Comments of Calpine Corporation on

CPM Soft Offer Cap

Issue Paper

Issued: May 30, 2019
Comments Submitted: July 1, 2019

Summary:

While Calpine agrees that this review of the CPM Soft Offer Cap is appropriate, Calpine is not convinced, nor does the tariff require, that the CPM Soft Offer Cap be changed at this time. In fact, the updated CEC Cost of Generation Study demonstrates that the relevant costs represented in the Soft Offer Cap formulation have not significantly changed since the last review of the Soft Offer Cap.

However, if the CAISO considers piecemeal changes to the current Soft Offer Cap thereby affecting its carefully balanced incentives, or is convinced that the intended purposes of the CPM will change, for example through the creation of a central procurement entity, the CAISO should return to first-principles of market design and consider alternative auction clearing mechanisms based on the net cost-of-new-entry.

Supply and demand balances are tightening in California possibly exposing the presence of pivotal suppliers. In this initiative, the CAISO must comprehensively address the foundational question of what level of compensation is reasonable for resources when competition is limited.

To the extent the soft offer cap is not enough to fairly compensate resources needed for reliability, CAISO should allow units to bid above the Soft Offer Cap, but those bids should be approved by FERC as representing full regulated cost-of-service which includes recovery of, and on capital investment (as in the tariff today). However, in order to correct an oversight, if FERC-approved bids above the cap are awarded, energy rents for the designation quantity should be credited back to the ISO. As discussed below, the CAISO should consider several options for crediting energy rents for designations.

The following comments expand on and explain these summary statements.

Updating the Soft Offer Cap:

The CAISO Tariff only requires *consideration* of an update to the Soft Offer Cap.

Several parties have erroneously asserted that the ISO *must* update the CPM Soft Offer Cap ("SOC") every four years pursuant to section 43A of the tariff. However, as the ISO identifies in the Issue Paper, the tariff merely requires the CAISO to open a stakeholder process "to consider updating" the SOC[1]. The ISO would bear the burden of demonstrating why the SOC or its derivation (e.g., the use of a CCGT or the related cost categories) has lost its relevance or is otherwise unjust and unreasonable.

On the other hand, if the ISO concludes that the current SOC "adequately represents" the cost of the reference resource, the ISO can confirm that position and suspend further action on this matter. The tariff clearly places the burden on "any party that wishes to challenge the ISO's retention of" the SOC and requires a "showing that maintaining the unaltered element would be unjust, unreasonable unduly discriminatory or preferential, or otherwise contrary to law[2]."

The CEC studies do not suggest that an update is necessary.

The tariff requires that the CAISO base its four-year Soft Offer Cap review on the "the final results from the CEC Cost of Generation Study" and whether the Soft Offer Cap "adequately reflects 120% of the levelized going-forward fixed costs" of a mid-cost, 550-MW combined-cycle[3].

A direct comparison of the tariff-based cost categories, shown below, does not support a change in the SOC. As can be observed from Table E-4 of the 2015 CEC report[4] and Table D-2 of the May 2019 report[5], there has been less than a 5 percent change in the cost categories that are specified in the tariff as contributing to the Going Forward Fixed Costs ("GFFC") of a CCGT. This is clearly not a mandate for an update to SOC.

In fact, some of this insignificant decline in per-kw cost may rest with the scale economies associated with use of a larger base CCGT (700 MW vs 550 MW) in the 2019 study. That is, costs that may not vary with size are averaged over a larger capacity, thereby driving down the per-unit costs of a

[1] "The ISO has a tariff obligation *to consider updating* this soft offer cap value every 4 years." (emphasis added) Issue Paper, page 1
[2] CAISO Tariff, Section 43A.4.1.1.2
[3] *id*
[4] https://www.energy.ca.gov/2014publications/CEC-200-2014-003/CEC-200-2014-003-SF.pdf
[5] https://www.energy.ca.gov/2019publications/CEC-200-2019-005/CEC-200-2019-005.pdf

700 MW machine and possibly explaining the modest reductions observed in the CEC studies[6].

CEC Levelized Cost of Generation Studies

	Insurance	Ad valorem	Fixed O&M	Total	120%
2015 Report (Table E-4)	7.57	10.98	43.25	61.80	74.16
2019 Report (Table D-2)	7.10	10.03	41.77	58.90	70.68
					-4.7%

Piecemeal changes to the SOC should be rejected

The current CPM SOC was initially the result of a negotiated settlement, and is a "Goldilocks" safe harbor bid price. It is "just high enough" to allow reasonable recovery of the costs of a marginal resource or import occasionally needed to meet reliability requirements, but is not "too low" such as to be attractive to buyers and therefore discourage bilateral contracting.

