

CAISO Response to Questions Integrated Balancing Authority Areas (IBAAs)

Joint Questions (SMUD, TID, and Santa Clara)

- 1) During the January 24, 2008 stakeholder meeting, Mark Rothleder stated that designation of one entity as an IBAA, but not others, would have ripple effects on the LMP calculations at other points on the CAISO grid.**
- a. How will third parties know when a party becomes an IBAA and how they will be affected?
 - b. Does the tariff, as drafted, permit the CAISO to designate any IBAA it chooses? Does the tariff say that specific IBAAs can be added individually? If so, how are third parties notified under the tariff of the ripple effect of adding an IBAA to LMPs elsewhere on the CAISO grid?
 - c. Does the tariff require the ISO to use any criteria in designating a new IBAA? If so, where in the tariff are these criteria identified?

CAISO Response

First, the CAISO does not believe the stated question is an accurate representation of the discussion at the January 24, 2008 stakeholder meeting. The CAISO recalls that the discussion was with respect to the general impact of changes in modeling on the system. The CAISO represented that, because of network effects, any increase in modeling detail (accuracy) will have an effect on prices throughout the system.

Second, if the question is intended to imply that modeling one area (BAA) as an IBAA but not others would somehow lead to price distortions, the CAISO disagrees.

Finally, as detailed in the CAISO's draft and illustrative changes to the CAISO's Full Network Model Business Practice Manual (FNM BPM), the CAISO will commit to undertake a consultation and stakeholder process prior to establishing a new IBAA or modifying the definition of an existing IBAA. All interested parties will be able to participate in that process. To the extent that CAISO Tariff changes are necessary, the CAISO will make any necessary or appropriate FERC filing.

The CAISO will determine whether a specific Balancing Authority Area (BAA) should become an IBAA based on a number of subjective factors including, among others: magnitude and frequency of unscheduled and parallel flows on

CAISO Controlled Grid, number of interconnections with CAISO Controlled Grid, proximity of interconnections to one another.

- 2) During the January 24, 2008 stakeholder meeting, CAISO explained that the weighting given to each of the pricing nodes in an IBAA, which are subsequently aggregated into a hub price, will have a direct impact on prices charged or paid at the hub.**
- a. How are third parties alerted to this by the tariff if the tariff does not identify the current IBAA's?
 - b. What criteria are employed to determine distribution factors? If the IBAA disagrees, or if third parties disagree, how does the tariff resolve this?
 - c. Were the weighting factors listed in "Table 1: APNODE available for CRR Nomination and Auction" that was provided in CAISO's January 29 IBAA responses the weighting factors that were used for all tiers of the annual CRR allocation and also for the annual auction? Or did CAISO use the weighting factors that were listed in Table 1 of the Discussion Paper on "MRTU Release 1 Implementation of Preferred Integrated Balancing Authority Area Modeling and Pricing Options?" If the CAISO used the former weighting factors, what are the impacts on market participants (CRR recipients and non-CRR recipients) and on the IBAA's of using different weighting factors in the allocation process vs. those used to settle the CRRs that were allocated?

CAISO Response

As shown in CAISO's draft/illustrative FNM BPM and the detail in that draft regarding the SMUD/Western IBAA, the weighting/Intertie Distribution Factors used to determine the hub prices will be listed in the BPMs. The CAISO will consult with the affected BAA to determine the applicable weighting/Intertie Distribution Factors. In general, these factors will be determined by an examination of the topology (including major generation/load centers) and power flow analysis of the affected IBAA's system. If the CAISO cannot obtain agreement from the affected BAA, the CAISO will determine the appropriate weighting factors based on available information. In general, since the weighting factors will be determined based on the physical characteristics of, and resultant power flows on, the system in question, the CAISO does not anticipate that it will be difficult to agree on or determine the appropriate factors.

The weighting factors listed in "Table 1: APNode available for CRR Nomination and Auction" were the factors used in the CAISO's CRR

allocation and auction processes conducted in 2007. The factors listed in Table 1 of the CAISO's Discussion Paper are refined weighting factors based on the CAISO's further analysis of the SMUD/Western and TID IBAs. The CAISO determined that it was important to use the same distribution factors for both imports and exports to/from the SMUD/Western and TID IBAs. In the CRR allocation and auction processes, separate factors were used for imports and exports.

It is important to remember that with respect to the weighting factors used for the allocation and auction of CRRs and how they related to the factors used for market and CRR settlement, the CAISO Tariff states that the CAISO Integrated Forward Market (IFM) Load Distribution Factors (LDFs) will be used for determining the settlement price for CRRs that source or sink at a Load Aggregation Point (LAP) or Trading Hub, not the LDFs that were used in the Simultaneous Feasibility Test (SFT) for releasing CRRs. Specifically, the settlement provided for in section 11.2.4.2 of the CAISO Tariff and approved by FERC explicitly conforms the CRR settlement to the IFM energy settlement, even though this creates a disparity between how CRRs are settled versus how they were released, thus accepting some risk of impact on revenue adequacy. The CAISO carefully chooses the CRR SFT LDFs to reasonably reflect average load conditions for each season/time-of-use, so that the variations that occur in the IFM due to more frequently varying LDFs would tend to average out in the CRR balancing account. The CAISO believes that the same concept is applicable here with respect to any variations in the weights used for IBAA hub pricing.

Finally, because the CAISO is using the same distribution factors that are used for distributing schedules in the IFM, there will be consistency between the how the IFM schedules are being settled with how the CRRs sourced or sunk at the same location are settled, ensuring internal consistency.

3) The CAISO announced at the January 24, 2008 conference call how it will treat certain injections under the IBAA proposal.

- a. Are all injections at Tracy 500 kV (Tracy 500), including those of non-IBAs, modeled as injections at Captain Jack (COTP)?
- b. If so, how will the CAISO distinguish between injections at Tracy 500 which originate from Captain Jack or elsewhere within the SMUD/Western BA?
- c. How will CRRs using Tracy 500 hedge injections at Captain Jack?
- d. The CAISO indicated on the January 24 call that parties, such as DOE, should have used Captain Jack rather than Tracy 500 as a source for CRRs. At what point had the CAISO finalized its proposal to the extent that a stakeholder should have relied upon it

for CRRs? How were stakeholders notified of the mapping of each Intertie point to a particular source, and of changes to the mapping? If the notification was via the Full Network Model data tables, how were entities that did not receive the Full Network Model data tables notified of the mapping?

