California Independent
System Operator Corporation

March 31, 2010

VIA FEDERAL EXPRESS

The Hon. Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426

RE: Amendments to the FERC Electric Tariff of the California Independent System Operator Corporation to Institute Make Whole Mechanism for Demand Subject to Price Corrections

Docket No. ER10- ___

Dear Secretary Bose:

The California Independent System Operator Corporation (the ISO) respectfully hereby submits for approval by the Federal Energy Regulatory Commission (Commission or FERC) amendments to the ISO Tariff,[1] pursuant to Section 205 of the Federal Power Act (FPA),[2] and Section 35.13 of the Commission regulations.[3] These amendments would enable the ISO to "make-whole" scheduling coordinators who, due to ex-post price corrections, are subject to prices for internal demand or exports higher than the prices in the scheduling coordinator's submitted bid curve. The ISO developed this proposal after the start of the new market design in response to Scheduling

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1 California Independent System Operator Corporation, FERC Electric Tariff, Fourth Replacement Volume, Nos. I & 2. (ISO Tariff)

2 16 U.S.C. § 824d

3 18 C.F.R. § 35.13 (2009)

Coordinator requests for measures to minimize exposure of demand to the impact of price corrections. The proposal addresses the concerns raised by market participants through a simple "make-whole" mechanism that can be readily implemented on June 1, 2010.

An original and five copies of the amendment are included for the filing. One additional copy is included to be date and time stamped and returned in the pre-addressed, postage paid envelope.

I. Background

On April 1, 2009, the ISO commenced operations under its new nodal, two-day settlement market design. Under this new market design, after the market has cleared and prices are posted, the ISO may correct financially binding prices if the ISO identifies an invalid market solution or invalid prices in an otherwise valid market solution due to data input failure or hardware or software failure, or if a result is inconsistent with the provisions of the ISO Tariff.[4] Price corrections are conducted through the price validation process conducted by the ISO during the price correction time horizon, which is currently the first five days after the relevant market clears. Prices that apply to demand, which includes both internal demand and exports from the ISO grid, are also subject to such price corrections.

After the start of the new market, market participants brought to the ISO's attention the following issue: when prices for demand are corrected in the upward direction after the market clears, in certain cases, Scheduling Coordinators with cleared demand bids are subject to prices higher than the prices they submitted in their bid

[4] ISO Tariff Section 35.

curve. This discrepancy can expose Scheduling Coordinators to higher costs from using the ISO grid than they were willing to incur based on their submitted bids. For example, if a Scheduling Coordinator had submitted an offer to buy energy from the ISO (export bid) at $30/MWh, the bid would be dispatched if the market clears at a price equal to or less than the $30 offer. However, if the market price is subsequently corrected to a price higher than the Scheduling Coordinator's offer price, *e.g.*, $60/MWh, the Scheduling Coordinator would be charged the corrected price which is higher than its offer price. Under the current market design, this can affect bids for internal demand and exports in the integrated forward market conducted as part of the day-ahead market, as well as export demand in the hour-ahead scheduling process. Currently, the ISO does not have a policy or mechanism for compensating Scheduling Coordinators when this occurs.

In order to protect Scheduling Coordinators from adverse financial impacts in cases when prices are subsequently corrected in a way that is not consistent with their accepted demand bids, the ISO worked with stakeholders to develop an *ex post* settlement adjustment that would compensate Scheduling Coordinators based on their bid costs.

II. Description of Filing

A. Description of Proposed Make Whole Mechanism

The proposed "make-whole" mechanism would apply to all demand, including internal demand and exports, cleared in the integrated forward market, and all export

schedules cleared in the hour-ahead scheduling process.[5] In the event the ISO conducts a price correction such that market clearing prices are adjusted upward, cleared demand schedules affected by the price correction will not be settled at the corrected price, but will instead be settled an alternative derived price. The derived price, referred to as the Price Correction Derived LMP, reflects the value of the make-whole payment necessary to ensure a Scheduling Coordinator is not adversely impacted by a subsequent price correction that results in a price above its accepted bid prices. The Price Correction Derived LMP will be calculated specifically for the Scheduling Coordinator whose cleared internal demand and exports are impacted by the upward price correction.

This simplification in the "make-whole" payment settlement allows the ISO to readily incorporate the "make-whole" measure into the final settlement price and avoids the need to calculate a separate payment to export and load. Moreover, as discussed further below, this method eliminates the need to develop a separate method for allocating any costs associated with such compensations because any resulting imbalances will be captured through the revenue neutrality mechanisms already in place.

When a price is subsequently corrected upward, such that it is higher than a Scheduling Coordinator's highest bid price, because based on their bid curve the Scheduling Coordinator would be required to pay for demand above the prices they

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[5] It is important to note that under the current market design, the ISO does not clear internal load bids in the hour-ahead scheduling process, nor does it clear internal load or export bids in the real-time market. Therefore, the proposal is limited to the demand bids that are cleared through the ISO markets. In addition, the proposal approved by the Board of Governors in February of 2010 included a similar treatment for virtual supply bids impacted by price corrections. This part of the proposal will be included in the ISO's tariff filing to implement convergence bidding to be filed later this year.

deemed to be economic the Scheduling Coordinator's entire cleared energy bid curve up to the cleared quantities becomes uneconomic. Similarly, when a price is subsequently corrected upward such that it is somewhere within the range of the bid curve, only a portion of the Scheduling Coordinator's bid curve becomes uneconomic because for at least some of the demand cleared the Scheduling Coordinator was willing to pay for the corrected price. Therefore, if the price that applies to a cleared demand bid is corrected upward, the ISO will calculate a "make-whole" payment amount. As illustrated in the figures below, the "make-whole" payment amount is determined on an hourly basis as the area between the submitted demand bid curve for the affected Scheduling Coordinator and the corrected price.

