Pacific Gas and Electric Company

Comments of Pacific Gas & Electric Company

CPM Soft Offer Cap Straw Proposal

Submitted by	Company	Date Submitted
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Pacific Gas and Electric Company (PG&E) appreciates the opportunity to comment on the California Independent System Operator Corporation's (CAISO) Capacity Procurement Mechanism (CPM) Soft Offer Cap Straw Proposal.[1] The CPM and the Competitive Solicitation Process (CSP) play an important role in maintaining the reliability of the California grid. The soft offer cap and its specific value is essential to ensure just and reasonable rates in the CAISO's backstop procurement processes.

Given this importance, PG&E urges the CAISO to allocate sufficient time to develop an adequate policy solution. The CAISO should fully evaluate the implications of automatically extending full cost of service compensation to CPM resources in uncompetitive solicitations, as there are likely to be impacts in the bilateral, forward procurement space to the incentives of both suppliers and LSEs. The CAISO should also consider whether the proposed changes create any misalignment with the Reliability Must Run (RMR) model and CPUC processes.

PG&E requests that revisions to the CPM soft offer cap be oriented towards the following goals:

- Ensuring market power is adequately mitigated
- Ensuring reasonable costs to customers
- Minimizing the quantity of backstop capacity procured

PG&E's comments can be summarized as follows:

1. PG&E supports adding a market power test and mitigation to annual and suggests extending it to the monthly CSPs.
2. Revisions to CPM compensation should reflect a consistent, transparent soft offer cap calculation that accounts for market rents and produce just and reasonable rates in uncompetitive situations.
3. The correct procurement incentives should be extended to LSEs and suppliers, and backstop procurement should be minimized.
4. PG&E requests that the CAISO provide more transparency regarding deficiencies and decisions to backstop via CPM.

[1] Found here: http://www.caiso.com/Documents/StrawProposal-CapacityProcurementMechanismSoftOfferCap.pdf

1. **PG&E supports adding a market power test and mitigation to annual and suggests extending it to the monthly CSPs.**

   Annual CSPs

   PG&E supports adding a market power test (*e.g.,* a pivotal supplier test) to annual solicitations. This is a meaningful step towards mitigating capacity market power. While the issue paper refers repeatedly to "12-month CPM designations", PG&E would like the CAISO to clarify that it refers to all annual designations, regardless of the duration.

   Monthly CSPs

   PG&E is also concerned about solicitations for monthly deficiencies. If market power exists for annual, it is likely to exist for monthly CSPs. While the soft offer cap is a form of market power mitigation, it is unclear whether it is effective in the case of severely uncompetitive solicitations (*i.e.*, solicitations where there is only one unit capable of meeting the need). As requested in our issue paper comments,[2] PG&E asks that the CAISO provide data on the level of competition in solicitations for all solicitations (annual, monthly, and intra-monthly).

   This issue is of particular importance given FERC Order 861. In this order, FERC mandated capacity market power screens for all of California due to a lack of capacity market power mitigation and found the screens and current CPM mechanism insufficient to maintain the rebuttable presumption that market participants are adequately mitigated from exercising capacity market power. Given this finding by FERC, PG&E believes the CAISO should enhance capacity market mitigation. Adding the three-pivotal supplier test to the annual CSP is a positive step forward but would likely be insufficient from FERC's perspective.

   PG&E recommends that, at a minimum, the three-pivotal supplier test be run for annual and monthly solicitations and that the results be made public. PG&E asks that the CAISO evaluate the potential cost impact of paying uncompetitive monthly designations at cost of service, as well of as the administrative burden of extending mitigation to monthly solicitations.

   Comparison of the bids of non-pivotal and pivotal suppliers

   PG&E supports encouraging competitive behavior insofar as possible. Such competitive behavior may exist even in structurally uncompetitive circumstances. PG&E supports compensation *up to* the cost of service for units that are pivotal and have bid uncompetitively. However, PG&E believes additional options should be considered for units that have bid competitively.

   The CAISO's proposal suggests that if the three-pivotal supplier test determines the CSP is not competitive, any designee will automatically be given cost of service. This could lead to situations where the bidding unit would have accepted less compensation. It would be

[2] Comments of Pacific Gas & Electric Company CPM Soft Offer Cap Issues Paper found here: http://www.caiso.com/Documents/PG_EComments-CPMSoftOfferCap-IssuePaper.pdf

preferable from an efficiency and cost-to-consumer standpoint for the CAISO to accept competitive bids whether the unit is pivotal or not.

