**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 Source 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 Source 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 Net Modeled CRR Flow based on collection of Transmission Constraint-specific congestion revenue pursuant to Section 11.2.4.

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

**11.2.4 CRR Settlements**

The CAISO will pay or charge CRR Holders as further specified in this Section 11.2.4 and its subsections.

**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 CRR Congestion Fund**

The CAISO calculates an Hourly CRR Congestion Fund for every Transmission Constraint that is congested in a Settlement Period. The Hourly CRR Congestion Fund specific to a particular binding Transmission Constraint in a given Settlement Period is the sum of the: (a) portion of the IFM Congestion Charge in that Settlement Period attributable to congestion on the Transmission Constraint to which the congestion fund corresponds; (b) charges specific to the Transmission Constraint calculated pursuant to Section 11.2.4.4.1; and (c) CRR revenue adjustments the CAISO may make pursuant to Sections 11.2.4.6 or 11.2.4.7 that are associated with the Transmission Constraint. **11.2.4.2 Settlement Calculation for the Different CRR Types**

For the purposes of settling 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 CAISO will use the Load Distribution Factors used in the IFM to produce the LAP Price at which it will settle the CRR. When a CRR Source or CRR Sink is a Trading Hub, the CAISO will use the weighting factors used in the IFM, and in the CRR Allocation and CRR Auction processes, to produce the Trading Hub prices that it will use to settle the various CRR types.

**11.2.4.2.1 [Not Used]**

**11.2.4.2.2 [Not Used]**

**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. The CAISO will allocate CRR Auction revenues for each season coming from the annual auction uniformly across the three months comprising each season based on time of use. The CAISO will then add these on-peak and off-peak monthly amounts from the seasonal auctions 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, the CAISO will convert these monthly net CRR Auction revenues into daily values and add them to the daily CRR Balancing Account. In particular, the daily CRR Balancing Account contribution will be the sum of: (1) the monthly net CRR Auction on-peak amount multiplied by the ratio of daily on-peak hours to monthly on-peak hours; and (2) the monthly net CRR Auction off-peak amount multiplied by the ratio of daily off-peak hours to monthly off-peak hours.

**11.2.4.4 Hourly CRR Calculations, Daily CRR Settlement, and Potential Monthly Surplus Distribution Payments**

**11.2.4.4.1 Calculating CRR Holders’ Congestion-Supported Values**

For each Settlement Period, the CAISO uses the funds in the Hourly Congestion Funds calculated in Section 11.2.4.1.2 to determine the Congestion-Supported Values paid and charged to CRR Holders, by first determining all Net Modeled CRR Flow quantities. The CAISO then determines whether the Net Modeled CRR Flow results in a payment or charge to the CRR Holder. For a CRR Holder whose Net Modeled CRR Flow over a binding Transmission Constraint is in the prevailing direction, the Congestion-Supported Value is a payment equal to the ratio of that CRR Holder’s prevailing Net Modeled CRR Flow over that Transmission Constraint (accounting for revenue adjustments made pursuant to Sections 11.2.4.6 or 11.2.4.7), as compared to the sum of all other CRR Holders’ prevailing Net Modeled CRR Flow over that Transmission Constraint (accounting for revenue adjustments made pursuant to Sections 11.2.4.6 or 11.2.4.7). The CAISO will not pay a CRR Holder from an Hourly CRR Congestion Fund in excess of the CRR Holder’s Net Modeled CRR Flow multiplied by the Shadow Price of that binding Transmission Constraint, minus any revenue adjustments made pursuant to Sections 11.2.4.6 or 11.2.4.7 that are allocated to that Transmission Constraint.

For a CRR Holder whose Net Modeled CRR Flow over a binding Transmission Constraint is in the counter-flow direction, the Congestion-Supported Value is a charge equal to the Net Modeled CRR Flow multiplied by the Shadow Price of that binding Transmission Constraint.

The lower bound of the sum of Congestion-Supported Values for a CRR Option across the Settlement Periods of a day is zero.

The CAISO transfers any funds in an Hourly CRR Congestion Fund associated with binding Transmission Constraints to which no CRR has a positive or negative difference between the source and sink PTDFs to the CRR Balancing Account.

