Comments of Pacific Gas and Electric Company on Commitment Costs and Default Energy Bid Enhancements Straw Proposal

Submitted by	Company	Date Submitted
Cristy Sanada *C8SW@pge.com; (415) 973-2718*	*Pacific Gas and Electric Company*	*July 20, 2017*

Pacific Gas and Electric Company (PG&E) appreciates the opportunity to comment on CAISO's Commitment Costs and Default Energy Bid Enhancements Straw Proposal.

PG&E appreciates CAISO evaluating a comprehensive set of design changes, but has concerns about committing to a package of design changes while significant implementation and design issues remain, particularly allowing market-based commitment cost offers under a dynamic commitment cost mitigation framework. PG&E also believes a smaller scope of design changes can address the vast majority of stakeholder concerns. In addition to an assessment of the costs and feasibility of dynamic commitment cost mitigation, PG&E requests CAISO provide analysis quantifying the benefits dynamic commitment cost mitigation would provide to the market before a Draft Final Proposal is released. PG&E also believes that further development of various design changes and processes is necessary before moving to a Draft Final Proposal.

The following points are discussed in detail in the subsequent section:

1. **PG&E believes CAISO can move forward with a smaller scope of design enhancements to address the core of stakeholder concerns regarding bid flexibility and adequate reflection of costs, and allow CAISO to comply with FERC Order 831**
2. **PG&E has concerns about the implementation of dynamic commitment cost mitigation; PG&E strongly recommends phasing this initiative in both design and implementation, allowing more time to study and work through a dynamic mitigation design and better aligning this effort with forthcoming Real-Time market changes**
3. **PG&E supports DMM's proposed reference cost enhancements and believes these enhancements are both:**
    a. **Demonstrated to mitigate concerns that lagged gas price indices used in reference levels do not capture day to day gas price volatility**
    b. **Complimentary to CAISO's proposed ex ante reference adjustment functionality while providing greater transparency around reference calculations and ex ante automated screens**
4. **PG&E opposes OFO penalty adders or gas system non-compliance risk adders in proxy cost or DEB calculations. After-the-fact cost recovery mechanisms should only be provided for generators**

incurring penalties due to a CAISO dispatch order occurring after 4:00pm PT and before midnight (one hour prior to the close of the Intraday 3 gas scheduling cycle).

5. **PG&E offers some suggestions for the design of CAISO's ex ante reference adjustment processes**
6. **PG&E supports development of a clearly defined process for developing negotiated proxy costs and suggests this process be developed in close coordination with the DMM**
7. **PG&E does not oppose the concept of hourly Min Load Cost offers, but identifies some concerns about the proposed design**
8. **PG&E continues to support addressing issues dropped from the initiative scope – mitigation of exceptional dispatches to address gas system issues and decremental bid mitigation**

Comments

1. **<u>PG&E believes CAISO can move forward with a smaller scope of design enhancements to address the core of stakeholder concerns regarding bid flexibility and adequate reflection of costs, and allow CAISO to comply with FERC Order 831</u>**

PG&E believes CAISO can move forward with smaller scope of design changes to address the core of stakeholder concerns and allow CAISO to comply with FERC Order 831 without the dynamic mitigation/market-based commitment cost components of the design package because:

- Improved reference calculations and a reference adjustment option supports adequate cost recovery and prevents over-mitigation
- Suppliers will have flexibility to update references to align with their own cost expectations
- If CAISO allows hourly Min Load Cost offers, CAISO can still subject offers to the current 125% bid caps. Suppliers would have the flexibility to vary Min Load Cost hourly and tailor and update proxy costs to match cost expectations

PG&E requests that CAISO provide a quantification of the benefits dynamic mitigation will provide the market. In its Straw Proposal, CAISO states that "Effectively by only supporting cost-based commitment cost offers the CAISO design assumes uncompetitive conditions for every run which provides certainty that over-mitigation is occurring regularly.[1]" PG&E requests CAISO help stakeholders understand the magnitude of costs attributed to over-mitigation occurring in the market today. An understanding of the scope of the issues seen today will help in assessing whether implementation and resource costs to design dynamic commitment cost mitigation are warranted, especially when the smaller scope of design changes can mitigate many stakeholder concerns. PG&E also questions whether commitment costs should be considered "market-based" offers.