Figure 1 illustrates the "make-whole" payment amount based on the difference between the corrected LMP and the price the Scheduling Coordinator submitted in its energy bid curve, where the corrected price is higher than the Scheduling Coordinator's highest bid price. The "make-whole" payment is the illustrated area between the corrected price and the demand bid curve, which would be calculated as:

Bid segment MW *[MAX(0, corrected price *minus* bid segment price)].

Figure 1: Derivation of Make-Whole Payment Amount for Price Corrections Higher than the Scheduling Coordinator's Highest Bid Price

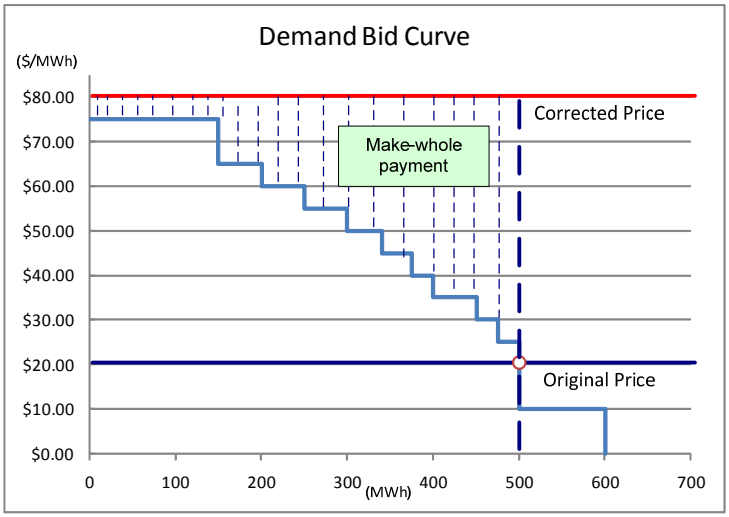

Table 1: Make-Whole Payment Calculation for Price Corrections Higher than the Scheduling Coordinator's Highest Bid Price

Bid Curve MW	Bid Price $	Bid Segment MW	Corrected Price *minus* Bid Price $	Make Whole Payment Amount $
0	75	150	5	750
150	65	50	15	750
200	60	50	20	1000
250	55	50	25	1250
300	50	40	30	1200
340	45	35	35	1225
375	40	25	40	1000
400	35	50	45	2250
450	30	25	50	1250
475	25	25	55	1375
500	25			
	Make Whole Payment Amount			12,050

Table 2: Derivation of Price Correction Derived LMP and Settlement of Demand Price Corrections Higher than the Scheduling Coordinator's Highest Bid Price

Original Price		**$20**
Corrected Price		$80
Settlement Based on Corrected Price	500 MW * $80	$40,000
Make-Whole Payment		$12,050
Final Settlement Amount		$27,950
Price Correction Derived LMP	$27,950/500 MW	$55.90

Based on the the bid curve in the example provided in Table 1, when the price was corrected from $20/MWh to $80/MWh, the corresponding make-whole payment would be $12,050. Table 2 shows that if the ISO were to provide this "make-whole" payment, the final settlement would be $27,950, which is $40,000 (the amount the Scheduling Coordinator would have paid at the corrected price for the cleared schedule) minus $12,050 (the "make whole" payment amount). The "make-whole" payment amount reflects the amount the Scheduling Coordinator would have to pay above what it had deemed economic for the cleared demand. Rather than actually pay the Scheduling Coordinator the $12,050 to protect them from this uneconomic exposure, the ISO would calculate the Price Correction Derived LMP of $55.90/MWh, which is the $27,950 divided by the cleared 500 MWh. This would ensure that for the Scheduling Coordinator is not exposed to the $80/MWh price for the quantities it would not have consumed at that price.

Under the proposed "make-whole" payment mechanism, the ISO would then use the Price Correction Derived LMP of $55.90/MWh to settle the cleared 500 MWh of demand for that Scheduling Coordinator, rather than use the corrected price of

$80/MWh. This approach compensates the affected Scheduling Coordinator for the impact of the price correction.

The figures and tables that follow provide an example of how the Price Correction Derived LMP would apply for a Scheduling Coordinator in the event that the corrected price fell somewhere within the range of the bid prices submitted in their energy bid curve. Figure 2 represents the "make-whole" payment that would apply in the event that price correction resulted in a higher LMP than some of the prices submitted in the Scheduling Coordinator's bid curve. As illustrated by Figure 2, if the price were corrected to $60/MWh, the Scheduling Coordinator in this case had indicated that it was willing to pay $60/MWh up to 200 MWh. Therefore, for the portions up to 200 MWhs, the corrected price is within the economic range for that Scheduling Coordinator.

