



Straw Proposal
For
Convergence Bidding Cost Allocation

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1. Executive Summary

In developing a full conceptual proposal for assessing costs on virtual transactions, the CAISO has followed the principle that virtual bids should be charged costs for which they have caused, similarly to physical bids. This means that virtual (and physical) demand bids should be subject to uplift costs related to the increased unit commitment within the Integrated Forward Market (IFM) of the Day Ahead process, and that virtual supply bids and underscheduled load should be subject to uplift charges related to the increased unit commitment within the Residual Unit Commitment (RUC) of the Day Ahead process.

In the November 7, 2007 Issue Paper titled "*Update on the Design for Convergence Bidding*"¹ the CAISO proposed to allocate costs for IFM Tier 1 and RUC Tier 1 bid cost recovery costs to virtual transactions on a system-wide basis rather than at the LAP level. This approach for assessing charges to virtual bids on a system-wide basis would be consistent with the cost allocation methodology for physical load, where dollars to be recovered are allocated to physical load system-wide.

In order to determine the obligation for virtual transactions to pay IFM and RUC Tier 1 Uplift the CAISO proposed to first net the total virtual demand (in MWs) system wide against the total virtual supply (in MWs) system wide. If the net cleared virtual bids system-wide resulted in positive virtual demand then Scheduling Coordinators (SCs) with a virtual demand obligation would be charged for IFM Tier 1 Uplift and the obligation to virtual transactions for RUC Tier 1 Uplift would be zero. On the other hand if the net cleared virtual bids resulted in a positive virtual supply then SCs with a virtual supply obligation would be charged for RUC Tier 1 Uplift and the obligation to virtual transactions for IFM Tier 1 Uplift would be zero. Each SC's obligation would be determined based on the net virtual transactions system-wide and whether that net result was a positive virtual demand or a positive virtual supply.

At the November 14th Convergence Bidding Stakeholder Meeting stakeholders raised some concerns with this cost allocation proposal which were reflected in additional written comments.² In response to these stakeholder comments, the CAISO now is proposing the following revisions to the November 7th Convergence Bidding Cost Allocation proposal:

- Eliminate the initial system wide netting calculation that would determine whether there would be a virtual demand or a virtual supply obligation.

¹ This paper is posted at: <http://www.caiso.com/1c8f/1c8ff39f65a70.pdf>

² Stakeholder written comments are posted at:
<http://www.caiso.com/1807/1807996f7020.html>

- Calculate each SCs obligation based on the pro-rata share of the total obligation as determined by the total (gross) cleared virtual demand or the total (gross) cleared virtual supply bids – instead of the net cleared virtual bids, demand or net cleared virtual supply.
- Allocate IFM Tier 1 Uplift to SC with a virtual demand obligation only in the case where virtual demand plus physical demand exceeds the CAISO Forecast of CAISO Demand (CFCD).

As explained below, these proposed revisions would more precisely assess the costs caused by virtual bidding, while still maintaining the cost causation principle for virtual transactions.

Stakeholders provided comments verbally to the previous cost allocation proposal at the November 15th Convergence Bidding Stakeholder Meeting and in writing to the Issue Paper *Update on the Design for Convergence Bidding*. Comments are summarized below:

2. Summary of Stakeholder Comments

- 1) **It seems reasonable that with virtual bids the Day-Ahead RUC and IFM Costs will go up and virtual market participants should share in these costs.**

CAISO Response: This revised proposal seeks to follow the general principle that virtual bids, like physical bids, should be allocated costs emanating from the commitment of units in the Day Ahead market, including both the IFM and RUC processes.

- 2) **Charging one uplift rate to physical transactions and another for virtual transactions does not make economic sense.**

CAISO Response: The methodology to determine the MW obligation to pay IFM Tier 1 and RUC Tier 1 Uplift is different for physical load than it is for virtual transactions. However once the obligation is calculated the same rate will apply to both virtual transactions and physical load.

- 3) **FERC ruled against allowing netting at MISO to determine the obligation for their RSG charges to virtual supply. This principle should be abandoned by the CAISO.**

CAISO Response: The CAISO has reviewed the series of MISO filings regarding RSG charges to virtual supply and believes FERC's order focuses on tariff enforcement, and does not repudiate the netting of virtual supply

and virtual demand. However, this revised proposal does abandon the netting concept in favor of a more precise allocation of Day Ahead uplift charges to virtual bids.

4) The CAISO should address the allocation of Real-Time Uplift to virtual transactions.

