

# Commitment Cost Enhancements – Comments on Straw Proposal and Issue Paper

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Company	Date	Submitted By
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<b>Summary of Comments</b>		
<p>We appreciate the opportunity to provide comments to the CAISO on the Commitment Cost Enhancement straw proposal. The minimum load and startup costs used in the commitment of generation units by the CAISO are important for insuring efficient commitment and dispatch decisions by the CAISO. In general CPUC Staff agree with the CAISO proposal to more accurately approximate actual costs used to make generation unit commitment decisions.</p> <p>Specifically, CPUC staff supports elimination of the “registered cost” option, and the CAISO’s proposal to allow the units to bid up to 125% of the GHG and fuel cost components of their commitment costs. CPUC staff believes the 25% premium should only be applied to a unit’s index based GHG and fuel costs. CPUC staff recommends allowing the thermal fueled units to bid up to 125% of the GHG and fuel cost components of their commitment costs, because a premium on variable fuel related costs may be warranted to offset frequently fluctuating prices. On the other hand the CAISO should ensure that other non-fuel related costs, such as major maintenance, Grid Management Charge (GMC) and Operations and Maintenance (O&amp;M) costs, are not marked up by the 125% proxy cost calculation, as no such premium is warranted on these costs because they are not volatile like the fuel prices. The 125% of Proxy cost cap that includes all cost components is too generous and may incent generation units to structure their bids to run at minimum load rather than aiming at getting dispatched for energy.</p>		
<b>ISO Response</b>		
<p><a href="#">Thank you for your comments. Please see the ISO’s responses below.</a></p>		
<b>Background</b>		
<p>During the winter season of 2013-2014, the ISO energy market experienced abnormally volatile and high natural gas price spikes. For example, on February 4, 2014 at 9:50 p.m., the natural gas index prices applicable to resources in the ISO markets ranged from \$7.63/MMBtu to \$8.62/MMBtu. In contrast, by February 5, 2014 at 10:01 a.m., those prices had increased to a</p>		

range of \$12.29/MMBtu to \$23.53/MMBtu.

Because of the sudden increase in gas prices, the ISO was not able to reflect the gas price spike in its resource commitment decisions. The ISO calculates the start-up and minimum load costs for resources under either the “proxy cost” or “registered cost” option selected by the resource. For resources under the proxy cost option<sup>1</sup>, the ISO is required to rely on at least two natural gas price indices published the day prior to running the day-ahead market. For the registered cost option, the gas price is based on a monthly forward projection and the total registered cost is limited to no more than 150% of the projected proxy costs. Resources selecting the registered cost option must remain under that option for 30 days, unless the proxy costs are higher than registered.

Lastly, the ISO tariff specifies, that a registered cost option resource that switches to the proxy cost option must remain under the proxy cost option for the remainder of the 30-day period. To address the potential for additional natural gas price spikes for the duration of the winter season, on March 6, 2014 the ISO filed with the Federal Energy Regulatory Commission (FERC) a proposed tariff waiver of the above referenced two sections until April 30, 2014. In the tariff waiver filing, the ISO also committed to commence a stakeholder process in April to address the issues raised by gas market conditions and to more comprehensively develop an interim solution that can be implemented in the fall if such solution does not require substantial system changes. FERC granted the ISO’s tariff waiver on March 21, 2014.

To capture extreme price spikes like those observed on February 6th, the ISO proposes to retain the manual operations as described in the tariff waiver to update the natural gas price index using the single ICE index, which is published at approximately 10 a.m. This would potentially delay the close of the day-ahead market. It follows that the manual operation could be triggered at a natural gas price increase lower than the 150% threshold discussed in the waiver. Ultimately, the ISO would prefer a non-manual solution but may not be able to implement one before the next winter season. The ISO continues to explore options to automate this process or implement a superior option. The proposed elimination of the registered cost option would obviate the manual process developed to implement the requirements under the tariff waiver obtained earlier this year to switch eligible resources from registered to proxy.

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<sup>1</sup> Proxy Costs are made up of a generation unit's heat rate times the fuel index cost (e.g., average of two natural gas indices) plus GHG, major maintenance, and variable O&M cost adders.

### ISO Response

[Please see the ISO's responses below.](#)

### Comments: CPUC supports elimination of the Registered Cost Option

CPUC Staff supports the CAISO proposal to eliminate the registered cost option and only use the proxy cost option for commitment costs. With the changes proposed herein the proxy cost option would be a better approximation of the true start up and minimum load commitment costs used by the ISO market for optimal unit commitment.

The basis for the proxy cost calculation has been improved with the inclusion of major maintenance adder, and Green House Gas (GHG) costs. Including major maintenance in the commitment costs the generators are able to reflect the wear and tear on their units and provide the ISO with a measure of the opportunity costs in the commitment decision. The same holds for including GHG costs in commitment decisions. The proxy cost option follows the gas prices up and down which alleviates the primary risk that the registered cost option was designed to cover being able to more closely account for fuel costs in the commitment decision.

### ISO Response

[The ISO appreciates the CPUC's support on this proposal.](#)

### CAISO commitment costs should be limited to 125% of fuel related Proxy Costs

The ISO should only allow a 125% premium on fuel costs used to calculate the proxy cost bid cap rather than all commitment costs included in proxy costs. Only the costs directly related to fuel cost that would be affected by day over day gas price fluctuations should be allowed to increase up to 125% for proxy cost bid cap calculations. The static and/or actual cost based commitment costs such as Grid Management Charge (GMC), major maintenance, and variable Operations and Maintenance (O&M) should not be increased by any factor in the base calculation for the proxy cost bid cap.

