Stakeholder Process: Integrated Balancing Authority Area (IBAA)

1. Summary of Submitted Comments and Stakeholder Meetings

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

- Round One, 01/07/08
- Round Two, 01/16/08
- Round Three, 02/04/08
- Round Four, 03/04/08
- Round Five, 04/28/08

All original stakeholder comments that have been submitted to the CAISO are posted at: http://www.caiso.com/1f50/1f50ae5b32340.html

Other stakeholder efforts include:

- Conference Calls: December 20, 2007, January 24, 2008, and February 24, 2008.
- In-person Meetings: January 8, 2008, March 6, 2008 and April 11, 2008.
- CAISO responded in writing to stakeholder questions; IBAA "Q&A" can be found at http://www.caiso.com/1f50/1f50ae5b32340.html

2. Summary of IBAA Consultation and Stakeholder Process

Date	Stakeholder Activity		
April 24, 2007	Meeting with WAPA representatives on data exchange requirements under MRTU and need to model EBA/ABAs.		
June 5, 2007	Representatives of Western, SMUD, and the CAISO met to discuss the modeling and settlement treatment for Embedded/Adjacent Control Areas (ECAs/ACAs) under MRTU. The discussions focused on how the CAISO proposed to represent (in the MRTU-related network models and systems) the SMUD/Western control area and how the CAISO will establish related prices.		
June 13, 2007	CAISO meeting with Western to continue dialogue on how MRTU will treat embedded control areas.		
August 9, 2007	Meeting with Western, Redding, TID, SMUD and MID regarding data requirements for MRTU; discussed data needs and three options for pricing		

August 21, 2007	Meeting with Western, MID, TID, Redding and SMUD regarding pricing options for EBA/ACAs.	
October 5, 2007	Proposal distributed to affected IBAAs.	
November, 2007	Latter from affected IBAAs to CAISO regarding October 5, 2007 discussion papers.	
December 6, 2007	Letter from CAISO to SMUD on IBAA Issues.	
December 11, 2007	Meeting with SMUD, Turlock Irrigation District (TID), and Western Area Power Administration (Western) on IBAA issues.	
December 14, 2007	Two whitepapers posted for stakeholder review:	
	1. Modeling and Pricing IBAA Under the CAISO MRTU (see http://www.caiso.com/1cb4/1cb4e1a154060.pdf); and	
	2. MRTU Release 1 Implementation of Preferred IBAA Modeling and Pricing Options (see http://www.caiso.com/1cb4/1cb4e0984a670.pdf)	
December 20, 2007	Stakeholder conference call to update on modeling and pricing of IBAAs	
January 6, 2008	Stakeholder comments received on December 20, 2007, conference call.	
January 8, 2008	Stakeholder meeting on IBAA issues	
January 16, 2008	Stakeholder comments received on January 8, 2008 stakeholder meeting.	
January 22, 2008	Tariff language and related presentation posted for stakeholder review.	
January 24, 2008	Stakeholder conference call regarding IBAA issues and tariff language.	
February 4, 2008	Stakeholder comments received on proposed tariff language & Stakeholder conference call.	
February 7, 2008	Stakeholder conference call on proposed tariff and IBAA filing	
February 25, 2008	Stakeholder conference call on CRR-related IBAA issues.	
February 29, 2008	Stakeholder comments received on CRR and tariff language related issues.	
March 6, 2008	Stakeholder meeting on IBAA issues, including impact on non-CAISO Controlled Grid facilities and CRR issues	

April 11, 2008	Joint MSC and Stakeholder meeting on IBAA issues.
April 18, 2008	CAISO posts "Draft Final Proposal" on IBAA proposal
April 28, 2008	Stakeholder comments on CAISO Draft Final Proposal

