



California Independent
System Operator Corporation

September 30, 2009

Via Messenger

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

**Re: California Independent System Operator Corporation Filing
Docket Nos. ER09-_____**

Dear Secretary Bose:

Pursuant to Section 205 of the Federal Power Act (FPA), 16 U.S.C. § 824d, and Section 35.13 of the regulations of the Federal Energy Regulatory Commission (Commission or FERC), 18 C.F.R. § 35.13 (2007), the California Independent System Operator Corporation (ISO) respectfully submits for filing an original and five copies of an amendment to the ISO's FERC Electric Tariff (ISO Tariff).

The ISO submits this filing in order to exempt load and exports of load following metered subsystems (MSSs) from the allocation of the real-time imbalance energy neutrality offset. The ISO respectfully requests an effective date of October 1, 2009, and waiver of the sixty-day notice requirement under Section 35.11 of the Commission regulations.

Two additional copies of this filing are enclosed. Please time- and date-stamp these copies and returned them to the messenger.

I. Background

On February 9, 2006, in Docket No. ER06-615, the ISO filed with the Commission substantial changes to the then-effective tariff for the purposes of implementing the new LMP-based markets. On April 1, 2009, pursuant to a series of orders, compliance filings, ongoing stakeholder processes, and further enhancements and refinements to the software requirements, the ISO implemented the new market design. Following the launch of the new market design, the ISO has been working closely with stakeholders and market

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participants to evaluate the performance of the market as designed and implemented.

The overall market experience during the past five months has been positive and the ISO has been scrutinizing the market and operational results in close consultation with market participants regarding their market experiences. These efforts continue as the ISO enters the seventh month of operations under the new market design.

Through these post-go live efforts, the ISO identified the need to exempt demand of load-following MSSs from charges or payments associated with the allocation of the real-time imbalance energy neutrality offset. The real-time imbalance energy offset is a neutrality adjustment—either a charge or a payment to demand—based on whether the ISO has sufficient revenue from real-time demand market charges to compensate supply procured in the real-time market, which includes the hour ahead scheduling process (HASP).¹ If revenues are insufficient, the ISO must charge demand. If revenues exceed the amount needed to pay supply, the excess is returned to demand.

II. Discussion

A. Proposed Exemption of Metered Subsystem Load Following Demand from the Real-Time Imbalance Energy Neutrality Offset.

Following the release of the first monthly invoice for the month of April and in response to market participant inquiries regarding the resulting real-time imbalance energy offset charges to demand, the ISO began an analysis of root causes for the offset charges observed in the months following the start of the new market. The ISO's root cause analysis of the imbalance energy offset charges thus far reveals that the settlement amount for the month of April was largely driven by the disparity between the prices produced in the HASP and the prices produced in real-time market, combined with large volumes of exports in the HASP. While the ISO continues to investigate and explore market design changes, including possible changes to the allocation rate design, the ISO has identified the need to exempt MSS load following demand (including exports) from the real-time imbalance energy neutrality offset. This exemption is appropriate based on the ISO's finding that such demand has not contributed to the real-time imbalance energy neutrality offset charges observed in the months following the start of the new market design.

As the balancing authority, the ISO provides real-time load following services for demand and must balance the interchange schedules into the real-

¹ See ISO Tariff Section 11.5.4.2.

time. This requires that the ISO redispatch resources in order to balance supply and demand in the ISO balancing authority area into the real-time. This results in imbalance energy charges and payments, which include instructed and uninstructed imbalance energy, that culminate in the real-time imbalance energy neutrality offset. In running its markets, the ISO remains a revenue-neutral entity. Therefore, to the extent that there is lesser or greater revenue collected from demand than there are payment obligations to supply, the ISO allocates the charges or payments to demand. More specifically, under the ISO Tariff Section 11.5.4.2, the ISO must allocate to all metered demand and exports, on a *pro rata* basis, any non-zero amounts resulting from the sum of instructed imbalance energy, uninstructed imbalance energy, unaccounted for energy, real-time ancillary services congestion revenues, after accounting for real-time marginal cost of congestion revenue and marginal cost of losses revenue offsets.