Any funds remaining in an Hourly CRR Congestion Fund after all funds have been allocated to CRRs or transferred to the CRR Balancing Account for that hour are reserved for potential Daily CRR Surplus Distribution Payments or Monthly CRR Surplus Distribution Payments to CRR Holders. The funds the CAISO holds in reserve for a CRR Holder pertaining to a Transmission Constraint are held in proportion to that CRR Holder’s Net Modeled CRR Flow in that Settlement Period (accounting for revenue adjustments made pursuant to Sections 11.2.4.6 or 11.2.4.7) relative to the Net Modeled CRR Flow over that Transmission Constraint for all CRR Holder in that Settlement Period (accounting for revenue adjustments made pursuant to Sections 11.2.4.6 or 11.2.4.7).

**11.2.4.4.2 Calculating Daily CRR Surplus Distribution Payments**

The CAISO allocates the funds in a Daily Congestion Fund as a Daily CRR Surplus Distribution Payment to CRR Holders that have funds reserved for them in a Daily CRR Congestion Fund pursuant to Section 11.2.4.4.1, and whose total Congestion-Supported Values pertaining to that Transmission Constraint during the day are less than the sum of the Net Modeled CRR Flow multiplied by the Shadow Price of that binding Transmission Constraint across the day (accounting for revenue adjustments made pursuant to Sections 11.2.4.6 or 11.2.4.7). A Daily CRR Surplus Distribution Payment specific to a CRR Holder and Transmission Constraint cannot exceed the sum of the Net Modeled CRR Flow multiplied by the Shadow Price of that binding Transmission Constraint across all Settlement Periods of the day (accounting for revenue adjustments made pursuant to Sections 11.2.4.6 or 11.2.4.7). The CAISO adds any funds remaining in a Daily CRR Congestion Fund after the CAISO has made all necessary Daily CRR Surplus Distribution Payments to that Transmission Constraint’s Monthly CRR Congestion Fund.

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

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

The CAISO first distributes the funds in a Monthly CRR Congestion Fund as Monthly CRR Surplus Distribution Payments to CRR Holders that have funds reserved for them in a Monthly CRR Congestion Fund pursuant to Section 11.2.4.4.1 and whose total Congestion-Supported Values pertaining to that Transmission Constraint during the month plus the Daily CRR Surplus Distribution Payments are less than the sum of the Net Modeled CRR Flow multiplied by the Shadow Price of that binding Transmission Constraint across all Settlement Periods of the month (accounting for revenue adjustments made pursuant to Sections 11.2.4.6 or 11.2.4.7).

The CAISO distributes any funds remaining in a Monthly CRR Congestion Fund after it has made all required Monthly CRR Surplus Distribution Payments to Scheduling Coordinators in an amount equal to: (a) the funds in the Monthly CRR Congestion Fund, multiplied by (b) the ratio of each Scheduling Coordinator’s Measured Demand for the relevant Trading Month (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 Trading Month), divided by (c) the total Measured Demand for all Scheduling Coordinators for the relevant Trading Month (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 Trading Month).

**11.2.4.5 CRR Balancing Account**

**11.2.4.5.1 Accumulation of CRR Balancing Account Funds**

The CAISO will accumulate in the daily CRR Balancing Account: (1) seasonal and monthly CRR Auction revenues as described in Section 11.2.4.3; (2) any funds in an Hourly CRR Congestion Fund associated with binding Transmission Constraints to which no CRR has a positive or negative difference between the source and sink PTDF; (3) any IFM Congestion Charges associated with Day-Ahead Ancillary Services Awards as provided in Section 11.10.1.1.1; and (4) IFM Congestion Fund Credits as specified in Section 11.2.1.5.

**11.2.4.5.2 Distribution of CRR Balancing Account Funds**

The CAISO distributes the CRR Balancing Account to Scheduling Coordinators in an amount equal to: (a) the funds in the CRR Balancing Account, multiplied by (b) the ratio of each Scheduling Coordinator’s Measured Demand for the relevant Trading Day (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 Trading Day), divided by (c) the total Measured Demand for all Scheduling Coordinators for the relevant Trading 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 Trading Day).

**11.2.4.5.3 Interest on CRR Balancing Account**

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 sum of the CRR Holder’s Notional CRR Values in their portfolio 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.

The CAISO includes all adjustments of CRR revenue calculated pursuant to this Section 11.2.4.6 in the Hourly CRR Congestion Fund for the applicable Transmission Constraint corresponding to the CRR payments that would have been made but for the revenue adjustment as specified in Section 11.2.4.1.2.