3. Summary of Written Stakeholder Comments Submitted on April 28, 2008

Management Draft Final Proposal	Load Serving Entities, Energy Service Providers, End-Use Customers	Resource Owners, Marketers, Importers	Management Response
Reference Section 2.0 (Proposed IBAA Modeling Methodology) of the CAISO Draft Final Proposal. In Section 2.0 of the Draft Final IBAA Proposal the CAISO describes how it proposes to model intertie transactions with IBAAs. The purpose of such modeling is to obtain a realistic representation of the power flow impacts on the CAISO Controlled Grid from such transactions. The CAISO describes that will it will use both a detailed network representation (topology) of the IBAA transmission system and a "proxy bus" representation of the major transmission substations within the IBAA to approximate how power flows within the IBAA and to the various interties with the CAISO. The CAISO will model scheduled intertie transactions as injections at the proxy buses in order to approximate the flow	SMUD: Opposes. SMUD states that the CAISO concedes that the "single pricing hub" would "reduce modeling accuracy (and thus the accuracy of the CAISO's congestion management solutions)". SMUD asserts that the CAISO's proposal is a "moving target", lacks sufficient detail to assess the economic and operational impacts on stakeholders. CCSF: Opposes. CCSF believes that by aggregating multiple IBAAs into a large IBAA Hub, the CAISO will reduce its modeling accuracy, resulting in potential uplift charges for CAISO market participants. CCSF believes the CAISO's sub-Hub approach is more likely to yield improved modeling and pricing than a single-Hub approach, but CCSF still has concerns that a sub-Hub approach is not consistent with the CCSF/CAISO Operating Agreement. TID: Opposes. TID is doubtful that the CAISO's desire to achieve accurate flows across the interties will be met with this proposal. TID states that the CAISO's modeling methodology fails to accurately reflect Load Distribution Factors (LDFs). TID states that more accurate modeling that utilizes accurate LDFs is required and is a more reasonable solution to achieve the CAISO's desired results. SCE: Undetermined. While SCE supports the CAISO's effort to improve its FNM and to model	Calpine: Opposes. While agreeing that it is important to accurately reflect the effect of intertie transactions in the FNM, Calpine believes that the IBAA modeling methodology proposal does not reflect the true cost of congestion and losses on the CAISO system. WPTF: Opposes. WPTF states that the CAISO should model the SMUD/WAPA IBAA in a manner that is very consistent with how business is transacted at the boundary of the CAISO and elsewhere in the	Management observes that most stakeholders support better modeling in order to accurately reflect the impact of IBAA intertie transactions in the Full Network Model for purposes of managing congestion on the CAISO Controlled Grid. Management also observes that many of the stakeholders comments regarding IBAA modeling actually address pricing issues. Those issues are addressed below. Management believes that the proposed IBAA modeling proposal represents a reasonable approximation of flow impacts on the CAISO grid arising from transactions with the IBAAs. Initially, the CAISO proposes to model intertie transactions with the IBAA s on a basis consistent with the proposed pricing rule (imports modeled as injections at Captain Jack substation, exports modeled as injections at the SMUD hub). Examination of such an approach reveals that modeling flow impacts on this basis produces reasonable results. Management agrees with stakeholders that the accuracy of the CAISO's congestion management solutions, particularly with respect to the managing congestion on the CAISO Controlled Grid arising from transactions with IBAAs, would increase with additional and better information from the IBAAs. Management's proposal allows for alternative settlement treatments if the IBAAs are able to provide more detailed information regarding the resources supporting certain intertie transactions with