- e. Will N-S schedules on COTP under the current market model that are scheduled with the CAISO as Imports at Tracy be settled at the Captain Jack LMP congestion and loss components under the IBAA proposal? Will N-S schedules on COTP that under the current market model are scheduled as imports to the SMUD/Western Balancing Authority Area, be modeled and priced in the CAISO's MRTU market model using the Captain Jack congestion and loss components as the "source" prices? If so, what will be used as the "sink" prices?
- f. If the congestion and loss components at Captain Jack are used to settle COTP Imports at Tracy, will the prices of those components reflect the marginal cost of congestion, and the marginal cost of losses, respectively, on the CAISO Controlled Grid? If the answer to this question is yes, does that mean that COTP Imports at Tracy will be assessed CAISO congestion and loss charges?
- g. Under the current market structure, COTP Imports at Tracy do not require FTRs to hedge congestion costs between Captain Jack and Tracy. Under the IBAA proposal CRRs would be required to hedge congestion between Captain Jack and Tracy, even though the COTP project is not part of the CAISO Balancing Authority Area or the CAISO Controlled Grid. Please explain how a Tracy CRR obligation mapped back to Captain Jack does not place additional burdens on COTP owners that do not exist under the current market structure.
- h. As a non-CAISO transmission facility, COTP interchange transactions can be made "post-Day Ahead". Please explain how post-Day Ahead COTP schedule changes (for Tracy Imports) will be protected from CAISO congestion charges under the IBAA proposal.
- i. Will Imports at Malin be settled using the congestion and loss components at Malin? Given that Captain Jack and Malin are directly connected to each other by 500 kV facilities, is it reasonable to assume that the congestion and loss components at Malin and Captain Jack will be similar? Given that the COTP terminus at Tracy is directly connected to the Pacific AC Intertie terminus at Tesla by 500 kV facilities is it reasonable to assume

that the congestion and loss components at Tesla and Tracy would be similar to one another (assuming that Tracy is not mapped backed to the Western Hub as contemplated in the IBAA proposal)? Would one expect that congestion and loss differentials between Malin and Tesla and between Captain Jack and Tracy to be similar?

- j. Given that COTP schedules are assessed transmission losses by Western (based on actual losses), please explain why assessing CAISO losses for COTP Imports at Tracy does not result in COTP Imports being “double” charged for losses. Will COTP schedules that are not imported to the CAISO be assessed CAISO losses? Are the actual loss impacts on the CAISO Controlled Grid from COTP schedules that are imported to the CAISO Controlled Grid at Tracy the same as the loss impacts on the CAISO Controlled Grid from COTP schedules that are not imported to the CAISO Controlled Grid? Are the loss impacts on the CAISO Controlled Grid from Malin Imports essentially the same as COTP imports at Tracy?
- k. Regarding the proposed Western Hub pricing, will the Western Hub loss component be a different price than the loss component at Tracy (absent the proposed IBAA Western Hub aggregation)? Given that Western customers take delivery of their Western allocations at Tracy, how can Western customers within the CAISO Balancing Authority Area maintain the current responsibility for losses and congestion from the Tracy delivery point?

CAISO Response

All Scheduling Coordinators, including Scheduling Coordinators submitting Bids and Self-Schedules for transactions sourced at IBAs and non IBAs, will be able to schedule at Tracy or any of the SMUD/Western or TID IBAA Scheduling Points. Under the IBAA proposal there is no change to the use of the same existing CAISO/SMUD Scheduling Points. In contrast in the East, for example, both schedules and settlements are based on the “proxy bus” (representative of the “electric center” of the neighboring system). That is, despite the fact that there are multiple points of interconnection between the NYISO and PJM, imports and exports between the NYISO and PJM take place – both for scheduling and settlement - at the proxy bus location. Although retention of the existing tie points somewhat complicates the CAISO’s proposal, the CAISO is proposing to do so to accommodate existing scheduling practices (terminology and conventions) and to ease the transition for those with existing power supply contracts with specific delivery point obligations.

With respect to each of the IBAA Scheduling Points, injections will be modeled based on the identified source. For the Tracy 500kV Scheduling Point, potential sources currently include Captain Jack, the SMUD hub or the Western hub. If a source is not identified a TRACY_500 (COTP) schedule will be modeled at the CAPTJACK 500 by default. Market participants can ensure that they are settled using the correct source by establishing and using the appropriate Resource ID: schedules at Tracy 500 that use COTP rights that are part of the CAISO Controlled Grid would use TRACY5_5_COTP, schedules that use COTP or other rights that are not part of the CAISO Controlled Grid would use TRACY5_5_CAPJAK, and schedules that use sources in the Western hub would use TRACY5_5_PGAE. If market participants demonstrate a need to schedule from Tracy 500 to the SMUD hub, the CAISO would establish Resource IDs to make this association. In any case, a source must be identified, and a Resource ID established, for transactions between the CAISO Controlled Grid and an IBAA. As noted above, if a source is not identified/registered for a schedule, a default source will be used.

Under the CAISO's IBAA methodology, an SC could designate an alternate/pre-specified source, such as a Resource Specific System Resource (either dynamic or non-dynamic) subject to the CAISO Tariff. Such Resource Specific System Resources would be settled at the LMP of the location of the specific Resource and not the Hub. All designated and valid System Resources will be maintained in the CAISO's Master File. Resource IDs will be established for each SC that schedules from these sources, which will identify the System Resource that will be associated with the Resource ID. The CAISO can ensure compliance in use of the correct Resource ID by comparing the schedules with the supporting e-tags.

CRRs would be similarly specified. If an SC was seeking to obtain a CRR to hedge potential congestion costs for a transaction to/from Tracy and sourced from Captain Jack, the SC would nominate a CRR on that same basis. The CAISO's CRR FNM included detail that enabled market participants to select a point (Tracy) that was mapped back to a potential source (Captain Jack, SMUD hub, Western hub).

The impact of (flows) and value (price) of imports/exports scheduled at Tracy and sourced from Captain Jack will be based on the LMP at Captain Jack. That LMP will reflect the impact on the CAISO Controlled Grid of imports/export from injections at Captain Jack and the value of such injections to the CAISO for purposes of managing congestion on the CAISO Controlled Grid. When the CAISO first started to consider the proper construction of the SMUD/Western IBAA, the CAISO considered whether the COTP (owned and operated in part by SMUD) should be part of definition of the SMUD hub. The CAISO determined that injections at Captain Jack (Northern terminus of the COTP) have a materially different impact on the CAISO Controlled Grid than injections from either the SMUD hub (as defined) or the Western hub.

