**6.5.1.3 Public Market Information**

**6.5.1.3.1** Annually, the CAISO shall publish the following information including, but not limited to:

(a) Market Clearing Prices for all Aggregated PNodes used in the CRR Auction clearing for on-peak and off-peak;

(b) CRR Holdings by CRR Holder (including):

 (i) CRR Sources name(s);

 (ii) CRR Sink name(s);

 (iii) CRR quantity (MW) for each CRR Source(s) and CRR Sink(s);

 (iv) CRR start and end dates;

 (v) Time of use specifications for the CRR(s); and

 (vi) Whether the CRR is a CRR Option or CRR Obligation.

**6.5.1.3.2** Monthly, the CAISO shall publish the following information, including, but not limited to:

(a) Market Clearing Prices for all Aggregated PNodes used in the CRR Auction clearing for on-peak and off-peak;

(b) CRR Holdings by CRR Holder (including):

 (i) CRR Sources name(s);

 (ii) CRR Sink name(s);

 (iii) CRR quantity (MW) for each CRR Source(s) and CRR Sink(s);

 (iv) CRR start and end dates;

 (v) Time of use specifications for the CRR(s); and

 (vi) Whether the CRR is a CRR Option or a CRR Obligation.

(c) Information on adjustments to Notional CRR Values based on collection of Constraint-specific congestion revenue pursuant to Section 11.2.4.

**\* \* \***

**11.2.4 CRR Settlements**

The CAISO will pay or charge CRR Holders for Congestion costs depending on the: (1) type of CRRs held by the CRR Holder; (2) direction of Congestion as measured through the IFM; (3) MCC as calculated in the IFM; and (4) IFM congestion revenue the CAISO collects on binding Transmission Constraints over which a CRR is modeled as having a PTDF. The CAISO funds payments to CRR Holders resulting from positive Daily CRR Settlement Values through the revenues associated with the IFM Congestion Charge and charges associated with negative Daily CRR Settlement Values. The CAISO will settle payments and charges associated with Daily CRR Settlement Values on a daily basis, and will settle potential Monthly Constraint-Specific CRR Make-Whole Payments on a monthly basis.

**11.2.4.1 Calculation of the IFM Congestion Charge**

For each Settlement Period of the IFM, the CAISO will calculate the IFM Congestion Charge as the IFM MCC amount for all scheduled Demand and Virtual Supply Awards, minus the IFM MCC amount for all scheduled Supply and Virtual Supply Awards. The IFM MCC amount for all scheduled Demand and Virtual Demand Awards is the sum of the products of the IFM MCC and the total of the MWh of Demand scheduled in the Day-Ahead Schedule and Virtual Supply Awards at all the applicable PNodes and Aggregated Pricing Nodes for the Settlement Period. The IFM MCC amount for all scheduled Supply and Virtual Supply Awards is the sum of the products of the IFM MCC and the total of the MWh of Supply scheduled in the Day-Ahead Schedule and the Virtual Supply Awards at all the applicable PNodes for the Settlement Period.

**11.2.4.1.1 [Not Used]**

**11.2.4.1.2 Calculation of Hourly Constraint-Specific CRR Congestion Fund**

The CAISO calculates a Hourly Constraint-Specific CRR Congestion Fund for every Transmission Constraint that is congested in a Settlement Period. The Hourly Constraint-Specific CRR Congestion Fund specific to a particular binding Transmission Constraint in a given Settlement Period is the portion of the IFM Congestion Charge in that Settlement Period attributable to congestion on the Transmission Constraint to which the congestion fund corresponds.

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

For the purposes of determining Notional CRR Values based on the various CRR Types, the CAISO will calculate the Settlement of CRRs as described in this Section 11.2.4.2. When a CRR Source or CRR Sink is a LAP, the Load Distribution Factors used in the IFM will be used to produce the LAP Price at which Notional CRR Values will be calculated. When a 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 produce the Trading Hub prices that will be used to calculate Notional CRR Values.

**11.2.4.2.1 CRR Options**

For each Settlement Period, the CAISO calculates a Notional CRR Value for each CRR Option held by the CRR Holder. If the product of the MW quantity of the CRR Option and the difference between the MCC at the CRR Sink and MCC at the CRR Source is a negative amount, then the Notional CRR Value for that Settlement Period is zero (0).

**11.2.4.2.2 CRR Obligations**

For each Settlement Period, the CAISO calculates a Notional CRR Value for each CRR Obligation held by the CRR Holder.

