Table of Contents

11. CAISO Settlements and Billing 5
11.1 Settlement Principles 5
11.1.1 CAISO as Counterparty 5
11.1.2 [Not Used] 8
11.1.3 [Not Used] 8
11.1.4 [Not Used] 8
11.2 Settlement of Day-Ahead Market Transactions 8
11.2.1 IFM Settlements 8
11.2.2 Calculation of Hourly RUC Compensation 11
11.2.3 IFM Energy Charges and Payments for Metered Subsystems 12
11.2.4 CRR Settlements 13
11.2.5 Payment by OBAALSE for CRRs Through CRR Allocation Process 21
11.3 Settlement of Virtual Awards 22
11.3.1 Virtual Supply Awards 22
11.3.2 Virtual Demand Awards 22
11.4 Black Start Settlements 22
11.4.1 Black Start Energy 23
11.4.2 Black Start Capability 23
11.5 Real-Time Market Settlements 23
11.5.1 Imbalance Energy Settlements 24
11.5.2 Uninstructed Imbalance Energy 25
11.5.3 Unaccounted For Energy 27
11.5.4 Imbalance Energy Pricing; Non-Zero Offset Amount Allocation 28
11.5.5 Settlement Amount for Residual Imbalance Energy 34
11.5.6 Settlement Amounts for RTD Instructed Imbalance Energy from Exceptional Dispatch 35
11.5.7 Congestion Credit and Marginal Credit of Losses Credit 44
11.5.8 Settlement for Emergency Assistance 46
11.5.9 Flexible Ramping Product 48
11.6 PDRs, RDRRs, Distributed Energy Resource Aggregations, Non-Generator Resources 48
11.6.1 Settlement of Energy Transactions Involving PDRs or RDRRs Using Customer Load Baseline Methodology 48
11.6.2 Settlement of Energy Transactions Using Metering Generator Output Methodology 49
11.6.3 Settlement of Energy Transactions Involving PDRs or RDRRs Using Customer Load Baseline and Metering Generator Output Methodologies 50
11.6.4 Settlements of Proxy Demand Resources and Reliability Demand Response Resources in the Real-Time Market 50
11.6.5 Settlement of Distributed Energy Resource Aggregations 51
11.6.6 Settlements of Non-Generator Resources 51
11.6.7 Settlement of Proxy Demand Resources using the Load-Shift Methodology 52
11.6.8 Submission of Demand Response Monitoring Data 53
11.7 Additional MSS Settlements Requirements 53
11.7.1 MSS Load Following Deviation Penalty 53
11.7.2 Neutrality Adjustments and Charges Assessed on MSS SC 54
11.7.3 Available MSS Operator Exemption for Certain Program Charges 54
11.7.4 Emission Cost Responsibility of an SC for an MSS 55
11.8 Bid Cost Recovery 56
11.8.1 CAISO Determination of Self-Commitment Periods 56
11.8.2 IFM Bid Cost Recovery Amount 61
11.8.3 RUC Bid Cost Recovery Amount 73
11.8.4 RTM Bid Cost Recovery Amount 77
11.8.5 Unrecovered Bid Cost Uplift Payment 89
11.8.6 System-Wide IFM, RUC and RTM Bid Cost Uplift Allocation 90
11.9 Inter-SC Trades 97
11.9.1 Physical Trades 97