Finally, the CAISO does not understand statements that the CAISO's IBAA proposal somehow confiscates, complicates or de-values access to or use of the COTP. It is important to reiterate that, under the IBAA proposal, the CAISO is modeling the effect (flows) and determining the value of (price) an IBAA's flows *on the CAISO Controlled Grid* for purposes of managing congestion and losses *on the CAISO Controlled Grid*. The CAISO is not managing congestion or losses on non-CAISO Controlled Grid. With respect to the COTP, the CAISO currently has 154 MW of rights over the COTP. The remainder of the 1200 MW of capacity on the COTP is non-CAISO Controlled Grid and the CAISO does not control access to that capacity or in any way manage congestion or losses on the COTP. Should an entity wish to arrange for transmission on the COTP from Captain Jack to Tracy in order to deliver power to SMUD, they can do so without touching the CAISO Controlled Grid (or Balancing Area Authority) and would only be subject to the rates, terms and conditions of service of the applicable transmission provider's tariff(s). Moreover, with respect to CRRs, the CAISO is not stating that an entity that injects (source) at Captain Jack for delivery to the SMUD hub *but uses the CAISO Controlled Grid* to do so need acquire a CRR over the COTP. Rather, the CAISO is stating that if an entity wishes to hedge potential CAISO congestion costs related to an import to the CAISO Controlled Grid from the SMUD IBAA where that import is sourced at Captain Jack, the entity need procure a CRR from (source) Captain Jack to the SMUD hub (sink). Such a CRR would hedge that entity from the congestion costs likely to arise from congestion *on the CAISO Controlled Grid* from an import from the SMUD IBAA sourced at Captain Jack.

4) During the January 24, 2008 conference call concerning the tariff filing, CAISO presented a slide indicating that the CRR allocations it had made had been predicated on the IBAA proxy hub pricing methodology. This also raises several questions:

- a. Southern California Edison's written comments filed before the January 24, 2008 conference call had expressed concern that if the IBAA pricing methodology were adopted it would affect the value of the CRRs already allocated. How, if at all, were non-IBAA entities informed that CRRs would be based on the IBAA pricing methodology since CAISO still hasn't filed it? Does CAISO claim that IBAAAs were aware that their CRRs would be based on this pricing methodology at the time they requested CRRs? What entities were assumed to be IBAAAs for purposes of calculating CRRs and how were they informed?
- b. How could CRR allocations have been made based on what the ISO described as recently as December as a recommended or proposed, i.e. non-final pricing methodology?

- c. The CAISO has asked for parties to submit comments by February 4, concerning its proposed IBAA tariff changes. If the tariff changes are not yet finalized, what authority does CAISO claim to allocate CRRs based on tariff provisions that were not in effect and that may still change from what was circulated to stakeholders last week? If the tariff changes have been finalized, what is the purpose of the comment period and what is the purpose of the follow up conference CAISO states it will hold after the February 4 comments are received?

CAISO Response

As previously stated, the CAISO included the detailed model of the SMUD/Western and TID IBAA's in the CRR Network Model used to support the CRR allocation and auction efforts. That model was made available to Market Participants through the CRR process in the July 2007, timeframe.

The CAISO also acknowledges that during this timeframe the CAISO continued to engage SMUD, Western, TID and other affected entities regarding the detailed modeling and pricing aspects of its IBAA methodology, as ultimately codified in the CAISO discussion paper provide to these same entities on October 5, 2007. As stated in that paper, the CAISO represented that it would ensure that CRRs awarded to affected parties would be settled in a manner consistent with DAM congestion costs so as to preserve their requested hedge.

Notwithstanding the above representations, the CAISO acknowledges the concerns raised by parties that they were not aware of the CAISO's intent to both model and price the aforementioned IBAA entities as detailed in both the CAISO's discussion papers and in the newly proposed draft CAISO Tariff and FNM BPM language. In light of these concerns, the CAISO now proposes to present, and recommend for approval, the CAISO's IBAA pricing methodology to the CAISO Governing Board at its March, 2008, meeting. Assuming the Board approves the proposing IBAA pricing methodology, the CAISO would then file its proposal at FERC under section 205 of the Federal Power Act.

5) During the January 24, 2008 conference call the CAISO introduced the new "Compensating Injection" term. SMUD, WASN, MID and TID scheduled net interchange will be altered by the CAISO's use of "Compensating Injections" to model parallel flows through the SMUD/WASN/TID systems. This raises several questions.

- a. Mark Rothleder of the CAISO acknowledged on the January 24, 2008 conference call that compensating injections would affect LMPs, not only at Rancho and Lake, but at Captain Jack and Tracy

as well. Is it correct that, as a consequence, all market participants scheduling on COTP will be affected by CAISO's use of compensating injections?

- b. Given the acknowledged effect of "compensating injections" on system-wide LMPs, does the CAISO plan to include detail regarding use of compensating injections in its tariff? If not, why not?
- c. Did the CAISO previously use "compensating injections" in the 2005 CAISO modeling of the FNM for the CRR runs? If so, did it inform users of the CAISO tariff of this and how were they informed?

CAISO Response

The purpose of the "compensating injections" is to align real time EMS values with interchange schedules modeled in the HASP/RTM. Use of compensating injections is a means to align modeled and actual flows on the CAISO Controlled Grid. No such compensating injections occur in CRR or DAM modeling because they are not predictable in those forward market timeframes.

The use of compensating injections applies in the RTM on all intertie branches and is explained in the FNM BPM in section 3.1.4, External Systems ("In the RTM, unscheduled loop flow on the radial Interties is calculated from the State Estimator solution, as the difference between actual and scheduled flows. This ensures that the effects of loop flow within the CAISO Control Area are recognized and that RTM will maintain total intertie flows within branch and Transmission Interface limits." and "RTM adds additional Intertie fixed injections to model unscheduled loop flows. The RTM calculates, in each run, Intertie injections to compensate for the deviation of calculated flows (obtained from the SCED run 10 minutes ago) and actual flows (obtained from telemetry) on Interties and other specified transmission interfaces. Unscheduled loop flows that are calculated from the State Estimator results are assumed to stay constant for all Dispatch Intervals within the time horizon of each RTM market run.").

For an IBAA, the concept of compensating injections is the same as for the looped external network that connects to Southern California, as in FNM BPM 4.2.4.3 ("The flows on the New PTO portion of the system reflect the injections in that region. Calculations are performed that determine a set of Scheduling Point Energy values that match the SE calculated flows on the boundary branches. Once the injections that are needed to match boundary conditions are calculated, the difference between these injections and the scheduled values for the Scheduling Points can be treated as a compensating injection. This compensating injection is held constant for the future time

intervals of the optimization horizon.”).

