. ("NRG")	7/29/2014	Brian Theaker

Opening Comments

In the July 15, 2014 Second Revised Straw Proposal ("SRSP") the CAISO:

- Removed consideration of the opportunity cost adder as part of this commitment cost initiative; and
- Updated discussions in Section 6.

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[2] For further discussion, see http://www.caiso.com/Documents/DMMComments-FlexibleResourceAdequacyCriteriaMustOfferObligation-SecondRevisedStrawProposal.pdf, http://www.caiso.com/Documents/DMM-Comments-FlexibleResourceAdequacyCriteriaMustOfferObligation-ThirdRevisedStrawProposal.pdf, http://www.caiso.com/Documents/DMMComments-FlexibleResourceAdequacyCriteriaMustOfferObligation-FourthRevisedStrawProposal.pdf, and http://www.caiso.com/Documents/DMMComments_CommitmentCostEnhancements_RevisedStrawProposal.pdf.

ISO Response
The ISO appreciates your comments. Please see our responses below.
Comment 1
NRG strongly supports deferring consideration of the opportunity cost adder to the bidding rules stakeholder process. Consideration of the opportunity cost adder will be a detailed and lengthy process that would have threatened the CAISO's ability to implement daily bidding of start-up and minimum load costs in a timely fashion (i.e., prior to the next winter gas season).
ISO Response
The ISO appreciates your comments. As noted in Section 5.4, the ISO aims to start the opportunity cost initiative in October and bring the issue to the February Board.
Comment 2
As noted previously, the CAISO must develop a mechanism that allows suppliers to recover their costs under **all** circumstances – including extraordinary events such as the December 2013 and February 2014 gas curtailments – not just under "most" circumstances. NRG supports the CAISO's proposal to allow daily bidding of start-up and minimum load costs above the proxy cost level. While NRG expects that this regime, when implemented, will allow it to better manage its gas exposure (including intra-day activities) under most conditions, the CAISO must also provide for recovery of gas costs (including intra-day costs) that occur under unusual or extreme conditions. It is our expectation that Western gas markets will see increased volatility as we move through time, driven by conditions outside of the CAISO footprint. We urge the CAISO to remember that generators must manage their gas supply based on the likelihood or the threat of an extreme pricing event occurring. Whether gas supply constraints resulting in sharp increases in pricing actually come to fruition is not known until after the system has been dispatched. There is no daily-index based magic elixir that can be implemented which will fairly insulate generators from the risks faced during periods of high price volatility while also fostering a competitive marketplace. While it may be difficult to provide mechanisms that allow for recovery of gas costs under ***all*** conditions, any system that does not provide the tools for suppliers to manage their risk under ***all*** conditions unfairly exposes suppliers to costs that cannot be recovered as their units follow often unpredictable CAISO dispatch instructions. This is an unacceptable outcome.
ISO Response

The ISO appreciates your comments and the information provided under NDA and outreach to stakeholders to better understand gas price volatility and how market participants manage such volatility to inform this initiative and the longer term bidding rules initiative.

Comment 3

On July 22, Southern California Gas Company ("SoCalGas") held a call to discuss its application A.14-06-021 to implement low inventory Operational Flow Order ("Low-OFO") requirements. While NRG is still reviewing this proposal, at a minimum the new Low-OFO construct will introduce an increase in price volatility, due both to the market attempting to manage the *threat* of a Low-OFO as well as instances when one is actually called. Further, Low-OFOs will most likely be declared after the Scheduling Coordinators have submitted their next-day generation offers to the CAISO, which will put additional stress on the intra-day gas markets. With the different stages of penalties or "Non-Compliance Charges" as described in the SoCalGas proposal, the amount of penalties generators are exposed to can go up as we move farther into a gas day. The penalties faced by generators will be increasing at the same time the liquidity of intra-day gas markets will be decreasing. (SoCalGas will be declaring Low-OFOs prior to Cycles 1 -4 of the gas day.) This all suggests that suppliers will continue to be exposed to high gas costs while trying to balance their gas transactions. While the winter balancing period is being moved from a 5-day to a 30-day period, the declaration of Low-OFOs along the real possibility of soon-following high inventory OFOs will likely increase the historical difficulties experienced by generators in balancing their gas supply. NRG respectfully urges the CAISO to review this proposal and to describe in detail how the CAISO proposes to modify its commitment cost proposal to address the new winter balancing scheme.