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

The CAISO will 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 will retain the CRR Auction proceeds and apply them to credit requirements of the applicable CRR Holder, in accordance with Section 12.6.3 of the CAISO Tariff. The CAISO will net all revenue received and payments made through this process. CRR Auction net revenue amounts for on-peak and off-peak usage from each CRR Auction will be separated. CRR Auction revenues for each season coming from the annual auction are first allocated uniformly across the three months comprising each season based on time of use. These on-peak and off-peak monthly amounts from the seasonal auctions are then added to the corresponding monthly on-peak and off-peak amounts from the monthly CRR Auction for the same month to form the monthly net CRR Auction on-peak and off-peak revenues, respectively. Furthermore, these monthly net CRR Auction revenues are added to the corresponding CRR Balancing Account for the month.

**11.2.4.4 Daily CRR Settlement with Potential Monthly Make-Whole Payments**

**11.2.4.4.1 Calculating the Congestion-Supported CRR Value for a Settlement Period**

For each Settlement Period, the CAISO uses the funds in the Hourly Constraint-Specific CRR Congestion Funds calculated in Section 11.2.4.1.2 to determine the Congestion-Supported CRR Value for CRRs.

The CAISO allocates a CRR modeled as having a positive PTDF on a binding Transmission Constraint a portion of that Transmission Constraint’s Hourly Constraint-Specific CRR Congestion Fund in proportion to that CRR’s modeled flow over that Constraint as compared to all other CRRs’ modeled flow over that Constraint. The allocation cannot exceed the portion of the CRR’s Notional CRR Value in that Settlement Period that corresponds to that Constraint based on the PTDF from the CRR’s modeled flow.

The CAISO allocates a CRR modeled as having a negative PTDF on a binding Transmission Constraint a debit equal to that CRR’s Notional CRR Value in that Settlement Period that corresponds to that Constraint based on the PTDF from the CRR’s modeled flow.

A CRR’s Congestion-Supported CRR Value in a Settlement Period is the sum of that CRR’s respective allocations or debits from the various Hourly Constraint-Specific CRR Congestion Funds for that Settlement Period.

Any funds remaining in a Hourly Constraint-Specific CRR Congestion Fund after all funds have been allocated to CRRs are added to that Constraint’s Daily Constraint-Specific CRR Congestion Fund.

**11.2.4.4.2 Daily Settlement of CRRs and Calculating the Daily CRR Settlement Value**The CAISO allocates the funds in a Daily Constraint-Specific CRR Congestion Fund as a Daily Constraint-Specific CRR Make-Whole Value to CRRs whose total allocations from the Hourly Constraint-Specific CRR Congestion Funds pertaining to that Constraint over the day are less than the sum of the portion of that CRR’s Notional CRR Values across the Settlement Periods of that day that correspond to that Constraint.

The combination of the Daily Constraint-Specific CRR Make-Whole Value and the sum of the portions of the CRR’s Congestion-Supported CRR Value over that day that correspond to that Constraint is limited to the portion of the CRR’s Notional CRR Values over that day that correspond to that Constraint.

A CRR’s Daily CRR Settlement Value is the sum of the Congestion-Supported CRR Values across the Settlement Periods of the day and any Daily Constraint-Specific CRR Make-Whole Values allocated to that CRR. The CAISO settles each CRR’s Daily CRR Settlement Value on a daily basis.

The CAISO adds to a Constraint’s Monthly Constraint-Specific CRR Congestion Fund: (1) any funds remaining in a Daily Constraint-Specific CRR Congestion Fund after it makes all required allocations of Daily Constraint-Specific CRR Make-Whole Values; and (2) the portion of negatively-valued Daily CRR Settlement Values charged to CRR Holders attributable to IFM Congestion on the Transmission Constraint to which the congestion fund corresponds.

**11.2.4.4.2 Monthly Clearing of the Monthly Constraint-Specific CRR Congestion Fund**

The CAISO distributes the total of the Monthly-Constraint-Specific CRR Congestion Fund at the end of each month.

The CAISO first distributes the funds in a Monthly Constraint-Specific CRR Congestion Fund as a Monthly Constraint-Specific CRR Make-Whole Payment to CRRs whose total Daily CRR Settlement Values from across the month that correspond to congestion on that Transmission Constraint is less than the sum of the portion of that CRR’s Notional CRR Values across the month that correspond to that Constraint.