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impact on the CAISO system from the scheduled intertie transactions.	scheduled flows so that they as closely as practicable represent realized physical flows, SCE states that it has insufficient information to conclude the CAISO new proposal will accomplish this objective. SVP: Opposes. SVP represents that the CAISO's proposal would cause considerable negative impacts on assets in the neighboring BAAs, as well as measurable negative impact on entities like SVP, who are currently located within the CAISO BAA. SVP provided a discussion paper showing the CAISO's proposal results in an over-collection of losses. SVP recommends that the CAISO approximate total COI schedules and input these schedules into the CAISO's modeling of scheduled transactions, thereby improving the accuracy of its LMPs. TANC: Opposes. TANC believes the proposal is discriminatory; that the proposal results in less accurate modeling and pricing than the current practice of modeling transactions at the points of interconnection with the neighboring Balancing Authority Areas (BAA). TANC states that it is likely possible to reach agreement on what is an acceptable, mutually agreeable, and reciprocal exchange of data and information necessary to resolve mutually understood issues. DOE: Opposes. The draft proposal imposes unfair and unnecessary burdens DOE. CMUA: Opposes. While CMUA supports accurate modeling so that possible dispatch uplift costs can be minimized, CMUA states that the CAISO has not supported its contention that the IBAA proposal is the best option to accomplish the desired objective. WAPA: Opposes. WAPA does not support the proposal because it may cause adverse operational and/or financial impacts, may abrogate or violate existing statutory regulatory or contractual rights	Powerex: Opposes. The CAISO has only made available to market participants limited results from their models of IBAAs. In addition, Powerex states that the CAISO must recognize that other markets in WECC operate on a contract path model that is supported by various agreements, operating procedures, and processes to ensure system reliability. Any extension of MRTU into other markets via the interties needs to recognize how those markets operate and rely on the negotiated and approved operating agreements in order to model flows and congestion on the interties.	the CAISO. Notwithstanding the CAISO's desire for more detailed information, Management believes the CAISO's proposed IBAA modeling methodology is a reasonable and "best available" approach that will further increase the accuracy of the CAISO's congestion management solutions. A number of stakeholders suggest that the CAISO should conform to standard WECC practices for ensuing reliable operation of the interties. First, Management believes that the IBAA proposal is consistent with the CAISO's existing contractual agreements regarding the rating, management and operation of the interties. Specifically, Management believes that the proposal is consistent with all of the CAISO's existing Interconnected Control Area Operating Agreements (ICAOAs) with the affected IBAAs. Among other things, each of the ICAOAs specify agreed upon ratings and scheduling limits for each of the Intertie Scheduling Points between the CAISO and the IBAA. The CAISO's market systems (including the IBAA methodology) recognizes and manages to those established limits. Second, the CAISO's IBAA proposal maintains all existing NERC/WECC interchange scheduling procedures and established scheduling points. Finally, it is important to remember that the only generally accepted NERC or WECC procedure for managing congestion in the forward market timeframe is to mange transmission schedules to overall intertie/path-specific limits. All stakeholders acknowledge that intetie schedules established on such a basis will not reflect anticipated actual flows on the system. The CAISO's MRTU in general, as supplemented by the IBAA proposal, will establish a more accurate method for managing congestion – both internal to the CAISO system as well as on the interties with the IBAAs.

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	and obligations and must be done on a bilateral and collaborative basis.		

