Western Power Trading Forum Comments on Aliso Canyon Proposal Ellen Wolfe, Resero Consulting for WPTF, 916 791-4533, ewolfe@resero.com April 21, 2016

WPTF appreciates the ISO's draft proposal and the ability to submit these comments. WPTF offers the following comments:

1. Gas Bidding: WPTF supports the ISO's proposal to allow parties to offer gas commodity and transport costs. This is a much preferred solution to the ISO proposal to improve its proxy gas forecasted price. WPTF seeks further clarification on how an energy supplier would be required to demonstrate the accuracy and validity of their submitted costs if requested for periodic review by the ISO. WPTF also seeks clarification regarding whether that gas cost bid could vary hourly, or whether the ISO would afford the bidding flexibility only on a longer time frame.

WPTF also requests the CAISO clarify how gas imbalance penalties would be treated in the gas price offers. That is would the CAISO market factor in gas penalties, would the ISO expect the participant to bid in expected gas penalties, or...?

WPTF encourages the ISO to consider the possibility of default energy bids and proxy cost methods as a default or baseline method to be used if SCs do not submit a gas offer. This could simplify the gas bidding and audit process at times when the index prices are good proxies for a supplier's gas costs.

Further, WPTF encourages the ISO to provide as much information as necessary about the methods it would propose be applied to determine if the gas bids are acceptable under a biddable gas regime.

2. Gas Balancing Constraint: WPTF supports the development of a gas balancing constraint. WPTF encourages the ISO to review and share empirical data that shows when such deviations between DA and RT occur and shows with what those deviations are correlated. It is not clear that net load is strictly the best correlate for when the upward and downward movement is needed. (The gas need may be more related to the need for ramping within an hour.) We also urge the ISO to provide details in the proposal regarding the penalty prices and the other technical details of this proposal, including (1) how the tolerance band impacts the gas utility's overall storage capacity on a given day vis a vis other gas company customers; (2) how the constraint will affect market prices when it binds and when it is violated; (3) how the ISO would notify the market of redispatch associated with the proposed 150 MMcf of "re-dispatch" rights that the ISO would retain from the gas company; and (4) how that gas would be moved between generators so as to keep the generators financially whole on the commodity cost and avoid their incurring penalties. That is, does the ISO expect under this proposal that SoCaGas would forego

the application of penalties to those covered by the CAISO's dispatch algorithm, and if not how would the penalties be managed for those generators due to no fault of their own incurred a penalty as a result of an ISO dispatch?

WPTF also requests that the CAISO provide a list of resources with nonzero shift factor impacts to the constraint In order to allow SCs to plan with the potential market impacts of the proposed constraints.

- 3. Gas Availability Constraint: WPTF also supports the gas availability constraint. We seek clarification regarding the inclusion of the constraint in pricing. We expect that the LMPs will reflect the market solution subject to the constraint, but it is unclear whether the constraint would be "violated" such that a penalty price would make its way into the market solution and into market prices. Given that the ISO has expressed this as a "hard" constraint of sorts, it is not expected that the constraint would be violated. Any choices on penalty prices of this constraint should be made explicit. Also we encourage the ISO to produce details as soon as possible about how the constraint would be managed across the hours. For example, would the ISO create a certain penalty price to violate the constraint in early hours with the prediction that it the gas use could be "made up for" so to speak in later hours? If so such a structure would seem to shift risks to later hours. WPTF is not opposed to this outcome necessarily but it will be critical that the details are shared with market participants so that participants can manage any changing risks across the day. Again, we urge the CAISO to provide the penalty prices and a list of resources with nonzero shift factor impacts to the constraint. Lastly we seek confirmation that the ISO would intend to translate gas flow limitations to an electric resource MW dispatch, rather than offer a gas-flow based dispatch to the supplier. We also seek confirmation that the ISO would not dispatch into forbidding regions and/or we ask the ISO to clarify the action a supplier should take (dispatch up, or dispatch down) if the ISO would provide a dispatch level that falls within a forbidden region.
- 4. Interactions of the gas constraints, real-time market bidding and gas cost bidding: WPTF asks that the CAISO provide in its next proposal a discussion of how the aspects of the proposal would allow suppliers in the SoCalGas region to return to balance with their schedules under the combined set of gas constraints and that the ISO would similarly discuss how a supplier should bid under a bid-based gas cost in anticipation having to return to balance with the gas company. In other words, if the supplier is still expected to get into balance within the week or some similar balancing period and the ISO dispatch moves the supplier out of balance, would the supplier be able to bid a gas price that would tend to dispatch the supplier in such a way to return the supplier to balance at the end of the week. Understanding the overall dynamic would be helpful.
- 5. WPTF supports the proposal to seek accelerated approval at FERC for the proposal approved by the Board in March for after-the-fact recovery for unrecovered costs. WPTF also supports the