11.9.2 Inter-SC Trades at Aggregated Pricing Nodes 98
11.10 Settlements for Ancillary Services 98
11.10.1 Settlements for Contracted Ancillary Services 98
11.10.2 Settlement for User Charges for Ancillary Services 102
11.10.3 Spinning Reserves 106
11.10.4 Non-Spinning Reserves 108
11.10.5 Negative Operating Reserve Obligation Adjustment 110
11.10.6 Upward Ancillary Services Neutrality Adjustment 110
11.10.7 Voltage Support 111
11.10.8 [Not Used] 111
11.10.9 Settlements of Rescission of Credits for AS Capacity 111
11.11 RACs and Wheeling Transactions 113
11.11.1 Regional Access Charge 113
11.11.2 Wheeling Through and Wheeling Out Transactions 113
11.11.3 Reporting Gross Load and Excess Behind the Meter Production 113
11.12 Participating Intermittent Resources 114
11.12.1 [Not Used] 114
11.12.2 [Not Used] 114
11.12.3 Participating Intermittent Resource Fees 114
11.12.4 [Not Used] 114
11.13 Settlements of RMR Charges and Credits 114
11.13.1 Daily RMR Settlement 114
11.13.2 Daily RMR Capacity Payment 114
11.13.3 Daily Variable Cost Payment 114
11.13.4 Daily Additional Cost Settlement 115
11.13.5 Daily RMR Excess Revenues 115
11.13.6 Daily RMR Exceptional Dispatch Excess Revenues 115
11.13.7 Daily RMR Cost Allocation 116
11.13.8 [Not Used] 116
11.13.9 [Not Used] 116
11.13.10 [Not Used] 116
11.14 Neutrality 116
11.15 Section 42.1 Contracts 117
11.16 Additional AS and RUC Credit Rescission Requirements 117
11.16.1 Resources with More Than One Capacity Obligation 117
11.16.2 Load-Following MSSs with an AS or RUC Capacity Obligation 118
11.17 Application of the Persistent Deviation Metric 118
11.17.1 Persistent Deviation Threshold and Mitigation 118
11.17.2 Shut-Down Adjustment 121
11.17.3 Application of Persistent Deviation Metric to Eligible Intermittent Resources' Residual Imbalance Energy 121
11.18 Emissions Costs 121
11.18.1 Emissions Costs Charges 121
11.18.2 CAISO Emissions Costs Trust Account 122
11.18.3 Rate for the Emission Cost Trust Account 122
11.18.4 Adjustment of the Rate for the Emissions Cost Charge 122
11.18.5 Credits and Debits of Emissions Cost Charges from SCs 123
11.18.6 Submission of Cost Invoices by RMR Owner 123
11.18.7 Emissions Cost Invoices 123
11.19 FERC Annual Charges 124
11.19.1 FERC Annual Charge Recovery Rate 124
11.19.2 FERC Annual Charge Trust Account 125
11.19.3 Determination of the FERC Annual Charge Recovery Rate 125
11.19.4 Credits and Debits of FERC Annual Charges from SCs 127
11.20 NERC/WECC Charges 127
11.20.1 Responsibility for NERC/WECC Charges 127

11.20.2 [Not Used] 128
11.20.3 [Not Used] 128
11.20.4 Process for Invoicing NERC/WECC Charges 128
11.20.5 Timely Payments 130
11.20.6 NERC/WECC Charge Trust Account 130
11.20.7 Preliminary and Final NERC/WECC Charge Invoices 130
11.20.8 Provision of Payments and Information to the WECC 132
11.20.9 Reliability Coordinator Services Charge 133
11.21 Make Whole Payments 136
11.21.1 Price Corrections for CAISO Demand and Exports 136
11.21.2 Price Correction for Settlement of Virtual Awards 136
11.21.3 Make Whole Payments for HASP Block Intertie Schedules 137
11.22 Grid Management Charge 139
11.22.1 CAISO's Obligation 139
11.22.2 Costs Recovered Through the Grid Management Charge 139
11.22.3 [Not Used] 141
11.22.4 TOR Charges 141
11.22.5 Bid Segment Fee 141
11.22.6 CRR Transaction Fee 141
11.22.7 Inter-Scheduling Coordinator Trade Transaction Fee 142
11.22.8 Scheduling Coordinator ID Charge 142
11.23 Penalties for Uninstructed Imbalance Energy 142
11.24 [Not Used] 148
11.24.1 [Not Used] 148
11.24.2 [Not Used] 148
11.24.3 [Not Used] 148
11.24.4 [Not Used] 148
11.25 Settlement of Flexible Ramping Product 148
11.25.1 Settlement of Forecasted Movement 148
11.25.2 Settlement of Uncertainty Requirement 149
11.25.3 Rescission 155
11.25.4 [Not Used] 155
11.25.5 [Not Used] 155
11.26 [Not Used] 155
11.27 Voltage Support Charges 155
11.28 Calculating, Charging and Disbursing Default Interest 155
11.29 Accounting, Billing, and Payment 155
11.29.1 Billing and Payment Process Based on Settlement Statements 155
11.29.2 One Agreement Will Govern All Settlement, Billing, and Payment 156
11.29.3 [Not Used] 156
11.29.4 [Not Used] 157
11.29.5 General Principles for Production of Settlement Statements 157
11.29.6 [Not Used] 158
11.29.7 Settlements Cycle 158
11.29.8 Confirmation and Validation 168
11.29.9 Payment Procedures 173
11.29.10 Billing and Payment 179
11.29.10.4 Balancing of Market Accounts in Absence of Meter Data 180
11.29.11 Instructions for Payment 182
11.29.11.2 Prepayments 182
11.29.11.3 System Failure 183
11.29.12 CAISO's Responsibilities 184
11.29.13 Non-Payment by a Scheduling Coordinator or CRR Holder 184
11.29.14 Enforcement Actions for Late Payments 187
11.29.15 [Not Used] 189
11.29.16 Prohibition on Transfers 189

