

Comments of PG&E on the CAISO's Updated Standard Resource Adequacy Capacity Product Straw Proposal

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Matthew Barmack
m4b3@pge.com

I. Introduction

Based on the updated Standard Capacity Product (SCP) straw proposal¹ and the ISO's presentation at the December 11, 2008 Market Surveillance Committee (MSC) meeting,² PG&E believes that the ISO has improved significantly its original straw proposal. In particular, PG&E supports the ISO's current proposal to implement a uniform availability standard with financial penalties.

Consistent with PG&E's previous comments, PG&E agrees with the views expressed by the Market Surveillance Committee that the availability metrics and performance penalties in the SCP straw proposal do not provide rational or meaningful incentives to capacity suppliers. In this respect, the Standard Capacity Product is probably no worse than many existing Resource Adequacy (RA) contracts. If the goal of SCP is to facilitate contracting under the current imperfect RA regime, then PG&E has no major objections to the performance incentives in SCP. PG&E is concerned, however, that the performance incentives in SCP might form the basis for longer-run modifications to Resource Adequacy. Long-run resource adequacy policy requires more careful consideration of the relationship between the RA performance incentives and other elements of market design, such as Scarcity Pricing. PG&E believes that the energy and ancillary services (AS) markets are ultimately more likely to provide the appropriate signals for availability and performance than the poorly targeted incentives in SCP.

PG&E elaborates on its concerns about SCP performance incentives and other elements of SCP in the following sections.

II. Availability metrics and performance incentives

As Ben Hobbs articulated at the December 11 MSC meeting, one important motivation for Resource Adequacy payments is to replace "missing money." Missing money arises from the fact that because energy and (AS) markets have price caps and bids into those markets are sometimes mitigated, prices in those markets do not always reflect the full value of the energy and ancillary services provided through those markets. In addition, high planning reserve margins may lead to energy and ancillary service prices that are simply too low to support investment even in the absence of binding bid and price caps. Consequently, because generators cannot recover the full value of the services that they

¹ <http://www.caiso.com/2093/2093dab73af30.pdf>

² <http://www.caiso.com/2098/2098cefbcd0.pdf>

provide in energy and AS markets from those markets, another revenue stream is necessary to ensure that sufficient generation to meet planning reserve targets is available. This conundrum suggests that capacity payments should be focused on the periods in which the combination of restrictions on bids and prices and administratively determined reserve margins produce energy and AS prices that are lower than those that would prevail in a competitive market with reserve margins reflecting the appropriate tradeoff between cost and reliability, i.e., capacity payments should effectively undo the impact of bid and price caps and administratively determined reserve margins on energy and AS prices.

Under such an approach, capacity payments (and the consequences of non-performance) would be concentrated in periods in which price and bid caps and limitations on physical supply are the most binding. These tend to be periods of the highest load, but might also include periods in which ramping constraints bind or periods in which contingencies, such as transmission outages occur. In our previous comments, PG&E suggested three potential approaches to identifying hours in which the availability of capacity should be measured. At the December 11, 2008 meeting Calpine suggested a related approach based on Loss of Load Expectation (LOLE). Similarly, NRG raised the possibility of relating performance penalties to realized prices. These alternatives are broadly consistent with the approaches recommended by PG&E.

PG&E continues to believe that the performance incentives in the SCP straw proposal are poorly targeted in at least two respects. First, they measure availability during a broad set of on-peak hours, during only some of which availability significantly contributes to reliability. Second, they assume that availability has the same value in each month of the year, i.e., the maximum penalty in any month is \$3.33/kW-month.³ Clearly, in California, availability is disproportionately important in the peak summer months. This monthly pattern in the value of capacity is reflected in many of the IOUs commercial arrangements, such as PG&E's capacity payments to Qualifying Facilities.⁴ Note that these payments allocate almost 80 percent of the annual capacity payment to the summer months of May through October.

In addition, in formulating performance incentives, we should remain mindful of the fact that what ultimately provides reliability is not availability but performance, e.g., in the operational time frame, a wind generator, even if it is not forced out, does not contribute to reliability if the wind is not blowing. SCP might provide appropriate incentives for performance *in combination* with the appropriate RA counting rules. It is unclear that it makes sense to reward availability in and of itself.

Another issue that may merit further attention is the impact of performance penalties on RA prices and the potential for the \$40/kW-year waiver price to increasingly bind.⁵ Even though the current RA market is bilateral and does not clear at a single price, prices in the market should approximate the costs of the most expensive units needed to meet RA

³ Slide 31 of the ISO's presentation at the December 11, 2008 MSC meeting.