CAISO Response: Real Time uplift is currently allocated to Measured Demand, which does not include virtual bids. FERC's April 20, 2007 Order directed the CAISO to work with stakeholders to develop a two-tiered allocation of Real Time bid cost recovery costs, similar to the approach for Day Ahead uplift costs. Such a framework would seek to allocate Tier 1 costs to specific market participants based on cost causation, with any residual "Tier 2" costs spread to all SCs in proportion to their Measured Demand.

The CAISO recognizes that a two tiered approach for allocating Real Time uplift may assign specific "Tier 1" costs to virtual bids, but there are also other sources for these costs, including underscheduled physical demand and possibly other contributors to uninstructed deviations which might be held responsible for the need to commit generating units in the Real-Time Market. All of these factors should be considered within a future stakeholder process that would seek to design a methodology by which the CAISO can determine the specific causes of Real Time uplift.

FERC has directed such an all-encompassing approach within the next package of market enhancements after Market Release 1A. Thus the CAISO reiterates its proposal that no Real Time uplift be assessed to virtual bids upon the introduction of virtual bidding, but that virtual bids and other actions by market participants will be considered later when the CAISO develops, in coordination with stakeholders, a two-tiered design for Real Time bid cost recovery costs.

5) Cost causation should be the principle used for allocating costs. The CAISO's proposal appears to follow the cause causation principle.

This revised proposal seeks to further refine the cost causation principals discussed in the 11/7 proposal.

6) The CAISO proposal is focused on reducing costs to virtual transactions and is not based on sound cost causation principles.

CAISO Response: This revised proposal seeks to follow cost causation to the extent possible at this time. The CAISO recognizes that to gain the full benefit of convergence bidding, costs for virtual bids and physical bids should be allocated similarly.

- 7) CAISO must provide analysis to show the causal link between virtuals and the reliability commitment of generating units before charges may be allocated to virtuals. Other ISO's have failed to provide sound analysis around this principle.**

CAISO Response: This revised proposal is based on the concept that virtual supply does contribute to RUC costs by displacing physical demand therefore requiring the CAISO to procure additional capacity in RUC and that virtual demand will contribute to IFM commitment costs if virtual demand results in physical demand plus virtual demand clearing above the CAISO forecast.

Currently no CAISO market data exists where explicit virtual bidding is in practice, so the case for assessing costs virtual bids for bid cost recovery must remain at the conceptual level for now. The examples detailed within this paper seek to advance this conceptual discussion. The CAISO notes, moreover, that FERC has approved the assessment of bid cost recovery costs on virtual bids at other ISOs, and the CAISO anticipates this precedent provides reasonable assurance that the concept that virtual transactions should share in cost recovery costs would be acceptable at FERC.

- 8) IFM costs should not be allocated to virtual transactions unless RUC benefits are credited to virtual transactions.**

CAISO Response: The revised proposal does not include credits for virtual transactions for benefits provided to the market. However the revised proposal addresses this concern by not charging virtual transactions IFM and RUC Tier 1 Uplift under certain scenarios.

- 9) In cases where the system wide net results in a net virtual demand and virtual demand plus physical demand is equal to or below the CAISO's forecast the CAISO will unfairly charge SCs with a net virtual demand obligation when the virtual demand actually helped the market by clearing the IFM closer to an ideal solution.**

CAISO Response: The revised proposal explained within this paper has addressed this comment by not charging virtual demand IFM Tier 1 Uplift in cases where physical demand plus virtual demand that clears the IFM is equal to or greater than the CAISO Forecast.

3. Revised Cost Allocation Proposal for Uplift Charges to Virtual Transactions

The CAISO reiterates the general concept that a portion of IFM Tier 1 Uplift Costs be allocated to SCs with an obligation caused by cleared virtual demand and a portion of RUC Tier 1 Uplift costs be allocated to SCs with an obligation caused by cleared virtual supply.

This section refines the methodology proposed in the November 7th paper describing how the obligation for virtual bids should be determined; this modification is based on recent stakeholder feedback.

The CAISO has incorporated into the updated proposal stakeholder feedback that virtual demand should not be assessed IFM Tier 1 Uplift in situations where total demand clears at or below the CAISO load forecast. In the case where total demand including virtual demand clears at below the CAISO forecast the virtual demand will allow the IFM to clear closer to the CAISO forecast resulting in a more ideal market solution. This revised proposal reflects this improvement.