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Reference Section 3.0 (Proposed IBAA Pricing Methodology) of the CAISO Draft Final Proposal. In Section 3.0 of the Draft Final IBAA Proposal the CAISO describes the IBAA pricing methodology. The CAISO discusses the evolution of the pricing proposal from the original "six hub" proposal to the now proposed "single hub" proposal with the Default Pricing Rule. The CAISO explains that it arrived at the single hub proposal based on concerns regarding inappropriate market arbitrage that could occur under either an intertie-specific or the six hub pricing mechanism. The CAISO also discusses the possibility of, and avenues to secure, alternative settlement treatment where the CAISO is provided additional information regarding the resources supporting the scheduled intertie transaction.	TANC: Opposes. TANC asserts that by aggregating all imports from the North in a single price, the price signal for every transaction is, at best, muted, and at worst badly distorted. Moreover, this practice and approach provides disincentive for the development of new transmission infrastructure. TANC believes that existing modeling and pricing approaches are more accurate than the Proposal. CCSF: Opposes. CCSF believes the proposed default pricing rule, and the single-Hub approach, is inconsistent with the CCSF/CAISO Operating Agreement Section 7.2. CCSF states that while it appears that the potential for harm is greater from the single Hub approach, both the single hub as well as the earlier multiple hub proposal appear to be problematic. CCSF also is concerned with the potentially extensive information requirements the CAISO seeks to impose for transactions to be settled at other than the default pricing under the single-Hub approach. TID: Opposes. TID is concerned that the proposal will not accurately reflect the value of exports to the CAISO grid or the cost of exports from the CAISO grid. TID states that it does not support the default pricing rule and that the use of a single hub price for all IBAAs would negate the intended goal of MRTU and Locational Pricing because it lacks the requisite granularity needed to achieve a true and accurate location based price. SCE: Undetermined. SCE requires additional details to make an informed judgment regarding the IBAA pricing proposal. SCE strongly objects to allowing one off, "negotiated" pricing schemes. SCE states that should the CAISO enter into	Calpine: Opposes. Calpine is concerned that the proposed IBAA Pricing Methodology may inappropriately undervalue intertie transactions. Calpine states that the pricing methodology creates aggregate prices to and from SMUD and will not reflect the true cost of congestion and losses on the system. Calpine further requests clarification that external resources that are pseudo- tied or dynamically scheduled into the CAISO are excepted from the Proposal and its pricing rules.	Management believes that the proposed default pricing rule appropriately values – for purposes of managing congestion and losses on the CAISO Controlled Grid – intertie transactions between the CAISO and the IBAAs. Consistent with the fundamental approach of the larger MRTU LMP design, the value to the CAISO of such transactions is ultimately determined by the location of the resources supporting such transactions. Based on the information available to the CAISO regarding the location and nature of such resources, Management believes that the default pricing rule appropriately values intertie transactions. Furthermore, Management believes that the proposed IBAA default pricing rule appropriately and reasonably minimizes risks to CAISO customers. Specifically, in the absence of additional

"negotiated" agreements, there should be a full public process of all interested stakeholder, CAISO Board and FERC approval. Moreover, by creating a different "in-to" and "out-of" pricing for transactions at the same location, SCE is concerned that unless properly structured this will create gaming/arbitrage opportunities. Because of this potential arbitrage concern, the CAISO may need to consider additional pricing rules that will prevent gaming of the in-to and out-of prices. But again, without additional details we simply cannot tell if this will be the case.

SVP: Opposes. SVP oposes the CAISO's proposed default IBAA pricing rule, and also opposes the alternative sub-hub pricing. SVP states that the latest proposal of a default pricing rule is unjust and unreasonable and unduly discriminatory and effectively implement, as a rule, the type of price arbitrage it claims it is seeking to prevent.

DOE: Opposes. Under the CAISO's proposal, DOE/BSO would be forced to settle its COTP 500kV transactions at Captain Jack rather than at the Tracy 500 kV bus. This would subject DOE/BSO to losses and congestion charges, calculated by the CAISO, on a transmission facility that is not part of the CAISO grid, effectively significantly reducing the value of the COTP rights that were allocated to DOE by Congress.

CMUA: Welcomes the statement in the Executive Summary of the Draft Final IBAA Proposal that alternative pricing arrangement may be considered beyond what the CAISO has proffered in the Draft Final IBAA Proposal.

WAPA: Opposes. WAPA states that a single pricing point at Captain Jack for COTP injections into the CAISO will not provide sufficient incentives for generators in the Pacific Northwest to furnish energy to the CAISO and result in the creation of phantom congestion on the Pacific AC Intertie.

SMUD: Opposes. SMUD states that the CAISO's default pricing rule inappropriately raises import prices for those purchasing resources from within the CAISO grid and reduces the prices the CAISO will pay for resources its market participants will import. Moreover, SMUD states that the proposed "Exception" to the default pricing rule is ambiguous: stakeholders cannot tell in advance whether or how they would qualify; there are no defined standards; timing is unclear; and the CAISO is given unconstrained discretion.

Opposes. Powerex supports pricing that recognizes the value of imports to the CAISO in direct competition with internal generators and the costs of supporting exports from the CAISO. Powerex does not support the default pricing rule since this does not improve the accuracy in the modeling of flows and congestion on the grid nor price imports and exports based on their value to the CAISO.

information that identifies and validates the resources supporting specified intertie transactions and enables the CAISO to increase the accuracy of its congestion management solutions, the proposed default pricing rule appropriately minimizes exposure to uplift costs likely to result from inaccurate pricing of IBAA transactions with the CAISO.