⁴ http://www.pge.com/includes/docs/pdfs/b2b/qualifyingfacilities/prices/2008_asdelcap.pdf

⁵ See section 3.3.12 of D. 06-06-064.

requirements. If these marginal units are less reliable than average, then the penalties that these units might expect to pay could be reflected in bilateral prices. In the event that the costs of these units approach the current waiver price, LSEs may choose not to procure RA from them, potentially reducing reliability. Consequently, some reconsideration of the waiver price may be warranted.

III. Dead band

PG&E does not understand the justification for the dead band and is concerned that the dead band might give a generator a free pass for unavailability in the relatively few hours in which availability actually matters. For example, suppose that availability is measured in forty hours in a month and the fleet average forced outage rate target is 5 percent. If a unit is available for 38 hours, it would meet the target. Further, at 37 hours of availability, the unit would still be within the dead band. If the only staged emergency in a month lasted for three hours, the unit could be completely unavailable during the staged emergency and not be penalized.

IV. Bonus payments

PG&E supports bonus payments as long as they are financed through performance penalties and windfalls to units that perform better than the fleet average are limited. At the December 11 MSC meeting, Frank Wolak posed a hypothetical case in which many resources perform worse and only a few perform better than the target. In such a case, a system that pays out all penalties to resources that perform better than target, such as the one proposed by the ISO on slide 32 of their December 11 presentation, potentially would lead to very large payments to resources that perform better than target. This windfall might be avoided by capping bonus payments at some multiple of the maximum monthly penalty and carrying forward a balance of penalties that could be used to fund bonus payments in subsequent months or returned to customers.

V. Measuring the availability of resources whose NQCs are significantly below their nameplate capacities

At the December 11 MSC meeting, there was an interesting discussion about how the availability of resources with NQCs significantly below their nameplate capacities might be measured. For example, wind might have an NQC of approximately 20 percent of its nameplate capacity. In order for a 100 MW unit to produce at its NQC level of 20 MW (on average) the entire 100 MW of the unit would need to be available. This suggests that availability should be measured as a fraction of the nameplate capacity underlying the NQC that is supplied as resource adequacy, e.g., a 100 MW wind unit with an NQC of 20 MW that reports forced outages corresponding to 80 MW of its nameplate capacity should be considered 20 percent available not 100 percent available.

VI. Unit substitution

Unit substitution should not be subject to ISO review. The SCP tags for any two resources at the system level or in the same local capacity area should be fully interchangeable. One of the primary motivations behind SCP is to make the RA/capacity product more homogeneous and tradable. ISO review of the “electrical equivalence” of a unit substitution undermines this principal. If the ISO really needs a specific resource in a specific location, then the current Resource Adequacy market may not be the appropriate vehicle for procuring that resource. The absence of interchangeability might suggest that local capacity areas should be defined more granularly or that the resource in question should be procured through other means, such as Reliability Must-Run (RMR) contracts.

VII. Imports

The ISO’s proposal to measure the availability of imports as the availability of bids from RA imports might be one feasible approach. Based on discussions at the December 11 MSC meeting, if default bids for RA imports are submitted automatically into the IFM in the event that the associated scheduling coordinator fails to submit bids, bid availability may not provide a meaningful measure of availability. If the RA import supplier is financially liable in the event that the default bids for his resource are taken, it may be reasonable to treat imports as 100 percent available.

VIII. DR

PG&E supports the ISO’s proposal to measure and reward the availability of participating load and other prospective forms of DR that will participate directly in ISO markets in broadly the same fashion as it proposes to measure and reward the availability of generation. It is unclear what the “outage” reporting requirements for these types of DR will be. Perhaps the availability of DR could be measured by the same availability of bids approach that has been proposed for imports. Given that many existing DR programs are use-limited, it is also unclear how such limits will be addressed. Will DR RA capacity have an obligation to provide bids that are sufficiently high to enforce use limits? Will they be able to do so given ISO market power mitigation measures? Further, once a DR resource has exhausted a use limit, will it be treated as unavailable for the remainder of the period to which the use limit applies?

IX. Credit requirements

PG&E believes that credit requirements go hand in hand with financial penalties. PG&E supports the ISO’s general recommendation that credit requirements for each SC be calculated on a global basis across all charge types, i.e., the calculation of credit requirements for SCP should not be distinct from the calculation of credit requirements for participation in all other ISO markets.

X. Grandfathering

PG&E disagrees with the recommendation on slide 41 of the ISO's December 11 presentation that grandfathering only apply to currently existing contracts. The implementation of SCP is far from a certainty and PG&E cannot proceed with its current long-term RFO and other procurement activities under the assumption that SCP will in fact be implemented. PG&E agrees with the views expressed by numerous other stakeholders that grandfathering apply to contracts signed prior to FERC approval or some relatively certain indication that FERC is likely to approve SCP.