2. **<u>PG&E has concerns about the implementation of dynamic commitment cost mitigation; PG&E strongly recommends phasing this initiative in both design and implementation, allowing more</u>**

[1] "Straw Proposal Commitment Costs and Default Energy Bid Enhancements". California ISO. p34.

time to study and work through a dynamic mitigation design and better aligning this effort with forthcoming Real-Time market changes

PG&E believes the design of dynamic commitment cost mitigation must be thoroughly thought out and tested before committing to a design change. Since mitigation would only trigger if uncompetitive conditions are detected and commitment cost offers would be subject to bid caps at 300% of proxy costs (which can be very high for a resource with high commitment costs), a robust mitigation mechanism becomes even more important to accurately identify uncompetitive scenarios and prevent excessive, unjustified uplift. CAISO notes that it is conducting cost and feasibility tests on its proposed dynamic mitigation framework. PG&E encourages CAISO to share results of these assessments with stakeholders to help us understand the feasibility and/or costs associated with implementing such a design. CAISO should also ensure testing is considered within the framework of forthcoming Real-Time market changes.

CAISO notes its RT Market Enhancements Initiative is set to begin Q3. PG&E is concerned about committing to a dynamic mitigation framework that will change pending this initiative, especially since RT Market Enhancements contemplates changing commitment horizons and intervals[2], impacting market runs where commitment cost mitigation should take place. PG&E does not support moving forward with a dynamic commitment cost mitigation design until we understand the scope of forthcoming RT market changes and can be certain that a proposed mitigation design captures all instances where a supplier can unjustifiably inflate its commitment costs. Because "market-based" commitment cost offer capability is contingent upon effective dynamic mitigation, this design consideration should also be pushed back.

Lastly, PG&E still has concerns about whether CAISO's proposed dynamic mitigation methodology is effective. PG&E supports phasing dynamic mitigation, but CAISO should definitely hold additional discussions, share with stakeholders its feasibility and cost assessments, and vet the design of dynamic mitigation and what it should capture before moving to a Draft Final Proposal. PG&E offers the following considerations regarding CAISO's dynamic mitigation proposal:

- Because CAISO proposes that a subset of resources will continue to be exempt from mitigation, bid caps on commitment costs should not be lifted universally. If exempt resources have commitment costs and caps are lifted, there will be no backstop for preventing exempt resources from inflating commitment costs significantly
- PG&E believes a revised proposal of CAISO's "critical" constraints test should be presented as it is unclear that the current proposal would catch market power as it intends to. This is because there would be no shadow prices on non-binding "critical" constraints, and therefore no non-zero congestion contribution at any node from those constraints.
- PG&E believes MOC constraints should be considered in a commitment cost mitigation framework

[2] "Software and Model Enhancements in CAISO's Markets". FERC Technical Conference: Increasing Real-Time and Day-Ahead Market Efficiency through Improved Software - June 26, 2017. https://www.ferc.gov/CalendarFiles/20170623123524-CAISO%20-%20Software%20and%20Model%20Enhancements%20in%20CAISO's%20Markets%20(002).pdf

- CAISO should consider intertemporal constraints and other capacity requirements that drive unit commitment; e.g. committed capacity to meet reserve schedules, commitments that carry across market days
- CAISO should consider whether mitigation is appropriate in a single interval or should be extended to multiple advisory and/or binding intervals given the inter-temporal drivers of commitment
- PG&E suggests CAISO simulate any market manipulation strategy that was used in the past under its proposed design. This simulation should be done under a variety of conditions. For example, CAISO can look into the case against JP Morgan Ventures Energy Corporation, 144 FERC ¶ 61,068 (2013).
- CAISO should test how much time the dynamic commitment cost mitigation design will add to all market runs while matching current solution quality. Adding a commitment mitigation pass in the optimization could greatly increase total solution time. Additionally, if solution quality benchmarks are lowered to allow for time for the mitigation process, the market efficiency may be impacted greatly.