The CAISO shows in Table 1 of its proposal that in a 5 year period (April 2009-April 2014) day over day gas prices deviated only 7 times by more than 25% in California, which is less than 0.4% of the time. In other words 99.6% of the time gas prices do not increase more than 25% from the day before. Therefore, by allowing a 25% mark up on the proxy gas costs (which is based on current index prices) any day over day change should be covered 99.6% of the time.

To include a 25% market up on all the other costs that remain static overly compensates generators and provides additional perverse incentives to only seek bid cost recovery revenues which increases market inefficiency.

By modifying the CAISO's proposal per CPUC staff recommendations here, the concern over fuel price risk would be adequately addressed and commitment costs would not be unnecessarily inflated thus avoiding market inefficiency and uplift.

**ISO Response**

The ISO appreciates the CPUC's feedback. For this interim approach, the ISO is seeking to limit the implementation impacts by adhering to as much of the existing practices as possible. Resource variations may require that certain generic costs, such as operation & maintenance costs, need to be adjusted. The ISO's proposal aims to simplify the implementation and administrative burden of calculating the exact percentage for every resource and cost type.

**Conclusion**

CPUC staff supports the CAISO's proposal to eliminate the registered cost option. CPUC staff recommends allowing thermal fueled units to bid up to 125% of the GHG and fuel cost components of their commitment costs, because a premium on variable fuel related costs may be warranted to offset frequently fluctuating prices. On the other hand the CAISO should ensure that other non-fuel related costs, such as major maintenance, GMC and O&M costs, are not marked up by the 125% proxy cost calculation. No such premium is warranted because these costs are not volatile like the fuel prices.

**ISO Response**

Thank you for your comments.

Company	Date	Submitted By
Calpine Corporation	4/30/2014	
<b>Summary</b>		
<p>Calpine supports the direction of the proposed Enhancements. Allowing daily bidding of commitment costs will support competitive outcomes while also providing a reasonable expectation of cost recovery in the DA market. A manual process that picks up where the maximum Proxy increase is exceeded is helpful. However, this proposal still leaves generators at risk for intra-day, excess gas costs when the ISO commits generation in RT or mitigates incremental RT energy using DA gas price</p>		
<b>ISO Response</b>		

[Thank you for your comments. Please see the ISO's responses below.](#)

### **Elimination of the Registered Cost Option**

Calpine does not object to the elimination of the Registered Cost option, as long as the Proxy cost option maximum is not further reduced. The risks of volatility in gas price, emissions and other costs support a continuation of a Proxy cost cap of at least 125 percent.

### **ISO Response**

[The ISO appreciates Calpine's support on this proposal.](#)

### **Manual Process**

Calpine supports the manual process suggested by the ISO and proposes that the manual process begin wherever the Proxy cost cap ends. As we understand it, the manual process would be very similar to that accepted temporarily by the Commission. If the current ICE morning index is greater than the Proxy maximum (in the case of the ISO proposal, 125 percent), then the market would be suspended for a finite period to allow re-bidding and the CAISO would use that single-index price to use in the optimizations.

In the proposal, the ISO has implied that there could be a gap between the Proxy maximum and the triggering level of the manual process. We do not see the need for such. First, the expected use of the manual process is very low, as supported by the ISO analysis. Given the infrequency and unpredictability of day-over-day gas price runs, it creates no material opportunity for strategic behavior. Second, establishing the "headroom" created by the maximum percentage applied to other costs (GHG, MMA, etc.) is a non-trivial factual and temporal matter. Estimating this headroom seems to fail any cost-benefit test. As Jeffrey Nelson says, "use a pencil" and invoke the manual process as soon as the cap is exceeded.

### **ISO Response**

[The ISO appreciates Calpine's support on this proposal. Please see Section 5.3 in the revised straw proposal for more details.](#)

### **Unrecoverable Intra-Day Gas Costs**

The proposal seems to allow generators to ensure recovery of gas costs for deliveries nominated during the timely, day-ahead processes. However, as described at the MSC meeting on May 19, the proposal does little to ensure recovery of highly volatile intra-day gas costs.



Recovery shortfalls can occur when units are committed in Real time, or when incremental dispatch is mitigated using a day-ahead gas price. Other shortfalls could occur because of the temporal mismatch between the gas-day (begin and end at 7:00 am) and the electric day.

That is, dispatches after the day-ahead market closes (whether “exceptional” or market-based) force a generator to buy incremental fuel in the intra-day gas market where volumes are generally low. This lack of liquidity translates into high gas prices when supply is tight and low gas prices when supply is plentiful. However, if commitments are necessary in or near RT and incremental energy is demanded, there is a logical connection between those conditions and supply tightness. Even though generators can beneficially bid incremental energy at prices which may reflect the higher intra-day costs, this re-bid for incremental energy does not protect exposure from commitment or from mitigation to default-energy bids (which are based on DA gas prices.)

While ICE does post intra-day transactions, Calpine is unaware of any index produced from intraday transactions, and even if so, such an index may suffer from liquidity affects.

Given these circumstances, Calpine’s preference has been to allow bidding of gas costs (and commitment costs as the derivative) both in DA and RT. Absent this bidding opportunity, over which DMM has expressed concern, Calpine has supported, and continues to support an opportunity to demonstrate uncompensated and verifiable intra-day gas costs associated with RT commitment or dispatch.

Calpine’s primary concern is related to procurement of unanticipated gas, the cost of which could be readily observable and documented with ICE screenshots. Other generators have also voiced concerns when the ISO DA commits and subsequent decommitments force them to dump gas at a loss. While that is not our common experience (largely because our units are generally infra-marginal) we can envision future circumstances in the belly of the duck when this may occur as well. Allowing verifiable losses to be submitted to the ISO should also be considered.