PG&E raised this concern on a recent stakeholder call and the CAISO's response was that it is too difficult to determine whether a bid is competitive or not. While PG&E recognizes that this is a difficult question, we are not convinced that is an impossible question to answer. PG&E asks the CAISO to evaluate possible solutions in the revised straw proposal. In the alternative, PG&E would suggest a working group session with stakeholders. PG&E also provides, by way of example, a simple method to calculate a *pivotal capacity bid cap. Please see Appendix A.*

2. **Revisions to CPM compensation should reflect a consistent, transparent soft offer cap calculation that accounts for market rents and produce just and reasonable rates in uncompetitive situations.**

<u>The CAISO should be consistent and transparent in calculating the soft offer cap</u>

While PG&E believes a more fundamental change is needed to the calculation of the soft offer cap value, if the CAISO elects to retain the current methodology the CAISO should be consistent in its application. The CAISO's reasoning to justify maintaining the current $6.31/kW-month soft offer cap lacks evidence and mathematical transparency.

The current reference resource is a mid-level 550 MW combined cycle with duct firing. Despite the California Energy Commission (CEC) not studying that exact resource, there are simple methods to approximate the going-forward fixed costs of this reference resource without re-running the CEC study. *As an example, please see Appendix B.*

<u>The CAISO should modify the soft offer cap to reflect expected market rents</u>

In the recent stakeholder presentation,[3] the CAISO acknowledged that "competitive bids are based on going forward fixed costs, market risk, potential capital additions, acceptable return, and *expected market rents.*"[4]

This is in agreement with the opinion of the CAISO Market Surveillance Committee (MSC). When discussing the appropriate price of a competitive solicitation, the MSC recommended that the CAISO consider ways of incorporating these revenues into the soft offer cap value.

> "[T]he going-forward cost *net of energy revenues* would be the appropriate benchmark." [emphasis added]

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[3] *CPM Soft Offer Cap,* Stakeholder call – Straw Proposal on August 6, 2019, found here: http://www.caiso.com/Documents/Presentation-CapacityProcurementMechanismSoftOfferCap-Aug6-2019.pdf

[4] *Supra n.3* at page 6, sub-bullet 2, of bullet 2: *Competitive cost compensation with market revenues*. [emphasis added]

> "[T]he CAISO should carefully consider… ways to incorporate expected energy and ancillary services revenues into calculations of an appropriate soft-cap level."[5]

PG&E agrees with the CAISO and the MSC that expected market revenues should be incorporated into the soft offer cap value. Given this level of agreement, PG&E believes the CAISO erred in omitting this from the straw proposal. At a minimum, the CAISO should have presented methods for incorporating expected market revenues into the soft offer cap. Failing to do so is inconsistent with the economics and is not aligned with the aforementioned views.

PG&E supports compensation *up to* the cost of service for units that are pivotal and have bid uncompetitively

PG&E supports a cost of service-based cap for units that are pivotal and have bid uncompetitively. However, cost of service compensation shouldn't be automatic, just as it isn't – to PG&E's understanding – in other ISO/RTOs. Rather, it should be the upper bound to compensation. Additionally, customers should receive benefits commensurate with compensation that extends up to this high a level of risk-free compensation. Therefore, PG&E support for the three-pivotal supplier test provisions is contingent on the following:

i. A must offer obligation at marginal cost. *Currently in the proposal.*

ii. A claw-back of market rents. *Not explicitly in the current proposal but mentioned in the presentation.*

iii. The cost of service estimate provided to the CAISO at the time of the CSP is binding; *i.e.*, the unit cannot provide one value to the CAISO and then ask FERC for more money *ex post. Not currently in the proposal.*

iv. Capital additions need to be justified using a "*but-for*" standard; *i.e.*, but for the designation, the capital improvements would not be needed. If the capital improvements were to be done regardless, then they are effectively a sunk cost and it is not appropriate to include them. *Not currently in the proposal.*

v. Crediting of CPM attributes to paying LSEs. As the CAISO notes, the timing of annual designations makes January and February crediting problematic. PG&E asks that solutions be explored. *Currently somewhat in the proposal.*

[5] *Opinion on Reliability must Run and Capacity Procurement Mechanism Enhancements,* Draft of March 18, 2019; page 16, found here: http://www.caiso.com/Documents/MSC-Opinionon reliabilitymustrunandcapacityprocurementmechanismenhancements-Mar20_2019.pdf

3. The correct procurement incentives should be extended to LSEs and suppliers, and backstop procurement should be minimized.