11.29.17 Alternative Payment Procedures 189
11.29.18 [Not Used] 198
11.29.19 Payment Errors 198
11.29.20 Defaults 199
11.29.21 [Not Used] 200
11.29.22 Data Gathering and Storage 200
11.29.23 Communications 200
11.29.24 CAISO Payments Calendar 201
11.30 Auditing 202
11.31 Under/Over Delivery Charge for Deviations from Intertie Awards 203
11.31.2 Determining the Under/Over Delivery Price 204
11.31.3 Allocation of Under/Over Delivery Charges 204
11.32 Measures to Address Intertie Scheduling Practices 205
11.33 Setting Revenue 205
11.34 Invoice Charges for Transferred Frequency Response 206
11.34.1 Charge Allocation Basis 206
11.34.2 Calculation and Assessment 206
11.34.3 Responsibility to Pay Charges 207
11.34.4 Validation 207
11.34.5 Disputes and Corrections 207
11.34.6 Payment Default 208
11.34.7 Modification to Schedule 208

11. CAISO Settlements and Billing

11.1 Settlement Principles

The CAISO shall calculate and account for credits and debits, and settle with Business Associates in accordance with the following principles:

(a) The CAISO shall be responsible for calculating Settlement balances for any penalty or dispute in accordance with the CAISO Tariff, and any transmission Access Charge to UDCs or MSSs and Participating TOs;

(b) The CAISO shall create and maintain computer back-up systems, including off-site storage of all necessary computer hardware, software, records and data at an alternative location that, in the event of a Settlement system breakdown at the primary location of the day-to-day operations of the CAISO, could serve as an alternative location for day-to-day Settlement operations within a reasonable period of time;

(c) The CAISO shall retain all Settlement data records for a period which, at least, allows for the re-run of data as required by this CAISO Tariff and any adjustment rules of the Local Regulatory Authority governing the Scheduling Coordinators and their End-Use Customers and FERC;

(d) The CAISO shall calculate, account for, and settle all debits and credits based on the Settlement Quality Meter Data it has received, or, if Settlement Quality Meter Data is not available, based on the best available information or estimate it has received in accordance with the provisions in Section 10 and the applicable Business Practice Manuals; and

(e) Day-Ahead Schedules, RUC Awards and AS Awards shall be settled at the relevant LMP, RUC Price, and ASMPs, respectively. FMM Schedules shall be settled at the relevant FMM LMP at the relevant Scheduling Point. FMM AS Awards shall be settled at the relevant FMM ASMP. All Dispatch Instructions shall be deemed delivered and settled at relevant Real-Time Market prices. Deviations from Dispatch Instructions shall be settled as Uninstructed Deviations.

11.1.1 CAISO as Counterparty

(a) The CAISO shall be the contracting counterparty, in its own name and right, to each Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO for any purchase or sale of any product or service, or for any other transaction, that is financially settled by the CAISO under the CAISO Tariff, except under the following circumstances:

(i) The CAISO shall not be the contracting counterparty for transactions that procure Station Power for a Generating Unit located in Mexico or for transactions that procure Energy or Ancillary Services within Mexico; for such transactions, the CAISO will not act as principal but instead as agent for and on behalf of the relevant Scheduling Coordinators.

(ii) [Not Used]

(iii) The CAISO's status as contracting counterparty is not intended to affect the tax-exempt status of transmission facilities or entitlements subject to the CAISO's operational control.