Metered subsystems are specially situated entities that have a geographically contiguous system located within a single zone. They operated as an electric utility, as a municipal utility, water district, irrigation district, state agency or federal power marketing authority for a number of years prior to when the ISO began its operations. These entities contained within the ISO balancing authority area have adopted ISO certified revenue quality meters at each interface point with the ISO controlled grid and ISO certified revenue quality meters on all generating units. These subsystems operate in accordance to MSS Agreements as described in Section 4.9.1 of the ISO Tariff. Such entities can also opt to follow their own load. Although other load serving entities can also schedule their resources to "follow" their own load, unlike other load serving entities, an MSS that elects to operate as a load following MSS must follow a special procedure, operate within a prescribed metered subsystem deviation band, and provide the ISO real-time information regarding the resources dispatched.

Based on an analysis of the market settlement results for the months after the ISO began operations under the new market design, the ISO has identified two key drivers for the high imbalance energy neutrality offset charges observed thus far.

1. Significant differences between HASP prices for imports and exports and real-time market energy prices combined with substantial amount incremental or decremental HASP imbalance energy; and
2. The effect of using an average hourly price for real-time demand imbalance energy settlement.

The ISO has observed a notable divergence in hourly prices that apply to transactions settled in the HASP as compared to prices that apply in the ten-minute Real-Time Market settlement. For example, for the month of April, the

hourly real-time Locational Marginal Price (LMP) is on average \$28.79 per megawatthour (MWh) above HASP LMP. For the month of April, total imbalance energy neutrality offset charge is \$14.13 million. For the top ten hours for which the highest levels of hourly neutrality offset charges were accrued, the hourly real-time LMP is on average \$396 per MWh above the HASP LMP. During those top ten hours, the hourly real-time imbalance energy neutrality offset amounted to \$ 6.04 million. This indicates that a major portion of the charges are incurred in a small number of hours in the month of April.

By design, hourly inter-tie energy scheduled through the HASP is settled using the HASP intertie prices whereas uninstructed imbalance energy of load and generating resources as well as the instructed imbalance energy of generating resources are settled using the real-time prices.² When the HASP prices and the real-time prices differ significantly and a significant amount of energy is scheduled in HASP, there is cost discrepancy, which turns out to be one of the primary drivers for the real-time imbalance energy offset observed for the month of April.

The analysis also reveals that the use of an average hourly price for real-time demand imbalance energy settlement has an impact on the real-time imbalance energy offset. The simple averaging used to derive the hourly price for settlement purposes results in load being charged less when deviating upward than it would be charged based on an interval by interval basis, and being paid more when deviating downward. At this time, the ISO does not propose a change in the design of the real-time hourly price at this time but continues to consider redesign of the real-time hourly price as part of the longer-term solution.

The only interim change the ISO proposes at this time is the exemption of metered load and exports of MSSs that have elected to follow their load from real-time imbalance energy neutrality offset charges or payments. This proposed change based on the ISO observation thus far that demand from load-following metered subsystems is not a contributing factor to the real-time imbalance energy offset charges. Although the ISO has not identified all causes that contribute to the offset charge, load following metered subsystems do not appear to be implicated as part of the primary drivers identified to date.

The ISO has observed that a contributing factor to the expansion of charges associated with the actions the ISO must take to follow load and balance the system due to the unexpected occurrences between the day-ahead, HASP and real-time market. For example, in anticipating over-generation in real-time, ISO operators bias down forecasted load in HASP to facilitate the energy sales through exports so that generators can be dispatched off from their minimum load levels in real-time. In addressing system contingency, operators could bias

² See Sections 11.4 and 11.5.1.

down certain major transmission corridors to facilitate the dispatching of generators on the incremental side of the corridors to high MW levels. Operators of metered subsystems that follow their load do not over schedule in the day-ahead market and operate their generation to meet their real-time load deviations. Moreover, if the generation of such entities deviates from their load outside of the metered subsystem deviation band, load-following penalties apply to discourage such behavior. Therefore, it is not likely that load following MSSs contribute any costs associated with the diverging prices between the HASP and real-time described above. Other load serving entities may also schedule their resources in an attempt to follow their load. However, they do not face any penalties if their resources and load deviate from the amounts scheduled. For these reasons, there appears to be no causal relationship between the primary drivers identified to date of the real-time offset observed and the actions of a load-following metered subsystem operator.