The correct procurement incentives should be extended to LSEs and suppliers

PG&E is concerned that the CAISO'S proposal to only procure full units at cost of service in uncompetitive conditions will increase the amount of backstop procured and requests the CAISO fully evaluate the implications and trade-offs. This approach is likely to alter the incentives to both suppliers and LSEs in bilateral, forward procurement. Additionally, the CAISO's CPM process should integrate well with the existing RMR model and CPUC processes without introducing and encouraging an easier path to cost of service compensation or any potential for arbitrage. It's not clear the current proposal achieves these goals.

PG&E disagrees with the CAISO's presumption that annual non-competitive designations have to be full-unit designations and is concerned about the effects on incentives

The CAISO's straw proposal puts forward that CPM designations that receive cost of service compensation can only be for a full unit. The CAISO contends that applying cost of service treatment for a partial unit "does not work" with little supporting evidence or further elaboration as to the specific problems.

PG&E understood the CAISO's objection to mean that they are concerned that any method that applies a cost of service on a per kilowatt-year basis could leave a unit's going-forward fixed costs unrecovered. This assumes there are no other ways for a unit to sell partial capacity through bilateral contracts or monthly and intra-monthly CSPs.

Additionally, guaranteeing full-unit procurement may discourage participation in the bilateral market. One strategy for a generator with capacity market power for a partial unit may be:

i. Only offer high bids to the Annual RA market. When no LSE takes the offer, and the CAISO decides to backstop the deficiency, the unit can go to step (ii).

ii. Bid into the CSP. When the CSP is found to be uncompetitive, the unit will get a full-unit cost of service, guaranteed for the full unit.

PG&E asks why partial CPM designations at going-forward fixed costs or at cost of service prorated by the partial capacity designated is not possible. The CAISO prorates compensation on a time basis, why not on a capacity basis?

PG&E asks how the CAISO intends to treat resources partially shown for RA

Consider the following scenario:

A resource is partially shown for RA. The CAISO subsequently seeks to designate the remaining capacity on the resource as CPM capacity to backstop an annual deficiency. In its market power test, the CAISO determines that resource has market power.

i. Would the CAISO extend full cost of service to the entire resource?
ii. If so, how does the cost allocation / settlement play out?
iii. If not, could this incentivize resources that could have otherwise sold a portion of their capacity bilaterally to withhold that capacity to preserve the optionality of securing full unit, full cost of service compensation?

4. PG&E requests that the CAISO provide more transparency regarding deficiencies and decisions to backstop via CPM.

PG&E has previously expressed concerns about the lack of transparency in the CPM and CSP processes. PG&E would like to take this opportunity reiterate these concerns and request that the CAISO:

1) provide further description of the decision criteria for when an RA deficiency is, or is not, backstopped;

2) provide market notices and explanations when RA deficiencies are *not* filled by CPM designations; and

3) provide market notices and explanations when RA deficiencies are filled by CPM designations.

Appendix A: Simple Method for Calculating a Pivotal Capacity Bid Cap

Goal: Create a bid cap for units that fail the three-pivotal supplier test such that they can be compared on an equivalent basis to the bids of not pivotal suppliers

Summary: P&GE suggests a method for creating a *pivotal capacity bid cap*; a capacity bid price at which compensation (pay-as-bid plus market revenues) results in the same total compensation as cost of service. This is the break-even point between the two methods and makes an effective bid cap proxy because customers would benefit from choosing cost of service for any bid above this price. Any bid below that price, customers ought to benefit from paying the traditional CPM compensation.

Benefits: This proposed method has several key benefits.

i. Simple – requires very little data above what the CAISO is already collecting for cost of service and is simple to calculate.

ii. Customer-first approach – ensures customers are not paying more than necessary

iii. Just and Reasonable – the unit either receives its bid price or cost of service, both of which are just and reasonable. The pivotal capacity bid cap does not need to be used for actual compensation.