Bids for Supply submitted by a Scheduling Coordinator for any resource funded by Municipal Tax Exempt Debt are not, and shall not be construed or deemed to be, a sale to the CAISO or other transaction that is financially settled by the CAISO to the extent that the load serving entity that holds entitlements to the resource for which such Bids for Supply are submitted is using its Entitlements to serve native load during that interval. For purposes of this subsection only, a load serving entity is using its entitlements to a resource to serve native load under the following conditions: (A) For a Load Serving Entity that is serving demand inside the CAISO Balancing Authority Area, if the total MW volume of such Bids for Supply that clear in any settlement interval is less than or equal to the metered CAISO Demand for that Settlement Interval for the Load Serving Entity that holds entitlements to the resources for which such Bids for Supply are submitted; or (B) for load serving entities that serve demand outside of the CAISO Balancing Authority Area by Wheeling Through or exporting from the CAISO Balancing Authority Area, if the total MW volume of such Bids for Supply that clear in any Settlement Interval is less than or equal to the total of wheel throughs or exports that are used to serve the native load

for the load serving entity that holds entitlements to the resources for which such Bids for Supply are submitted during that Settlement Interval. Nothing in the two preceding sentences shall affect credit requirements under Section 12 of the CAISO Tariff or settlements charges or credits issued pursuant to any section of the CAISO Tariff. The details of such Bids for Supply may be included in Settlement Statements by the CAISO for purposes of calculating settlement charges and credits other than for Supply.

(b) The purchase or sale of any products or service, or any other transaction, which is financially settled by the CAISO under the CAISO Tariff shall be deemed to occur within the State of California. To the extent permitted by applicable law, any warranties provided by the sellers to the CAISO of such products or services, whether express, implied, or statutory, are hereby passed to the Business Associates who purchase such products or services from the CAISO on a "pass through basis" and to the extent not passed through, any such warranties are hereby assigned by the CAISO to the purchasing Business Associates. Sellers to the CAISO and Business Associates acknowledge that warranties on such products are limited to that offered by the seller to the CAISO and will exist, if at all, solely between the seller to the CAISO and the purchasing Business Associate. AS BETWEEN THE PURCHASING BUSINESS ASSOCIATE AND THE CAISO AS COUNTERPARTY, NO EXPRESS OR IMPLIED WARRANTIES ARE MADE BY THE CAISO REGARDING THE PRODUCTS AND SERVICES SOLD BY THE CAISO AS COUNTERPARTY, AND ANY SUCH PRODUCTS AND SERVICES ARE PROVIDED ON AN "AS IS" AND "AS AVAILABLE" BASIS. THE CAISO MAKES NO WARRANTY OR REPRESENTATION THAT THE PRODUCTS OR SERVICES WILL BE UNINTERRUPTED OR ERROR-FREE. PURCHASING BUSINESS ASSOCIATES HEREBY WAIVE, AND THE CAISO HEREBY DISCLAIMS, ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE, AND NON-INFRINGEMENT. THE CAISO DOES NOT WARRANT THAT THE PRODUCTS AND SERVICES OFFERED WILL MEET

CUSTOMER'S REQUIREMENTS. NO ORAL OR WRITTEN INFORMATION OR ADVICE GIVEN BY THE CAISO OR ANY AUTHORIZED REPRESENTATIVE OF THE CAISO SHALL CREATE A WARRANTY OR IN ANY WAY INCREASE THE SCOPE OF ANY PASS THROUGH OR ASSIGNED WARRANTY. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES IN CERTAIN CIRCUMSTANCES, SO THE ABOVE EXCLUSION APPLIES ONLY TO THE EXTENT PERMITTED BY APPLICABLE LAW.

11.1.2 [Not Used]

11.1.3 [Not Used]

11.1.4 [Not Used]

11.1.5 [Not Used]

11.2 Settlement of Day-Ahead Market Transactions

All transactions in the IFM and RUC as specified in the Day-Ahead Schedule, AS Awards and RUC Awards, respectively, are financially binding and will be settled based on the Day-Ahead LMP, ASMP or RUC Price for the relevant Location for the specific resource or transaction identified for the Bid. The CAISO will settle the costs of Demand, capacity, Energy and Ancillary Services as separate Settlement debits and credits for each Settlement Period of the Day-Ahead Schedule, Day-Ahead AS Award or RUC Award, as appropriate.

