Comments of Pacific Gas and Electric Company
Commitment Cost Enhancements Phase 3 Straw Proposal

Submitted by	Company	Date Submitted
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Pacific Gas and Electric Company (PG&E) offers the following comments on the California Independent System Operator's (CAISO) Commitment Cost Enhancements (CCE) Phase 3 August 24th Straw Proposal. We also look forward to working with CAISO to address the issues the FERC laid out in its Sept. 9th, 2015 Order on the CCE Phase 2 proposed tariff revisions. As the Order directly impacts the definition of use-limited resources, we believe the CCE3 stakeholder process is an appropriate venue to consider these issues.[1]

PG&E's main points are:

1. CAISO should honor resource limits in existing bilateral contracts.
2. CAISO should preserve hydro resources' use limited status and opportunity cost negotiation option.
3. CAISO should establish a dispute resolution process and a clear off-ramp from the opportunity cost model option to the negotiated opportunity cost option.
4. Regarding the future power price "adjustment factor", CAISO must first demonstrate that incorporating future power prices will improve its LMP forecast accuracy. In addition, any "adjustment factor" should be able to both increase <u>and decrease</u> the price forecast.
5. CAISO should establish triggers to rerun the opportunity cost model in between scheduled monthly runs.
6. CAISO should clarify any changes to the existing DEB process as a result of the CCE Phase 3 opportunity cost adder.

I. CAISO should honor resource limitations in existing bilateral contracts.

As FERC recognized in their CCE2 Order, the proposed tariff revisions did not provide sufficient detail on "the interaction of contractual limitations with economic and non-economic limitations."[2] PG&E acknowledges that CAISO should not broadly allow any resource to qualify as use-limited based on contractual limitations alone. PG&E maintains that resource limitations already established through existing contracts, negotiated in good faith, and reflecting environmental permits should be accepted by CAISO and exempted from providing additional translation methodology documentation. Providing the translation methodology for existing contracts would be a challenge, and in

[1] 152 FERC ¶ 61,185, FERC ORDER ACCEPTING IN PART, AND REJECTING IN PART, PROPOSED TARIFF REVISIONS, Sept. 9, 2015. Docket No. ER15-1875. Par. 35

[2] 152 FERC ¶ 61,185, FERC ORDER ACCEPTING IN PART, AND REJECTING IN PART, PROPOSED TARIFF REVISIONS, Sept. 9, 2015. Docket No. ER15-1875

some cases impossible, as the exact translation methodology is often not specified in the resource's contract documents or environmental permit.

II. CAISO should preserve hydro resources' use limited status and opportunity cost negotiation option.

The CCE3 proposal and stakeholder meetings thus far have focused primarily on use limitations and opportunity costs for fossil resources. PG&E requests that CAISO clarify in its next proposal how it envisions hydro resources fitting into the new Use-Limited registration process and opportunity cost calculations.

FERC's CCE2 Order instructs CAISO to provide more details on the definition of use-limited capacity, and spell out which resources will be use limited by default.[3] To that end, PG&E recommends CAISO clarify that hydro resources are Use Limited by default. Hydro resources should not be required to submit additional documentation through the Use Limited registration process. Given the large number of powerhouses in CAISO's footprint, providing documentation on water flow limits, wildlife considerations, etc. for each powerhouse would be a cumbersome and unnecessary exercise for SCs and CAISO staff.

Secondly, SCs currently have the option to negotiate opportunity costs for hydro resources. This negotiation option should be preserved, including the existing intra-monthly update provisions.

III. CAISO should establish clear guidelines and decision criteria for a dispute resolution process and an off-ramp from the opportunity cost model option to the negotiated opportunity cost option.

Despite CAISO's best efforts to accurately estimate future Locational Marginal Prices (LMPs) and resource dispatches, we should not assume that CAISO's opportunity cost model is infallible. Stakeholders should have the option to dispute the opportunity cost model results if they believe they are unrealistic or unreasonable. As a best practice, CAISO should lay out a dispute resolution process for cases where the SC and CAISO do not agree on the proper opportunity cost for a resource.