3. <u>PG&E supports DMM's proposed reference cost enhancements</u>

PG&E supports DMM's proposed reference cost enhancements described in the March 20 Working Group[3] and believes these enhancements are both:

a. Demonstrated to mitigate concerns that lagged gas price indices used in reference levels do not capture day to day gas price volatility
b. Complimentary to CAISO's proposed ex ante reference adjustment functionality while providing greater transparency about reference calculations and ex ante automated screens

There appears to be stakeholder consensus that the DMM's proposed proxy cost and DEB calculation enhancements will provide incremental benefits, and the DMM has demonstrated that proposed index updates will likely mitigate the majority of day to day variation in gas indices used to calculate proxy costs and DEBs. Improvement of reference calculations can narrow the scope of changes needed in the areas of reference updates or mitigation design. In particular, DMM's reference calculation enhancements include:

- Permanently update day-ahead indices with ICE information prior to the day ahead market run
- Use Monday only trading information on ICE to update day-ahead market index (subject to an assessment of market liquidity)
- Update indices in real-time market with same day gas information (subject to an assessment of market liquidity)

Given that CAISO proposes to pursue a reference cost update functionality subject to ex ante reasonableness screens, inclusion of more timely gas price indices in proxy costs and DEBs may only help to bring default references more in line with expected supplier reference adjustments. This could reduce manual legwork on behalf of suppliers, CAISO, and the DMM. These changes would

[3] "DMM comments on commitment costs and DEB enhancements". April 20, 2017. California ISO – Department of Market Monitoring. http://www.caiso.com/Documents/Presentation_CommitmentCosts_DefaultEnergyBidEnhancements_KeithCollinsDMM.pdf

also promote consistency of references among suppliers. Suppliers seeking to increase bidding headroom may regularly request reference cost updates based on more timely fuel indices while others suppliers may be more inclined to maintain default references and bid headroom if a combination of those thresholds adequately capture costs.

CAISO should consider whether the ICE-based indices DMM is proposing would be accepted as a reasonable cost estimate in the ex ante or ex post review processes. If the answer is yes, it seems the DMM's reference adjustment recommendations should be adopted for all resources. Integrating these updated indices directly into generator reference levels will promote transparency and consistency regarding acceptable fuel indices used in references. PG&E also believes that the temporary day-ahead ICE indices used in reference levels has been an improvement to the lagged indices used previously.

4. **PG&E opposes inclusion of OFO penalty adders or gas system non-compliance risk adders in proxy cost or DEB calculations. After-the-fact cost recovery mechanisms should only be offered for generators incurring penalties due to a CAISO dispatch order occurring after 4:00pm PT and before midnight (one hour prior to the close of the Intraday 3 gas scheduling cycle).**

PG&E opposes the inclusion of OFO penalty adders or gas system non-compliance risk adders directly in proxy cost or DEB calculations for any hour of the day. PG&E does not believe allowing OFO penalty costs or gas system non-compliance risk adders in bids and references, and thereby allowing suppliers to set LMP with gas penalty costs included, incents behavior of a single resource or collective group of resources connected to the same gas system, to avoid such penalties. Penalties are meant to preserve gas system reliability and adding penalty costs directly into references undermines the effectiveness of those penalties.

PG&E notes that when OFOs are called, it is expected that risk is embedded in intra-day fuel transaction costs. A supplier should not be granted an additional penalty adder as that risk is likely embedded in commodity costs. CAISO should also not assume suppliers uniformly and regularly incur penalty costs separate from commodity prices. CAISO should not allow penalty adders to be included in reference calculations or considered in ex ante reasonableness screens as a component separate from commodity cost, even after Intraday 3 close when an OFO is in effect. CAISO would not know in advance of a market run whether the generator expects to incur OFO penalties or not, as supplier cost expectation is a function of various procurement considerations including composition of supplier portfolios (e.g. Supplier may already have gas to balance among multiple assets or supplier may choose to secure fuel in advance). Allowing penalty adder headroom in references on a formulaic basis may incent suppliers to incur penalty costs and to become lax in avoiding penalties, at odds with gas system reliability. CAISO should incent suppliers to avoid incurring gas penalties and only allow cost recovery after the fact if a generator absolutely could not avoid incurring such penalties.

While PG&E opposes allowing penalty-related adders in reference levels and reasonableness screens, PG&E believes suppliers could seek after-the-fact cost recovery for OFO penalty costs

incurred after 4:00pm PT and before midnight (one hour prior to the close of the Intraday 3 gas scheduling cycle and the end of the gas usage day) if responding to a CAISO dispatch in Real Time.