B. Proposed Tariff Changes

For the reasons discussed above, the ISO proposes changes to Section 11.5.4.2 to exempt MSS load following metered load and exports. The real-time imbalance energy neutrality offset consists of any non-zero amounts remaining after summing up any positive or negative amounts resulting from the sum of the settlement amounts for instructed imbalance energy, uninstructed imbalance energy, unaccounted for energy and the real-time ancillary services congestion revenues, less real-Time congestion offset and less the real-time marginal cost of losses offset. Section 11.5.4.2 provides for the calculation of the real-time congestion offset as well as the real-time marginal cost of losses offset at the start of the provision because these amounts are calculated and allocated to determine the remaining non-zero amounts. Section 11.5.4.2, however, included language that reflects the disbursement of the real-time marginal cost of losses offset and the remaining non-zero amounts in the same disbursement because they were allocated to metered demand similarly. Because the proposed exemption does not apply to the real-time marginal cost of losses offset, the ISO is now proposing slight re-organization of that section to reflect the differential disbursement of those two offsets.

The proposed exemption is reflected by the inclusion of the following language in this section:

For Scheduling Coordinators for MSS Operators that have elected Load following, the CAISO will not assess any charges or make payments for the resulting non-zero differences of the sum of the Settlement amounts for IIE, UIE, and UFE and the Real-Time Ancillary Services Congestion Revenues, less Real-Time Congestion Offset and less the Real-Time Marginal Cost of Losses Offset.

This is the only substantive tariff change proposed in this filing.

As discussed above, because of the need to separately reflect the application of the real-time marginal cost of losses offset to load following MSSs, the ISO also proposes to include the following language, which does not pose any actual substantive change:

For Scheduling Coordinators for MSS operators that have elected to Load follow or net settlement, or both, the Real-Time Marginal Cost of Losses Offset will be allocated based on their MSS Aggregation Net Measured Demand excluding Demand associated with TOR Self-Schedules for which a RTM Marginal Cost of Losses Credit for Eligible TOR Self-Schedules was provided as specified in Section 11.5.7.2, and excluding Demand associated with TOR Self-Schedules for which an IFM Marginal Cost of Losses Credit for Eligible TOR Self-Schedules was provided as specified in Section 11.2.1.7.

In addition, because of the separate disbursement, the ISO proposes non-substantive changes to indicate that, just like the real-time marginal congestion costs offset, the real-time marginal cost of losses offset is excluded from the remaining non-zero amounts reflected in 11.5.4.2 before these remaining amounts are allocated to metered demand and exports.

The totality of these proposed changes are reflected in blackline form in Attachment B.

C. Stakeholder Process

Shortly after market participants contacted the ISO regarding their concerns with the levels of real-time imbalance energy neutrality offset charges, the ISO began evaluating the root cause and drivers of the charges. On August 24, 2009, the ISO began a stakeholder process to discuss its findings and the drivers of the real-time imbalance energy offset. Recognizing that any changes to the rate design would take longer to implement, the ISO proposed the exemption of metered load and exports of load-following metered subsystems as an interim step and included this in a revised paper posted on August 26, 2009. On August 28, 2009, the ISO held a conference call to discuss the issues identified. Stakeholders did not oppose the proposed exemption, but sought further discussions to design a more cost-causation based offset allocation for the longer term.

On September 17, 2009, the ISO posted the proposed tariff language associated with this change. Comments were received on September 24, 2009. The only comments received on the tariff language were supportive of the change and proposed tariff language. On September 25, 2009, the ISO held a

conference call to discuss the proposed tariff changes. No substantive comments were made regarding the proposed changes.

The ISO continues discussions with stakeholders to discuss longer-term solutions to address any concerns over the factors that contribute to the real-time imbalance energy neutrality offset. On September 23, 2009, the ISO issued an additional work paper analyzing the root causes of the charges and proposing two options that address the allocation of charges or payments associated with real-time imbalance energy offset amounts. On September 28, 2009, the ISO held a stakeholder conference call to discuss these potential rate changes. The exemption proposed herein may be modified by the longer-term solutions. However, until the ISO arrives to any longer-term alternatives, the ISO proposes that the proposed exemption continue to apply.