Compensating injections affect LMPs only by ensuring that RTM performs its congestion management based on actual, physical flows at the CAISO boundary. LMPs would be adversely affected if the CAISO failed to calculate these compensating injections and therefore did not reflect actual, physical conditions in RT congestion management.

6) The CAISO has identified the need for more accurate modeling of interconnected control areas. Based on its January 2, 2008 whitepaper, titled, “Implementation of ‘Partial Loop’ Intertie Network Configuration for MRTU” (Partial Loop Proposal), the CAISO makes no mention of pricing, only modeling.

- a. Can the CAISO improve its modeling without creating aggregated IBAA hubs?
- b. If, so, how? If not, why not?

CAISO Response

First, the CAISO’s originally-developed IBAA proposal would have required each IBAA to submit detailed information to the CAISO on a daily basis. Such information would have included load forecasts and detailed resource-specific information regarding the scheduled levels of the internal IBAA generation needed to serve internal IBAA load. That information would have enabled the CAISO to precisely determine the impact of IBAA flows on the CAISO Controlled Grid. Recognizing the reluctance of IBAA’s to provide such information, the CAISO developed the proposed alternative IBAA proposal, reasoning that hub-based IBAA proposal is an efficient means to realize model accuracy without relying on additional data from an IBAA.

Second, under its current proposal, the CAISO can in theory improve its modeling accuracy without establishing hub or sub-hub based prices, i.e., establishing a LMP at each specific Scheduling Point. However, the LMP established at each Scheduling Point would no longer reflect the value of imports/exports sourced from specific IBAA resources. As a result, and as explained in the CAISO’s IBAA Discussion Paper, the CAISO is concerned that certain market inefficiencies will result, including uplift cost to CAISO Market Participants and potential bid cost under-recovery by those scheduling imports/exports to/from the CAISO Controlled Grid from/to an IBAA. As previously stated by the CAISO, the fundamental objectives of its MRTU program are to ensure feasible forward market schedules and to align operational requirements with market prices.

For Scheduling Points that are not in IBAs, the physical source of schedules is unknown when the market runs. The result is inaccurate congestion management, which the CAISO can improve through more detailed modeling of IBAs, to reflect actual physical sources. Both modeling of IBAs and the inclusion of other external branches require careful analysis before using them in the CAISO's FNM. The CAISO's paper and presentation on the partial loop model documents the adverse impacts that can result from not including appropriate models of the external systems. At this time, the CAISO only has sufficient data and information to complete the requisite analyses for the SMUD and TID IBAs, and the four lines in Arizona in the partial loop model that is added to the New PTO network.

- 7) NCPA posed some questions regarding the effect of CAISO's IBAA methodology on LSEs located within the CAISO control area that have acquired CRRs sourced at Tracy with a sink at the PG&E default Load Aggregation Point. In its January 29, 2008 response, the CAISO states that for "all CRRs sourced or sunk at the Tracy Intertie — whether nominated by an IBAA entity or a non-IBAA entity — were mapped similarly and will be treated in the same manner as described in CAISO's discussion paper," noting that the discussion paper is found at http://www.caiso.com/1_cb4/1cb4e0984a670.pdf. The website reference is to a December 14, 2007 Discussion Paper that describes itself as detailing the CAISO's "recommended modeling approach of the IBAA," and explains that the CAISO is "proposing a pricing and settlement approach that supports and aligns the settlement of transactions between the IBAA and the CAISO with the operational reality of the system."**
- a. Does the CAISO mean by its answer to NCPA to state that it allocated CRRs based on a pricing and settlement approach that is still only in the proposal stage?
 - b. If so, will CRRs already allocated be revised if the proposed pricing and settlement approach is later modified either (1) by the CAISO before filing with FERC or (2) by FERC after the CAISO files? If the CAISO determines that revisions to its proposed pricing and modeling approach are warranted based on review of the comments it has requested of stakeholders, does it intend to revisit the adequacy of determined CRR allocations?
 - c. If, the pricing and settlement approach described in the December 14 discussion paper is not a proposal, but final, when was the decision to finalize it made and how, if at all, were users of the CAISO grid informed?

- d. If, the pricing and settlement approach described in the December 14 discussion paper is not a proposal, but final, what is the precise purpose of the process established for receiving comments?

CAISO Response

See CAISO Response to Question (4) above. The CAISO believes that its IBAA modeling and pricing proposal is in compliance with the Commission's earlier directives on this matter and is consistent with the CAISO Tariff language filed (proposed) as part of its August 3, 2007 MRTU compliance filing. Notwithstanding this position, the CAISO acknowledges that, based on the comments of stakeholders, that the specific details of the CAISO's IBAA pricing methodology were unknown or not understood by a number of stakeholders. In light of the expressed concerns the CAISO is now prepared to seek CAISO Governing Board approval of the IBAA pricing methodology and, if approved by the Board, to file such pricing methodology at FERC pursuant to section 205 of the Federal Power Act.

8) Slide 38 of the CAISO presentation on January 8, 2008 and January 24, 2008 states that "Losses internal to the IBAA are excluded from the Marginal Loss component of LMP." However, the Losses associated with LMP study 3C for Walnut suggests that the CAISO HUB numbers are calculating losses on external transmission lines.

- a. Is the CAISO calculating losses on external transmission lines in the 3C LMP Study?
- b. Please explain how the CAISO will remove or exclude losses associated with other entities' transmission from its various Hub prices (e.g., Walnut Hub).

CAISO Response

The LMP Study does not calculate losses on external transmission lines. The LMP Study has calculated losses within the TID area (e.g., at Walnut) because its simulations represent market conditions that existed during the identified time period of the LMP Study. TID was part of the CAISO Balancing Authority Area during the simulated time period of LMP Study. LMP Study simulations for later periods when TID had become a separate Balancing Authority Area would exclude losses in the TID area.

The CAISO's presentations regarding the treatment of losses in IBAA's (including losses in all areas in the power flow solution, but excluding losses in IBAA's from the CAISO's power flow calculations, as required by tariff section 27.5.3) reflect customized features of the MRTU market software that are not available in off-the-shelf, commercial desktop software. The CAISO's

treatment of losses on external transmission lines (including IBAAAs) is documented in section 4.2.6.2 of the FNM BPM: losses in the IBAA system as calculated in the power flow solution are stored in databases separately from losses within the CAISO, and only the losses within the CAISO are included in the calculation of marginal loss sensitivity factors that affect LMPs.