With respect to TANC members' and other IBAA entity concerns regarding the potential adverse impact of he IBAA pricing proposal on their investments, the CAISO has expressed a willingness to work with the TANC members to justify an alternative settlement treatment that would in their view better reflect and maintain the value in their investment while increasing the accuracy of the CAISO's congestion management solutions or otherwise benefiting CAISO customers.

IID: Opposes. IID asserts that it appears that the CAISO is		
taking the value of the COTP transmission for the benefit of its		
own ratepayers. IID states that this is wrong and appears		
discriminatory.		

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Reference Section 4.0 of the CAISO Draft Final Proposal. In Section 4.0 of the Draft Final IBAA proposal, the CAISO outlines its proposal fro addressing stakeholder concerns regarding the impact on Congestion Revenue Rights (CRRs) from the IBAA proposal. In Section 4.0 the CAISO sets forth a process and mechanisms for ensuring the continued alignment between issued CRRs and IBAA pricing.	CCSF: Supports. CCSF supports the CAISO's approach for mitigating IBAA impacts on previously-released CRRs. SCE: Supports. SCE continues to support Approach 1 which allows participants the one-time option of converting their existing CRRs to any new pricing or maintaining their CRRs as originally issued. SCE supports the approach of using a balancing account for CRRs. SVP: Opposes, SVP opposes the CAISO's proposed approach for addressing CRRs that if the CAISO is ultimately permitted to go forward with the IBAA CRR approach, SVP states that the CAISO must allow the market participants to alter their awarded CRRs accordingly. DOE: Opposes. DOE states that the CRR offset to DOE/BSO's loss of value will be partial, at best, and there is insufficient detail provided about this potential modification of CRRs to provide any real comfort to DOE/BSO at this time.	Powerex: No comment on this issue at this time.	Management believes that it has addressed stakeholder concerns regarding the impact of the IBAA proposal on the CRRs allocated and auctioned under last year's CRR process. As noted above, the CAISO's proposal includes a process for making, if requested, appropriate adjustments to the configuration of CRRs allocated prior implementation of both the current and any future IBAA proposal. While the set of allocated CRRs impacted by the IBAA proposal is limited (as a result of the ISO's decision to defer the start date for MRTU to the Fall of 2008, the CRRs allocated and auctioned in 2007 will now only be effective for a 2-3 month period), the CAISO nonetheless proposes that CRR holders have the option of making one-time adjustments to their CRRs to conform to the new IBAA pricing proposal.

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Reference Section 5.0 of the CAISO Draft Final Proposal.	1,1		Management believes that the proposed process for modifying existing or creating new	

In Section 5.0 of the Draft Final IBAA Proposal the CAISO describes a proposed goingforward process for modifying existing or creating new IBAAs. The CAISO developed such a process in response to stakeholder concerns. The proposed process provides for a consultative, stakeholder. Board and FERC process for modifying existing or creating new IBAAs. The process does provide that the CAISO can modify certain elements of the IBAA modeling and pricing methodology in circumstances where there is an expeditious need to address adverse impacts on CAISO operations or markets.

stakeholders. CCSF states that the CAISO cannot merely "consult" with affected parties before implementing an IBAA. CCSf states that Silicon Valley Power previously proposed Tariff language that puts the proposed IBAA BA on equal footing with the CAISO in the IBAA development process. CCSF supports an approach that would be consistent with SVP's proposed Tariff language.

TID: Opposes.

SCE: Supports. Edison earlier stated that before any new pricing scheme for an IBAA is implemented, the CAISO should: 1) Allow for a stakeholder process that includes all stakeholders; 2) obtain Board approval; and 3) obtain FERC approval. SCE understands the current CAISO proposal to include these three features and thus we support the proposal.