#### **ISO Response**

The ISO appreciates Calpine’s feedback. The ISO notes that our understanding is that the gas prices in

the evening nomination cycle are fairly close to those in the timely cycle but that intra-day gas costs may differ. We appreciate your comments on the default energy bids and will consider modifications that can be achieved for winter implementation. We discuss the temporal mismatch in the context of intra-day gas costs in Section 6.

The ISO considers this proposal an interim measure for winter 2014-2015 and it would be difficult to accommodate additional implementation and rule changes to allow re-bidding of commitment costs in the real-time. Please see the discussion on intra-day gas costs in Section 6 and the longer term issues to be discussed in another stakeholder process, as noted in Section 7 of the revised straw proposal.

Company	Date	Submitted By
Department of Market Monitoring	5/21/2014	
<b>Opening Comments</b>		
<p>The Department of Market Monitoring (DMM) appreciates this opportunity to comment on the ISO’s issue paper and straw proposal on commitment cost enhancements. DMM is very supportive of the ISO’s current proposal. DMM finds that the ISO proposal balances the ability of participants to bid in start-up and minimum load costs, capped at 125 percent of proxy costs,<sup>1</sup> with the ability to implement incremental changes to address some of the challenges identified this past winter.</p>		
<b>ISO Response</b>		
<p>Thank you for your comments.</p>		
<b>Background</b>		
<p>The ISO faced two issues this past winter that resulted in inefficient commitment of resources, most notably on February 6. Both issues resulted in start-up and minimum load costs looking cheap relative to the incremental costs of energy. As a result, many resources were set to minimum load. The issues are:</p> <ol style="list-style-type: none"> <li data-bbox="240 1434 1438 1619">1. <b>Lagged natural gas prices in the day-ahead market.</b> The day-ahead market run on February 5 for use on February 6 used the natural gas prices traded on February 4 for use on February 5. Natural gas index prices for use on February 5 were about \$8.00/MMBtu, whereas natural gas index prices were up to almost \$25/MMBtu at some</li> </ol>		

<sup>1</sup> The 125 percent increase is not just limited to proxy costs associated with natural gas prices. The 125 percent level is inclusive of all proxy costs including major maintenance adders and greenhouse gas costs as well as a 10 percent adder in addition to fuel costs that are a part of the proxy cost itself. Thus, participants have the ability to cover more than just 125 percent of natural gas price variability.

locations for use on February 6. This created inefficient commitment of resources that elected the proxy cost option for start-up and minimum load costs as the gas prices given the significant increase in prices for gas used on February 5 compared to as used on February 6.

2. **Most units on registered not proxy cost option.** On February 5, most of the units had elected the registered cost option for start-up and minimum load costs. Even if the ISO was able to reflect the natural gas prices traded on February 5 for use February 6 in proxy costs used in the day-ahead market for use on February 6, the solution should not have improved appreciably because so many resources elected the registered cost option for their start-up and minimum load costs.<sup>2</sup> The gas prices used as part of the registered cost calculations were low relative to the high costs for gas used on February 6. The ability to switch from registered to proxy costs, while allowed, could not have been completed in time to address the change in gas prices on February 6. The ISO allowed the option for units to switch to the proxy cost option for the February 8 day-ahead market run.

### ISO Response

Please see the ISO's responses below.

### ISO proposal

The ISO proposes to use the manual approach for updating day-ahead natural gas prices approved in the temporary tariff waiver in March 2014.<sup>3</sup> This change addresses the first problem where units on the proxy cost option had costs reflective of prices for natural gas to usage the prior operating day. DMM supported this change during the tariff waiver process and continues to support this change as part of the ISO's proposal.

In order to address the second problem, the ISO proposes to eliminate the registered cost option altogether and increase the cap on minimum load and start-up costs from 100 percent of proxy costs to 125 percent of proxy costs. This allows participants to bid in minimum load and

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<sup>2</sup> See discussion in the following ISO technical paper: [http://www.caiso.com/Documents/TechnicalBulletinGasEvents\\_MarketResults\\_Feb6\\_2014.pdf](http://www.caiso.com/Documents/TechnicalBulletinGasEvents_MarketResults_Feb6_2014.pdf).

<sup>3</sup> The ISO straw proposal can be found here: [http://www.caiso.com/Documents/2014-04-30\\_CommitmentCost\\_StrawProposal.pdf](http://www.caiso.com/Documents/2014-04-30_CommitmentCost_StrawProposal.pdf).

start-up costs up to a cap of 125 percent of proxy costs. DMM supports this change because it places an explicit cap on their ability to increase their start-up and minimum load costs, which will limit the potential for abuse of market power and it will allow for participants to bid in and manage natural gas price risk.

One of the reasons participants indicated the need for a 150 percent cap for the registered cost option was to address uncertainty related to natural gas price changes between the monthly natural gas futures price used in the registered cost option and the daily spot natural gas price. As the ISO noted in its proposal, in over 99 percent of days since the ISO nodal market began in April 2009, the daily variability of spot natural gas index prices was less than 120 percent and only 7 days had variability that exceeded 125 percent. Thus, DMM believes that allowing participants to bid up to 125 percent of proxy costs would allow participants to cover almost all costs.

Just two years ago, the ISO held a stakeholder process to further identify measurable and verifiable start-up and minimum load costs not incorporated in the proxy cost calculation.<sup>4</sup> This process led to the inclusion of major maintenance adders and the grid maintenance charge to proxy costs. This change was implemented as part of the ISO's fall release in 2013. As part of the stakeholder process in 2012, participants had the opportunity to identify and quantify legitimate costs that could be included in the proxy cost calculation. DMM believes that the proposed bidding cap of 125 percent of proxy costs will allow participants to address most variability and that the ISO process of updating day-ahead gas prices in extreme events will act as a new layer of protection that did not exist previously.