III. Materials Provided in the Instant Compliance Filing

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

- Attachment A Clean ISO Tariff sheets incorporating the red-lined changes contained in Attachment B
- Attachment B Red-lined changes to the ISO Tariff to implement the revisions contained in this filing

IV. Effective Date and Waivers.

The ISO respectfully requests that the tariff changes contained in the instant filing be made effective as of October 1, 2009. Therefore, the ISO respectfully requests waiver, pursuant to Section 35.11 of the Commission's regulations (18 C.F.R. § 35.11), of the notice requirement contained in Section 35.3 of the Commission's regulations (18 C.F.R. § 35.3), in order to permit the requested October 1, 2009, effective date.

Good cause exists for granting the requested waiver and effective date. The proposed tariff changes implement an immediate relief to an identified inequity due to the unique operational conditions of load-following MSS load and exports. In addition, the proposed tariff provisions are not opposed by any market participant based on all information received prior to this filing.

V. Communications

Communications regarding this filing should be addressed to the following individuals, whose names should be placed on the official service list established by the Secretary with respect to this submittal:

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VI. Service

The ISO has served copies of this transmittal letter, and all attachments, on the California Public Utilities Commission, the California Energy Commission, and all parties with effective Scheduling Coordinator Service Agreements under the ISO Tariff. In addition, the ISO is posting this transmittal letter and all attachments on the ISO website.

VII. Conclusion

The ISO respectfully requests that the Commission accept the instant filing. Please contact the undersigned with any questions concerning this filing.

Respectfully submitted,



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Attachment A – Clean Sheets

Real-Time Imbalance Energy Offset Settlement Draft Tariff Language
Fourth Replacement CAISO Tariff
ER09-____-000
September 30, 2009

CALIFORNIA INDEPENDENT SYSTEM OPERATOR CORPORATION
FERC ELECTRIC TARIFF
FOURTH REPLACEMENT VOLUME NO. I

Third Revised Sheet No. 235
Superseding Substitute Second Revised Sheet No. 235

11.5.7.2, and excluding Demand associated with TOR Self-Schedules for which an IFM Marginal Cost of Losses Credit for Eligible TOR Self-Schedules was provided as specified in Section 11.2.1.7. For Scheduling Coordinators for MSS operators that have elected to Load follow or net settlement, or both, the Real-Time Marginal Cost of Losses Offset will be allocated based on their MSS Aggregation Net Measured Demand excluding Demand associated with TOR Self-Schedules for which a RTM Marginal Cost of Losses Credit for Eligible TOR Self-Schedules was provided as specified in Section 11.5.7.2, and excluding Demand associated with TOR Self-Schedules for which an IFM Marginal Cost of Losses Credit for Eligible TOR Self-Schedules was provided as specified in Section 11.2.1.7. For Scheduling Coordinators for MSS Operators regardless of whether the MSS Operator has elected gross or net Settlement, the CAISO will allocate the Real-Time Congestion Offset based on the MSS Aggregation Net Non-ETC/TOR Measured Demand. To the extent that the sum of the Settlement amounts for IIE, UIE, UFE and the Real-Time Ancillary Services Congestion revenues, less Real-Time Congestion Offset and less the Real-Time Marginal Cost of Losses Offset, does not equal zero, the CAISO will assess charges or make payments for the resulting differences to all Scheduling Coordinators, including Scheduling Coordinators for MSS Operators that are not Load following MSSs and have elected gross Settlement, based on a pro rata share of their Measured Demand for the relevant Settlement Interval. For Scheduling Coordinators for MSS Operators that have elected net Settlement the CAISO will assess charges or make payments for the resulting non-zero differences of the sum of the Settlement amounts for IIE, UIE, and UFE and the Real-Time Ancillary Services Congestion Revenues, less Real-Time Congestion Offset and less the Real-Time Marginal Cost of Losses Offset based on their MSS Aggregation Net Measured Demand. For Scheduling Coordinators for MSS Operators that have elected Load following, the CAISO will not assess any charges or make payments for the resulting non-zero differences of the sum of the Settlement amounts for IIE, UIE, and UFE and the Real-Time Ancillary Services Congestion Revenues, less Real-Time Congestion Offset and less the Real-Time Marginal Cost of Losses Offset.