The combination of the Monthly Constraint-Specific CRR Make-Whole Payment and the sum of the Daily CRR Settlement Values over that month that correspond to that Constraint is limited to the portion of the CRR’s Notional CRR Values over that month that correspond to that Constraint.

The CAISO adds to a month’s CRR Balancing Account any funds remaining in a Monthly Constraint-Specific CRR Congestion Fund after the CAISO makes all required Monthly Constraint-Specific CRR Make-Whole Payments.

**11.2.4.5 CRR Balancing Account**

The CRR Balancing Account will accumulate: (1) seasonal and monthly CRR Auction revenues as described in Section 11.2.4.3; (2) any funds remaining in a Monthly Constraint-Specific CRR Congestion Fund after the CAISO makes all Monthly Constraint-Specific CRR Make-Whole Payments; (3) any adjustments of CRR revenue due to virtual bidding or Intertie scheduling practices as described in Section 11.2.4.6; and (4) any IFM Congestion Charges associated with Day-Ahead Ancillary Services Awards as provided in Section 11.10.1.1.1. The CAISO draws funds needed to settle IFM Congestion Credits and RTM Congestion Credits from the CRR Balancing Account.

The CAISO distributes the CRR Balancing Account to Scheduling Coordinators in an amount equal to (a) the funds in the CRR Balancing Account, 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 or TOR Self-Schedule quantities, which IFM Congestion Credits and/or RTM Congestion Credits were provided in the same relevant day), divided by (c) the total Measured Demand for all Scheduling Coordinators for the relevant day (net of the total Measured Demand associated with valid and balanced ETC or TOR Self-Schedule quantities, which IFM Congestion Credits and/or RTM Congestion Credits were provided in the same relevant day).

Interest accruing due to the CRR Balancing Account will be at the CAISO’s received interest rate and will be credited to each monthly CRR Balancing Account accrued interest fund, which is then allocated to monthly Measured Demand excluding Measured Demand associated with valid and balanced ETC, TOR, or Converted Rights Self-Schedule quantities, which IFM Congestion Credits and/or RTM Congestion Credits were provided in the same month.

**11.2.4.6 Adjustment of CRR Revenue Related to Virtual Awards**

In accordance with this Section 11.2.4.6, the CAISO will adjust the revenue from the CRRs of a CRR Holder that is also a Convergence Bidding Entity whenever either of the following creates a significant impact on the value of the CRRs held by that entity: the CRR Holder/Convergence Bidding Entity submits Virtual Bids; or the CRR Holder/Convergence Bidding Entity reduces in the RTM an import or export awarded in a Day-Ahead Schedule. As set forth in Section 11.32, the CAISO will also adjust the revenue from the CRRs of a CRR Holder (regardless of whether the CRR Holder is also a Convergence Bidding Entity) where the Scheduling Coordinator representing that CRR Holder reduces in the RTM an import or export awarded in a Day-Ahead Schedule.

(a) For purposes of this Section 11.2.4.6 and the definition of Flow Impact, a reduction by a Scheduling Coordinator submitting Schedules on behalf of an entity that is a CRR Holder to an import or export Schedule in the RTM will be treated as a Virtual Award if the segment of Economic Bids (but not Self-Schedule) leading to the Schedule reduction is: at an Energy Bid price greater than the Day-Ahead Market LMP at the relevant intertie, in the case of an import; or at any Energy Bid price less than the Day-Ahead Market LMP at the relevant intertie, in the case of an export.

In addition, if the RTM Bid does not include the full MW quantity of the Day-Ahead Schedule through some combination of Economic Bid and Self-Schedule, then the MW range not covered by the RTM Bid that was included in the Day-Ahead Schedule will be treated as a Virtual Award.

For each CRR Holder subject to this Section 11.2.4.6, for each hour, and for each Transmission Constraint binding in the IFM or FMM the CAISO will calculate the Flow Impact of the Virtual Awards awarded to the Scheduling Coordinator that represents the CRR Holder. For the purposes of calculating the CRR adjustments as specified in this Section 11.2.4.6, the CAISO will include nodal MW constraints that the CAISO applies to Eligible PNodes in the IFM pursuant to Section 30.10.