Stakeholders commented on the concept for netting virtual demand and supply to determine the cost obligation, especially in relation to recent FERC proceedings³ involving MISO's netting of virtual bids for their allocation of RSG charges. With this revised proposal, the CAISO is removing netting as a means to determine each SCs obligation to pay IFM Tier 1 and RUC Tier 1 Uplift charges to align this proposal more closely with cost causation. After considering different market scenarios, the CAISO determined that there may be some cases where it makes sense, due to cost causation, that an SC with both virtual demand and virtual supply transactions should pay both IFM and RUC Tier 1 Uplift. There may be other cases where the same SC should pay either IFM or RUC uplift, and there may be scenarios where virtual bids would pay no uplift charges. The examples within this paper highlight why the concept of netting has been removed as a means to determine the SC obligation to pay uplift charges.

3.1. Virtual Demand Obligation to Pay IFM Tier 1 Uplift

The CAISO proposes the following revised methodology to determine the virtual demand obligation to pay IFM Tier 1 Uplift.

- if virtual demand plus physical demand is less than or equal to the CAISO Forecast of CAISO Demand (CFCD) then there will be no IFM Tier 1 Uplift charges allocated to virtual demand. In this case virtual demand does not result in increased commitment costs in the IFM but rather results in IFM

³ *Midwest Independent Transmission System Operator, Inc.*, 118 FERC 61,213 (March 15, 2007)

clearing closer to the CAISO Forecast resulting in less need to procure additional MW in RUC.

- If virtual demand plus physical demand is greater than the CAISO Forecast then SCs with a virtual demand obligation will pay a portion of the IFM Tier 1 Uplift Costs. In this case virtual demand resulted in IFM clearing above the CAISO Forecast resulting in additional commitment costs in the IFM.
- The total virtual demand obligation will equal the quantity that the virtual demand put the IFM solution above the CAISO Forecast.
- If there is a virtual demand obligation it will be distributed to all SCs with cleared virtual demand based on their prorata share of the total obligation.
- Each SCs obligation will be multiplied by the IFM Uplift Base Rate as described below

The IFM Uplift Rate = $\text{Min}(\text{Hourly Net IFM Bid Cost Uplift divided by the IFM Load Uplift Obligation} + \text{Virtual Demand obligation}), (\text{Hourly Net IFM Bid Cost Uplift divided by the sum of all hourly Generation in the Day-Ahead Schedule and IFM Upward AS Awards})$

Examples 1-4 in Section 4 below further illustrate this concept.

Physical Load Obligation to pay IFM Tier 1 Uplift

The obligation for physical load to pay IFM Tier 1 Uplift will be determined by the quantity of IFM Scheduled Demand (Load plus Exports) in excess of their IFM Self-Scheduled Generation and IFM Imports, adjusted by any applicable Inter-SC Trades of IFM Load Uplift. The obligation for each SC is then multiplied by the IFM Uplift Rate.

Physical load and virtual demand will pay the same IFM Uplift Rate.

3.2. Virtual Supply Obligation to Pay RUC Tier 1 Uplift

The CAISO proposes to determine the obligation for virtual supply to pay RUC Tier 1 Uplift by determining how much physical supply was displaced by virtual supply in the IFM resulting in the need for the CAISO to purchase additional MW in RUC. This quantity is equal to the net of the total cleared virtual demand and the total cleared virtual supply when the result is a positive net virtual supply or it is also equal to the difference between the physical supply that cleared the IFM and the physical demand that cleared the IFM if physical demand is positive. This is

illustrated in examples 1 through 4 in Section 4 below. This process to determine the obligation for virtual supply is the same as the 11/7 proposal.

- If the virtual supply cleared in the IFM is equal to or less than virtual demand that cleared in the IFM then there will be no charges for RUC Tier 1 Uplift allocated to virtual supply. In this case the CAISO did not procure additional MW in RUC as a result of virtual supply.
- If the quantity of total virtual supply cleared in the IFM is greater than the total virtual demand that cleared the IFM then the difference between these quantities will equal the amount in MW that the CAISO must procure in the RUC process as a result of virtual supply clearing the IFM instead of physical supply.
- If there is a virtual supply obligation it will be distributed to all SCs with cleared virtual supply based on their prorated share of the total obligation.
- Each SC's obligation will be multiplied by the RUC Base Rate as described below

The RUC Uplift Base Rate = MIN (CAISO Hourly Total RUC Allocation Amount/ the Total Net Negative CAISO Demand in that Trading Hour plus the virtual supply obligation), (CAISO Hourly Total RUC Allocation Amount divided by the total RUC Capacity in that Trading Hour)

Physical Load Obligation to pay RUC Tier 1 Uplift

Physical load's obligation to pay RUC Tier 1 Uplift will be determined by each SC's Net Negative Demand deviation. The obligation for each SC will then be multiplied by the RUC Base Rate.