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 credit the relevant Scheduling Coordinator for the MWh quantity of Supply of Energy from all Generating Units, Participating Loads, Proxy Demand Resources, Reliability Demand Response Resources, Distributed Energy Resource Aggregations and System Resources in an amount equal to the IFM LMP at the applicable PNode or Aggregated PNode multiplied by the MWh quantity specified in the Day-Ahead Schedule for Supply (which consists of the Day-Ahead Scheduled Energy).

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. The applicable Default LAP IFM LMP is as described in Section 27.2.2. 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). The Custom LAP Price is determined as described in Section 27.2.2. 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.

11.2.1.5 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 debit or credit 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.

The IFM Marginal Losses Surplus rate shall be equal to the total IFM Marginal Losses Surplus ($) divided by the sum of the total MWh of Measured Demand in the CAISO Balancing Authority Area for the relevant Settlement Period net of (1) any 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) any 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.

11.2.1.7 IFM Marginal Cost of Losses Credit for Eligible TOR Self-Schedules

For all Points of Receipt and Points of Delivery pairs associated with a valid and balanced TOR Self-Schedule submitted pursuant to an existing agreement between the TOR holder and either the CAISO or a Participating TO as specified in Section 17.3.3, the CAISO shall not impose any charge or issue any

credit to the Scheduling Coordinator related to the MCL associated with such TOR Self-Schedules and will instead impose any applicable losses charges as specified in the existing agreement between the TOR holder and either the CAISO or a Participating TO applicable to the relevant TOR. In any case in which the TOR holder has an existing agreement regarding its TORs with either the CAISO or a Participating TO, the provisions of the agreement shall prevail over any conflicting provisions of this Section 11.2.1.7. Where the provisions of this Section 11.2.1.7 do not conflict with the provisions of the agreement, the provisions of this Section 11.2.1.7 shall apply to the subject TORs. For each Scheduling Coordinator, the CAISO shall determine the applicable IFM Marginal Cost of Losses Credit for Eligible TOR Self-Schedules, which can be positive or negative, as the sum of the products of the quantity scheduled in the Day-Ahead Schedule and the MCL at each eligible Point of Receipt and Point of Delivery associated with the valid and balanced portions of that Scheduling Coordinator's TOR Self-Schedules.

11.2.2 Calculation of Hourly RUC Compensation

For each Settlement Period and resource, Scheduling Coordinators shall receive RUC Compensation, which is the sum of the RUC Availability Payment as determined pursuant to Section 11.2.2.1 and the RUC Bid Cost Recovery amount as determined in Section 11.8.3.

11.2.2.1 Settlement of RUC Available Payment

Scheduling Coordinators shall receive RUC Availability Payments for all eligible capacity awarded in the RUC process. Resource Adequacy Capacity and RMR Capacity are not eligible for RUC Availability Payments in the DAM. The RUC Availability Payment shall be calculated for each resource based on the product of the RUC Price and the RUC Availability Quantity for the relevant Settlement Period. The RUC Availability Payment amounts are allocated through the RUC Compensation Costs allocation in Section 11.8.6.5.

11.2.2.2 Rescission of RUC Availability Payment

Rescission of all or a portion of the RUC Availability Payment for a resource as defined in Section 31.5.7 shall be settled in accordance with this Section 11.2.2.2.

11.2.2.2.1 Undispatchable RUC Capacity

If a Scheduling Coordinator has Undispatchable Capacity that it is obligated to supply to the CAISO

during a Settlement Interval, the RUC Availability Payment, if applicable for any non-Resource Adequacy Capacity, for the amount of Energy that cannot be delivered from the Generating Unit, Participating Load, Proxy Demand Resource, System Unit or System Resource for the Settlement Interval shall be rescinded. If a Partial Resource Adequacy Resource is providing RUC Capacity from both the non-Resource Adequacy Capacity and the Resource Adequacy Capacity the rescission of the credit will occur for the non-Resource Adequacy Capacity prior to eliminating any capacity for the Resource Adequacy Capacity of the Partial Resource Adequacy Resource.

11.2.2.2.2 Undeliverable RUC Capacity

The CAISO will rescind a resource's RUC Availability Payment, or portion thereof, when the resource's total metered output is less than Expected Energy by more than the Tolerance Band and less than the RUC Schedule. For purposes of this calculation, total metered output will not include Energy provided or reduced as a result of AGC signals.