5. PG&E offers some suggestions for the design of CAISO's ex ante reference adjustment processes

a. **Transparency of reasonableness thresholds –** PG&E supports transparency regarding how ex ante reasonableness thresholds are developed for reference adjustment requests to all bid components. Guidelines should be thorough and vetted with stakeholders before the Draft Final Proposal. PG&E suggests CAISO provide a public document outlining general methodologies and fuel indices used, if applicable, to determine reasonableness thresholds. This is important for *suppliers* to be able to understand what constitutes an acceptable adjustment, and for *customers* to be protected against thresholds that leave room for inclusion of unjustified costs. PG&E notes that NYISO publishes monthly Fuel Entry Thresholds on its public site – these thresholds are used in an ex ante screen to test the reasonableness of fuel cost update submissions in DA and RT markets; each gas index is listed with acceptable dollar and percent tolerance bands.[4] PG&E suggests that a similar approach be used to outline acceptable reference update thresholds.

b. **Additional bid headroom when reference adjustment passes the reasonableness threshold** – Headroom percentages above proxy costs and gas cost scalars allow for the uncertainty that references do not accurately capture supplier cost expectations. If a supplier can successfully update its reference to its own cost expectations, PG&E questions whether additional headroom reserved for uncertainty should still be allowed.

c. **Timeline** – CAISO should determine far in advance of market run are updates are allowed and whether this is applicable to every RT market run.

d. **Audit process –** In its Straw Proposal, CAISO asks stakeholders if it should reserve the authority to initiate an audit process if behavioral issues are identified for generators using the reference cost update functionality. PG&E supports CAISO giving itself this authority as suppliers can persistently use a reference update functionality to add bidding headroom while still falling within tolerance bands. Suppliers should be expected to have documentation to substantiate reference cost updates regardless of if they pass or fail reasonableness thresholds. CAISO having the authority to monitor use of this tool and initiate and audit process would incent suppliers to use these tools appropriately. If misuse is determined, CAISO can claw back settlements or penalize a supplier for misuse by suspending use of the functionality for a period of time. After some persistent amount of time using this functionality to update references, CAISO should also give itself authority to consult with the supplier to move instead to a negotiated reference level.

e. **Impacts to downstream reference calculations –** CAISO should consider how reference updates impact bus LMPs that flow into LMP-based references. Suppliers can use the ex

[4] http://www.nyiso.com/public/webdocs/markets_operations/services/market_monitoring/Fuel_Entry_Thresholds/Fuel_Entry_Thresholds/Fuel%20Entry%20Thresholds%20DA%20and%20RT%20Effective%207-10-2017.pdf

ante functionality to increase its bus LMP and continually increase its default reference and so on. CAISO should exclude from LMP-based reference calculations LMPs that were impacted by a misuse of the reference adjustment functionality. PG&E opposes inclusion of OFO penalty adders in reference levels, but should CAISO allow this, bus LMPs impacted by OFO penalty adders should be excluded from LMP reference calculations as this type of cost is not incurred regularly and should not apply uniformly across an electric day. CAISO should also exclude the scenarios discussed here from the calculation of any reasonableness threshold, if applicable.

f. **Documentation –** In its Straw Proposal, CAISO proposes to require as documentation for Off-ICE quotes, a minimum of 5-10 price quotes from at least two different counterparties[5]. PG&E notes that price indication may depend on liquidity in the market and at times, counterparties may not actually have an offer. PG&E believes buyers could feasibly attain feedback or correspondence from two or more counterparties (where feedback/correspondence may not come in the form of a formal quote). Additionally, PG&E believes 5-10 price quotes is too stringent a requirement. Typically, buyers have a target price in mind based on internal optimization, credit, and other internal constraints. When interacting with a counterparty, deciding to transact is a function of these considerations as well as corresponding offers. PG&E believes adequate documentation to support fuel costs would include feedback from (not necessarily quotes from) at least two counterparties while formal quotes from counterparties or correspondence indicating lack of supply could also be used to justify costs.

   PG&E supports CAISO's other proposed appropriate documentation including index publisher information, electronic platform information, line pack levels, notice of fuel transport information, fuel scarcity conditions.