This balance must be preserved. Calpine suggests that in the next issuance, presumably a Straw Proposal, the CAISO clarify, expand on and confirm that the CAISO's CPM SOC design principles have not changed. While not comprehensive, these principles should include:

- CPM is intended to be a backstop mechanism, rarely used;
- State law requires minimal use of the CAISO backstop;
- CPM should encourage bilateral market procurement in the first instance;
- The CPM SOC is a safe harbor for bids into the Competitive Solicitation Process; and
- The SOC reference resource and going-forward fixed costs identified in the tariff and the nominal adder of 20 percent are a reasonable basis for the safe-harbor price.

Some parties have suggested piecemeal changes to the FERC-approved formulation of the SOC[7]. Calpine encourages the CAISO to resist these changes as they could disrupt the careful balance struck initially by the settling parties and more recently, as affirmed by the Commission.

[6] Calpine sees no need to engage a study of a 550 MW CCGT identical to that used in the 2015 CEC study.

[7] E.g., some parties question the FERC-approved 20 percent adder or to suggest and energy rent deduction.

An additional complexity could arise as several central procurement entity ("CPE") proposals under consideration by the CPUC could fundamentally change the relevance of the CPM CSP[8]. These CPE proposals would use SOC as a price cap for CPE procurement thereby deferring some portion of *primary* procurement of RA capacity to the CAISO backstop mechanisms. Those proposals seek to leverage the presence of the Soft Offer Cap (and potentially other piecemeal changes to the SOC described below) in order to create an unreasonable GFFC *hard*-cap mitigation price for primary capacity procurement.

<u>If the CAISO considers SOC changes, it must return to first principles of market design.</u>

Should the CAISO conclude that it will entertain piecemeal modifications to the CPM SOC or modifications associated with creation of a CPE, Calpine recommends that the CAISO return to first principles of market design. It must look at the interactions of bilateral markets, multi-year forward procurement requirements, the CPE, support for alternative investments, the need for attracting imports, CPM and RMR in a holistic manner. It must review the incentives it wishes to create and those it wishes to discourage.

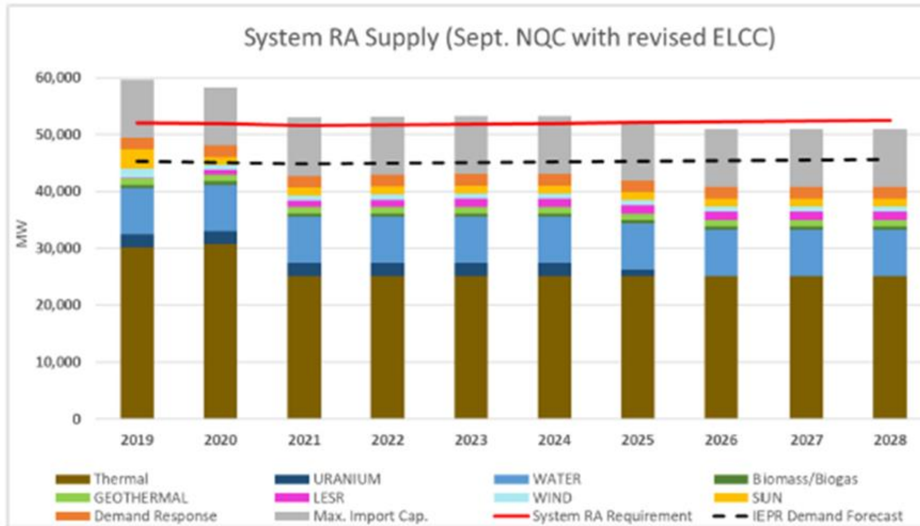
Specifically, under these circumstances, Calpine believes that the current soft-cap / as-bid clearing structure would no longer be relevant or appropriate. If it moves in this direction, the CAISO should consider whether the SOC or any relevant mitigated price level for units needed for reliability should reflect the net cost-of-new-entry. As discussed below, it seems clear that new capacity is needed and as such, this type of investment incentive would be reasonable.