Specifically, in calculating marginal losses, the loss sensitivities for each bus are determined, which effectively determines the change in the system losses for a change in injection at a location P_i .

$$\frac{\partial loss}{\partial P_i} = \frac{\Delta loss}{\Delta P_i}$$

The system losses are the sum of the individual branch losses.

$$sysl = \sum_{i \in mkt} brl_i$$

When the determining the loss sensitivities, the losses on transmission lines (branches) that are not in the IBAA areas will be excluded from the system wide loss determination and therefore will be excluded from effecting the loss sensitivities that are used for determining the marginal losses for an individual node.

- 9) **The CAISO has indicated that it is using the 3C study in its presentations to give examples of HUB prices, however, Jim Price has acknowledged that the model used in the study is inaccurate as it relates to TID and others as external balancing authorities because:**
- **It treats those external balancing authorities that were part of the CAISO Control Area during the period that was modeled as being still in the ISO Control Area even though these entities are now out of the ISO Control Area; and**
 - **The CAISO's treatment of losses (i.e., computing MW losses for power flow purposes in order to preserve the accuracy of the network model and congestion management, but excluding marginal losses in areas outside the CAISO BAA from calculations of the CAISO's LMPs) is a custom feature of the MRTU software and this MRTU software has not completed testing and thus has not been available for use in the LMP Studies.**
 - a. Please explain why the CAISO did not study and model TID and other entities that have left the CAISO Control Area as external, rather than internal to the ISO Control Area.

- b. Please explain how the TID and other entities that have left the CAISO Control Area can, based on the CAISO's presented data and information, understand the implications of the CAISO's modeling and pricing proposal?
- c. Please explain how the ISO can understand the implications of its proposal as it relates to TID and the similarly situated entities.
- d. Will the CAISO ever model TID and other entities that have left the CAISO Control Area as external, rather than internal to the ISO Control Area?
 - 1. If so, when?
 - 2. Will it occur before or after MRTU implementation?
 - 3. If after, please explain how these entities will be protected from negative ramifications arising from the CAISO's proposal?
- e. When will the "custom feature of the MRTU software" be completed so that it can be used in future LMP Studies?

CAISO Response

The CAISO did not state that the LMP Study model is inaccurate as it relates to TID. The CAISO stated that the LMP Study simulated historical market conditions as accurately as possible using off-the-shelf, commercial software, since the MRTU production software has remained in development and testing. The CAISO notes that the feature of the MRTU software that excludes losses associated with external CAISO branches, as described in the CAISO's response to Question 8 above, is completed and is already incorporated into the version of the software used for Market Simulation. Because MRTU's treatment of losses outside the CAISO Controlled Grid is not available in off-the-shelf software (including losses in external areas in power flow calculations, but excluding these losses from LMP calculations), the LMP Study has excluded losses in external areas. During the historical market periods that have been simulated in the CAISO's LMP Study, TID was part of the CAISO Balancing Authority Area, and was not an external area. LMP Study simulations for the later period after TID formed a separate Balancing Authority Area would treat TID as a separate area. The accuracy of the LMP Study results depends critically on the accuracy of the study's inputs in representing actual historical conditions, because the market bids and operating constraints that form the inputs to the study's optimization must be consistent with the actual conditions. The CAISO's LMP Studies are not hypothetical studies of assumed conditions. Although the CAISO understands that TID and others who have left the CAISO Balancing Authority Area may be uncertain as to whether their action of leaving the CAISO Balancing Authority Area would change the results, it would be less meaningful to conduct a

hypothetical study using assumed conditions, because such a study would lack a basis in actual operations. Because the CAISO staff is fully engaged in MRTU implementation, the schedule for publishing additional LMP Study simulation results has not been determined.

10) The CAISO has indicated that it plans to use tags to monitor the so-called IBAA's transactions and "behavior."

- a. Please explain in detail how the CAISO proposed tagging process will work and how the CAISO intends to monitor transactions and behavior.

CAISO Response

As part of its normal monitoring responsibilities, the CAISO will examine scheduled interchange transactions (as confirmed in final e-tags) to determine if there are scheduling patterns that warrant further examination. The CAISO will monitor for circular scheduling activity for which there appears to be no underlying basis other than to take advantage of the price differences resulting from modeling inaccuracies.

As part of its regular activities, the CAISO's Department of Market Monitoring will continue to monitor for, and investigate, inappropriate or anomalous market behavior. The CAISO DMM will monitor market performance and behavior consistent with its established oversight and enforcement authority. At present, the DMM does not believe it needs expanded authority to monitor market behavior and activity at CAISO interties with either IBAA's or BAAs.

The CAISO may also review e-tags to monitor that the registered interchange Resource IDs and their relationship to a source or sink in the IBAA is consistent. For example, a Resource ID that is registered to be associated with the Western Hub would be expected to have an e-tag that identifies a source or a System Resource in the Western Hub Balancing Authority Area.

11) The Interconnected Control Area Operating Agreements (ICAOAs) between the IBAA's and the CAISO or the CAISO's Transmission Owners (e.g., PG&E) contemplate emergency wheeling under certain emergency conditions.

- a. How will emergency wheeling under the ICAOA be dealt with under the CAISO's proposal?

CAISO Response

Absent further clarification, the CAISO is unaware of any needed to changes to the emergency wheeling arrangements between the CAISO and an IBAA. The CAISO does not believe that its IBAA proposal will in any

impact its ability to continue to comply with all applicable reliability criteria and standards or its operating and grid reliability arrangements with neighboring Balancing Authority Areas.

- 12) **On January 8, 2008, the ISO provided a graph on slide 21, entitled Unscheduled Flow Data from 7/1/07-7/11/30/07, of the “Modeling and Pricing of Integrated Balancing Authority Areas Introduction and Overview”.**
- a. Please provide the raw data used to create the graph on slide 21.
 - b. What is the source of the collected data used to perform the study?

CAISO Response

Pursuant to request for the underlying unscheduled flow data supporting the CAISO’s presentation and a request for further data on this issue, the CAISO posted unscheduled flow data for the period 12/1/06 through 11/30/07 on at website at: <http://www.caiso.com/1f56/1f56ebe23e6b0.zip>

- 13) **During the January 24, 2008 conference call, the CAISO made mention that it planned a compliance filing by the end of January or, at most, a few weeks thereafter. The reference to “compliance filing” seems to have been inadvertent inasmuch as the filing is plainly a rate change that must be filed under Section 205.**
- a. Please confirm that CAISO plans to make a Section 205 filing.
 - b. If not, please identify precisely what Commission directive CAISO believes requires it to file the new IBAA pricing methodology.