11.2.2.2.3 Allocation of Rescinded RUC Availability Payments Due to Non-Performance

RUC Availability Payments rescinded due to non-performance shall be allocated to Scheduling Coordinators in the proportion of their Net Negative Uninstructed Deviations to the total Net Negative CAISO Demand Deviation.

11.2.3 IFM Energy Charges and Payments for Metered Subsystems

11.2.3.1 Gross Energy Settlement for Metered Subsystems

For Scheduling Coordinators that submit Bids for MSS Operators that have selected gross Energy Settlement, CAISO shall settle Energy, the MSS Demand and MSS Supply, in the Day-Ahead Schedules pursuant to Section 11.2.3.1.1 and 11.2.3.1.2.

11.2.3.1.1 IFM Charges for MSS Demand under Gross Energy Settlement

The CAISO shall charge Scheduling Coordinators that submit Bids for MSS Operators that have selected or are subject to gross Energy Settlement an amount equal to the product of the MWh quantity of Demand internal to the MSS in its Day-Ahead Schedule at the price at the Default LAP where the MSS LAP is located.

11.2.3.1.2 IFM Payments for MSS Supply under Gross Energy Settlement

The CAISO shall credit Scheduling Coordinators that submit Bids for MSS Operators that have selected

or are subject to gross Energy Settlement an amount equal to the product of the MWh quantity of Supply from the MSS in its Day-Ahead Schedule at the corresponding PNode and the applicable IFM LMP.

11.2.3.2 Net Energy Settlement for Metered Subsystems

For Scheduling Coordinators that submit Bids for MSS Operators that have selected net Energy Settlement, the CAISO shall settle the net MSS Demand and MSS Supply in the Day-Ahead Schedules pursuant to Section 11.2.3.2.1 and 11.2.3.2.2.

11.2.3.2.1 IFM Charges for MSS Demand under Net Energy Settlement

The CAISO shall charge Scheduling Coordinators that submit Bids for MSS Operators that have selected net Energy Settlement an amount equal to the product of the net MSS Demand in the Day-Ahead Schedule and the IFM MSS Price. The net MSS Demand is the quantity of MSS Demand that exceeds MSS Generation for the applicable MSS.

11.2.3.2.2 IFM Payment for MSS Supply under Net Energy Settlement

The CAISO shall credit Scheduling Coordinators that submit Bids for MSS Operators that have selected net Energy Settlement an amount equal to the product of the net MSS Supply in the Day-Ahead Schedule and the weighted average price of all IFM LMPs for all applicable PNodes within the relevant MSS. The net MSS Supply is the quantity of MSS Generation that exceeds the MSS Demand for the applicable MSS. The weights used to compute the weighted average LMPs shall be equal to MSS Generation scheduled in the Day-Ahead Schedule.

11.2.4 CRR Settlements

The CAISO will credit or debit 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 Demand 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 Demand 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 the IFM 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 Fund 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 credit 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 Credits and Debits 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 credits and debits issued through this process to determine the net revenue amount. 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 credited 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 credit or debit 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 credit equal to the ratio of that CRR Holder's prevailing Net Modeled CRR Flow over that Transmission Constraint (accounting for adjustments made pursuant to Sections 11.2.4.6 or 11.2.4.7), as compared to the sum of all CRR Holders' prevailing Net Modeled CRR Flow over that Transmission Constraint (accounting for adjustments made pursuant to Sections 11.2.4.6 or 11.2.4.7). The CAISO will not credit 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 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 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 Holders in that Settlement Period (accounting for adjustments made pursuant to Sections 11.2.4.6 or 11.2.4.7).

11.2.4.4.2 Calculating Daily CRR Surplus 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 adjustments made pursuant to Sections 11.2.4.6 or 11.2.4.7). A Daily CRR Surplus Distribution Payments 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 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 it 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 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 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 Credits and Debits Related to Virtual Awards

In accordance with this Section 11.2.4.6, the CAISO will adjust the credits 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 credits and debits 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 credits and debits 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 credits and debits calculated pursuant to this Section 11.2.4.6 in the Hourly CRR Congestion Fund for the applicable Transmission Constraint corresponding to the CRR credits and debits that would have been issued but for the revenue adjustments as specified in Section 11.2.4.1.2.

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

The CAISO will adjust the credits and debits 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 credits from CRRs on the congested transmission element.