ISO Response

As noted in Section 2, the ISO is working on ensuring that our proposed operational flow order tariff language will be consistent with SoCalGas' new proposal. Beyond these narrowly defined circumstances, the bidding rules initiative may look at both the low inventory OFO application and electric-gas industry coordination. We appreciate NRG's diligence in highlighting these issues.

Comment 4

As noted on Page 16 of the SRSP, NRG looks forward to the CAISO releasing its proposed OFO cost recovery tariff language as soon as possible and implementing that language on or before the commitment cost modifications are implemented.

ISO Response

No comment.

Comment 5

NRG provided responses to the CAISO's questions in Section 6 in our last comments. NRG has already noted its willingness to provide additional intra-day gas cost information to the CAISO and is working to acquire and review that data now.

ISO Response

We appreciate NRG's cooperation and look forward to working with NRG.

Company	Date	Submitted By
Pacific Gas & Electric	7/29/2014	Erica Brown – (415) 973-5535

Opening Comments

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.

ISO Response

The ISO appreciates your comments. Please see our responses below.

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.

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.

ISO Response

The ISO appreciates PGE's analysis. As we noted in the last response matrix, the proposed 125% cap seeks to balance market power concerns and administrative burden. For the market on a system-wide basis, the ISO expects bidding of commitment costs to be competitive. In other words, should the gas price index decrease, the ISO expects a decrease in commitment cost bids overall. For areas with market power concerns, energy bids will be mitigated and the commitment cost bids will be capped to 125% for most natural gas-fired resources, lower than the current registered cost cap of 150% of proxy. The ISO views this as an improvement over the status quo.

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.

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.

ISO Response

The ISO appreciates the urgency of this initiative and endeavors to have a solution implemented by this winter.

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 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.

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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 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.

ISO Response

ISO appreciates PGE’s feedback on the major maintenance adder review process. We will consider PGE’s helpful suggestions and agree that more detailed cost information is ultimately the most beneficial in assessing costs.

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 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.

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.

ISO Response

ISO appreciates PGE's point that not all resources require the proposed 125% headroom as some currently utilize the proxy cost option with a cap of 100%. The ISO reiterates that the proposed 125% headroom is an upper limit and Scheduling Coordinators are free to bid below this cap to ensure its resources are economically selected by the optimization. As PGE notes, not all contracts reflect detailed costing information for major maintenance adders as those may reflect proprietary information from third party generators. The ISO believes that over time more detailed information should be requested of contracting parties to ensure actual costs can be directly reflected. In the meantime, the proposed proxy headroom increase offers a balance during this transitional period to allow contracting practices to change, provide additional bidding flexibility, and limit system and market impact for easier implementation. As we have noted before, the industry is also evolving with changes to gas pipeline management in the state and a greater national emphasis on gas and electric industry coordination.

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.

ISO Response

The ISO appreciates PGE's comment. This can be considered in the longer-term bidding rules initiative.

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.

ISO Response

As noted in Section 5.4, the ISO aims to start the opportunity cost initiative in October and bring the issue to the February Board.

Company	Date	Submitted By
Southern California Edison	7/30/2014	Wei Zhou – (626) 302-3273

Opening Comments

SCE thanks the California Independent System Operator (CAISO) for the opportunity to comment on the Commitment Cost Enhancements Second Revised Straw Proposal (the Proposal)[1]. The change in the Proposal is to defer the opportunity cost model to a separate initiative, with other elements unchanged from the original Straw Proposal[2].