ISO's proposal to extend that after-the-fact cost recovery mechanism to costs incurred and not recovered through the ISO related to default energy bids (DEBs) due to local market mitigation.

6. WPTF believes the concept of derating Path 26 requires much more vetting. It is unclear how the cost impacts and market pricing signal from such a derate would align to produce the proper incentives and pricing and compensation mechanism. WPTF is concerned that such a derate will impose costs of transporting energy in the day-ahead for the benefit of managing real-time needs. Users in the day-ahead would then be potentially funding the real-time costs of managing real-time imbalances, and this would seem to create a distortion between the two markets. We are also concerned that by constraining the transfer in the day-ahead and relaxing it in the real-time the ISO may create the conditions that would cause greater imbalances in real-time as parties seek prices in the real-time that are lower than in the day-ahead.

WPTF encourages the CAISO to explore mechanisms that would achieve the desired result using already existing market mechanisms. If, for example, the ISO were to impose a zonal-like FRP constraint coincident with allowing FRP at the ties then potentially sufficient ramping could be ensured South of Path 26. Similarly, potential adjustments to RUC should be made such that RUC does not assign potential imbalance needs to headroom on SoCalGas area units. That is, if units within the SoCalGas region are partially dispatched in the day-ahead, RUC should not take credit for their remaining capacity if the units' movement is constrained in the real-time market.

WPTF also encourages the ISO to explore whether the need would be only uni-directional or bidirectional. Withholding Path 26 capacity in both directions would limit import and export transfer capacity to/from the Southern California area. It is unclear if the need is just to fill Southern California's short falls or if it is also needed to manage overgeneration.

If withholding capacity from Path 26 in the day-ahead is the only viable solution the CAISO needs to think through the full implications of the pricing and compensation such that users in the day-ahead market aren't burdened with the benefit that the unloaded capacity in real-time provides to other grid users.

Lastly, WPTF has many additional questions about how the ISO would manage derates of Path 26. WPTF encourages the ISO, should it pursue this approach to publish a regular algorithm that would be applied based on various system conditions. (WPTF opposes ad hoc operator adjustments to the transfer limit(s).) WPTF also urges the ISO to determine how it would resolve CRR revenue issues and to determine how it would post the derates to market participants.

7. For all new functionality including the new constraints and the possibility of adjusting any of the path constraints, we ask ISO to comment in its revised proposal on a timeline for designing market interfaces - be them through OASIS or initially through spread-sheet formats for example, for providing transparency regarding the imposition of constraints, derates, etc. We

- also ask for as much information as possible on testing and implementation plans for any new functionality anticipated.
- 8. WPTF agrees with the ISO that setting aside intertie capacity in the real-time market is unlikely to materially improve reliability for the Aliso Canyon issues in the immediate future given the current lack of real-time market liquidity at the interties. However, WPTF continues to encourage the ISO to give due consideration to potential fixes for real-time intertie liquidity; including, reducing or eliminating the Transmission Access Charge for economy energy exports, and enhancing the ability for intertie resources to provide flexible Resource Adequacy capacity. WPTF encourages the ISO to include intertie liquidity considerations as part of the suite of solutions for Aliso canyon.

WPTF appreciates the diligent and prompt attention the ISO is giving to these issues and the several thoughtful solutions the ISO is considering.