Both virtual supply and physical load will pay the same RUC Uplift Base Rate.

The examples below demonstrate how the revised cost allocation proposal will work in four different market scenarios.

4. Examples of IFM Tier 1 and RUC Tier 1 Uplift Allocation to Virtual Transactions

Example # 1

- Four SCs participated in the Day-Ahead market and submitted virtual transactions
- IFM Bid Costs to be recovered = \$12,000
- RUC Bid Costs to be recovered = \$3,000
- Under scheduled load based on meter reads = 7,000 MW

- Physical Demand Obligation (Load Scheduled Day-Ahead - SS Gen – SS Imports adjusted by inter-sc trades of uplift obligation) = 15,000 MW
- CAISO Forecast = 35,000

IFM Results

Physical Demand = 28,000

Virtual Demand = 5,000

Physical Supply = 27,000

Virtual Supply = 6,000

In this example the IFM Tier 1 obligation to virtual demand would equal zero since total Demand in the IFM cleared below the CAISO Forecast.

The RUC Tier 1 obligation to virtual supply will equal 1000 MW based on (28,000 physical demand – 27,000 physical supply or 6,000MW virtual supply – 5,000 virtual demand = 1000MW). Since virtual transactions are not included in RUC the CAISO would procure an additional 7,000MW in RUC to meet the CAISO Forecast based on the cleared Physical Demand of 28,000. In addition the CAISO would procure an additional 1000MW in RUC due to the physical supply clearing at 27,000 MW. This 1000MW represents the quantity that was displaced by virtual supply and will have to be procured by the CAISO in the RUC process.

The table below shows how costs for IFM and RUC Tier 1 Uplift would be allocated to four SCs.

	Cleared DA Virtual Demand	Cleared DA Virtual Supply	IFM Tier 1 Uplift Allocation	RUC Tier 1 Uplift Allocation	RUC Tier 1 Uplift Allocation 11/7 Proposal
SC1	2000	1800	\$0	\$112.50	\$0
SC2	1000	900	\$0	\$56.25	\$0
SC3	800	1300	\$0	\$81.25	\$144.23
SC4	1200	2000	\$0	\$125.00	\$230.77
Total (MW)	5000	6000	\$0	\$375.00	\$375.00

$$\text{RUC Tier 1 Uplift Rate} = \$3,000 / (1000\text{MW} + 7,000\text{MW}) = \$0.375$$

In the table above SC1's obligation was determined by taking the SCs total cleared virtual supply (1800 MW) / total virtual supply (6000MW) * total virtual supply obligation (1000MW) = 300 MW obligation. The 300MW obligation is then multiplied by the RUC 1 Uplift Rate (.375) = \$112.50

Comparison to 11/7 Cost Allocation Proposal

Under the 11/7 cost allocation proposal based on the total system net of all cleared virtual demand and all cleared virtual supply there would be a virtual

supply obligation to pay RUC Tier 1 Uplift of 1000 MW (6000MW – 5000MW). There would be no obligation for virtual demand to pay IFM Tier 1 Uplift

SC1 and SC2 would have no obligation to pay RUC Tier 1 Uplift because the net of their virtual transactions result in a net virtual demand. Only SC3 and SC4 would have a virtual supply obligation to pay RUC Tier 1 Uplift since the system wide net of their cleared virtual transaction resulted in a net positive virtual supply.

The obligation for SC3 would be calculated by taking the SCs net virtual supply of 500MW/total net virtual supply (1300) * total virtual supply obligation (1000MW) = a 384.61 MW obligation. The 384.71 MW obligation is then multiplied by the RUC Tier 1 Uplift Rate (.375) = \$144.23

Example # 2

- Four SCs participated in the Day-Ahead market and submitted virtual transactions
- IFM Bid Costs to be recovered = \$12,000
- RUC Bid Costs to be recovered = \$2,000
- Physical Demand Obligation for IFM Tier 1 = 15,000 MW
- Under scheduled load based on meter reads = 2,000MW
- CAISO Forecast = 35,000

IFM Results

Physical Demand = 33,000

Virtual Demand = 4,000

Physical Supply = 30,000

Virtual Supply = 7,000

In this example there will be both a virtual demand Obligation of 2,000 MW based on the MW quantity of virtual demand that exceeds the CAISO forecast and a virtual supply obligation of 3,000 MW based on 7000MW virtual supply – 4,000MW virtual demand which equals the quantity the CAISO must procure in RUC based on the virtual supply that cleared the market.