Additionally, CAISO has presented the opportunity cost model as the default option for calculating opportunity costs, and negotiation as a secondary option if modelling is not possible. PG&E recommends CAISO allow SCs to self-select the negotiation option if they do not believe the opportunity cost model can accurately reflect their resource's limitations.

[3] 152 FERC ¶ 61,185, FERC ORDER ACCEPTING IN PART, AND REJECTING IN PART, PROPOSED TARIFF REVISIONS, Sept. 9, 2015. Docket No. ER15-1875. Par. 36.

IV. Regarding the future power price "adjustment factor", CAISO should first demonstrate that incorporating future power prices will improve its LMP forecast accuracy. In addition, any "adjustment factor" should be able to both increase and decrease the price forecast.

CAISO has proposed adjust the future LMP estimates for the opportunity cost model by a "conversion factor" based on the ratio of future power prices in the limitation month to actual average power prices for that month of the previous year. PG&E agrees that adjusting the LMP estimates for current conditions in some way (beyond updating the natural gas and GHG prices) seems reasonable. However, CAISO should provide stakeholders with analysis showing that incorporating future power prices into the model would actually produce more accurate results. Specifically, CAISO should look back historically to see if future power prices are in fact a good predictor of actual market prices. CAISO should also consider other conversion factor options. For example, are future power prices for month *m* a better predictor of actual LMPs in month *m* than actual LMPs in month *m-1*?

Secondly, CAISO's current proposal only allows for a "conversion factor" that increases the LMP estimates.

> The conversion factor will have a minimum of 1, only increasing estimated LMPs if future power prices indicate higher anticipated energy prices relative to the previous year.
>
> The conversion factor will be generated as follows:
>
> $$PPConv_{h,m} = Max(1, \frac{ImpHRF_{h,m,tou}}{ImpHRH_{h,m-12,tou}})$$ [4]

However, we can imagine a situation where future power prices are lower than historical LMPs in the previous year. Capping the conversion factor at 1 does not allow CAISO to further decrease LMP estimates based on current conditions, and may then overinflate the LMP estimates. CAISO should allow any conversion factor to both increase *and decrease* the LMP estimate used in the opportunity cost model.

V. CAISO should establish triggers to rerun the opportunity cost model in between scheduled monthly runs.

CAISO has proposed to run the opportunity cost model for each resource on a monthly basis only. PG&E reiterates our previous comments and recommends CAISO establish some triggers for rerunning the model in between monthly scheduled runs (e.g. collective number of actual starts, run-hours, or market prices that differ significantly from model assumptions and predictions). It is in both CAISO's and stakeholders' best interests to have accurate opportunity costs included in resources' bids to manage use limitations, particularly as market participants and CAISO gain familiarity and experience with the

[4] CAISO Commitment Cost Enhancements Phase 3 Straw Proposal. August 24. 2015. P17.

new process. Given the uncertainty around predicting LMPs, CAISO should have some pathway to adjust the model if reality differs substantially from the model's predicted dispatch in order to avoid running out of starts or run hours.

VI. CAISO should clarify any changes to the existing DEB process as a result of the CCE Phase 3 opportunity cost adder.

CAISO has proposed that opportunity costs due to a limitation on output will be added to the resource's Default Energy Bid, and CAISO intends to amend section 39.7.1.3 of the tariff to "allow the ISO to review and propose modifications to existing negotiated default energy bids and to require the scheduling coordinator to provide updated supporting information and cost justification."[5]

PG&E is concerned about the lack of clarity around proposed changes to the DEB negotiation process and rules and urges CAISO to provide more details on this in the next proposal for market participant consideration.

[5] CAISO Commitment Cost Enhancements Phase 3 Straw Proposal. August 24. 2015. P26.