DMM believes that the changes proposed by the ISO are targeted and incremental. These changes provide additional ability for participants to bid in their start-up and minimum load costs within a bounded framework. This will limit the ability of participants to exercise market power and will allow participants to better manage natural gas price risk.

#### **ISO Response**

The ISO appreciates the DMM's support on this proposal.

#### **Alternative approaches**

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<sup>4</sup> See

<http://www.caiso.com/informed/Pages/StakeholderProcesses/CommitmentCostsRefinement2012.aspx>.

Some stakeholders have suggested that the cold weather experienced this past winter should be addressed by allowing participants to submit their own start-up and minimum load bids without any specific limits, and then only apply mitigation through some form of *ex post* review of costs. DMM strongly opposes this type of fundamental modification in the current process for limiting start-up and minimum load bids for a variety of reasons.

First, it is important to remember that in 2013 the ISO just competed a process to lower the limit on start-up and minimum load bids in order to limit potential gaming or manipulative practices aimed at profiting from high bid cost recovery payments. The ISO has adopted rules to address specific practices by one participant aimed at profiting from high minimum load bids under the registered cost option.<sup>5</sup> The lower 150 percent limit implemented in 2013 is seen as an important protective measure against other such practices.<sup>6</sup>

Second, DMM notes that if rules are modified to allow participants to submit their own start-up and minimum load bids without any specific limits, some form of mitigation will still be needed. Any *ex post* review of bids would be very administratively burdensome, and would not mitigate the distortion in the market that would have already occurred due to use of the unmitigated bids. Another option that has been discussed in the past has been to automatically apply mitigation only when it is determined that a unit may have local market power – such as the ISO’s automated procedures for energy bid mitigation. In practice, however, units may have market power as a result a result of various capacity constraints that require units to be committed and operate at least at minimum load. These constraints include the minimum on-line constraints (MOCs) and new constraints being added through the flexible ramping product and the contingency modeling enhancements. Unlike transmission constraints used to determine if energy bid mitigation should be triggered, these other constraints are much more complex and

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<sup>5</sup> See the following filings for further information: California Independent System Operator Corporation, “Tariff Revision and Request for Expedited Treatment,” March 18, 2011: <http://www.caiso.com/2b45/2b45d10069e0.pdf> and “Tariff Revision and Request for Waiver of Sixty Day Notice Requirements,” June 22, 2011: [http://www.caiso.com/Documents/2011-06-22\\_Amendment\\_ModBCRules\\_EDEnergySettRules\\_ER11-3856-000.pdf](http://www.caiso.com/Documents/2011-06-22_Amendment_ModBCRules_EDEnergySettRules_ER11-3856-000.pdf). Also see “Order approving stipulation and consent agreement” in FERC Docket Nos. IN11-8-000 and IN13-5-000, July 30, 2013: <http://www.ferc.gov/CalendarFiles/20130730080931-IN11-8-000.pdf>.

<sup>6</sup> Part of the reason for this rule change was to protect against any new practices that might become profitable given changes that the ISO made to bid cost recovery rule in 2014. Under these new rules, bid cost recovery payments are now calculated separately for the day-ahead and real-time markets, rather than netting any net revenues from one market against any bid cost recovery shortfall in another market.

may not be binding when market power may occur.

**ISO Response**

The ISO agrees.

**Conclusion**

DMM supports the ISO's proposal to reflect updated natural gas prices on days with extreme natural gas price volatility, to eliminate the registered cost option, and to allow resources to bid in start-up and minimum load costs up to 125 percent of proxy costs on a daily basis. We believe these changes are targeted and incremental in addressing the issues identified during the unusual and extreme weather events during this past winter.

**ISO Response**

The ISO appreciates the DMM's support on this proposal.

<b>Company</b>	<b>Date</b>	<b>Submitted By</b>
<b>Northern California Power Agency</b>	5/21/2014	
<b>Opening Comments</b>		
<p>Northern California Power Agency ("NCPA") appreciates the opportunity to provide the following comments in response to the CAISO's issue paper and straw proposal posted April 30, 2014 and its subsequent conference call on May 7, 2014.</p> <p>Further, NCPA appreciates the CAISO's undertaking this initiative in a timely fashion in response to stakeholder concerns following dramatic natural gas price volatility earlier this year.</p>		
<b>ISO Response</b>		
Thank you for your comments.		
<b>Increase in the proxy cost option cap</b>		
<p>NCPA supports the proposed increase in the proxy cost option cap from 100% to 125%. NCPA believes that CAISO's proposal is a good interim solution in conjunction with the recently FERC-approved tariff waiver enabling the CAISO to use the current trade-date's</p>		

ICE price for natural gas when the trade-day's index is over 150% of the lagged composite index.

NCPA believes it is important to retain market participants' ability to bid below the calculated proxy cost value particularly in light of the increased proxy cost cap. NCPA supports this element of the CAISO's proposal.

#### **ISO Response**

The ISO appreciates NCPA's support on this proposal.

#### **Elimination of the registered cost option**

NCPA is concerned about CAISO's proposal to eliminate the registered cost option as that option enables market participants to reflect opportunity costs for Resource Adequacy ("RA") resources that are limited in their number of starts and/or run hours during a set period of time. RA resources are subject to a must-offer obligation and hence can't choose to submit bids into the markets only when they anticipate the prices will enable recovery of opportunity costs. As a result, lower commitment cost values may result in sub-optimal dispatch of use-limited RA resources. NCPA is cognizant, however, that the CAISO is building an opportunity cost component into the flexible capacity resource adequacy must-off obligation within the Reliability Services Initiative and that this could alleviate this concern for RA resources against which flexibility capacity is claimed. NCPA strongly recommends that this Commitment Costs Enhancements initiative be coordinated with the Reliability Services Initiative proposal to ensure equitable treatment of use-limited resources.