With the deferral of the opportunity cost model, although for a good reason[3], there is a major issue in economically managing use-limited resources (ULRs) in the CAISO markets. In addition, some resources (ULR or not) may not be able to recover actual costs in excess

of the proposed 125% proxy cost cap.

Due to these issues and others described herein, SCE opposes the Proposal as written. SCE requests that the CAISO maintain the Registered Cost option until the issues are adequately resolved.

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1 CAISO Second Revised Straw Proposal on Commitment Cost Enhancements: http://www.caiso.com/Documents/CommitmentCost_SecondRevisedStrawProposal_071517.pdf
2 http://www.caiso.com/informed/Pages/StakeholderProcesses/CommitmentCostEnhancements.aspx

3 SCE supports deferring the opportunity cost model as it is currently not ready for production use. SCE also suggests maintaining the Registered Cost Option until the opportunity cost model is fully developed.

ISO Response

The ISO appreciates your comments. Please see our responses below.

1. ULRs cannot be economically managed under the CAISO Proposal.

ULRs are important resources in the CAISO markets, providing critical grid reliability services and quickly accessible energy. With the proposed elimination of the Registered Cost option and reducing the cap from 150% to 125%, there will likely be insufficient "headroom" for many ULRs to incorporate opportunity costs in their commitment cost bids. The resulting artificially low bids will result in inappropriate resource commitments, potentially (and prematurely) exhausting the limited run hours and/or available startups, and ultimately rendering the resources unavailable. Hypothetically, as an option, an opportunity cost could be factored into the resource's energy bids. However such option is not available for ULRs with PMAX close to PMIN. Even if this option is available, it is neither efficient (see Item #3 below), nor effective due to potential local market power mitigation (LMPM) actions taken by CAISO.

As stated by the CAISO, ULRs would then have to be managed solely based on a ULR use plan under the CAISO Proposal. SCE strongly advises against the idea of solely managing the use limits using a ULR use plan. If a generator is started or run more often than indicated in the use plan due to the persistence of higher prices which the scheduling coordinator (SC) did not forecast, then the starts/run time may be exhausted before the end of the month. On the July 22 stakeholder call, CAISO suggested that SCs respond to such a scenario by not bidding the resource(s). This approach would harm market efficiency. If the generator is not bid into the market, the generator is then not available for dispatch in the event of a system emergency and/or continued higher prices (without some form of

Exceptional Dispatch). This scenario is untenable from a market perspective, and inferior for reliability. The CAISO should not rely on market structures that require parties to "not bid" to avoid prematurely reaching the use limits.

ISO Response

Use-limited resources should submit a use plan that reflects the resource's bidding as constrained by its use limitations. This is in recognition that such resources do not currently have a must offer obligation where the ISO generates and automatically inserts a bid for RA resources that do not submit a bid. In the current paradigm, Scheduling Coordinators are already calculating an opportunity cost in order to reflect this in the registered cost option. SCE has noted that "many ULRs" would be impacted by this change. The ISO is open to SCE's analysis of these resources to understand the impact. Ideally the analysis would show the impacted resources, the opportunity costs, and whether the opportunity costs can be covered by the proposed 125% proxy cap. In the ISO's limited analysis of five randomly selected use-limited resources, only two had opportunity costs and both of these resources could include such costs under the proposed 125% proxy cap. Access to SCE's analysis is also key to understanding conditions that have changed since 2012 when SCE stated in the *Commitment Costs Refinements* initiative:

"In CAISO's Addendum to the Draft Final Proposal, CAISO has changed its proposed cap on registered Start-Up and Minimum Load Costs to 150% of proxy cost, up from the previously proposed 125% of proxy cost. SCE finds this to be a step in the wrong direction and supports the previously proposed cap of 125%."[1]

[1]http://www.caiso.com/Documents/SCE-Comments-CommitmentCostsRefinements2012AddendumDraftFinalProposal.pdf. Footnote removed.