SVP: Oposes. SVP does not believe the CAISO's "consultative" process with the affected BAA (SMUD/Western/MID and TID), those BAAs' stakeholders, and affected CAISO stakeholders was sufficient or effective.

TANC: Opposes. TANC states that the CAISO IBAA proposal must be a negotiated agreement between the CAISO and the affected BAs. BAA issues are a matter for mutual negotiation rather than unilateral action.

CMUA: Opposes. CMUA urges the CAISO to call a "Time Out" in the IBAA process, and continue the dialogue furthered at the stakeholder meetings this month to craft a tailored mechanism and address the CAISO's perceived problem, while recognizing the legitimate needs and expectations of CMUA members that will be impacted by the Draft Final IBAA Proposal.

IID: Conditionally supports. IID supports the CAISO's adoption of a stakeholder process. The CAISO still has an opportunity before MRTU goes live to reach a collaborative solution.

SMUD: Opposes. SMUD remains concerned that the proposal has yet to detail how future IBAAs will be developed, whether there will be future Section 205 filings to implement new IBAAs, what the CAISO will include in its planned Section 205 filing to implement its IBAA proposal, whether the CAISO's methodology for development of, or changes to, distribution factors will be incorporated into its Market Redesign and Technology Upgrade (MRTU) tariff.

issue at this time.

IBAAs fully addresses concerns earlier raised by stakeholders. Under that process, the CAISO commits to conduct a consultation and stakeholder process and to seek Board and FERC approval for modifying existing or creating new IBAAs. The CAISO does propose to retain authority to modify IBAAs under circumstances where the design is having an adverse impact on the overall efficiency of the market or on reliability.

With respect to the present process, Management engaged in a consultation with the IBAA entities from approximately June 2007 though October 2007. At that time, based on IBAA entity opposition to the ISO's then-proposed IBAA proposal and because of the then-impending February 1, 2008, MRTU start date, Management determined that it was appropriate and prudent to initiate a broader stakeholder discussion and finalize the proposal prior to MRTU start up.

With respect to stakeholder comments that the CAISO has not modified its proposal in response to stakeholder comments, Management notes that the CAISO:

- 1) has deferred action (Board approval and/or FERC filing) on the IBAA proposal three times in response to stakeholder concerns;
- 2) has agreed to file the pricing and other elements of the IBAA proposal at FERC;
- 3) developed and committed to a goingforward IBAA process (consultation, stakeholder, and FERC filing);
- 4) assessed and developed a proposal in response to stakeholder concerns regarding the impact of the IBAA proposal on CRRs; and
- 5) developed an alternative settlement treatment mechanism to address circumstances where the ISO is able to obtain more detailed information from IBAA entities.

Note:

The complete text of comments submitted regarding the Draft Final Proposal can be found at: http://www.caiso.com/1f50/1f50ae5b32340.html

MID supports the comments being submitted to the CAISO by TANC and SMUD. TANC's and SMUD's comments address, *inter alia*, what the CAISO has described as the "Draft Final" IBAA Proposal, and MID concurs with TANC's and SMUD's comments. MID generally concurs with the concerns regarding the "Draft Final" IBAA Proposal, submitted by the CCSF, WAPA, SVP, TID and DOE.

List of Acronyms

BAA Balancing Authority Area

CAISO California Independent System Operator CCSF City and County of San Francisco

CDWR SWP California Department of Water Resources, State Water Project

CEC California Energy Commission

CMUA California Municipal Utilities Association
DOE Department of Energy, Berkley Site Office
FERC Federal Energy Regulatory Commission
IBAA Integrated Balancing Authority Area

LDF Load Distribution Factors
LSE Load Serving Entity
MID Modesto Irrigation District

MRTU Market Redesign and Technology Upgrade
SCE Southern California Edison Company
SDG&E San Diego Gas & Electric Company
SMUD Sacramento Municipal Utility District

SVP City of Santa Clara doing business as Silicon Valley Power

TANC Transmission Agency of Northern California

TID Turlock Irrigation District

WAPA Western Area Power Administration