**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 adjusts the CRR revenue in that Settlement Period so 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 paid to the CRR Holder. Instead, the CAISO will add those funds to the Hourly CRR Congestion Fund for the applicable Transmission Constraint.

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

**11.29.5.3 Data Files**

Settlement Statements relating to each Scheduling Coordinator, CRR Holder, Black Start Generator or Participating TO will be accompanied by data files of supporting information that includes the following for each Settlement Period of the Trading Day:

(a) the aggregate quantity (in MWh) of Energy supplied or withdrawn by the Scheduling Coordinator Metered Entities represented by the Scheduling Coordinator;

(b) the aggregate quantity (in MW) and type of Ancillary Services capacity provided or purchased;

(c) the relevant prices that the CAISO has applied in its calculations;

(d) details of the scheduled quantities of Energy and Ancillary Services accepted by the CAISO in the Day-Ahead Market and the RTM;

(e) details of FMM Instructed Imbalance Energy or RTD Imbalance Energy and penalty payments;

(f) details of any payments or charges associated with the CRR Auctions; and

(g) detailed calculations of all fees, charges and payments allocated among Scheduling Coordinators and each Scheduling Coordinator’s share.

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

**36.2.1 CRR Obligation**

A CRR Obligation entitles its holder to receive a payment from the CAISO or obligates it to make a payment to the CAISO as detailed in Section 11.2.4.4.

**36.2.2 CRR Options**

A CRR Option entitles its holder to receive payments as detailed in Section 11.2.4.4.

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

**36.2.8 Limitations on Funding of CRRs**

Payment of CRR-related payments may be suspended if a System Emergency as described in Section 7.7.3, 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.

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

**Appendix A**

**Master Definition Supplement**

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

**- Congestion-Supported Value**

As provided in Section 11.2.4.4, a value, specific to a given Transmission-Constraint and Settlement Period, that a CRR Holder is paid or charged for its CRRs based on Net Modeled CRR Flow.

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

**- [Not Used]**

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

**- CRR Obligation**

A financial instrument that entitles the CRR Holder to payments or charges as specified in Section 11.2.4.

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

**- CRR Option**

A financial instrument that entitles its holder to payments as specified in Section 11.2.4.

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

**- [Not Used]**

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

**- Daily CRR Congestion Fund**

The pool of funds, corresponding to a specific Transmission Constraint, held by the CAISO, that the CAISO uses to make Daily CRR Surplus Distribution Payments corresponding to that Transmission Constraint.

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

**- Daily CRR Surplus Distribution Payment**

A payment, corresponding to a specific Transmission Constraint, the CAISO makes available to a CRR Holder as described in Section 11.2.4.4.2.

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

**- Hourly CRR Congestion Fund**

The pool of funds the CAISO collects and holds pursuant to Section 11.2.4.1.2, corresponding to a specific Transmission Constraint and Settlement Period, that the CAISO has available to pay CRR Holders for the portion of their CRRs modeled as having a PTDF on that Transmission Constraint.

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

**- [Not Used]**

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

**- Net Modeled CRR Flow**

For CRR Obligations, the net MW quantity from CRR Obligations within a CRR Holder’s portfolio that the CAISO models as flowing over a particular binding Transmission Constraint (accounting both for prevailing flow and counter-flow modeled over that binding Transmission Constraint).

For CRR Options, the net MW quantity from a given CRR Option that the CAISO models as flowing over a particular binding Transmission Constraint. The CAISO does not net the MWs of modeled flow from a given CRR Obligation with MWs of modeled flow from CRR Obligations or other CRR Options in a CRR Holder’s portfolio.

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

**- Monthly CRR Congestion Fund**

The pool of funds the CAISO collects and holds, corresponding to a specific Transmission Constraint, to make Monthly CRR Surplus Distribution Payments corresponding to that Transmission Constraint.

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

**- Monthly CRR Surplus Distribution Payment**

A payment, corresponding to a specific Transmission Constraint, 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 for that Settlement Period. The Notional CRR Value for a CRR Obligation can be a non-positive value for a Settlement Period. The CAISO sets the Notional CRR Value for a CRR Option in a given Settlement Period to zero (0) if the products 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.

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