2. The Proposal is problematic given the current review/approve process for Major Maintenance Adder (MMA), which should be improved before implementing the proposed changes.

With the cost cap reduction from the current 150% down to 125%, many resources may not be able to recover their actual commitment costs. Per SCE's understanding, in situations where the scheduling coordinator (SC) may not have access to actual cost data but contract data, the contract cost may only be approved up to an "industry average" value, and any portion above the industry average will likely be denied, potentially excluding recovery of

legitimately incurred contract costs. The CAISO Department of Market Monitoring (DMM) and/or Potomac Economics should clarify the details of such a process. Costs exceeding an "industry average" should not be denied simply based on how broad the grouping is defined to find the average, or solely because such costs are "contract-based." Instead, a clearly defined, transparent process should exist to address these situations to ensure legitimate costs are allowed, in order to avoid market inefficiencies that could otherwise arise.
ISO Response
The ISO appreciates SCE's feedback on the major maintenance adder review process. We will consider SCE's comments and helpful suggestions.
3. There is a potential that the Proposal may cause market inefficiencies when actual commitment costs exceed the 125% cap and, as a result, some of the commitment costs may be included in the energy bids.
Although the Proposal may reduce market uplifts and therefore increase market efficiencies, CAISO has not demonstrated this through any market-based data. When the 125% cap is insufficient to capture legitimate commitment costs, it is likely some of the costs would flow into energy bids or would be shifted among start-up and min-load costs. Any of these outcomes harms market efficiency. For example, a possible outcome not properly putting star-up/min-load/and energy costs in their appropriate "bucket" could be a resource being committed, but dispatched at PMIN for prolonged periods (as the 125% cap would understate the actual commitment costs, and the higher energy bid does not apply at PMIN). This is similar to the outcome during the February 6, 2014 event when resources were also dispatched at PMIN; although due to a different reason then (lower-than-actual gas price indices), understated commitment costs and higher energy bids were the result. An additional potential impact is inflated LMPs, should the impacted resources become marginal. The CAISO should not force a design on the market that, while it may simplify administration for the CAISO, has the end result of harming market efficiency.
ISO Response
The ISO would appreciate receiving SCE's analysis (can be provided under an NDA to protect confidentiality) on how many resources the proposed proxy cap would impact and how conditions have changed since the 2012 Commitment Cost Refinements initiative.

4. SCE supports reactivating the Tariff provision regarding the manual adjustment process to address gas price spikes. In that process, the CAISO should also consider manually adjusting the gas price input on days when there is a significant gas price decrease.
As SCE stated in previous comments, the measures described in the Tariff Waiver[4] seem appropriate to address gas price spikes. Similarly, the manual adjustment process should also apply in situations when there is significant gas price decrease, to guard against artificially high LMPs. 4 The measures that were approved by FERC but expired are described in: http://www.caiso.com/Documents/Mar6_2014_TariffWaiver_GasPriceIndexRequirement-Next-DayER14-1442-000.pdf
ISO Response
The ISO appreciates your comments. As we noted in the last response matrix, the proposed 125% cap seeks to balance market power concerns and administrative burden. For the market on a system-wide basis, the ISO expects bidding of commitment costs to be competitive. In other words, should the gas price index decrease, the ISO expects a decrease in commitment cost bids overall. For areas with market power concerns, energy bids will be mitigated and the commitment cost bids will be capped to 125% for most natural gas-fired resources, lower than the current registered cost cap of 150% of proxy. The ISO views this as an improvement over the status quo.
5. SCE supports deferring the opportunity cost model.
As previously stated, SCE supports deferring the opportunity cost model, as this allows the CAISO and its stakeholders more time to understand, modify, test and implement this tool. And as noted, we do not support eliminating the Registered Cost option until opportunity costs are more appropriately addressed.
ISO Response
As noted in Section 5.4, the ISO aims to start the opportunity cost initiative in October and bring the issue to the February Board.