Figure 2: Derivation of Make-Whole Payment Amount for Price Corrections Within the Scheduling Coordinator's Bid Curve Prices

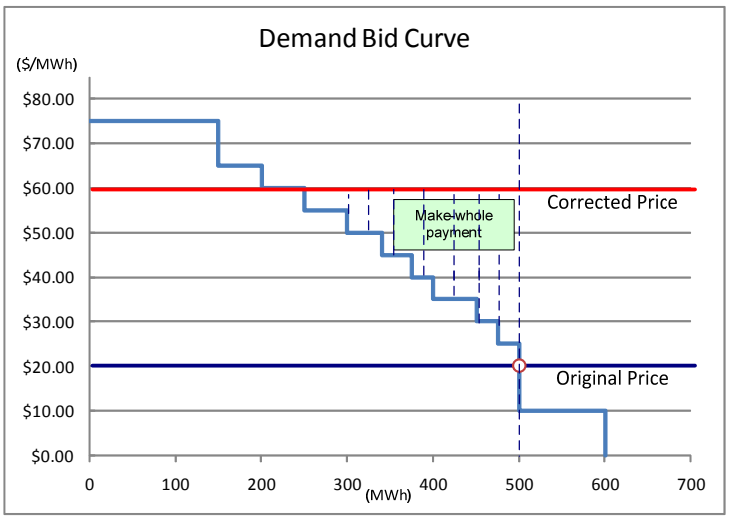

Table 4: Make-Whole Payment Calculation for Price Corrections Within the Scheduling Coordinator's Bid Curve Prices

Bid Curve MW	Bid Price $	Bid Segment MW	Corrected Price *minus* Bid Price $	Make Whole Payment Amount $
0	75	150	Minus 15	0
150	65	50	Minus 5	0
200	60	50	0	0
250	55	50	5	250
300	50	40	10	400
340	45	35	15	525
375	40	25	20	500
400	35	50	25	1250
450	30	25	30	750
475	25	25	35	875
500	25			
	Make Whole Payment Amount			4550

Table 5: Derivation of Price Correction Derived LMP and Settlement of Demand Price Corrections Within the Scheduling coordinator's Bid Curve Prices

Original Price		**$20**
Corrected Price		$60
Settlement Based on Corrected Price	500 MW * $60	$30,000
Make-Whole Payment		$4550
Final Settlement Amount		$25,450
Price Correction Derived LMP	$25,450/500 MW	$50.90

Based on the the bid curve in the example provided in Table 3, when the price is corrected from $20/MWh to $60/MWh, the corresponding "make-whole" payment would be $4550. Table 5 shows that if the ISO were to provide this make-whole payment, the final settlement would be $25,450, which is $30,000 (the amount the Scheduling Coordinator would have paid at the corrected price for the cleared schedule), minus $4550 (the "make whole" payment amount). Again, rather than actually paying the

Scheduling Coordinator the make-whole payment amount of $4550, the ISO would calculate a Price Correction Derived LMP of $50.90/MWh, which is the $25,450 divided by the cleared 500 MWh. Under the proposed "make-whole" payment mechanism the ISO would then use the Price Correction Derived LMP of $50.90/MWh to settle cleared 500 MWh of demand for that Scheduling Coordinator rather than the corrected price of $60/MWh.

The proposed "make-whole" payment mechanism does not require the development of an allocation method because the "make-whole" is accomplished through the Price Correction Derived LMP, rather than through the transfer of funds to the affected Scheduling Coordinator. Because the scheduled demand schedule is deemed to have cleared at the corrected price of $80/MW, any shortage in revenue collected as a result of the application of derived LMP will be captured through the allocation of non-zero amounts of the sum of imbalance energy, uninstructed imbalance energy, and unaccounted for energy in the real-time in accordance in Section 11.5.4 of the ISO Tariff. Therefore, under the proposed design, any negative revenue resulting from the application of the derived price rather than the corrected price would be recovered through the allocation of the non-zero amounts to internal ISO load and export schedules.

B. Frequency and Scope of Price Corrections

In seeking to develop a mechanism to rectify the adverse impact on demand caused by price corrections, the ISO examined the number and magnitude of price corrections, and, their impact on demand, by comparing corrected prices with the original prices from April to November 2009 for both the day-ahead market and the hour-ahead

scheduling process. Based on this data, the ISO estimated what would be an upper bound for potential "make-whole" payment. The upper bound is calculated as total cleared megawatts multiplied by price differences between the corrected price and the original price. The initial results presented by the ISO in its final stakeholder proposal show that while it is necessary to mitigate for certain instances where demand would be exposed to such uneconomic consequences due to price corrections, the magnitude of such potential exposure was low. The initial results illustrated that the impact due to day-ahead price correction was at $461,736. Similarly, the upper bound of the monetary impact due to hour-ahead scheduling process price correction was also relatively small at $1,049,118 for the entire market over the seven months.[6]

Subsequently the ISO re-evaluated the impact of such price corrections based on more recent data by examining the months of December, January and February. Table 6 below shows that the total upper bound increased from the previously reported $1,049,118 to $1,187,122 in the hour-ahead scheduling process and did not change at all in the day-ahead.

The resulting minimal impact is attributed to the improvements the ISO has made in its market processes which have resulted in the need for fewer price corrections after the market clears. Furthermore, with these improvements and continued efforts to minimize price corrections, any needed "make-whole" payments are expected to decline even further in the future.