#### **ISO Response**

The ISO has consolidated the above-referenced opportunity cost methodology into this initiative. Please see Section 5.4 for a detailed discussion on the methodology. Providing use-limited resources the ability to reflect opportunity costs now will allow a phasing in of this methodology before there is a must offer obligation. The ISO proposes to provide the opportunity cost calculation to dispatchable, natural gas-fired use-limited resources for this first step. We would appreciate feedback from stakeholders on the scope of this effort.

#### **Periodic review of the proxy cost cap**

Many changes are occurring and are anticipated in the natural gas and electricity markets.

Among these are the FERC NOPR regarding the alignment of the electricity and natural gas markets, and the need for flexible gas-fired generation to help integrate intermittent resources. Accordingly, NCPA recommends that the CAISO consider establishing an obligation for the CAISO to periodically review the cost cap to ensure that it still enables headroom for market participants to accurately reflect their natural gas costs.

**ISO Response**

Thank you for the suggestion. This may be better placed in the long-term bidding rules initiative (mentioned in Section 7) as solutions there may replace or enhance proposals in this initiative. In any case, the ISO continually reviews its market rules to ensure they are appropriate and does not believe requirements to do so should be “hard-wired” into the tariff.

Company	Date	Submitted By
NRG Energy, Inc. ("NRG")	5/21/2014	Brian Theaker
<b>Opening Comments</b>		
<p>The CAISO’s proposal to allow for daily bidding of start-up and minimum load (“SU-ML”) costs above the Proxy Cost level is sound, and comes closer to reflecting some of the challenges of transacting gas to follow CAISO dispatch instructions.</p> <p>Still, the CAISO proposal does not reflect or address all of the challenges of transacting gas to follow CAISO dispatch instructions. As such, NRG requests that the CAISO also consider the following modifications, as will be discussed below:</p> <ul style="list-style-type: none"> <li>• Increasing the “headroom” for bidding start-up and minimum load costs by allowing for daily bidding of SU-ML costs up to 150% of proxy cost to address the multitude of issues faced by generators in procuring intra-day gas and gas on weekends which flow from out-of-merit or unexpected CAISO dispatches;</li> <li>• Allowing suppliers to directly invoice for unrecoverable gas costs (such invoices would include suitable documentation of the unrecoverable gas costs), perhaps by putting a provision into its tariff that would expressly permit generators to file for cost recovery at FERC;</li> <li>• Using the ICE gas index instead of the Argus gas index for establishing proxy costs;</li> <li>• Accelerating the timing of this stakeholder process so that the modifications are put into</li> </ul>		



effect by November 1, 2014;

- Expressing support for breaking up the current three-day weekend gas “package” into separate Saturday/Sunday and Monday packages; and
- Including in the bidding rules initiative slated to begin in Q3 2014 provisions that would allow generators to update their natural gas procurement costs on an hourly basis.

## ISO Response

[Thank you for your comments. Please see the ISO's responses below.](#)

### Introduction

It can be difficult, if not impossible, to accurately predict the gas burn for higher-heat rate gas-fired generating units. Many units typically operate uneconomically (i.e., not in merit order) to support local reliability needs during weekends, off-peak and shoulder seasons. Their operation does not correlate with market prices. As a result, given the timing of the gas markets and the CAISO electricity markets, the owners of such units cannot reasonably procure gas forward in the liquid day-ahead gas markets. Instead, this subset of generators typically buys its natural gas in the intra-day markets. This creates a fundamental mismatch between proxy cost, which is based only on day-ahead gas market purchases, and the real costs of gas procured in the intra-day market to support the units' operation. The difference in gas price between the intra-day markets and the daily indices used by the CAISO in its markets can be significant, especially under stressed conditions or across weekends. While intra-day and weekend gas procurement activities cannot be conveniently measured by published indices, those costs are real, and are often substantial.

As several market participants pointed out on the May 7 call, the CAISO must acknowledge and deal with the issues raised by the need to procure gas in the intra-day markets. The CAISO's observation that day-ahead gas indices rarely changes by more than 25% does not account for the fuel procurement costs of generators forced to buy gas in the intra-day gas market. The CAISO can and does regularly call for units to operate at unexpected and inopportune times – this is the reality of actual operations, a reality that does not fit neatly into a box built around daily index prices.

During the December 2013 and February 2014 gas events, intra-day gas often traded at prices that were many multiples of the daily gas price indices. NRG notes that during the December

2013 event (12/7/13 to 12/10/13), NRG was forced to buy intra-day and weekend gas, the price for which was not included in any published index, at an average of 149%, and as high as 160%, of the CAISO proxy cost assumption used by the ISO in its Day-Ahead and Real Time markets. It is important to remember that the daily indices represent an average of gas prices for gas already transacted. The daily gas price indices do not reflect prices at which unrestricted amounts of gas can be acquired in later nomination cycles. In fact, the intra-day gas markets are far less liquid than those represented in daily published indices; as a result, the intra-day gas prices are much more volatile.

Whatever solution is developed must work for all conditions and dispatch horizons. Surveying historical price volatility provides no guarantee that future volatility will remain within the limits of the previous five years. Suppliers must be able to recover their costs in all conditions, regardless of whether the gas is transacted in advance of the publications of the CAISO day-ahead market awards or in the intra-day market.