6. **PG&E supports development of a clearly defined process for developing negotiated proxy costs and suggests this process be developed in close coordination with the DMM**

   PG&E supports the development of a process for negotiating proxy costs. PG&E suggests this process be developed in close coordination with the DMM who currently oversees the Negotiated DEB process. Ultimately in developing a negotiated proxy cost process, CAISO should consider the following not currently covered under Negotiated DEB process:

   - Upon implementation of CCE3, use-limited resource proxy costs will be determined by the CCE3 opportunity cost model; CAISO should provide guidelines around the timeline to dispute default calculations and proceed with negotiating proxy costs if needed; Most importantly, before the opportunity cost model goes live, CAISO should simulate calculations and provide scheduling coordinators (SCs) output to review before go-live which can mitigate future disputes
   - Streamline the negotiated proxy cost process where CAISO does not accept initial SC-submitted negotiated calculations. Given that resources' limited availability may be

[5] "Straw Proposal Commitment Costs and Default Energy Bid Enhancements". California ISO. p29.

impacted when referenced on what SCs may consider inaccurate opportunity costs, it seems the current time periods of up to 10 business days for initial decision and up to 60 days of good faith negotiations with CAISO if the initial request is denied, are very lengthy. Use-limited resources could be subject to inefficient or excessive commitments and dispatch for up to 70+ days after a request is submitted. PG&E suggests evaluating how these timelines can be compressed or what interim proxy costs can be used

- What proxy cost can be used as a default in the interim as the negotiation period takes place, or as approved negotiated costs await implementation
- Whether the SC can use the reference update functionality and pass ex ante screens to adjust proxy costs up to the approved negotiated level as the negotiated proxy cost is implemented (as implementation can take up to 11 business days)

7. <u>PG&E does not oppose the concept of hourly Min Load Cost offers, but identifies some concerns about the proposed design</u>

Under the proposed hourly Min Load Cost framework, when STUC commits a resource and a resource's Min Run Time extends past the optimization horizon, CAISO proposes to lock bids needed to complete Min Run Time up to the last cost used in the commitment decision. PG&E reiterates a DMM concern raised in the stakeholder meeting that a supplier can make its tail end bids very high and early interval bids very low, making the resource commitment attractive to STUC, while benefiting from CAISO locking bids at a high level at the tail end of the STUC horizon and through the resource's Min Run Time.

PG&E also wonders whether proxy costs for hourly Min Load Costs should vary hourly to correspond with the reason why Min Load Costs must vary hourly. PG&E also notes that hourly commitment cost variation can still be achieved without dynamic commitment cost mitigation.

8. <u>PG&E continues to support addressing issues dropped from the initiative scope – mitigation of exceptional dispatches to address gas system issues and decremental bid mitigation</u>

CAISO proposes to drop from scope mitigation of incremental exceptional dispatches used to address gas system issues and decremental exceptional dispatch mitigation.

Though these items will be dropped from scope, PG&E suggests CAISO continue to monitor the impact of each of these issues. PG&E believes the issue DMM raised in prior Aliso Canyon phases[6] does not specifically pertain to exceptional dispatches to resolve the official gas constraint when enforced. Rather, exceptional dispatches may be used to address gas system issues even when gas constraints are not enforced. These exceptional dispatches may be considered uncompetitive when operators only have a select pool of resources to choose from to address gas system issues that are not modeled in the market. PG&E requests CAISO continue to monitor the competitiveness of

[6] "Aliso Canyon Gas-Electric Coordination Phase 2 – Straw Proposal. Comments by Department of Market Monitoring September 15, 2016".
http://www.caiso.com/Documents/DMMComments_AlisoCanyonGas-ElectricCoordinationPhase2StrawProposal.pdf

incremental exceptional dispatches used to resolve gas system issues outside of enforcement of the gas constraint. This becomes of more concern as gas-electric coordination issues are projected to become more prevalent CAISO and EIM-wide as indicated in the Aliso Canyon Phase 3 Initiative.

PG&E also reiterates its support for the development of decremental bid mitigation and encourages CAISO to continue monitoring the issue. Decremental bid mitigation can address the impact of a where a resource bids in RT far below its costs, gets exceptionally dispatched down in RT, and receives significant uplift payments. This scenario can happen even outside of overgeneration conditions. Continuing impacts should be monitored and not disregarded.