CAISO Response

See response to Questions (4) and (7), above.

- 14) **Proposed changes to Section 27.5.3 include a statement that “additional modeling specifications for specific IBAA’s is provided in the Business Practice Manuals.” This language raises several questions.**
- a. During the January 24, 2008 conference the CAISO indicated that it did not have any new BPM language. If that is correct, where is the “additional detail” referenced in the existing BPMs? Does this detail identify “specific IBAA’s”? If so, where are they identified and who are they? And when and how is a newly-designated IBAA informed

of its status? How are other parties subject to the ISO tariff informed when there is a newly-designated IBAA?

- b. Can new IBAA's be added by the CAISO? If so, would the new IBAA's then be identified in the BPM's?
- c. Can a party reading the CAISO proposed tariff identify the IBAA's from the tariff? If so, how?

CAISO Response

The CAISO posted draft illustrative proposed changes to the CAISO Full Network Model BPM on February 6, 2008. At present, and subject to further refinement, the draft BPM language includes specific details regarding each IBAA. As outlined in the draft BPM language, the CAISO is also proposing to establish and commit to follow a specific consultation and stakeholder process prior to implementing a new IBAA. As contemplated under the CAISO's draft Tariff and BPM language, to the extent that the CAISO proposes to implement a new IBAA consistent with the IBAA modeling and pricing methodology specified in the CAISO Tariff, the CAISO will have the authority to do so. As provided in the draft BPM language, the CAISO will commit to follow the consultation and notice requirements outlined in the BPM.

- 15) To what entities does Section 27.5.3 of the revised tariff apply? Their identities do not appear in the tariff, so how do they or third parties become aware of their status as IBAA's?**

CAISO Response

As currently drafted and proposed, each specific IBAA entity would be identified in the CAISO FNM BPM. In addition, specific details regarding each IBAA (e.g., intertie distribution factors, elements of any hub price, etc.) would also be specified in the BPM.

- 16) Section 27.5.3.3 seems to indicate that the CAISO has the unilateral ability to identify sub-regions within an IBAA, stating that "the CAISO will predefine individual or aggregate system resources for the sub-regions."**

- a. Is that correct?
- b. If so, how is this language to be reconciled with Appendix C, which indicates that designation is to occur "through consultation?"

- c. Does the ISO believe it has undertaken any consultation before designating any IBAA's? Does "consultation" require agreement between an entity designated as an IBAA and CAISO or does the CAISO believe that it can make the designation unilaterally in the absence of agreement?

CAISO Response

As stated in the draft BPM language posted by the CASO on February 6, 2008, the CAISO commits to undertake a consultation and stakeholder process prior to implementing a new IBAA. As part of that consultation and stakeholder process the CAISO will discuss with the affected IBAA entity the need to identify and model/price sub-regions within the IBAA. Such need will likely be based on an assessment of the operating characteristics and function of entities within the affected IBAA to determine if they operate their individual systems in a manner distinct from the host BAA. While the CAISO commits to undertake a consultation/stakeholder process, the CAISO does not believe, and is not proposing, that it must secure the agreement of the affected/proposed IBAA prior to identifying and, if consistent with the established CAISO Tariff IBAA methodology, implementing the IBAA. It is important to remember that the purpose of establishing an IBAA is to accurately model and price the impact of an IBAA's power flows on the CAISO Controlled Grid and not to either manage or price congestion or losses on the IBAA's system. Therefore, the CAISO believes it has the obligation and right to propose and establish what it believes are appropriate prices for use of the CAISO Controlled Grid.

17) Section G.1 of Appendix C indicates that "LMPs for such scheduling points *may* be based on multiple aggregated /hub prices if it is determined that subsystems operate within the affected IBAA."

- a. Does use of "may" mean that the ISO retains discretion whether to use multiple hub prices? If so, where in the tariff is it explained how the ISO's discretion is constrained?
- b. When the ISO says that it may have multiple hubs "if it is determined that subsystems operate within the affected IBAA," who does it contemplate will make this determination?

CAISO Response

The CAISO proposes to establish hub or sub-hub prices as appropriate for each IBAA as determined as part of the aforementioned consultation and stakeholder process. The CAISO believes that hub-based prices are appropriate when an IBAA functions as a single operating entity. Sub-hub prices may be appropriate if there is more than one entity within each IBAA that functions as a distinct operating/balancing authority. As noted in response to question (16), above, it is important to remember that the purpose of establishing an IBAA is to accurately model and price the impact of an IBAA's power flows on the CAISO Controlled Grid and not to either manage or price congestion or losses on the IBAA's system. Therefore, the CAISO believes it has the obligation and ability to propose and establish what the CAISO believes are appropriate prices for use of the CAISO Controlled Grid. The CAISO's ability to propose and establish hubs or sub-hub prices is included within its ability to establish just and reasonable prices under its tariff for use of the CAISO Controlled Grid.

18) The definition of IBAA in Appendix C is unclear.

- a. Can the IBAA's the ISO designates be determined from the definition?
- b. If not, how can they be identified from the tariff if a third party looking at the tariff wants that information?
- c. The CAISO defines an IBAA as follows:

"A Balancing Authority Area that has one or more direct interconnections with the CAISO Balancing Authority Area, such that power flows in the IBAA *significantly affect power flows in the CAISO Balancing Authority Area*, and that is therefore modeled in detail in the CAISO's Full Network Model." (Emphasis added.)

1. What objective criteria is the CAISO using to determine a threshold whereby an entity has a "significant affect" on power flows?
2. Where in the tariff or BPMs are these criteria set forth in a manner that would allow a third party to identify an IBAA?

CAISO Response

As outlined in the CAISO's draft illustrative FNM BPM, the CAISO proposes to include specific detail regarding each established IBAA in the CAISO BPMs.

With respect to the CAISO's objective criteria for establishing an IBAA, as previously stated by the CAISO is response to questions raised by he

Modesto Irrigation District, the CAISO has not established bright-line criteria to identify and determine which interconnected BAAs should become IBAs. That said, and as presented at the January 8, 2008, stakeholder meeting, indicative criteria include, among others:

- 1) number of interconnection points with CAISO (SMUD/Western and TID – 12, next highest – 4, see slide #23 of CAISO’s presentation for January 8, 2008, meeting);
- 2) a BAA’s system runs in parallel to major parts of the CAISO Controlled Grid (e.g., the BAA system represents a relatively large path for parallel flows);
- 3) frequency and magnitude of unscheduled flows at designated tie-points;
- 4) number of hours where actual direction of flows was reversed from scheduled direction; and
- 5) availability of information for modeling accuracy.
- 6) the lack of accurate modeling of the IBAA system affects the CAISO’s ability to achieve a converged AC power flow solution

Based on this general set of criteria and the CAISO’s subjective analysis of available data, the CAISO determined that it should and could model and treat the SMUD/Western and TID systems as IBAs for MRTU Release 1. The CAISO acknowledges that a significant factor in that determination was the availability of information regarding the SMUD/Western and TID systems to the CAISO; information and modeling detail obtained when the SMUD/Western and TID systems were still part of the CAISO BAA.

