

**CRR Hourly Settlement Pro-Ration Amendment Filing  
Fourth Replacement CAISO Tariff  
June 30, 2009**

**Proposed Tariff Change:**

Section 11.2.4 of the ISO tariff requires the ISO to pro-rate CRR Payments and Charges for each hourly settlement period, if there is an insufficiency of funds during that subject settlement period. Subsequently, the tariff requires monthly true up on both CRR Payments and CRR Charges in the clearing of the CRR Balancing Account to ensure full funding of the CRR entitlements. When the ISO implemented the full funding requirements, the ISO retained the hourly pro-ration requirement in the tariff to measure and track revenue inadequacy of CRRs. However, the hourly pro-ration has no financial meaning because in the monthly true-up the pro-ration of the hourly settlement is eliminated and the CRRs as allocated are fully funded.

The ISO has determined that the pro-ration is causing unnecessary accounting issues and is creating the misperception that CRR Holders will not be paid in full for their CRRs or will be charged for any shortages of the hourly settlement account. The ISO full funding requirements as reflected in Section 36.2.8 and 11.2.4.4.1, however, ensure full funding of CRR holdings regardless of the hourly insufficiencies in revenue adequacy that may be experienced. The ISO tracks the revenue inadequacy separately and provides this information to market participants in two forms. First, its Day-Ahead Daily Market Watch provides hourly data on CRR revenue adequacy, and daily and cumulative data on congestion rents in the Day-Ahead Market, CRR payments, CRR revenue adequacy, and the ratio between congestion rents and CRR payments (the “adequacy ratio”). Then, the monthly Market Performance Report repeats the monthly status and describes analyses of CRR revenue adequacy. In addition, while the tariff provision requiring hourly pro-rationing ensures that the settlement statements reflect the hourly adjustments to account for the hourly revenue insufficiency, it does not provide an adequate picture of the overall market revenue sufficiency.

**Proposal:**

Remove this requirement from the tariff so that in the hourly settlement, in the event of a shortage or surplus, there is no pro-ration to the hourly settlement. Instead, the ISO will reflect the hourly CRR payments and charges as they will be made at the end of the month through the CRR Balancing Account.

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#### **11.2.4 CRR Settlements.**

CRR Holders shall be paid or charged for Congestion costs depending on the type of CRRs held by the CRR Holder, the direction of Congestion as measured through the IFM, and the LMP as calculated in the IFM. CRRs shall be funded through the revenues associated with the IFM Congestion Charge, CRR Charges, and the CRR Balancing Account. The CRR Payments and CRR Charges shall be settled first on a daily basis for each Settlement Period of the DAM. ~~The CAISO shall pro-rate CRR Payments and CRR Charges for each Settlement Period, if there is an insufficiency of funds during that Settlement Period from the IFM Congestion Charge pursuant to Section 11.2.4.1.~~ A monthly true up will then be conducted, on both CRR Payments and CRR Charges in the clearing of the CRR Balancing Account pursuant to Section 11.2.4.4.1 and 11.2.4.4.2.

##### **11.2.4.1 Calculation of the IFM Congestion Charge.**

For each Settlement Period of the IFM, the CAISO shall calculate the IFM Congestion Charge as the IFM MCC for all scheduled Demand minus the IFM MCC for all scheduled Supply where the IFM MCC for all scheduled Demand is the sum of the products of the IFM MCC and the MWh of Demand scheduled in the Day-Ahead Schedule at all the applicable PNodes, Scheduling Points and Aggregated Pricing Nodes for the Settlement Period and the IFM MCC for all scheduled Supply is the sum of the products of the IFM MCC and the MWh of Supply scheduled in the Day-Ahead Schedule at all the applicable PNodes and Scheduling Points for the Settlement Period.

##### **11.2.4.1.2 Calculation of IFM Congestion Fund.**

For each Settlement Period of the IFM, the CAISO shall determine the IFM Congestion Fund, which shall consist of the funds available to pay CRR Holders in any Settlement Period as follows:

- (a) The CAISO shall add to the IFM Congestion Fund the IFM Congestion Charge computed as described in Section 11.2.4.1, minus any IFM Congestion Credits as specified in Section 11.2.1.5;
- (b) The CAISO shall add to the IFM Congestion Fund any CRR Charges calculated pursuant to Sections 11.2.4.2.2 and 11.2.4.2.3; and

- (c) The CAISO shall add to the IFM Congestion Fund any IFM Congestion Charges associated with Day-Ahead Ancillary Services Awards as provided in Section 11.10.1.1.1.

#### **11.2.4.2 Settlement Calculation for the Different CRR Types.**

For the purposes of determining the CRR Payments and CRR Charges based on the various CRR Types, the CAISO shall calculate the Settlement of CRRs as described in this Section 11.2.4.2. When CRR Source or CRR Sink is a LAP, the Load Distribution Factors used in the IFM will be used to calculate the LAP Price at which CRR Payments or CRR Charges will be settled. When CRR Source or CRR Sink is a Trading Hub the weighting factors used in the IFM and the CRR Allocation and CRR Auction processes will also be used to settle CRR Payments and CRR Charges.