The table below shows how costs for IFM and RUC Tier 1 Uplift would be allocated to four SCs.

	Cleared DA Virtual Demand	Cleared DA Virtual Supply	IFM Tier 1 Uplift Allocation	IFM Tier 1 Uplift Allocation 11/7 Proposal	RUC Tier 1 Uplift Allocation	RUC Tier 1 Uplift Allocation 11/7 proposal
SC1	1500	2000	\$529.41	\$0	\$342.86	\$200.00
SC2	900	1200	\$317.65	\$0	\$205.71	\$120.00

SC3	700	1500	\$247.06	\$0	\$257.14	\$320.00
SC4	900	2300	\$317.65	\$0	\$394.29	\$560.00
Total (MW)	4000	7000	\$1,411.76	\$0	\$1,200.00	\$1,200.00

IFM Uplift Base Rate = $\$12,000 / (15,000 + 2,000) = \$.71$

RUC Uplift Base Rate = $\$2,000 / (2,000 + 3,000) = \$.40$

In the table above SC1's IFM Tier 1 Obligation was determined by taking the SCs total cleared virtual demand (1500 MW) / total virtual demand (4000MW) * total virtual demand obligation (2000MW) = 750MW obligation. 750MW * IFM Tier 1 Uplift Rate (.71) = \$529.41.

SC1's RUC Tier 1 Obligation was determined by taking the SCs total cleared virtual supply (2000MW) / total virtual supply (7000MW) * total virtual supply obligation (3,000MW) = 857.14 MW obligation. 857.14 * RUC Tier 1 Rate (.40) = \$342.86

Comparison to 11/7 Cost Allocation Proposal

Under the 11/7 cost allocation proposal based on the total system net of all cleared virtual demand and all cleared virtual supply there would be a virtual supply obligation to pay RUC Tier 1 Uplift of 3,000 (7,000MW – 4,000MW). There would be no obligation for virtual demand to pay IFM Tier 1 Uplift.

Since the system net for each of the four SCs virtual transactions resulted in a positive net virtual supply they will each pay RUC Tier 1 Uplift.

The obligation for SC1 would be calculated by taking the SCs net virtual supply of 500MW / total net virtual supply (3000MW) * total virtual supply obligation (3000MW) * RUC Tier 1 Uplift Rate (.40) = \$200.00

Example # 3

- Four SCs participated in market and submitted virtual transactions
- Physical Demand Obligation for IFM Tier 1 = 20,000 MW
- Under scheduled Load = 1,000
- IFM Bid Costs to be recovered = \$20,000
- RUC Bid Costs to be recovered = \$0
- CAISO Forecast = 35,000

IFM Results

Physical Demand = 34,000

Virtual Demand = 4,000

Physical Supply = 36,000

Virtual Supply = 2,000

RUC

0 MW

The virtual demand obligation for IFM Tier 1 = 3,000 MW

The virtual supply obligation for RUC Tier 1 = 0MW since virtual supply cleared lower than virtual demand

The table below shows how costs for IFM and RUC Tier 1 Uplift would be allocated to four SCs.

	Cleared DA Virtual Demand	Cleared DA Virtual Supply	IFM Tier 1 Uplift Allocation	IFM Tier 1 Uplift Allocation 11/7 Proposal	RUC Tier 1 Uplift Allocation
SC1	1500	500	\$978.26	\$826	\$0
SC2	900	200	\$586.96	\$529	\$0
SC3	700	900	\$456.52	\$0	\$0
SC4	900	400	\$586.96	\$413	\$0
Total (MW)	4000	2000	\$2,608.70	\$1818.	\$0

IFM Tier 1 Uplift rate = $\$20,000 / (3000\text{MW} + 20,000\text{MW}) = \$.87$

RUC Tier 1 Uplift rate = \$0

SC1's obligation for IFM Tier 1 Uplift shown in the chart above was calculated as $(1500\text{MW} / 4000\text{MW}) * 3,000\text{MW} = 1125\text{MW}$ obligation. $1125\text{MW} * .87 = \$978.26$

Comparison to 11/7 Cost Allocation Proposal

Under the 11/7 cost allocation proposal based on the total system net of all cleared virtual demand and all cleared virtual supply there would be a virtual demand obligation to pay IFM Tier 1 Uplift of 2,000 MW (4,000MW virtual demand – 2,000MW virtual supply). There would be no obligation for virtual supply to pay RUC Tier 1 Uplift.