[NOTE: The following questions and responses are in response to similar questions raised by multiple parties. The CAISO has attempted to identify the appropriate parties. For purposes of this document, the CAISO has attempted to restate briefly the basic issue raised by multiple parties and therefore has not restated verbatim the specific questions posed by parties]

- 19) Detail in BPM is necessary to review Tariff (WPTF, TANC, SCE, PG&E)**

CAISO Response

CAISO has posted the illustrative BPM language. CAISO notes that the language is intended to demonstrate the detail that will be imported into the BPMs from the whitepapers. The BPMs themselves may, however, change further to integrate these principles. For example, in the BPM for Market Operations the terminology will have to be conformed to IBAA and references to the BPM for FNM will have to be made. These more broad reaching conforming changes will be made in the next releases of the BPM. The illustrative draft is intended to show what will live in BPMs from the whitepapers as opposed to the tariff.

- 20) Include language in 27.5.3 on modeling specifications (Western)(TANC)**

CAISO Response

CAISO believes it has struck the right balance of tariff language that reflects the rates terms and conditions as it pertains to IBAs. It is not clear how additional modeling specifications would enhance these provisions.

- 21) Remove language from 27.5.3 that was included (Western)**

CAISO Answer

The CAISO has included this language consistent with its proposed treatment of IBAs and believes this necessary to reflect the terms and conditions of service at the affected Scheduling Points.

- 22) Delete authority to examine other BAs in subpart G.1 of Appendix C. (Western) Explain what this authority means (WPTF)**

CAISO Answer

The CAISO is not proposing to require any information from the neighboring BAA. The CAISO will continue to work with neighboring BAAs to achieve more collaboration and exchange of information. However, the CAISO's proposed methodology does not require additional exchange of data and the tariff language in question is intended to provide the CAISO with the authority to price at the affected Scheduling Points based on its examination of the BAAs system. The CAISO does not believe the pricing of its Scheduling Points as specified in G.1. has any impacts on operation of the Western sub-BA except when transactions through and in and out of the affected Scheduling Point locations impact the CAISO Controlled Grid. The CAISO will post additional proposed changes to clarify this point.

- 23) Ambiguity as to degree of requirements that the CAISO coordinate with BAAs and appears to provide too much ability for unilateral action (IID); include requirement of a stakeholder process if CAISO proposes to make additional changes to its model as part of the ISO FNM BPM (SCE, WPTF, SMUD, TID, and Santa Clara)**

CAISO Answer

The CAISO has committed in the illustrative BPM language to consult with BAAs. However, to the extent such consultations do not yield a result that is acceptable to both parties, the CAISO believes it is appropriate that it be able to remedy the issues it has identified through this process. The CAISO has also provided a more defined process for adding and changing definitions of IBAA in its illustrative BPM language. The proposed process provides for notice, a stakeholder process, and if necessary possible changes to the BPMs and Tariff in the event the CAISO establishes/defines a new IBAA or the modifies the definition of an existing IBAA. The CAISO invites comments on the proposed process. The CAISO will also be proposing additional tariff changes that reflect a commitment to follow this process

- 24) Hold Harmless (IID)**

CAISO Answer

The CAISO does not believe that the IBAA approach imposes unintended consequences on neighboring BAAs. Therefore, the CAISO

does not believe there is a need to establish hold harmless requirements.

25) Not a compliance filing (IID)

CAISO Answer

The CAISO has followed explicit directives by the Commission in its September 21, 2006 order to “work with external control areas to develop the model more fully in the future.” Prior to and since that directive was issued the CAISO has followed engaged IBAA entities in these modeling discussions. The CAISO’s proposed filing will be in compliance with that directive which requires resolution for the Commission to finalize its acceptance of previously filed tariff language.

P.45 Our understanding is that the CAISO has committed to undertaking further discussions and review with stakeholders to resolve technical and data issues associated with the modeling of adjacent and embedded control areas. We support the CAISO’s commitment to include more information concerning adjacent and embedded control areas in the Full Network Model as soon as possible. In addition, while we agree that the CAISO should operate the California grid using the most accurate model of internal and external areas that it can and direct the CAISO to work with external control areas to develop the model more fully in the future, we understand that the CAISO can only model external areas to the extent it has the information to do so.

Notwithstanding the compliance nature of the proposed IBAA modeling details, the CAISO acknowledges stakeholders concerns that the IBAA pricing details are new to them. Therefore, the CAISO will present such pricing details to the CAISO Governing Board at its March 26-27 meeting and, subsequent to approval by the Board, file the pricing details at FERC for approval under section 205 of the Federal Power Act.

26) Filing on Feb 15 is not necessary (IID)

CAISO Response

See response to Question 25 above.

27) Additional detail on how distribution factors will be determined included in the relevant BPM. (PGE) The proposed language also allows the CAISO to modify, at any time and based on their discretion, these weighting factors. Such changes will impact the

ultimate value of the I-Hub. (SCE, WPTF) These factors should be in the tariff (TANC).

CAISO Response

The CAISO has provided additional detail on how the Intertie Distribution Factors (IDFs) have been developed for the SMUD IBAA. The weighting factors, i.e., the IDFs, for each IBAA will be defined in the applicable appendix for the BPM for FNM for each IBAA. The CAISO notes, however, that the factors may be different for a new IBAA or may change for an existing IBAA; and if so it would trigger the process for changes to the definition of an existing IBAA or the creation of a new IBAA described in the BPM.

- 28) Subsection 27.5.3.2 not all clear from the first sentence how (or why) dynamic resources are treated differently than non-dynamic resources, and how each type of resource fits into the over all resource-specific designations under IBAA modeling. (PG&E)**

CAISO Response

As provided in the remaining parts of the tariff, there is already the ability for entities to participate in the CAISO markets with System Resources that are Resource-Specific System Resources. These can be dynamic or non-dynamic. This section was intended to specify that participants can designate resources as such and if so, they would be excluded from the default aggregated System Resources. The CAISO will propose additional language changes to clarify this point.