Company	Date	Submitted By
Western Power Trading Forum	7/29/2014	Ellen Wolfe
Opening Comments		
WPTF offers the following comments on the CAISO's second revised straw proposal dated July 15, 2014.		

WPTF appreciate the ISO seeking input from stakeholders on separating out the opportunity cost element and on the intra-day gas issues in particular.

ISO Response

The ISO appreciates your comments. Please see our responses below.

Comment 2

WPTF is supportive of substantial portions of the ISO's proposal. We remain concerned that a proxy cap at 125% of projected costs, especially if suppliers continue to face risks of unrecovered intra-day gas costs, will be insufficient to ensure cost recovery for suppliers. WPTF continues to believe that moving to a structure that allows participants to bid in their actual gas costs subject to verification is the optimal direction to take, and we trust that the proposed 125% measure is only interim in nature until the ISO begins its stakeholder process on bidding later this year.

ISO Response

The ISO will use the information provided under NDA and outreach to stakeholders to better understand gas price volatility and how market participants manage such volatility to inform the longer term bidding rules initiative. In the meantime, confidential information requested by and provided to the ISO under this initiative as well as the ISO's own analysis supports the 125% proxy bid cap and manual process in this interim stakeholder process.

Comment 3

WPTF has no strong objection to separating the opportunity cost aspects into their own process, in particular if it allows the ISO to develop opportunity costs for hydro and other non thermal resources thereby conforming treatment between the technology types. We expect, however, that the ISO will continue to work diligently to finalize the opportunity cost treatment and will not let these issues linger for an extended period of time.

ISO Response

As noted in Section 5.4, the ISO aims to start the opportunity cost initiative in October and bring the issue to the February Board.

Comment 4

With respect to intra day gas cost treatment we try to address the ISO's questions herein. WPTF does not expect during this interim period that the ISO would make widespread changes to its cost recovery BCR algorithms. Rather, we would like the ISO to seek FERC approval for retroactive cost recovery to cover unexpected and extreme instances whereby the 125% proxy or manual proxy procedures cause a supplier to have significant under recovery. We have not at this time developed a specific procedure for what would trigger such an instance, but we would

be pleased to work with the ISO to do so. WPTF does not expect that providing relief during these one-off events will hamper regular gas price hedging. Rather, some protection against extreme losses would likely reduce the overall costs of participating in the markets by reducing the risks. These cost reductions could result in savings for buyers.

ISO Response

The ISO would be open to WPTF's suggestions should the scenario arise. The ISO has requested from stakeholders actual gas costs incurred over a period of time (preferably a year or more to understand trends) in order to inform this initiative and the longer term bidding rules initiative. This type of data could help the ISO better understand the financial decisions participants need to make that may require an increase in the proxy bid cap. Based on confidential information requested by and provided to the ISO under this initiative, the ISO believes that the proposed 125% proxy bid cap will cover the vast majority of gas price volatility between the day-ahead gas price index and intra-day gas prices. The proposed manual process in this interim stakeholder process should address the remaining extraordinary events. This is also supported by the ISO's own analysis. Beyond this interim stakeholder initiative, the ISO will use the information provided under NDA and outreach to stakeholders to better understand gas price volatility and how market participants manage such volatility to inform the longer term bidding rules initiative.

Comment 5

We anticipate that the market participant would be required to file a recovery request for demonstrable excess intra-day costs, and that perhaps the independent evaluator would be tasked with verifying such cost submittals. Another possibility is to seek FERC approval for each instance when payment would be provided. This would provide other stakeholders input.
We are hopeful that the FERC effort to align the electric and natural gas markets will reduce the exposure to intra-day gas purchases for day-ahead positions, but it likely will have little effect on alleviating the exposure to gas cost for day-of dispatches.

WPTF looks forward to working with the ISO, in particular on these intra gas issues; we appreciate the consideration of these comments.

ISO Response

See response above.