11.5.5 Settlement Amount for Residual Imbalance Energy.

For each Settlement Interval, Residual Imbalance Energy Settlement amounts shall be the product of the MWh of Residual Imbalance Energy for that Settlement Interval and the Bid that led to the Residual Imbalance Energy from the relevant Dispatch Interval in which the resource was dispatched. For MSS Operators the Settlement for Residual Imbalance Energy is conducted in the same manner, regardless of any MSS elections (net/gross Settlement, Load following or opt-in/opt-out of RUC).

Attachment B - Blacklines

**Real-Time Imbalance Energy Offset Settlement Draft Tariff Language
Fourth Replacement CAISO Tariff**

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11.5.4.2 Allocations of Non-Zero Amounts of the Sum of IIE, UIE, UFE, and the Real-Time Ancillary Services Congestion Revenues.

The CAISO will first compute (1) the Real-Time Congestion Offset and allocate it to all Scheduling Coordinators, based on Measured Demand, excluding Demand associated with ETC or TOR Self-Schedules for which a HASP and RTM Congestion Credit was provided as specified in Section 11.5.7, and excluding Demand associated with ETC, Converted Right, or TOR Self-Schedules for which an IFM Congestion Credit was provided as specified in Section 11.2.1.5; and (2) the Real-Time Marginal Cost of Losses Offset and allocate it to all Scheduling Coordinators based on Measured Demand, excluding Demand associated with TOR Self-Schedules for which a RTM Marginal Cost of Losses Credit for Eligible TOR Self-Schedules was provided as specified in Section 11.5.7.2, and excluding Demand associated with TOR Self-Schedules for which an IFM Marginal Cost of Losses Credit for Eligible TOR Self-Schedules was provided as specified in Section 11.2.1.7. For Scheduling Coordinators for MSS operators that have elected to Load follow or net settlement, or both, the Real-Time Marginal Cost of Losses Offset will be allocated based on their MSS Aggregation Net Measured Demand excluding Demand associated with TOR Self-Schedules for which a RTM Marginal Cost of Losses Credit for Eligible TOR Self-Schedules was provided as specified in Section 11.5.7.2, and excluding Demand associated with TOR Self-Schedules for which an IFM Marginal Cost of Losses Credit for Eligible TOR Self-Schedules was provided as specified in Section 11.2.1.7. For Scheduling Coordinators for MSS Operators regardless of whether the MSS Operator has elected gross or net Settlement, the CAISO will allocate the Real-Time Congestion Offset based on the MSS Aggregation Net Non-ETC/TOR Measured Demand. To the extent that the sum of the Settlement amounts for IIE, UIE, UFE and the Real-Time Ancillary Services Congestion revenues, less Real-Time Congestion Offset and less the Real-Time Marginal Cost of Losses Offset, does not equal zero, the CAISO will assess charges or make payments for the resulting differences to all Scheduling Coordinators, including Scheduling Coordinators for MSS Operators that are not Load following MSSs and have elected gross Settlement, based on a pro rata share of their Measured Demand for the relevant Settlement Interval. For Scheduling Coordinators for MSS Operators that have elected Load following or net Settlement, or both, the CAISO will assess charges or make payments for the resulting non-zero differences of the sum of the Settlement amounts

for IIE, UIE, and UFE and the Real-Time Ancillary Services Congestion Revenues, less Real-Time Congestion Offset and less the Real-Time Marginal Cost of Losses Offset based on their MSS Aggregation Net Measured Demand. For Scheduling Coordinators for MSS Operators that have elected Load following, the CAISO will not assess any charges or make payments for the resulting non-zero differences of the sum of the Settlement amounts for IIE, UIE, and UFE and the Real-Time Ancillary Services Congestion Revenues, less Real-Time Congestion Offset and less the Real-Time Marginal Cost of Losses Offset.

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