Assessing payment for 12-month designations

In the future, some local areas – and possibly the entire system – may be short of the level of dispatchable capacity needed to meet the Resource Adequacy requirements of the CPUC or the more granular reliability requirements of the CAISO. For instance in a recent draft ruling[9], the CPUC has identified, as shown below, a near term (certainly within the 4 year review period of CPM SOC) tightening of effective *system* capacity and suggests the extraordinary step of ordering acquisition of 2,000 MW of new effective and dispatchable capacity.

[8] E.g., proposals of the CPUC Energy Division, PG&E and SDG&E in R.17-09-020, track 2

[9] Rulemaking 16-02-007. This proposed order optimistically assumes dependence on unchanged "maximum import capacity".



This resource scarcity has been evident in local areas for some time and absent change, will only increase at both local and system levels as California transitions to a more carbon-free generation fleet. In the meantime, there is an obvious need to retain dispatchable generation (roughly 25,000 MW, according to this chart) and encourage imports in light of this tightening balance.

With this context, Calpine does not object to consideration of a pivotal supplier test as discussed in the Issue Paper[10]. However, some local areas may fail a three-pivotal-supplier structural competitiveness test and CSP auctions may reflect this resource scarcity. Under these conditions, simply *deeming* the CSP auctions to be competitive and imposing a cap on compensation based on what "should have" or "could have" been a purely competitive outcome (i.e., GFFC, or less) is unjust.

So the foundational question that the CAISO must answer in subsequent issuances in this initiative is not related to whether scarcity will exist, but rather what is the maximum price that a unit specifically, and possibly uniquely, needed for reliability should be paid? Said another way, what should a resource needed for reliability be paid where there is no market competition? And why would a unit – whether needed every hour of every day or only needed for some hours or months – be paid (or have an opportunity to earn) less than its full annual cost-of-service or the net cost-of-new-entry?

[10] Calpine suggests that if the CAISO moves forward with a pivotal supplier test that in the next Straw Proposal it define a scope of that analysis including, but not limited to the discussions and debates occurring in the system market power initiative such as, but not limited to consideration of resource ownership vs control.

Calpine believes that in a circumstance where all of the resources in constrained locations are required for reliability, prices for capacity should be able to rise up to the full annual cost-of-service – essentially a regulated price. Alternatively, if the markets are comprehensively re-designed to encourage investment, scarcity prices should rise to the net cost-of-new-entry. FERC precedent supports these conclusions and CAISO mechanisms should be designed to allow this outcome.

CPM bids above the Soft Offer Cap

The long history of this issue reveals a nearly universal agreement – a resource owner that submits bids above the CPM SOC could obtain full cost-of-service through a capacity payment and could collect unintended additional compensation through the energy rents that it earns when it operates.

Calpine has proposed that if a resource owner bids above the CPM SOC, it must file at FERC demonstrating its actual full cost-of-service, as prescribed in the current tariff. If the bid is awarded, energy rents would be credited to the CAISO – effectively capping net compensation above the SOC at the full cost-of-service. This proposal rectifies what some have called an oversight, while allowing a path (but certainly no guarantee given the competitive solicitation process) up to compensation levels similar to that afforded in RMR.

The CAISO supported Calpine's solution in one of its early workpapers. However, the CAISO took a different position in the final proposal that went to the CAISO Board in March of 2019. Specifically, the ISO proposed that any bids above the SOC be filed at FERC, but capped at resource-specific GFFC plus 20 percent.

As described in our Answer in ER19-1641, Calpine believes that the proposal to limit CPM bids to resource-specific GFFC unjustly sets a GFFC cap on revenues for resources needed for reliability and would distort bilateral markets. As said there:

> "Calpine believes that the voluntary bilateral markets would actually be more distorted if RMR and CPM pricing were modified as the CPUC and DMM propose. Specifically, if RMR and CPM are capped at GFFC, bilateral markets would never rationally clear above the GFFC backstop prices. In fact, the most likely outcome of these proposals would be that CAISO backstop mechanisms would be used more, not less, often. The CPUC/DMM approach effectively would blunt price signals for alternative investment and/or investments required to retain existing resources, when and where needed, and deny or severely limit existing thermal resources

> the opportunity to earn a return of and on investment. The GFFC approach to RMR or CPM compensation should be rejected."

