

Stakeholder Comments Template

Subject: Commitment Cost Enhancements Phase 3 (CCE3)

Submitted by	Company	Date Submitted
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This template has been created for submission of stakeholder comments on the Commitment Cost Enhancements Phase 3 Technical Workshop that was held on July 20th, 2015. Upon completion of this template please submit it to initiativecomments@caiso.com. Submissions are requested by close of business on **July 30th, 2015**.

1. Please provide feedback on input variables.

a. Comments on LMP stream used (FMM and/or DA)

Wellhead currently supports the use of the FMM prices as we believe this should provide the best model results for the bulk of the resources.

b. Comments on methodology used to

i. Estimate implied heat rate

Wellhead supports CAISO's proposed method.

ii. Forecast LMPs

Wellhead supports CAISO's proposed method.

iii. Should the ISO consider incorporating future power prices into the estimated LMPs?

Wellhead does not support the use of future power prices in the estimated LMPs.

c. Other comments

Wellhead would like to see some form of reasonableness test be applied to LMP calculations (prior to use in the estimation) for each resource type for the prior period at representative dispatch points as was done on page 19 of the workshop presentation for the southern 2014 price distribution. This will ensure that any volatile tails do not cause significant errors.

2. Please provide feedback on modeling.

- a. Comments on how GAMS model calculates opportunity cost for each limitation
No comment
- b. Comments on SAS model
 - i. How it determines dispatch
No comment
 - ii. How it calculates opportunity costs for each limitation
No comment, but we are satisfied that this time that the opportunity cost will be accurate enough as we believe the real action will be in timely and accurate model updates.
- c. Comments on preference towards SAS model or optimization solver such as GAMS
Wellhead supports the use of the SAS model at this time based upon a perceived accuracy that is adequate, but an output that can be trued up to complex market dynamics in a more timely way than GAMS. Wellhead requests that the CAISO and the SC have some agreement on the model's initial and/or revised trajectories before opportunity costs become effective
- d. Other Comments

3. Is there additional testing of the models that would be informative for the remaining stakeholder process?

Not at this time.

4. Please provide feedback on future policy options.

- a. Comments on use limitation registration for emissions or fuel usage limits. Should the SC translate these into estimated starts/run/MWH limits?
Wellhead believes that the SC should translate all limits for the CAISO; however, we think it will be necessary to allow for the number of starts to affect the number of operating hours used in the model for any fuel and/or emission based limits. In the case of fuel and emissions based limits, the number of operating hours allowed is highly dependent upon the assumption of how many starts the unit has incurred since emission's rates and fuel usage is different during the start-up mode
- b. Comments on how calculated opportunity costs will be incorporated into bid caps
Wellhead supports CAISO's proposed method.
- c. Comments on scheduled re-runs to update opportunity costs
 - i. General comments on scheduled re-runs

Provided that SC's have opportunity to understand and agree to the initial model trajectories, Wellhead believes that SC's should have the bulk of the burden to monitor their continued accuracy; however, we do believe that CAISO should have some triggers based upon zonal LMP estimates or major upsets in the gas markets

- ii. Preference and comments on three options presented to update limits
Wellhead supports the use of Option #1 to adjust the model by the actual usage. We note that these updates can just as easily lower the opportunity cost if the previous period was overinflated and resulted in fewer dispatches.

5. Any additional comments on CCE 3

Wellhead would add that any opportunities for impromptu updates be extended to negotiated opportunity costs as well.