(b) The CAISO will determine the peak and off-peak hours of the day where Congestion on the Transmission Constraint was significantly impacted by the Virtual Awards awarded to the Scheduling Coordinator that represents the CRR Holder. Congestion on the Transmission Constraint will be deemed to have been significantly impacted by the Virtual Awards awarded to the Scheduling Coordinator that represents the CRR Holder if the Flow Impact passes two criteria. First, the Flow Impact must be in the direction to increase the sume of the CRR Holder’s Congestion-Supported Values in that Settlement Period. Second, the Flow Impact must exceed the threshold percentage of the flow limit for the Transmission Constraint. The threshold percentage is ten (10) percent of the flow limit for each Transmission Constraint.

(c) For each peak or off-peak hour that passes both criteria in Section 11.2.4.6(b), the CAISO will compare the Transmission Constraint’s impact on the Day-Ahead Market value of the CRR Holder’s CRR portfolio with the Transmission Constraint’s impact on the FMM value of the CRR Holder’s CRR portfolio, as applicable.

(d) The CAISO will adjust the peak or off-peak period revenue from the CRR Holder’s CRRs in the event that, over the peak or off-peak period of a day, the Transmission Constraint’s contribution to the Day-Ahead Market value of the CRR Holder’s CRR portfolio exceeds the Transmission Constraint’s contribution to the FMM value of the CRR Holder’s CRR portfolio, as applicable. The amount of the peak period adjustment will be the amount that the Transmission Constraint’s contribution to the Day-Ahead Market value of the CRR Holder’s CRR portfolio exceeds the Transmission Constraint’s contribution to the FMM value of the CRR Holder’s CRR portfolio for the peak-period hours that passed both criteria in Section 11.2.4.6(b), as applicable. The amount of the off-peak period adjustment will be the amount that the Transmission Constraint’s contribution to the Day-Ahead Market value of the CRR Holder’s CRR portfolio exceeds the Transmission Constraint’s contribution to the FMM value of the CRR Holder’s CRR portfolio for the off-peak period hours that passed both criteria in Section 11.2.4.6(b), as applicable.

All adjustments of CRR revenue calculated pursuant to Section 11.2.4.6 will be added to the CRR Balancing Account.

**11.2.4.7 Adjustment of CRR Revenue Related to Schedules that Source and Sink in the Same Balancing Authority Area**

The CAISO will adjust the revenue from the CRRs of a CRR Holder where the Scheduling Coordinator representing that CRR Holder has submitted Bids (including Self-Schedules), in violation of Section 30.5.5 and the resulting Schedule(s) impacts the value of the CRRs in the DAM held by that CRR Holder. Such adjustment will occur if the following circumstances are all met:

(a) A portion of the E-Tag that uses the CAISO Controlled Grid relates to a Schedule in the Day-Ahead Market;

(b) The scheduled MW on the portion of the E-Tag using the CAISO Controlled Grid has a positive PTDF on a congested transmission element, where that congestion is measured in the direction of the CRR; and

(c) The CRR Holder would receive payments from CRRs on the congested transmission element.

If such circumstances occur, the CAISO performs the revenue adjustment by reducing the CRR Holder’s Daily CRR Settlement Value. The reduction is made such that the additional net CRR revenue that otherwise would be earned from the congestion created by the Schedule that results from the Bids submitted in violation of Section 30.5.5 is not settled.

**\* \* \* \***

**36.2.1 CRR Obligations**

A CRR Obligation entitles its holder to receive a payment in the amount of the CRR’s Daily CRR Settlement Value, where such value is positive, and a Monthly Constraint-Specific CRR Make-Whole Payment as detailed in sections 11.2.4.2.2 and 11.2.4.4 and obligates its holder to pay a charge to the CAISO in the amount of the absolute value of the CRR’s Daily CRR Settlement Value, where such value is negative as detailed in section 11.2.4.2.2.

**36.2.2 CRR Options**

A CRR Option entitles its holder to receive a payment in the amount of the CRR’s Daily CRR Settlement Value, where such value is positive, and a Monthly Constraint-Specific CRR Make-Whole Payment as detailed in sections 11.2.4.2.1 and 11.2.4.4 and obligates its holder to pay a charge to the CAISO in the amount of the absolute value of the CRR’s Daily CRR Settlement Value, where such value is negative as detailed in section 11.2.4.2.2.

**\* \* \***

**36.2.8 Limitations on Funding of CRRs**

Payment of Daily CRR Settlement Values and Monthly Constraint-Specific CRR Make-Whole Payments may be suspended if a System Emergency as described in Section 7.7.4, an Uncontrollable Force as described in Section 14, or a Participating TO’s withdrawal of facilities or Entitlements from the CAISO Controlled Grid as described in Section 36.8.7 leaves the CAISO with inadequate revenues.