#### **ISO Response**

The ISO appreciates NRG's description of these two gas price spike events. [Please see discussion of this issue in Section 6.](#)

#### **Issues Not Addressed By the CAISO Proposal**

The CAISO's proposal is a reasonable starting place. NRG generally supports the direction this proposal takes. However, NRG notes that the CAISO's proposal does not address several current problems:

- It does not address the "weekend" problem, in which gas procured to support dispatch on Saturday, Sunday and Monday is deemed to be transacted at Friday's price. The price that parties pay to transact gas to follow dispatch instructions across the weekend is typically very different than the Saturday – Monday index price published Friday evening. Similarly, the price paid to procure gas to follow dispatch instructions across holiday periods can be very different than the last index price established prior to the holiday period. NRG would appreciate a firm statement from the CAISO that it would support breaking up of the weekend package into separate Saturday/Sunday and Monday packages.
- It does not address the intra-day problem. The cost of gas procured in the intra-day

markets to follow changing CAISO dispatch instructions can be greatly different than the relevant day-ahead index price. In December 2013 and February 2014, NRG encountered situations in which the intra-day market prices were several multiples of, up to ten times, the daily index price. As an example, NRG purchased intra-day gas to follow CAISO instructions at prices up to \$40/MMBtu during the February 2014 gas event.

- It does not address the problem of having to dispose of gas acquired to support CAISO dispatch instructions that are later rescinded. The costs of disposing expensive gas procured in the expensive intra-day market under tight winter balancing conditions have been and can be significant.

Because the CAISO proposal does not fully address these problems, NRG urges the CAISO to amend its proposal as follows:

#### **ISO Response**

[For the intra-day gas issue, please see the discussion in Section 6. The remaining issues can be considered in the bidding rules initiative as noted in Section 7.](#)

#### **The CAISO Should Increase The “Headroom” For Bidding SU-ML Costs**

The CAISO has proposed to allow daily bidding of start-up and minimum load costs up to 125% of proxy cost. While, as will be noted below, a system that would allow daily bidding of SU-ML costs supervised by a conduct-and-impact market power mitigation system would provide greater flexibility for suppliers, NRG expects such a system could not be implemented by the next winter gas season. Assuming that what the CAISO is proposing is an interim solution that can be implemented by winter 2014-15 and will eventually be replaced, NRG suggests the “headroom” for this interim solution be increased to 50% so that the cap is 150% of proxy cost. While this will provide no guarantee that suppliers will be able to recover their costs under all unusual circumstances, increasing the headroom will provide greater assurance that suppliers can recover their costs in most circumstances and reduce the need for the CAISO and suppliers to take extraordinary measures to ensure suppliers recover their gas procurement costs.

#### **ISO Response**

[See the ISO’s explanation in 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.](#)

### **The CAISO Should Allow for Direct Invoicing of Unrecoverable Costs**

We recommend that the CAISO add a provision that allows generators to seek cost recovery for unrecoverable gas procurement and balancing costs, on a one-off basis, when unusual events occur that are not covered by the generic rule. The CAISO could accomplish this by either allowing generators to invoice the CAISO or the IMM directly, or allow generators to seek cost recovery directly at FERC. NRG hopes that there would be few events in which suppliers would be required to invoice the CAISO for gas disposal costs, but the fact that there may be few such events should not mean that suppliers are forced to take losses when those events occur. This “catchall” would also address other unanticipated gas procurement costs. The CAISO can take measures to ensure that market participants submit information so as not to game such a system, but not providing for such a direct invoicing system because it might be manipulated is not an acceptable approach.

### **ISO Response**

[Please see discussion of this issue in Section 6 as well as the longer term bidding rules initiative as noted in Section 7.](#)

### **Intra-Day Gas Cost Updates**

The CAISO should consider initiating a longer-term process that would allow hourly re-offers in the real-time operating time horizon to reflect actual intra-day gas price changes. This is clearly “best practices” and would resolve many of the issues identified throughout this proceeding.

### **ISO Response**

[Please see discussion of this issue in Section 6 as well as the longer term bidding rules initiative as noted in Section 7.](#)

### **Other Issues: Threshold gas price change for using the ICE index.**

In the April 30 straw proposal, the CAISO suggests that the process to use the single ICE index could be triggered at a threshold other than a 50% change in the daily gas price, but does not explicitly offer what that threshold should be. The CAISO should explicitly identify what steps it will take, and when and at what price levels it will take those steps, if daily gas prices increase significantly day-to-day.

### **ISO Response**

[See details in Section 5.3.](#)

**Other Issues: Re-examining the current indices used**

The CAISO should re-examine the gas price indices it uses to establish proxy costs to ensure that those indices are adequately liquid and reflect market conditions. In NRG’s experience, the Argus index is thinly traded and rarely used. By contrast, the ICE Index is extremely liquid and is the platform used for most gas transactions. We recommend that the CAISO utilize ICE for establishing its proxy costs.

**ISO Response**

[See ISO’s response on this point in Section 5.3.](#)

**Other Issues: Conduct and Impact Market Power Mitigation.**

The most robust commitment cost structure is one which allows daily bidding of start-up and minimum load costs subject not to an arbitrary cost-based cap, but subject to more thoughtful and deliberative market power mitigation that would also recognize as mitigated those units that are sitting at their minimum load levels (so that those hours can be included in the application of the frequently mitigated unit bid adder). The structure of the Default Energy Bid should also be re-examined; generating units that are mitigated because of their purported potential to exercise local market power now are mitigated to a DEB based on a lagging gas price index that reflects a gas cost that market participants can no longer transact gas at. While NRG agrees that such a market power mitigation structure will require significant systems modifications and therefore cannot be implemented prior to the winter 2014-2015 gas season and is best discussed as part of the bidding rules stakeholder process slated to begin in the third quarter of 2014, NRG respectfully urges the CAISO to leave such a system “on the table”.