##### **11.2.4.2.1 Point-to-Point CRR Options.**

For each CRR Holder, the CAISO shall calculate a CRR Payment for each Point-to-Point CRR Option held by the CRR Holder equal to the product of: 1) the MCC at the CRR Sink minus the MCC at the CRR Source; and 2) the MW quantity of the CRR; if that amount is positive. If the resulting amount is negative, the CAISO shall not assess a charge for the relevant CRR Holder for the negative amount. ~~The full CRR Payment calculated pursuant to this process shall be subject to pro-ratio as described in 11.2.4.4.~~

##### **11.2.4.2.2 Point-to-Point CRR Obligations.**

For each CRR Holder, the CAISO shall calculate a CRR Payment for each CRR Obligation for a Point-to-Point CRR held by the CRR Holder, equal to the product of: 1) the MCC at the CRR Sink minus the MCC at the CRR Source; and 2) the MW quantity of the CRR; if that amount is positive. If the resulting amount is negative, the CAISO shall calculate a CRR Charge for the relevant CRR Holder equal to that negative amount. ~~The full CRR Payment or CRR Charges calculated pursuant to this process shall be pro-rated as described in 11.2.4.4.~~

##### **11.2.4.2.3 Multi-Point CRR.**

For each CRR Holder, the CAISO shall calculate a CRR Payment for each Multi-Point CRR held by the CRR Holder, equal to the sum of the MCCs at each CRR Sink weighted by their associated MWh quantities as specified by the CRR, minus (2) the sum of the MCCs at each CRR Source weighted by

their associated MWh quantities as specified by the CRR. If the calculated amount is positive, the CAISO shall calculate a CRR Payment for the Multi-Point CRR. If the result of this calculated amount is negative, the CAISO will calculate a CRR Charge for the Multi-Point CRR. ~~The full CRR Payment calculated pursuant to this process shall be subject to pro-ration as described in 11.2.4.4.~~

#### **11.2.4.3 Payments and Charges for Monthly and Annual Auctions.**

The CAISO shall charge CRR Holders for the Market Clearing Price for CRRs obtained through the clearing of the CRR Auction as described in Section 36.13.6. To the extent the CRR Holder purchases a CRR through a CRR Auction that has a negative value, the CAISO shall pay the CRR Holder for taking the applicable CRR. The CAISO shall net all revenue received and payments made through this process and shall add the net remaining seasonal and monthly CRR Auction revenue amounts (either negative or positive amounts) to the CRR Balancing Account for the appropriate month. CRR Auction revenues for each season are allocated uniformly across the three monthly accounts comprising each season.

#### **11.2.4.4 Hourly CRR Settlement.**

For each Settlement Period, the IFM Congestion Funds calculated in Section 11.2.4.1.2 will be used to pay CRR Holders that are owed CRR Payments. ~~If the IFM Congestion Fund is sufficient to make~~In the ~~hourly settlement of required~~CRR Payments for the Settlement Period, all CRR Holders shall be paid and charged fully according to their entitlements. ~~If the IFM Congestion Fund is insufficient to make the required CRR Payments, then CRR Payments and CRR Charges shall be pro-rated by a ratio equal to the total hourly amount of IFM Congestion Funds divided by the net of CRR Payments for that Settlement~~  
~~Period.~~ Any surplus revenue for the Settlement Period after making all hourly CRR Payments will go to the CRR Balancing Account for use in the end-of-month clearing of the CRR Balancing Account processes pursuant to Section 11.2.4.4.1. Any CRR Payment shortfalls (or amounts not fully paid) and CRR Charge shortfalls (or amounts not fully charged) for the Settlement Period, will be tracked for further Settlement during the end-of-month clearing process as described in Section 11.2.4.4.1. The hourly Settlement of CRRs for each CRR Holder will be based on the type of CRR holdings as described in Section 11.2.4.2. The CRR Holder's hourly CRR Settlement amount, ~~which may be subject to pro-ration if necessary as described in this Section,~~ will be the net of the holder's CRR Payments for CRR Options or CRR Obligations, and the holder's CRR Charges for CRR Obligations out of these holdings.

**11.2.4.4.1 Monthly Clearing of the CRR Balancing Account – Full Funding of CRRs.**

At the end of each month, all CRR Payment shortfalls for all CRR Holders shall be paid in full and all CRR Charge shortfalls shall be fully charged through the CRR Balancing Account clearing process. The net of these CRR Charges and CRR Payment shortfalls shall be added to the CRR Balancing Account for the applicable month. Any surplus or shortfall revenue amounts in the CRR Balancing Account will be distributed to Scheduling Coordinators in an amount equal to (a) the CRR Balancing Account surplus or shortfall amounts, times (b) the ratio of each Scheduling Coordinator's Measured Demand (net of the Scheduling Coordinator's Measured Demand associated with valid and balanced ETC, TOR or Converted Rights Self-Schedule quantities for which IFM Congestion Credits and/or HASP and RTM Congestion Credits were provided in the same relevant month) divided by (c) the total Measured Demand for all Scheduling Coordinators for the relevant month (net of the total Measured Demand associated with valid and balanced ETC, TOR or Converted Rights Self-Schedule quantities for which IFM Congestion Credits and/or RTM Congestion Credits were provided in the same relevant month).

**11.2.4.5 CRR Balancing Account.**

The CRR Balancing Account shall accumulate: (1) the seasonal and monthly CRR Auction revenue amounts as described in Section 11.2.4.3 and (2) any surplus revenue or shortfall generated from hourly CRR Settlements as described in Section 11.2.4.4. Interest accruing due to the CRR Balancing Account shall be at the CAISO's received interest rate and shall be credited to the CRR Balancing Account.

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