California ISO
Shaping a Renewed Future

Attachment A

Stakeholder Process: Commitment Cost Enhancements

Summary of Submitted Comments

Stakeholders submitted four rounds of written comments to the ISO on the following dates:

- Round One, 5/21/14
- Round Two, 7/1/14
- Round Three, 7/29/14
- Round Four, 8/27/14

Stakeholder comments were received from: California Department of Water Resources, California Public Utilities Commission, CalPeak Power, LLC, Calpine Corporation, Department of Market Monitoring, Dynegy, Northern California Power Agency, NRG Energy, Pacific Gas & Electric Company, Southern California Edison, and Western Power Trading Forum.

Stakeholder comments are posted at:
http://www.caiso.com/informed/Pages/StakeholderProcesses/FullNetworkModelExpansion.aspx

Other stakeholder efforts include:

- Stakeholder call, 5/7/14
- Stakeholder call, 6/17/14
- Stakeholder call, 7/22/14
- Stakeholder call, 8/19/14
- Numerous outreach calls

<table>
<tr><th>Stakeholder</th><th>Management proposal: Increase proxy cost option bid cap from 100% to 125% of calculated costs</th><th>Management response</th></tr>
<tr><td>California Department of Water Resources</td><td>Supports – but only apply 125% multiplier to gas-related costs.</td><td rowspan="10">The proposed increase in the proxy cost option cost bid cap increases market efficiency. The ISO's own analysis and confidential data provided under non-disclosure agreements show the proposed 125% proxy bid cap will cover the vast majority of gas price volatility due to day-over-day and intra-day gas price movements. The proposed manual process, discussed on page 5, should address extraordinary events. Direct reimbursement of natural gas costs not reflected in the market would decrease market efficiency and it would be complex to define the conditions eligible for direct reimbursement.

Management acknowledges that further improvements may be appropriate to allow market participants to reflect intra-day gas costs in real-time market bids. However, these changes cannot be implemented by this upcoming winter. Greater bidding flexibility can be addressed in a planned bidding rules initiative, which will consider long term market design changes for both energy and commitment cost bids. Management is developing a separate proposal to address operational flow order penalties incurred by generators that follow ISO dispatch instructions.

The 125% should apply to all cost components of the proxy cost option. Doing so better ensures that the cap will account for intra-day and day-over-day gas price volatility. It may also be used to account for the use of generic costs, unforeseen or unaccounted for costs in the ISO's calculations. The ISO aims to simplify the implementation of this</td></tr>
<tr><td>California Public Utilities Commission</td><td>Supports – but apply only apply 125% multiplier to gas- and greenhouse gas-related cost items.</td></tr>
<tr><td>CalPeak Power, LLC</td><td>Supports increase in bid cap but maintain it should increase to 150% to account for intra-day gas costs. Believes proposal should also include direct reimbursement of incurred natural gas costs that exceed bid cap.</td></tr>
<tr><td>Calpine Corporation</td><td>Supports.</td></tr>
<tr><td>Department of Market Monitoring</td><td>Supports.</td></tr>
<tr><td>Dynegy</td><td>Does not believe the proposal addresses historical gas price volatility and supports ex post reimbursement of natural gas costs. Maintains proposal should also include direct reimbursement of incurred natural gas costs that exceed bid cap. Also maintains the ISO should retain the registered cost option until it allows bidding of actual gas costs.</td></tr>
<tr><td>Northern California Power Agency</td><td>Supports.</td></tr>
<tr><td>NRG Energy</td><td>Supports increase in bid cap but maintains it should increase to 150% to account for intra-day gas costs. Believes proposal should also include direct reimbursement of incurred natural gas costs that exceed bid cap. ISO should address gas pipeline operational flow order penalties incurred by generators that follow dispatch instructions.</td></tr>
<tr><td>Pacific Gas & Electric Company</td><td>Does not oppose proposal as a pragmatic short-term fix. ISO should evaluate options to refine the proposed proxy cost proposal as 25% is unnecessarily high for most generators. The proposal should include a provision to decrease the bid cap in the event of an overnight decrease in gas prices.</td></tr>
<tr><td>Southern California Edison</td><td>Supports the proposal overall.</td></tr>
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Stakeholder	Management proposal: Increase proxy cost option bid cap from 100% to 125% of calculated costs	Management response
Western Power Trading Forum	Supports increase in bid cap but maintain it should increase to 150% to account for intra-day gas costs. Believe proposal should also include direct reimbursement of incurred natural gas costs that exceed bid cap.	proposal and the administrative burden of calculating the exact percentage for every resource and cost type. Management appreciates PGE's point that not all resources require the proposed 125% headroom as some currently utilize the proxy cost option with a cap of 100%. The ISO reiterates that the proposed 125% headroom is an upper limit and market participants are free to bid below this cap to ensure resources are economically selected by the optimization. The cap need not be as high as the registered cost cap (150%) because that option relied on a fixed natural gas forecast and required a generator to remain with the same cost for at least 30 days. The 125% proxy cost option bid cap is an important market power mitigation measure. Increasing the proxy cap to 150% would create market power concerns.