**ISO Response**

[These issues can be considered in the bidding rules initiative as noted in Section 7.](#)

**Other Issues: Timing of Implementation.**

As NRG pointed out on the May 7 call, the current proposed timing for this initiative would suggest that the earliest it could be implemented is December 1, 2014. The first of last winter’s two severe gas events began on December 6, 2013, and it is possible that weather cold enough to affect gas supplies could strike California or elsewhere in the country in November. Moreover, the long Thanksgiving weekend provides a real opportunity for intra-day and daily index gas prices to diverge. Coupled with what could be seasonably cold weather, the long Thanksgiving weekend could create significant pricing problems, such as those that occurred in 2009. NRG

strongly urges the CAISO to accelerate the timing of this initiative so that its remedies can be put into place by November 1, 2014.

**ISO Response**

The ISO appreciates these comments and has worked closely with internal teams to develop a policy that can be implemented in time for winter. This means that the implementation impact should be targeted, discrete, and as simple as possible. We will be able to provide greater clarity once then policy design has solidified and has been approved through our internal processes.

Company	Date	Submitted By
PG&E	5/21/2014	Erica Brown - (415) 973-5535
<b>Opening Comments</b>		
<p>Pacific Gas and Electric Company (PG&amp;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.</p> <p>PG&amp;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&amp;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&amp;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.</p> <p>The adjustments proposed by PG&amp;E are designed to move toward a more accurate reflection of generator’s costs in the proxy cost calculation and to address market power</p>		

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 are unable to fully recover costs; and
5. Provide more clarification as to whether retiring the registered cost option for non-gas fired units would affect the ability of hydropower facilities to recover minimum load costs.

#### ISO Response

[Thank you for your comments. Please see the ISO's responses below.](#)

**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.

#### **ISO Response**

Please see the ISO's discussion of using the single ICE index in Section 5.3. The ISO's proposal seeks to strike the appropriate balance and we believe the 125% threshold can successfully achieve this. We



would appreciate any analysis from PGE that supports the 120% 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.”<sup>1</sup> 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.<sup>2</sup> 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 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.

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

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

### **ISO Response**

We appreciate PGE’s concerns and agree that the proxy bid cap is necessary for market power mitigation. The ISO’s proposal seeks to strike the appropriate balance and we believe the 125% threshold can successfully achieve this.

**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.

**ISO Response**

*We appreciate PGE's comments and it is already a FERC required analysis based on the order from the [Commitment Costs Refinements 2012 stakeholder process](#).*

**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.

**ISO Response**

The ISO has not proposed any changes to the cost components for start-up or minimum load cost under the proxy cost option as currently described in tariff section 30.4.1.1.2 for non-natural gas-fired resources. While the ISO does not explicitly have a methodology for calculating the minimum load costs specific to pumped storage under proxy costs as described above by PGE, the methodology also does not exist for users of the registered cost option. The ISO would be interested in further information as to why the current cost categories under proxy and a proposed proxy bid cap of 125% may or may not address PGE's concerns.

Company	Date	Submitted By
Southern California Edison (SCE)	5/21/2014	Brian Rothstein (626) 302-3555
<b>Retain Tariff Waiver Provisions Without Other Changes</b>		
<p>SCE supports CAISO's proposal to retain the manual operations as described in the CAISO's Tariff Waiver Petition, proposed Tariff sections 30.4.1.2 and 39.7.1.1.1.3, filed with FERC on March 6<sup>th</sup>.<sup>2</sup> Natural gas price spikes have been rare, as CAISO has explained in the Issue Paper,<sup>3</sup> and it is for this reason, among others discussed below, that SCE disagrees that further changes to commitment costs as described in the Straw Proposal are needed in the interim scope of this stakeholder process.</p> <p>SCE recognizes that the manual operations as described in the Waiver Request could potentially become burdensome for the CAISO should natural gas price spikes become common. However, SCE recommends that until a longer-term solution is decided upon, or the frequency of price spikes necessitates a programmatic solution, the Waiver Request's methodology for addressing these price spikes be reinstated.</p>		

<sup>2</sup> *Petition For Limited Waiver Of Tariff Provisions, Request for Shortened Comment Period And Request for Expedited Commission Action By March 19, 2014*, filed March 6, 2014 in Docket No. ER14-1440, at pg.13 (“Waiver Request”)

([http://www.caiso.com/Documents/Mar6\\_2014\\_TariffWaiver\\_GasPriceIndexRequirement-ExpeditedER14-1440-000.pdf](http://www.caiso.com/Documents/Mar6_2014_TariffWaiver_GasPriceIndexRequirement-ExpeditedER14-1440-000.pdf) ).

<sup>3</sup> *Issue Paper at p. 6.*

## ISO Response

The ISO appreciates SCE’s support on this proposal. Please see Section 5.3 in the revised straw proposal for more details.

## Do Not Eliminate the Registered Cost Option

SCE finds CAISO’s proposal to eliminate the Registered Cost Option unnecessary and undesirable, at this time. The Registered Cost Option provides a useful method of representing costs not directly tied to natural gas prices. For resources that are not natural gas-fired, the Registered Cost Option can be a more effective method for representing operational and contractual costs. There is also not currently a method for representing the opportunity costs associated with Use Limited Resources and the Registered Cost Option is the best available method for representing these costs on a continual basis. SCE does not see value in eliminating this option as an interim measure to address natural gas spikes, and instead such elimination will foreclose the availability of a useful tool.

Moreover, in the Reliability Service Initiative (RSI) process, the CAISO is discussing an “opportunity cost” adder based on the value of start limitations<sup>4</sup>. The CAISO should first ensure that this or some other workable means to represent opportunity costs of Use Limited Resources is in place and working before deciding the fate of the Registered Cost option.