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[6] See Table 3 in Final Report at p.7. http://www.caiso.com/271c/271cac5961570.pdf

Table 6: Make While Payment Upper Bound

	Hour-Ahead Scheduling Process	Day-Ahead Market
Apr-09	$99,787	$250,775
May-09	$111,221	$210,930
Jun-09	$547,556 (6/26: $449,634; rest of June $97,923)	$0
Jul-09	$33,032	$0
Aug-09	$32,405	$0
Sep-09	$126,258	$0
Oct-09	$61,133	$0
Nov-09	$37,726	$32
Dec-09	$42,961	$0
Jan-10	$89,579	$0
Feb-10	$5,464	$0
Total	$1,187,122	$461,736

C. Description of Tariff Changes

In order to implement the proposed "make whole" payment mechanism, the ISO proposes several changes to its existing tariff. The ISO proposes to add a new section 11.21 to include the description of how the ISO will derive the Price Correction Derived LMP. This section describes the calculation of the Price Correction Derived LMP as discussed above. In addition, the ISO proposes to modify sections 11.2.1.2, 11.2.1.3, and 11.2.1.4, to specify that if the Scheduling Coordinator's demand is subject to an upward price correction, the applicable IFM LMP will be the Price Correction Derived LMP. Section 11.2.1.2 addresses internal demand settled at load aggregation points in the Day-Ahead Market. Section 11.2.1.3 addresses internal demand settled at pricing nodes or custom load aggregation points in the Day-Ahead Market. Section 11.2.1.4 addresses exports settled at Scheduling points. Similarly, the ISO proposes to modify

Section 11.4.1 to reflect that exports in the hour-ahead scheduling process subject to an upward price correction are also subject to the Price Correction Derived LMP rather than the corrected LMP.

III. Stakeholder Process

After the start of the new market design, the ISO received numerous disputes and inquiries regarding whether the demand bids adversely affected by price corrections would be subject to a "make-whole" payment if the scheduling coordinator was taken off their bid curve by the price correction. The ISO market design and Tariff does not support the application of the bid-cost recovery mechanism for the purpose of demand. Accordingly, the ISO is initiating a stakeholder process to modify its current policy and tariff so that affected parties could be kept whole.

The ISO launched this process in fall 2009 and posted an issue paper on October 28, 2009. The initial conference call was held on November 4, 2009. Based on written comments received and further discussion with stakeholders through a second conference call on December 8, the ISO posted a straw proposal on December 16, 2009. The ISO reviewed this straw proposal with stakeholders in a third conference call on December 23, 2009. Based on additional written comments received, the ISO posted a draft final proposal on January 12, 2010 and reviewed with stakeholders in a subsequent conference call on January 19. On February 11, 2010, the ISO's Board of Governors approved the proposal. All policy development documents and stakeholder comments received through this process are available on the ISO website.[7]

[7] http://www.caiso.com/2453/2453ab8e10ff0.html

There is broad support for the ISO's proposed "make-whole" mechanism. In particular, stakeholders widely supported the ISO's proposal to calculate the make-whole payment on an hourly basis, as opposed to netting revenues over a twenty-four hour basis. The objection to netting revenues over a twenty-four hour basis and request for an alternative process made it infeasible to integrate the make-whole payment through the existing bid cost recovery mechanism contained in Section 11.8 of the ISO Tariff given that the existing bid cost recovery structure is designed to net revenues across the twenty-four hour period.

Some stakeholders argued that the "make-whole" payment should be determined based on the Scheduling Coordinator's last cleared demand bid, instead of its demand bid curve. However, the ISO found that using the relevant bid segments will make the Scheduling Coordinators whole without creating incentives for demand to submit a segment of their bid curve at extremely low prices to take advantage of potential future price corrections. The ISO did not receive any objections to its final proposal in this regard after this explanation was provided.

On March 17, 2010 the ISO posted proposed tariff language. Two stakeholders submitted written comments.[8] On March 29, 2010 the ISO held a conference call to discuss the proposed tariff language. In response to stakeholder comments the clarified the use of the term Price Corrections Derived LMP throughout the proposed tariff. The ISO also clarified that, similar to price corrections, when ISO will use the Price Correction Derived LMP to adjust the congestion component of the LMP in applying the

[8] The stakeholder comments and ISO responses to these comments can be found at: http://www.caiso.com/2453/2453ab8e10ff0.html.

derived price. This adjustment is the manner in which the market cleared price is corrected or modified.

In response to a telephone inquiry by a market participant during this time, the ISO also clarified that the demand portions of Participating Load settled at the pricing nodes or custom load aggregations points would also be subject to the Price Correction Derived LMP should the Scheduling Coordinator's demand bid curve be subject to an upward price correction. Accordingly, the ISO proposed to include the language in Section 11.2.1.3 to clarify this requirement.

Finally, the ISO a clarified that while the proposal put forth to the Board of Governors included a "make-whole" mechanism for virtual bids, the ISO is not including such changes with the Commission in this filing, and will instead include such proposed changes in the upcoming convergence bidding tariff amendment filing.

IV. Effective Date

The ISO requests that the amendments included in this filing be made effective on the June 1, 2010, operating day. As such, the day-ahead market operated on June 1, 2010 for June 2, 2010 would be subject to the make whole payments and Price Correction Derived LMP described above. In addition, the hour-ahead scheduling processes operate on June 1, 2010 for that same day would be subject to the make whole payments and Price Correction Derived LMP described above.

V. Communications

Communications regarding this filing should be addressed to the following individuals:

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* Individuals designated for service pursuant to Rule 203(b)(3),
18 C.F.R. § 385.203(b)(3)

VI. Service

The ISO has served copies of this transmittal letter and all attachments to the Public Utilities Commission of the State of California, the California Energy Commission, and all parties with Scheduling Coordinator Agreements under the ISO Tariff. In addition, the CAISO has posted a copy of the filing on the CAISO Website

VII. Attachments

The following attachments, in addition to this transmittal letter, support the instant filing:

Attachment A	Revised ISO Tariff sheets that incorporate the proposed changes described above.
Attachment B	The proposed changes to the ISO Tariff shown in black-line format.
Attachment C	Board of Governors Memorandum

VIII. Conclusion

The ISO respectfully requests that the Commission approve the attached tariff sheets. Please contact the undersigned if you have any questions regarding this matter.