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Stakeholder	Management proposal: Retain the registered cost option for use-limited resources only	Management response
California Department of Water Resources	Supports keeping the registered cost option until an opportunity cost methodology can be developed.	Management proposes to retain the registered cost option for use-limited resources only until the ISO has developed and implemented an opportunity cost methodology. Stakeholders commented, and Management agrees, that there was not enough time before this winter to fully develop this opportunity cost methodology. Stakeholders also largely noted that they preferred not to delay implementing the other changes in this proposal until the opportunity cost methodology is developed.
California Public Utilities Commission	No comment.	
CalPeak Power, LLC	No comment.	
Calpine Corporation	No comment.	
Department of Market Monitoring	Supports keeping the registered cost option until an opportunity cost methodology can be developed.	
Dynegy	No comment.	
Northern California Power Agency	No comment.	
NRG Energy	No comment.	
Pacific Gas & Electric Company	Does not oppose retention of the registered cost option for use-limited resources but suggests the ISO should ensure it has rigorous standards for granting use-limited status.	
Southern California Edison	Supports retaining the registered cost option for use-limited resources until an opportunity cost methodology can be developed.	
Western Power Trading Forum	No comment.	

Stakeholder	Management proposal: Use a manual process to update gas prices in the event of a gas price spike	Management response
California Department of Water Resources	Supports.	Management anticipates implementing its proposed manual process to address overnight gas prices spikes very infrequently. The manual process is focused on ensuring generators have the opportunity to adequately recover their costs. The proxy cost bid caps are an upper limit and generators will presumably lower their bids in the event of a large overnight gas price decrease to remain competitive. In addition, Management balanced the implementation burden of more frequently using the manual process against the concern that not updating the index in the event of a decrease may occasionally result in too large of a bid price buffer above calculated costs,
California Public Utilities Commission	Supports.	
CalPeak Power, LLC	Does not support. Alternatively, ISO should set an administrative price after-the-fact that ensures generators recover all incurred gas costs.	
Calpine Corporation	Supports.	
Department of Market Monitoring	Supports.	
Northern California Power Agency	Supports.	
NRG Energy	Supports.	
Pacific Gas & Electric Company	Supports. Should also use the manual process to account for a significant decrease in natural gas prices. Should be prepared to file a tariff waiver to implement the manual process by October 1 if implementation is delayed beyond December 1.	
Southern California Edison	Supports. Should also use the manual process to account for a significant decrease in natural gas prices.	
Western Power Trading Forum	Supports.	
Dynegy	Supports.	
NRG Energy	Supports. ISO should also address recovery of operational flow order penalties from gas pipeline companies.	
Western Power Trading Forum	Supports.	