**\* \* \* \***

**36.4.1 Transmission Capacity for CRR Allocation and CRR Auction**

With the exception of the Tier LT, the CAISO makes available sixty-five percent (65%) of Seasonal Available CRR Capacity for the annual CRR Allocation and CRR Auction processes, and one hundred percent (100%) of Monthly Available CRR Capacity for the monthly CRR Allocation and CRR Auction processes. The CAISO makes available sixty percent (60%) of Seasonal Available CRR Capacity in the Tier LT. Available capacity at Scheduling Points shall be determined in accordance with Section 36.8.4.2 for the purposes of CRR Allocation and CRR Auction of CRRs that have a CRR Source identified at a Scheduling Point. Before commencing with the annual or monthly CRR Allocation and CRR Auction processes, the CAISO may distribute Merchant Transmission CRRs and will model those as fixed injections and withdrawals on the DC FNM to be used in the allocation and auction. These fixed injections and withdrawals are not modified by the Simultaneous Feasibility Test. Similarly, before commencing the annual or monthly CRR Allocation and CRR Auction processes, the CAISO will model any previously allocated Long Term CRRs as fixed injections and withdrawals on the DC FNM to be used in the CRR Allocation and CRR Auction. These fixed injections and withdrawals are not modified by the Simultaneous Feasibility Test, which will ensure no degradation of previously allocated and outstanding Long Term CRRs due to the CRR Allocation and CRR Auction processes. Maintaining the feasibility of allocated Long Term CRRs over the length of their terms also is accomplished through the transmission planning process in Section 24.1.3.

**\* \* \* \***

**Appendix A**

**Master Definition Supplement**

**\* \* \***

**- Congestion-Supported CRR Value**

The Notional CRR Value for a Settlement Period minus any revenue adjustments as provided in Section 11.2.4.4. The Congestion-Supported CRR Value can be negative in a Settlement Period where the Notional CRR Value is not negative.

**\* \* \***

**\* \* \***

**\* \* \***

**- Daily Constraint-Specific CRR Congestion Fund**

The pool of funds, specific to a Transmission Constraint, held by the CAISO containing any revenue remaining for a Settlement Period after all CRRs modeled as having a positive PTDF on the Transmission Constraint to which the account pertains have received a Congestion-Supported CRR Value as to that Transmission Constraint that reflects the Notional CRR Value of the CRR as to that Transmission Constraint.

**\* \* \***

**- Daily Constraint-Specific CRR Make-Whole Value**

A payment the CAISO makes to a CRR Holder as described in section 11.2.4.4.1.

 **\* \* \***

**- Daily CRR Settlement Value**

The sum of an individual CRR’s Congestion-Supported CRR Values for each Settlement Period of a Trading Day and the sum of that CRR’s Daily Constraint-Specific CRR Make-Whole Values for a Trading Day. Where the sum of these values is positive, the CAISO provides a CRR Holder a payment in that amount. Where the sum of these individual values is negative, the CAISO issues the CRR Holder a charge equal to the absolute value of the sum.

**\* \* \***

**\* \* \***

**- Hourly Constraint-Specific CRR Congestion Fund**

The funds, specific to a particular binding Transmission Constraint and Settlement Period, that the CAISO has available to pay CRR Holders for the portion of their CRR that is modeled as having a PTDF on that Transmission Constraint.

**\* \* \***

**- Monthly Constraint-Specific CRR Congestion Fund**

The pool of funds, specific to a Transmission Constraint, held by the CAISO containing the cumulative revenue remaining in the Daily Constraint-Specific CRR Congestion Funds corresponding to that Transmission Constraint over a Trading Month.

**\* \* \***

**- Monthly Constraint-Specific CRR Make-Whole Payment**

A payment the CAISO makes to a CRR Holder as described in section 11.2.4.4.2.

**\* \* \***

**- Notional CRR Value**

For a given CRR in a Settlement Period, the product of: (A) the MCC at the CRR Sink minus the MCC at the CRR Source; and (B) the MW quantity of the CRR for that Settlement Period. With the exception of CRR Options, the Notional CRR Value for a Settlement Period can be a non-positive value. The Notional CRR Value for a CRR Option in a given Settlement Period cannot be a negative value.