Respectfully submitted,

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Attachment A – Clean Sheets
Price Corrections Make Whole Payments
Fourth Replacement CAISO Tariff
March 31, 2010

11.2.1 IFM Settlements.

11.2.1.1 IFM Payments For Supply of Energy.

For each Settlement Period for which the CAISO clears Energy transactions in the IFM, the CAISO shall pay the relevant Scheduling Coordinator for the MWh quantity of Supply of Energy from all Generating Units, Participating Loads, and System Resources in an amount equal to the IFM LMP at the applicable PNode multiplied by the MWh quantity specified in the Day-Ahead Schedule for Supply (which consists of the Day-Ahead Scheduled Energy). For resources that have been impacted by price corrections as specified in Section 11.3, the IFM LMP will be the Price Correction Derived LMP.

11.2.1.2 IFM Charges for Demand at LAPS.

For each Settlement Period that the CAISO clears Energy transactions in the IFM, except as specified in Section 30.5.3.2 and except for Participating Loads, which shall be subject to the charges specified in 11.2.1.3, the CAISO shall charge Scheduling Coordinators for the MWh quantity of Demand scheduled at an individual LAP in the Day-Ahead Schedule, in an amount equal to the IFM LMP for the applicable LAP multiplied by the MWh quantity scheduled in the Day-Ahead Schedule at the relevant LAP. For Scheduling Coordinators whose Demand scheduled at the individual LAP is subject to an upward price correction as specified in Section 11.21, the CAISO will use the Price Correction Derived LMP to settle the MWh quantity of Demand scheduled in the Day-Ahead Schedule at the relevant LAP.

11.2.1.3 IFM Charges for Demand by Participating Loads, Including Aggregated Participating Load.

For each Settlement Period that the CAISO clears Energy transactions in the IFM for Demand by Participating Loads, the CAISO shall charge the Scheduling Coordinators an amount equal to the MWh quantity of Demand scheduled in the Day-Ahead Schedule for the relevant Participating Load at the PNode (or Custom LAP, in the case of Aggregated Participating Load), multiplied by the IFM LMP at that PNode (or Custom LAP, in the case of Aggregated Participating Load). For Scheduling Coordinators whose Demand scheduled at the individual PNode or Custom LAP is subject to an upward price correction as specified in Section 11.21, the CAISO will use the Price Correction Derived LMP to settle the MWh quantity scheduled in the Day-Ahead Schedule for that Scheduling Coordinator at the relevant PNode or Custom LAP.

11.2.1.4 IFM Charges for Energy Exports at Scheduling Points.

For each Settlement Period that the CAISO clears Energy transactions at Scheduling Points in HASP, the Settlement for such transactions will be the CAISO HASP Intertie LMP multiplied by the MWh quantity of export scheduled at the individual Scheduling Point in excess of or less than the Day-Ahead Schedule, respectively. For Scheduling Coordinators whose exports scheduled at the individual Scheduling Point is subject to an upward price correction as specified in Section 11.21, the CAISO will use the Price Correction Derived LMP to settle the MWh quantity of Energy exports scheduled in the Day-Ahead Schedule at the relevant Scheduling Point.

11.2.1.5 IFM Congestion Credit for ETCs, TORs, and Converted Rights.

For all Points of Receipt and Points of Delivery pairs associated with a valid and balanced ETC Self-Schedule, TOR Self-Schedule or Converted Rights Self-Schedule, the CAISO shall not impose any charge or make any payment to the Scheduling Coordinator related to the MCC associated with such Self-Schedules. For each Scheduling Coordinator, the CAISO shall determine the applicable IFM Congestion Credit, which can be positive or negative, as the sum of the products of the quantity scheduled in the Day-Ahead Schedule and the MCC at each eligible Point of Receipt and Point of Delivery associated with the valid and balanced portions of that Scheduling Coordinator's ETC, TOR, and Converted Rights Self-Schedules.

11.2.1.6 Allocation of IFM Marginal Losses Surplus Credit.

On each Settlement Statement, the CAISO shall apply the IFM Marginal Losses Surplus Credit to each Scheduling Coordinator for the period of each Settlement Statement. For each Settlement Period, the IFM Marginal Losses Surplus Credit shall be the product of the IFM Marginal Losses Surplus rate ($/MWh) and the MWh of Measured Demand for the relevant Scheduling Coordinator net of that Scheduling Coordinator's (1) Measured Demand associated with a TOR Self-Schedule subject to the IFM Marginal Cost of Losses Credit for Eligible TOR Self-Schedules as provided in Section 11.2.1.7; and (2) Measured Demand associated with a TOR Self-Schedule subject to the RTM Marginal Cost of Losses Credit for Eligible TOR Self-Schedules as provided in Section 11.5.7.2.