The CAISO supports its proposal to cap bids at GFFC by asserting that the crediting of energy rents would be complicated if the CAISO needs only part of a generation unit to meet the reliability requirement. That is, CAISO claims that it would be difficult to determine which revenues would be credited and which would be retained by a resource owner that receives an annual CPM designation, for example, for one-fourth of a plant.

Calpine believes that reconsideration of the CAISO proposal is warranted for several reasons. These considerations, of course, presume that a unit is needed for reliability – as can be concluded because the CPM solicitation / auction is the direct consequence of a finding of resource deficiency.

First, as highlighted above, a resource needed for reliability cannot be denied a reasonable opportunity to collect its full cost-of service. Setting a hard-cap at GFFC (plus energy rents and a small adder) may not allow such a reasonable opportunity.

Second, the ISO should consider as part of this SOC review whether CPM bids above the SOC should be awarded *only as whole resources* (or discrete but separable portions thereof, such as an MSG configuration). This would greatly resolve the complexity of crediting energy rents. In fact, bidding constraints could be designed into the CSP portion of the tariff that limit bidding above the SOC to, and the CAISO selection of, discrete or separable resources.

Third, the mere suggestion of a "partial plant designation" demonstrates a misunderstanding of the operation of an integrated generation facility. The annual costs of operating a plant (which would be filed at FERC) represent the full output of that resource. Partial plant – or partial month -- designations will not allow recovery of sufficient or reasonable costs for an otherwise uncontracted asset.

If the CAISO moves the CPM SOC below the "Goldilocks" cap that has been historically deemed to be reasonable, it may find significantly more RA deficiencies as buyers purposefully, or by programmatic CPE application, choose to procure under the provisions of the CPM CSP. In particular, resource owners that find compensation from partial designations at GFFC unacceptable would likely chose to mothball or retire rather than operate.

Finally, avoidance of "complication" is hardly a hallmark of the CAISO settlement systems. Even with no change to the minimum CPM designation quantity, Calpine has no doubt that the challenge of refunding partial

designation energy rents could be overcome with creative allocations and settlement rules.

Other CPM Issues

First, the ISO should address in the next Straw Proposal, changes that would allow for a more reasonable “runway” for CPM decisions. While Calpine appreciates the runway changes that the CAISO proposed for RMR, annual CPM CSP awards will only be granted within days of the beginning of an availability obligation. A unit that has no must offer (i.e., no obligation to bid) might have a much more limited scale and scope of necessary investment than one that has a ubiquitous and immediate obligation to bid or be available. Such consideration and investment takes time – longer than a few Holiday hours.

Second, the CAISO should develop a CPM proposal that allows for the recovery of incremental capital expenditures. This could take the form of an incremental payment representing the return of, and on the expenditure, an extended term (possibly matching the useful life of the investment) or both.

Third, the CAISO should affirmatively state whether the CAISO still intends on using Exceptional Dispatch for units needed for reliability, but have rejected and offer of CPM – a position which Calpine continues to characterize as an uncompensated and therefore unjust and unreasonable capacity call-option.

Finally, Calpine requests that the ISO clarify the tariff to eliminate significant uncertainties associated with the CPM designation process. These uncertainties create unnecessary doubt and reduce the confidence in the effectiveness of the backstop mechanisms. There are multiple instances of these uncertainties and Calpine will, if requested, develop a full set of proposed modifications.

As examples, in several instance in Section 43A.2, the CAISO is granted *the authority* to designate capacity under CPM when a deficiency is identified, but not the *obligation* to do so. For instance, in 43A.2.2, we seek the following revision for annual collective deficiencies:

> The CAISO ~~may~~ shall, pursuant to this Section 43A.2.2, designate CPM Capacity in an amount and location sufficient to ensure compliance with the Reliability Criteria applied in the Local Capacity Technical Study.

Also, in Section 43A.3, the tariff leaves unwarranted discretion with the CAISO with respect to the term of a designation. For instance, in Section 43A.3.3 in resolving an *annual* collective deficiency the tariff incongruously permits designations for as short as one month. We seek the following revision:

CPM Capacity designated under Section 43A.2.2 shall have a ~~minimum~~ commitment term of one (1) ~~month and a maximum commitment term of one~~ year, based on the period(s) of overall shortage as reflected in the annual Resource Adequacy Plans that have been submitted.

Thank you