SC1, SC2, and SC4 would pay IFM Tier 1 Uplift since the system net of their virtual transactions resulted in a positive net virtual demand. SC3 would not pay IFM Tier 1 Uplift since their system net results in a positive net virtual supply.

The obligation for SC1 would be calculated by taking the SCs net virtual demand of 1000 MW/total net virtual demand (2200MW) * total virtual demand obligation (2000MW) * IFM Tier 1 Uplift Rate (.91) = \$819.22. The rate for IFM Tier 1 Uplift is different because the virtual demand obligation is 2,000MW instead of 3,000MW as is the case with the revised proposal shown above.

Example # 4

- Four SCs participated in market and submitted virtual transactions
- Physical Demand Obligation for IFM Tier 1 = 15,000 MW
- Under scheduled Load = 5,000
- IFM Bid Costs to be recovered = \$15,000

- RUC Bid Costs to be recovered = \$3,000
- CAISO Forecast = 35,000

IFM Results

Physical Demand = 30,000

Virtual Demand = 5,000

Physical Supply = 32,000

Virtual Supply = 3,000

In this example there will be no allocation of IFM or RUC Tier 1 Uplift charges to virtual transactions. Since physical Demand plus virtual demand cleared is equal to the CAISO forecast there will be no cost allocation for IFM Tier 1 Uplift to virtual demand and since virtual supply cleared lower than virtual demand there are no additional RUC Tier 1 Uplift costs that may be attributed to the cleared virtual supply.

Comparison to 11/7 Cost Allocation Proposal

Under the 11/7 cost allocation proposal based on the total system net of all cleared virtual demand and all cleared virtual supply there would be a virtual demand obligation to pay IFM Tier 1 Uplift of 2,000 MW (4,000MW VD – 2,000MW VS). There would be no obligation for virtual supply to pay RUC Tier 1 Uplift. Therefore a number of SC with positive net virtual demand would pay IFM Tier 1 Uplift.

5. Other Charge Codes

Real Time BCR Uplift (Charge Code 6678)

The CAISO maintains the position that for Market Release 1A no costs will be allocated to virtual transactions under the existing single tier charge and to continue to allocate these costs to Measured Demand only.

The CAISO recognizes that virtual supply as well as other transactions such as uninstructed deviations may, in certain situations, contribute to real-time uplift costs.

FERC granted rehearing to the CAISO in the April 2007 Rehearing Order ⁴with respect to the two-tier allocation of Real-Time bid cost recovery costs allowing the CAISO more time to re-design the charge and agreed that The disparities between the forecast and real-time demand are problematic and could lead to costs which cannot accurately be attributed to a specific market participant.

⁴ 119 FERC 61,076 April 20, 2007

<http://www.aiso.com/1bcb/1bcb7bd7f40.pdf>

Charge Code 6678 will be redesigned into a two tier charge type as part of Market Release 2 scope. At that time the CAISO will engage in a stakeholder process and perform analysis in order to design a two tier rate around cost causation.

Other Uplift Charges

The CAISO proposes no changes from the November 7th proposal regarding the following Uplift charges:

- IFM Bid Cost Recovery Tier 2 Charges
- Day-Ahead Residual Unit Commitment (RUC) Tier 2 Charges
- Real-Time Uninstructed Imbalance Energy
- Ancillary Services Cost Allocation
- FERC Fee Over/Under Recovery
- Allocation of IFM Marginal Losses Surplus (MLS) Credit
- Real-Time Imbalance Uplift Charges
- Real-Time Congestion Off-Set

The November 7th cost allocation proposal included in the Issue Paper *Update on the Design For Convergence Bidding* may be located at the following link on the CAISO website:

<http://www.caiso.com/1c8f/1c8ff39f65a70.pdf>

6. Next Steps

This proposal will be discussed at the MSC/Stakeholder Meeting scheduled for February 8th, 2008. Written comments are requested by February 29 and should be submitted to convergencebidding@caiso.com. **After stakeholder comments are received** a stakeholder conference call will be scheduled for the week of March 3rd to further discuss the cost allocation proposal.