Method: PG&E proposes using the following steps to calculate a pivotal capacity bid cap.

i. Request the cost of service data per the CAISO straw proposal.

ii. The CAISO calculates the market revenues for that unit, for the equivalent designation period for the prior three years.

iii. The CAISO calculates the expected market revenues for the designation period based on the lowest equivalent designation period from the prior three years.

$$E\{R\}_{Y}^{period}{}_{Y} = \min\left(R_{Y-1}^{period}, R_{Y-2}^{period}, R_{Y-3}^{period}\right)$$

iv. The CAISO calculates the pivotal capacity bid cap based on the unit's total revenue requirement, the expected market revenues, the designation quantity and term.

$$Pivotal\ Capacity\ Bid\ Cap = \frac{\left(\$_{Cost-of-Service} - E\{R\}_{Y}^{period}\right)}{kW_{Deficiency} * Months_{Designation}}$$

v. For pivotal suppliers, the bid used in the CSP would be the lesser of the actual provided bid and the *pivotal capacity bid cap*.

$$\min_{unit\ i}\{provided\ bid_i,\ \ pivotal\ capacity\ bid\ cap_i\}$$

Appendix B: The soft offer cap value should be around $72/kW-year if the CAISO is going to use its current method of calculating its value

The current reference resource is a mid-level 550 MW combined cycle with duct firing. Despite the California Energy Commission (CEC) not studying that exact resource, there are simple methods to approximate the going-forward fixed costs of this reference resource.

The CAISO has pointed to the economies of scale that may lower the costs of the 640 and 700 MW combined cycle units when compared to the 550 MW reference resource. The logic is that a fixed cost (*e.g.*, $100M per year) when normalized to a *kW-month* basis yields a lower value, as illustrated in the simple example below. The normalized cost for the 550 MW resource is about $3/kW-month lower than that of the 700 MW resource. The key to this argument is that for all three resources, regardless of size, all have a $100M cost. Said another way, their fixed costs do not scale with unit size.

"Fixed" Cost	**$100,000,000**	**$100,000,000**	**$100,000,000**
Size (MW)	700 MW	600 MW	550 MW
$/kW-month*	$11.90	$13.88	$15.15

$$\frac{\$}{kW-Month} = \frac{"Fixed"\ Cost}{Size\ MW} * \frac{1\ MW}{1000\ kW} * \frac{1\ Year}{12\ Months}$$

The flaw in this argument is that the CEC study does not support the assumption that the fixed cost does not scale with the unit size. The cost is not "fixed" at $100M. The costs are "fixed" because the costs do not depend on the unit's output (MWh). To the contrary, the CEC study suggests that these costs scale with size, *e.g.*, the Fixed O&M costs are $3.48/kW-month for both the 640 and 700 MW combined cycle units. That means the 700 MW unit spends approximate $4M more per year on Fixed O&M than the 660 MW unit (below).

$/kW-month	**$3.48**	**$3.48**	**$3.48**
Size (MW)	700	600	550
Fixed Cost*	$ 29,232,000	$ 25,056,000	$ 22,968,000

$$* Fixed\ Cost = \frac{\$}{kW-Month} * \frac{1000\ kW}{MW} * \frac{12\ months}{Year} * Size\ MW = \frac{\$}{Year}$$

So what happens if we actually try to estimate and account for any economies of scale that are suggested by the CEC data? PG&E used linear extrapolation to adjust for economies of scale in the three components of GFFC (Insurance, *Ad Valorem*, and Fixed O&M) and concluded that the reference resource's going-forward fixed costs would be approximately $5/kW-month and the soft offer cap value should be $6.00/kW-Month ($72/kW-Year).

Components of Going-Forward Fixed Costs

	A	B	C	A + B + C
Size (MW)	**Insurance** ($/kW-m)	***Ad Valorem*** ($/kW-m)	**Fixed O&M** ($/kW-m)	**GFFC** ($/kW-m)

640 MW	$0.61	$0.86	$3.48	$4.95
700 MW	$0.59	$0.84	$3.48	$4.91

Economy of Scale
for each of the key components of Going-Forward Fixed Costs
Estimated by $\Delta_x = \frac{(x_{640} - x_{700})}{640-700}$

Slope ($/MW)	**Insurance** ($/kW-m)	***Ad Valorem*** ($/kW-m)	**Fixed O&M** ($/kW-m)	**GFFC** ($/kW-m)
Δ_x	-$0.00026	-$0.00038	$0.00	-$0.00064

Estimated Values of a 550 MW Reference Resource
$for\ each\ component\ (x),\ x_{550MW} = x_{640} + \Delta_x(640 - 500)$

Size (MW)	**Insurance** ($/kW-m)	***Ad Valorem*** ($/kW-m)	**Fixed O&M** ($/kW-m)	**GFFC** ($/kW-m)
550 MW	$0.63	$0.89	$3.48	$5.00