11.2.5.4 Treatment of Prepaid WAC Amounts.

For the amount of CRRs that were allocated to the entity, the CAISO will exempt the Scheduling Coordinator for such entity from the WAC for any Real-Time Interchange Export Schedules at the Scheduling Point corresponding to the sink of each allocated CRR, on an hourly basis for the period for which the CRR is defined, until the pre-paid funds are exhausted. At the end of the period for which the CRR is defined any remaining balance will be allocated to the Participating TOs in accordance with Section 26.1.4.3. To the extent the pre-paid balance amount is exhausted prior to the end of the duration of the awarded CRR, the Scheduling Coordinator designated by the CRR Holder that has been allocated CRRs pursuant to Section 36.9 will be charged for the WAC in accordance with Section 26.1.4.

11.3 [NOT USED]

11.4 HASP Settlement of Scheduling Points.

The CAISO shall settle both incremental and decremental Energy at the relevant Scheduling Points including Operational Adjustments for all Non-Dynamic System Resources based on the HASP Intertie LMP in accordance with Section 11.4.1 and 11.4.2. Energy dispatched using HASP Intertie Schedules is accounted as Instructed Imbalance Energy and its costs shall be included in the Real-Time Market Settlements in accordance with Section 11.5.

11.4.1 HASP Settlement for Exports.

For each Settlement Period that the CAISO clears Energy transactions at Scheduling Points in HASP, the Settlement for such transactions will be the CAISO HASP Intertie LMP multiplied by the MWh quantity of export scheduled at the individual Scheduling Point in excess of or less than the Day-Ahead Schedule, respectively. For Scheduling Coordinators whose exports scheduled at the individual Scheduling Point is subject to an upward price correction as specified in Section 11.21, the CAISO will use the Price Correction Derived LMP to settle the MWh quantity of Energy exports scheduled in the Day-Ahead Schedule at the relevant Scheduling Point.

(c) Under no circumstances shall the CAISO be obligated to pay to the WECC, NERC or any regional advisory body, or to their successors or assignees, any NERC/WECC Charges or any interest charges related to NERC/WECC Charges except for those NERC/WECC Charges actually paid to the CAISO by Scheduling Coordinators. The CAISO shall have no obligations whatsoever to pursue collections of NERC/WECC Charges other than the obligation to invoice Scheduling Coordinators and to provide information to the WECC or NERC as provided for in the CAISO Tariff. Notwithstanding the foregoing, the CAISO shall have the right, at its sole discretion, to recoup, set off and apply any amount to which a Scheduling Coordinator is or will be entitled, in or towards the satisfaction of any of that Scheduling Coordinator's past-due NERC/WECC Charges in accordance with Section 11.29.13.7.

(d) The CAISO shall, on request, certify in writing the NERC/WECC Charges owed by a Scheduling Coordinator that remain unpaid and shall provide certified copies of the relevant Preliminary NERC/WECC Charge Invoices, Final NERC/WECC Charge Invoices, and other documentation on which the CAISO's certificate was based to the WECC, NERC, and the applicable Scheduling Coordinators. A CAISO certificate given under this Section 11.20.7(d) may be used as prima facie evidence of the amount due in any legal proceedings.

11.21 Make Whole Payments for Price Corrections

11.21.1 CAISO Demand and Exports

If the CAISO corrects an LMP in the upward direction pursuant to Section 35 that impacts Demand in the Day-Ahead Market and the HASP such that either a portion of or the entire cleared CAISO Demand or Export Bid curve becomes uneconomic, then the CAISO will calculate and apply the Price Correction Derived LMP for settlement of CAISO Demand and exports for the affected resource in Section 11.2.1.2_ and 11.2.1.4. The CAISO will calculate a Price Correction Derived LMP for each affected resource as follows: the total cleared MWhs of CAISO Demand or export in the Day-Ahead Schedule or HASP Intertie Schedule, as applicable, multiplied by the corrected LMP, minus the make-whole payment amount, all of which is divided by the total cleared MWhs of CAISO Demand or export in the Day-Ahead Schedule or HASP Intertie Schedule, as applicable. The make-whole payment amount will be calculated on an hourly basis determined by the area between the resource's CAISO Demand or Export Bid curve and the corrected LMP, which is calculated as the MWhs each of the cleared bid segment in the Day-Ahead Schedule or HASP Intertie Schedule for the affected resource, multiplied by the maximum of zero or the corrected LMP minus the bid segment price.

11.21.2 [Not Used]

Pre-RA Import Commitment	Any power purchase agreement, ownership interest, or other commercial arrangement entered into on or before March 10, 2006, by a Load Serving Entity serving Load in the CAISO Balancing Authority Area for the procurement of Energy or capacity from a resource or resources located outside the CAISO Balancing Authority Area. The Pre-RA Import Commitment shall be deemed to terminate upon the expiration of the initial term of the Pre-RA Import Commitment, notwithstanding any "evergreen" or other renewal provision exercisable at the option of the Load Serving Entity.
Pre-RA Import Commitment Capability	The quantity in MW assigned to a particular Intertie into the CAISO Balancing Authority Area based on a Pre-RA Import Commitment.
Previously-Released CRRs	CRRs that were released based on a CRR FNM that did not include a particular IBAA change and that will continue to be in effect, either as active financial instruments or as allocated CRRs eligible for renewal nomination in the Priority Nomination Process, when the particular IBAA change is implemented in the CAISO Markets.
Price Correction Derived LMP	resource specific settlement LMP calculated pursuant to Section 11.21 for resources impacted by price corrections in the upward direction consistent with Section 35.
Price Taker	A quantity only Energy Bid with no associated price.
Pricing Node (PNode)	A single network Node or subset of network Nodes where a physical injection or withdrawal is modeled and for which a Locational Marginal Price is calculated and used for financial settlements.
Primary CAISO Control Center	The CAISO Control Center located in Folsom, California.
Priority Nomination Process (PNP)	The step in an annual CRR Allocation in years beyond CRR Year One through which CRR Holders re-nominate (1) Seasonal CRRs they were allocated in the prior year, (2) Long Term CRRs that are expiring, and (3) Existing Transmission Contracts and Converted Rights that are expiring.
Priority Type	The Bid component that indicates if applicable the scheduling priority for the Settlement Period for Reliability Must-Run Generation, if applicable.
Prior Period Change	Any correction, surcharge, credit, refund or other adjustment pertaining to a billing month pursuant to an RMR Contract which is discovered after the Revised Adjusted RMR Invoice for such billing month has been issued.