If such circumstances occur, the CAISO adjusts the CRR credits and debits 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 credited to the CRR Holder. Instead, the CAISO will add those amounts to the Hourly CRR Congestion Fund for the applicable Transmission Constraint.

11.2.5 Payment by OBAALSE for CRRs Through CRR Allocation Process

11.2.5.1 Pursuant to Section 36.9, in addition to other requirements specified therein, an OBAALSE will be eligible to participate in the CRR Allocation process if such entity has made a pre-payment to the CAISO and has met the requirements in Section 36.9. The prepayment amount shall equal the MW of CRR requested times the Wheeling Access Charge associated with the Scheduling Point corresponding to the CRR Sink times the number of hours in the period for each requested CRR MW amount. Except as provided in Section 36.9.2, such prepayment will be made three (3) Business Days in advance of the submission of CRR nominations for Monthly CRRs, Seasonal CRRs and Long Term CRRs to the CRR Allocation. Within thirty (30) days following the completion of the CRR Allocation process for Monthly CRRs, Seasonal CRRs and Long Term CRRs, the CAISO shall reimburse such OBAALSE the amount of money pre-paid for any CRRs that were not allocated to the entity.

11.2.5.2 Annual Prepayment Option

For entities that are eligible and elect for the annual prepayment pursuant to Section 36.9.2, the annual prepayment will be due three (3) Business Days in advance of the submission of CRR nominations for Tier LT in the CRR Allocation process. For allocated Long Term CRRs, each of the nine subsequent annual payments must be made at the beginning of the annual CRR Allocation process for the following year.

11.2.5.3 Monthly Prepayment Option

If the OBAALSE qualified for the monthly prepayment option as specified in Section 36.9.2, the OBAALSE shall make its payments consistent with the monthly prepayment schedule specified in the applicable Business Practice Manual.

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 Settlement of Virtual Awards

11.3.1 Virtual Supply Awards

The CAISO will credit each Scheduling Coordinator with Virtual Supply Awards at an Eligible PNode or Eligible Aggregated PNode an amount equal to the Day-Ahead LMP at the Eligible PNode or Eligible Aggregated PNode multiplied by the MWhs of Virtual Supply Awards. Virtual Supply Awards subject to price correction will be settled as specified in Section 11.21. The CAISO will charge each Scheduling Coordinator with Virtual Supply Awards at an Eligible PNode or Eligible Aggregated PNode an amount equal to the simple average of the four FMM LMPs for the applicable Trading Hour at the Eligible PNode or Eligible Aggregated PNode multiplied by the MWhs of Virtual Supply Awards.

11.3.2 Virtual Demand Awards

The CAISO will charge each Scheduling Coordinator with Virtual Demand Awards at an Eligible PNode or Eligible Aggregated PNode an amount equal to the Day-Ahead Market LMP at the Eligible PNode or Eligible Aggregated PNode multiplied by the MWhs of Virtual Demand Awards. Virtual Demand Awards subject to price correction will be settled as specified in Section 11.21. The CAISO will credit each Scheduling Coordinator with Virtual Demand Awards at an Eligible PNode or Eligible Aggregated PNode an amount equal to the simple average of the four FMM LMPs for the applicable Trading Hour at the Eligible PNode or Eligible Aggregated PNode multiplied by the IFM MWhs of Virtual Demand Awards.

11.4 Black Start Settlements

Credits for Black Start capability shall consist of any credits under any Black Start Agreement. If the Energy price and Start-Up Costs are not specified in the Black Start Agreement, the Black Start Energy will be credited as an Exceptional Dispatch in accordance with Section 11.5.6.1 and the commitment

costs for the resource will be eligible for Bid Cost Recovery under Section 11.8. Black Start Energy resulting from a performance test shall also be credited as an Exceptional Dispatch in accordance with Section 11.5.6.1. RMR Units providing Black Start are compensated in accordance with the RMR Contract rather than this Section 11.4.

11.4.1 Black Start Energy

The Black Start Energy credit user rate for any Settlement Period will be calculated based on the sum of Black Start Energy credits to Scheduling Coordinators in the applicable Settlement Period divided by Measured Demand, excluding exports to neighboring Balancing Authority Areas. The Black Start Energy user charge for any Settlement Period for a Scheduling Coordinator will be the Black Start Energy credit user rate multiplied by the quantity of Measured Demand, excluding exports to neighboring Balancing Authority Areas, for which that Scheduling Coordinator is responsible in that Settlement Period.