Finally, SCE recommends the CAISO survey the market to find out why more parties are not using the Proxy Cost methodology. This information might help the CAISO identify changes acceptable to all market participants that might make the elimination of the Registered Cost option more reasonable.

<sup>4</sup> [http://www.caiso.com/Documents/Presentation-ReliabilityServices-WorkingGroupApr23\\_2014.pdf](http://www.caiso.com/Documents/Presentation-ReliabilityServices-WorkingGroupApr23_2014.pdf), see pages 7-15

**ISO Response**

The ISO has consolidated the above-referenced opportunity cost methodology into this initiative. Please see Section 5.4 for a detailed discussion on the methodology. Providing use-limited resources the ability to reflect opportunity costs now will allow a phasing in of this methodology before there is a must offer obligation. The ISO proposes to provide the opportunity cost calculation to dispatchable, natural gas-fired use-limited resources for this first step. We would appreciate feedback from stakeholders on the scope of this effort.

**Do Not Increase Proxy Cost Option Cap**

SCE recommends keeping the Registered Cost Option and thus does not support an increase in the Proxy Cost Option cap.

**ISO Response**

The ISO would like more detailed feedback on why SCE believes it is important to retain the registered cost option, especially with an opportunity cost provision for gas-fired use-limited resources. For non-use-limited resources, the ISO has not proposed any changes to the cost components for start-up or minimum load cost under the proxy cost option as currently described in tariff section 30.4.1.1. The ISO would be interested in further information as to why the current cost categories under proxy and a proposed proxy bid cap of 125% may or may not address SCE's concerns.

Company	Date	Submitted By
Western Power Trading Forum	5/22/2015	Ellen Wolfe

**The CAISO should re-examine its commitment to ensuring cost recovery.**

While the CAISO suggests that it supports proposals that allow recovery of costs, for reasons stated below the CAISO's proposal results in a substantial likelihood that at least certain generators may not recover operating costs for their units. If the CAISO is in fact committed to ensuring cost recovery additional consideration needs to be given to certain commitment cost and proxy gas cost design elements.

**ISO Response**

Thank you for your comments. Please see the ISO's responses below.

**The CAISO's proposal does not address intra-day gas price volatility.**

The CAISO-presented data during the May 7 web conference only demonstrates that a 125% proxy cap would address the predominant next-day gas costs. Intra-day gas costs are much more volatile than next-day gas cost. Under the CAISO proposal generators that are committed after the DA IFM or otherwise have to procure gas in the intra-day market could still lose significant money from unrecovered gas costs. The attached figure shows some sample ICE

data reflecting the volatility in the intra-day gas market. The figure shows same-day gas trades for 2/6/24 relative to the Platts Gas Daily index and the average Next Day ICE trading price. Whereas a few of the intra-day transactions cleared below the DA index price, the bulk cleared significantly higher than the index. If for example a supply would have purchased their gas through one of these transactions, they could be as much as \$33 MMBTU out of the money, given that they would have purchased gas upwards of \$40/mmBTU, and the CAISO could have used an index price of as low as \$7/mmBTU.

### ISO Response

The ISO appreciates WPTF's description of the gas price spike event in February (and the included graphic). Please see discussion of this issue in Section 6 as well as the longer term issues slated for discussion in another stakeholder process, as noted in Section 7 of the revised straw proposal.

### The 125% proxy cost proposal is a significant improvement to provide a means for DA gas cost recovery.

WPTF appreciated this proposal and encourages the CAISO to consider including it as part of its proposal. The increase of the proxy cap to 125% seems to afford a much improved opportunity for participants to recover commitment and minimum load costs from DA IFM commitments. However, in light of the fact that the CAISO's proposal does not address the costs of procuring gas in the intra-day markets (see below), WPTF believes further dialog as to whether the proposed 125% cap is adequate is needed. Similarly, if the CAISO wishes to eliminate the Registered Cost option it should consider a Proxy Bid cap of 150%.

### ISO Response

See the ISO's explanation in 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. See also the discussion in Section 6

### The CAISO should lower the threshold for using a single index from 150% increases to 125% increases.

FERC approved the CAISO's emergency filing to establish a mechanism by which the ISO could use single gas price indices and more quickly adjust its gas price assumptions for significant gas price increases within a day. However the requested and FERC-approved threshold of requiring a 150% increase in gas prices leaves open the possibility that participants will have losses for gas price increases of less than 150%. To accompany the current proposal to allow a proxy price cap of 125%, WPTF requests the ISO consider an adjustment of the

single index trigger from 150% increases to 125% increases.

**ISO Response**

[See details in Section 5.3.](#)

**The CAISO should find a mechanism for a different treatment/adder for intra-day gas.**

The use of next-day indices does not assure equitable compensation for within the day commitments and dispatches that are mitigated to proxy prices. The CAISO must find an alternate compensation means for these situations. WPTF would like the ISO to explore means by which this could be accomplished in the short run and the longer run.

**ISO Response**

[Please see discussion of real-time commitments in Section 6.](#)

**At a minimum the CAISO must modify its tariff and allow a mechanism for a supplier to seek after-the-fact recovery for demonstrable costs that exceed the gas compensation offered by the CAISO.**

Whereas it is not expected that such a mechanism would be employed regularly nor employed for nominal losses for intra-day gas purchases, the current proposed mechanism of using a next-day index leaves generators significantly exposed should intra-day gas prices well exceed the next day index used. It is unreasonable for the ISO to deny compensation for these situations. The CAISO should seek FERC authority to compensate suppliers in such instances based on demonstrated supplier costs.

**ISO Response**

[Please see discussion of this issue in Section 6 as well as the longer term issues slated for discussion in another stakeholder process, as noted in Section 7 of the revised straw proposal.](#)