Attachment B - Blacklines

Price Corrections Make Whole Payments

Fourth Replacement CAISO Tariff

March 31, 2010

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11.2.1.2 IFM Charges for Demand at LAPS.

For each Settlement Period that the CAISO clears Energy transactions in the IFM, except as specified in Section 30.5.3.2 and except for Participating Loads, which shall be subject to the charges specified in 11.2.1.3, the CAISO shall charge Scheduling Coordinators for the MWh quantity of Demand scheduled at an individual LAP in the Day-Ahead Schedule, in an amount equal to the IFM LMP for the applicable LAP multiplied by the MWh quantity scheduled in the Day-Ahead Schedule at the relevant LAP. For Scheduling Coordinators whose Demand scheduled at the individual LAP is subject to an upward price correction as specified in Section 11.21, the CAISO will use the Price Correction Derived LMP to settle the MWh quantity of Demand scheduled in the Day-Ahead Schedule at the relevant LAP.

11.2.1.3 IFM Charges for Demand by Participating Loads, Including Aggregated Participating Load.

For each Settlement Period that the CAISO clears Energy transactions in the IFM for Demand by Participating Loads, the CAISO shall charge the Scheduling Coordinators an amount equal to the MWh quantity of Demand scheduled in the Day-Ahead Schedule for the relevant Participating Load at the PNode (or Custom LAP, in the case of Aggregated Participating Load), multiplied by the IFM LMP at that PNode (or Custom LAP, in the case of Aggregated Participating Load). For Scheduling Coordinators whose Demand scheduled at the individual PNode or Custom LAP is subject to an upward price correction as specified in Section 11.21, the CAISO will use the Price Correction Derived LMP to settle the MWh quantity scheduled in the Day-Ahead Schedule for that Scheduling Coordinator at the relevant PNode or Custom LAP.

11.2.1.4 IFM Charges for Energy Exports at Scheduling Points.

For each Settlement Period that the CAISO clears Energy transactions in the IFM, the CAISO shall charge Scheduling Coordinators for the Energy export MWh quantity at individual Scheduling Points scheduled in the Day-Ahead Schedule, an amount equal to the IFM LMP for the applicable Scheduling Point multiplied by the MWh quantity at the individual Scheduling Point scheduled in the Day-Ahead Schedule. For Scheduling Coordinators whose exports scheduled at the individual Scheduling Points is subject to an upward price correction as specified in Section 11.21, the CAISO will use the Price

Correction Derived LMP to settle the MWh quantity of Energy exports scheduled in the Day-Ahead Schedule at the relevant Scheduling Point.

* * *

11.4.1 HASP Settlement for Exports~~.~~

For each Settlement Period that the CAISO clears Energy transactions at Scheduling Points in HASP, the Settlement for such transactions will be the CAISO HASP Intertie LMP multiplied by the MWh quantity of export scheduled at the individual Scheduling Point in excess of or less than the Day-Ahead Schedule, respectively. For Scheduling Coordinators whose exports scheduled at the individual Scheduling Point is subject to an upward price correction as specified in Section 11.21, the CAISO will use the Price Correction Derived LMP to settle the MWh quantity of Energy exports scheduled in the Day-Ahead Schedule at the relevant Scheduling Point.

* * *

11.21 ~~[Not Used]~~Make Whole Payments for Price Corrections

11.21.1 CAISO Demand and Exports

If the CAISO corrects an LMP in the upward direction pursuant to Section 35 that impacts Demand in the Day-Ahead Market and the HASP such that either a portion of or the entire cleared CAISO Demand or Export Bid curve becomes uneconomic, then the CAISO will calculate and apply the Price Correction Derived LMP for settlement of CAISO Demand and exports for the affected resource in Section 11.2.1.2_ and 11.2.1.4. The CAISO will calculate a Price Correction Derived LMP for each affected resource as follows: the total cleared MWhs of CAISO Demand or export in the Day-Ahead Schedule or HASP Intertie Schedule, as applicable, multiplied by the corrected LMP, minus the make-whole payment amount, all of which is divided by the total cleared MWhs of CAISO Demand or export in the Day-Ahead Schedule or HASP Intertie Schedule, as applicable. The make-whole payment amount will be calculated on an hourly basis determined by the area between the resource's CAISO Demand or Export Bid curve and the corrected LMP, which is calculated as the MWhs each of the cleared bid segment in the Day-Ahead Schedule or HASP Intertie Schedule for the affected resource, multiplied by the maximum of zero or the corrected LMP minus the bid segment price.

11.21.2 [Not Used]

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Appendix A

Master Definition Supplement

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Price Correction Derived LMP	The applicable resource specific settlement LMP calculated pursuant to Section 11.21 for resources impacted by price corrections in the upward direction consistent with Section 35.