- 29) This section states that the congestion and losses are modeled as described in 27.5.3; however, the referenced section only describes how the overview of the IBAA modeling framework and does not provide much detail as to how the congestion and losses are modeled. (PGE)**

CAISO Response

The reference is to the following statements in 27.5.3 “The CAISO monitors but does not enforce the network constraints for IBAA’s in running the CAISO Markets Processes. The CAISO models the resistive component for transmission losses on IBAA’s but does not allow such losses to determine LMPs.” Additional details on how these are actually implemented are available in the BPM.

- 30) **The CAISO tariff should consider the possibility of “undoing” an intertie Hub and returning it back to its separate components. (SCE)**

CAISO Response

This would constitute a change in the definition of an existing IBAA and would therefore trigger the process requirements proposed in the BPM for FNM.

- 31) **Tariff language that makes the settlement mechanism for CRRs clear *prior* to a CRR allocation or auction may be workable, but again this variation on CRR settlements needs to be detailed in the CAISO’s tariff. (SCE)**

CAISO Response

The applicable tariff language for the hourly settlement of CRRs is in Section 11.2.4.2.1. That section specifies that the Marginal Cost of Congestion (MCC) at the CRR sinks and sources will be used. The CRR Sinks and Sources for the IBAA that the CAISO plans to go live with are already defined based on the mapping of the resources in the applicable IBAA. Therefore, the already-allocated CRRs were nominated, bid in and released according to the same specifications for SMUD IBAA that will be included in MRTU Release 1. The CAISO has proposed language in the LMP definition that specifies the circumstances in which the LMP would be calculated based on the aggregate pricing. As reflected in the tariff, the LMP that will clear in the market will be the same LMP on which the MCCs specified in 11.2.4.2.1 will clear on an hourly basis. With respect to transactions sourced or sunk in IBAA, this means that the hourly LMP for the CRR sourced or sunk in the IBAA will be settled based on the hourly prices at the aggregated system resources for the applicable IBAA, or sub-IBAA, as described in Appendix C subpart G.1.

11.2.4.2.1 Point-to-Point CRR Options.

For each CRR Holder, the CAISO shall calculate a CRR Payment for each Point-to-Point CRR Option held by the CRR Holder equal to the product of: 1) the MCC at the CRR Sink minus the MCC at the CRR Source; and 2) the MW quantity of the CRR; if that amount is positive. If the resulting amount is negative, the CAISO shall not assess a charge for the relevant CRR Holder for the negative amount. The full

CRR Payment calculated pursuant to this process shall be subject to pro-ration as described in 11.2.4.4.

32) Explain the way in which Scheduling Point is used in sub-part G differs from how that term is defined in the tariff. (TANC)

CAISO Response

No change is being proposed to the definition of Scheduling Point. The CAISO believes that use of the term in subpart of G of Appendix C is consistent with the term as defined in Appendix A of the CAISO Tariff. Subpart G of Appendix C provides further detail regarding how transactions sourced at IBAs are being modeled and priced by the CAISO. The CAISO will propose additional tariff language to clarify this point.

33) Where is the objective criteria for what constitutes a “significantly affect” on power flows. (SMUD)

CAISO Response

See response to Question (18) above. There is no specific black and white threshold criteria that triggers creation on an IBAA, and therefore the CAISO has not listed such criteria in the proposed tariff language. Rather, in the process described in the BPM on how new IBAs are created, the CAISO would through consultations with the prospective IBAA and stakeholders provide support for the impacts on flows, as it did in this instance. This approach is advisable, because the degree of impact will shape how the IBAA is ultimately modeled and priced. In addition, as outlined in the proposed process, the CAISO will consult with the affected IBAA and stakeholders to the extent that it proposes to change the way an existing IBAA is defined.

34) The CAISO must make a section 205 filing to implement the proposed and future pricing changes.

CAISO Response

Despite the fact of the compliance nature of the IBAA modeling approach, the CAISO has agreed to file the changes to the pricing aspects of the proposal under Section 205 of the FPA. The CAISO's proposed filing will both acknowledge the “compliance” and “section 205” nature of the proposed changes. Going forward, and as detailed in the draft BPM language, the CAISO will commit to undertake an appropriate consultation/stakeholder process and will file appropriate tariff changes

whenever it proposes to create a new, or modify the definition of an existing, IBAA.

35) The CAISO proposal for CRR's settled at the I-Hub must be part of the tariff (SCE).

CAISO Response

The CAISO does not agree that tariff language is needed to address the settlement of CRRs. CRRs will be settled as already defined and specified in the tariff. Going forward, as stated in the draft BPM language, the CAISO is cognizant of the potential impact on CRRs (and other financial arrangements) from the creation of new (or modification of existing) IBAs. Therefore as outlined in the draft BPM language, the CAISO will endeavor to provide all market participants with sufficient notice and will attempt to align its efforts to create/modify IBAs with the established CRR allocation and auction timelines.

36) How will the CAISO monitor and address gaming concerns (e.g. what is the Department of Market Monitoring's role). (SCE)

CAISO Response

The CAISO's DMM will continue to monitor for, and investigate, inappropriate or anomalous market behavior. The CAISO DMM will monitor market performance and behavior consistent with its established oversight and enforcement authority. At present, the DMM does not believe it needs expanded authority to monitor market behavior and activity at CAISO interties with either IBAs or BAs.

In addition, other areas of the CAISO responsible for market design and system modeling will also periodically assess the accuracy and effectiveness and the modeling approach initially adopted by the CAISO, and will make any modifications that may be necessary in the various model inputs and modeling features incorporated in this approach to improve its accuracy and the overall efficiency of market performance under this approach.

37) What is the CAISO's basis for pricing and settlement at the Tracy Intertie based on a settlement point (Captain Jack) outside of the CAISO? (TANC, NCPA, Others)

CAISO Response

It is important to remember that, under the IBAA proposal, the CAISO is establishing the price/value to the CAISO – for purposes of managing congestion on the CAISO Controlled Grid - of boundary flows into and out of the CAISO Controlled Grid from the designated IBAA. The CAISO is not proposing to establish prices internal to the IBAA's system or manage and/or value congestion on an IBAA transmission system or on any facilities outside of the CAISO Controlled Grid. The cost and manner by which losses and congestion are managed, for example, on the COTP will be determined pursuant to the established tariffs for those transmission operators that own and control that facility. That said, for purposes of determining the value to the CAISO of imports scheduled at Tracy, the CAISO must understand from where those imports are being sourced.