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ATTACHMENT C

California ISO
Your Link to Power

California Independent
System Operator Corporation

Memorandum

To: ISO Board of Governors

From: Keith Casey, Vice President, Market and Infrastructure Development

Date: February 3, 2010

Re: **Decision on Price Correction Make-Whole Payment to Accepted Demand Bids**

This memorandum requires Board action.

EXECUTIVE SUMMARY

The California Independent System Operator Corporation may correct market prices whenever an invalid market solution occurs due to either a data input failure, a hardware or software failure, or a result that is inconsistent with the ISO tariff. Although price corrections are relatively infrequent, ex-post price corrections have led to instances in which demand bids (i.e., exports) that were cleared in the market are no longer economic when evaluated against the corrected price. For example, if a market participant that had submitted an offer to buy energy from the ISO (export bid) at $30/MWh, the bid would be dispatched if the market clears at a price equal to or less than the $30 offer. If the market price is subsequently corrected to a price higher than the market participants offer price, say $60/MWh, the participant would be charged the corrected price which was higher than its offer price. This can affect bids for internal demand, exports and virtual bids in the integrated forward market, as well as export demand in the hour-ahead scheduling process. Currently, the ISO does not have a policy or mechanism for compensating market participants when this occurs.

In order to compensate market participants for adverse financial impacts in cases when prices are corrected in a way that is not consistent with their accepted demand bids, Management proposes an ex post settlement adjustment that would compensate these market participants based on their bid costs. This proposal applies internal load, export demand, and virtual bids in the day-ahead market and exports in the hour-ahead scheduling process. The final settlement price will be resource level locational marginal prices calculated on the basis of the corrected price and the make-whole payment and apply to the affected load and export demand cleared schedules.

Moved, that the ISO Board of Governors approves the proposed make-whole payment for price correction to cleared demand bids and virtual bids in the day-ahead market and exports in the hour-ahead scheduling process, as detailed in the memorandum dated February 3, 2010; and

Moved, that the ISO Board of Governors authorizes Management to make all necessary and appropriate filings with the Federal Energy Regulatory Commission to implement the proposed tariff change.

BACKGROUND AND DISCUSSION

Make-Whole Payment for Price Correction to Cleared Demand Bids

When market clearing prices are adjusted upward in the instance of price correction, demand bids that were originally cleared in the market may no longer be economic. For a market participant who has cleared demand (export) bids in the ISO market, when a price is corrected upward such that it is higher than a market participant's highest bid price, its entire cleared energy bid curve becomes uneconomic. When a price is corrected upward such that it is still within the range of the bid curve, a portion of its bid curve becomes uneconomic.

In recent months, Management worked with stakeholders to develop a make-whole payment approach to compensate market participants for adverse financial impacts in cases when prices are corrected in a way that is not consistent with their accepted demand bids. Under the proposed solution, if price is corrected upward, the ISO will calculate a make-whole payment on an hourly basis determined by the area between the demand bid curve and the corrected price. This solution applies to internal load, exports and virtual bids in the day-ahead market and applies to exports only in the hour-ahead scheduling process.

Stakeholders widely supported the proposal to calculate the make-whole payment on an hourly basis as opposed to netting revenues over a 24 hour basis. Some stakeholders argued that the make-whole payment should be determined by the market participant's last cleared demand bid instead of based on its demand bid curve. However, Management found that using the relevant bid segments will make the market participants whole and avoid creating incentives for demand to a segment of their bid curve at extremely low prices to take advantage of potential price corrections.

Make-Whole Payment Settlement

Management proposes a simple settlement approach to incorporate the make-whole payment into the final settlement price by settling on the corrected price times the bid segment megawatts less the make whole payment amount. A historical analysis of the impact of price corrections and the potential magnitude of make-whole payments under this proposal show that potential make-whole payment is relatively small, has declined steadily over time and is likely to continue to decline. Given the small magnitude of these costs, Management proposes

to simply recover these costs through the current neutrality charges in place. Although some stakeholders suggested allocating the cost of make-whole payment to supply through a separate uplift charge, given the small magnitude and the declining trend of potential make-whole payment, it is difficult to justify the cost of implementing such a separate uplift allocation. Therefore, Management recommends the simple settlement approach described above. This simple settlement approach avoids a separate allocation of make-whole payment and is cost effective from implementation perspective. Going forward, the ISO will continue to monitor the frequency of upward price corrections that affect demand and virtual bids and make changes to the make whole payment policy if necessary.

Make-Whole Payment for Virtual Bids

Once convergence bidding is implemented, price corrections in the day-ahead market may also affect cleared virtual bids. Therefore, Management proposes to apply the make-whole payment approach described above to virtual bids in case of price correction in the day-ahead market. Management recommends applying the same methodology directly to virtual demand bids, and treat virtual supply bids as negative virtual demand bids for the purpose of determining make-whole payments due to price correction. Stakeholders did not express any opposition to these proposed rule changes.

MANAGEMENT RECOMMENDATION

Management recommends the Board approve the proposal described in this memo for the settlement of make-whole payments to demand and virtual bids that result from price corrections. This proposal fairly compensates market participants for adverse financial impacts related to upward price corrections as set forth above.

CERTIFICATE OF SERVICE

I hereby certify that I have served the foregoing document upon the parties listed on the official service list in the captioned proceedings, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated at Folsom, California this 30th day of March, 2010.

Jane Ostapovich