11.4.2 Black Start Capability

The CAISO shall allocate credits for Black Start capability under a Black Start Agreement as Reliability Services Costs to the Participating Transmission Owner in whose TAC Area where the Black Start Unit is located.

11.5 Real-Time Market Settlements

The CAISO shall calculate and account for imbalance energy for each Dispatch Interval and settle imbalance energy in the Real-Time Market for each Settlement Interval for each resource within the CAISO Balancing Authority Area and all System Resources dispatched in Real-Time. There are four (4) categories of imbalance energy: FMM Instructed Imbalance Energy, RTD Instructed Imbalance Energy, Uninstructed Imbalance Energy, and Unaccounted For Imbalance Energy. FMM Instructed Imbalance Energy includes all Energy associated with the FMM Schedule. FMM Instructed Imbalance Energy is settled pursuant to Section 11.5.1.1, including any Energy related with HASP Intertie Block Schedules cleared through the FMM. RTD Instructed Imbalance Energy is settled pursuant to Section 11.5.1.2, Uninstructed Imbalance Energy is settled pursuant to Section 11.5.2, and Unaccounted For Energy is settled pursuant to Section 11.5.3. To the extent that the sum of the Settlements Amounts for FMM Instructed Imbalance Energy, RTD Instructed Imbalance Energy, Uninstructed Imbalance Energy, and Unaccounted For Energy does not equal zero, the CAISO will assess charges or issue credits for the

resulting differences to all Scheduling Coordinators based on a pro rata share of their Measured Demand for the relevant Settlement Interval, as further described in Section 11.5.4. FMM Instructed Imbalance Energy and RTD Instructed Imbalance Energy due to Exceptional Dispatches, as well as the allocation of related costs, including Excess Costs Payments, are settled as described in Section 11.5.6. The CAISO shall reverse RTM Congestion Charges for valid and balanced ETC and TOR Self-Schedules as described in Section 11.5.7. The CAISO will settle Energy for emergency assistance as described in Section 11.5.8.

11.5.1 Imbalance Energy Settlements

11.5.1.1 FMM Instructed Imbalance Energy Settlements

For each Settlement Interval, FMM Instructed Imbalance Energy consists of the following types of Energy: (1) FMM Optimal Energy; (2) FMM Minimum Load Energy; (3) FMM Exceptional Dispatch Energy; (4) FMM Derate Energy; and (5) FMM Pumping Energy. Credits and charges for FMM Instructed Imbalance Energy attributable to each resource in each Settlement Interval shall be settled by debiting or crediting, as appropriate, the specific Scheduling Coordinator's FMM IIE Settlement Amount. The FMM IIE Settlement Amounts for FMM Optimal Energy, FMM Minimum Load Energy, FMM Derate Energy, and FMM Pumping Energy shall be calculated as the product of the sum of all of these types of Energy and the FMM LMP. For MSS Operators that have elected net Settlement, the FMM IIE Settlement Amounts for Energy dispatched through the FMM optimization shall be calculated as the product of the FMM MSS Price and the sum of the following types of Energy: FMM Minimum Load Energy from System Units dispatched in FMM, FMM Derate Energy, and FMM Pumping Energy. For MSS Operators that have elected gross Settlement, regardless of whether that entity has elected to follow its Load or to participate in RUC, the FMM Instructed Imbalance Energy for such entities is settled similarly to non-MSS entities as provided in this Section 11.5.1.1. The remaining FMM IIE Settlement Amounts for Exceptional Dispatches are settled pursuant to Section 11.5.6.

11.5.1.2 RTD Instructed Imbalance Energy Settlements

For each Settlement Interval, RTD Instructed Imbalance Energy consists of the following types of Energy: (1) RTD Optimal Energy; (2) Residual Imbalance Energy; (3) RTD Minimum Load Energy; (4) RTD Exceptional Dispatch Energy; (5) Regulation Energy; (6) Standard Ramping Energy; (7) Ramping Energy

Deviation; (8) RTD Derate Energy; (9) MSS Load Following Energy; (10) RTD Pumping Energy; and (11) Operational Adjustments. Credits and charges for RTD Instructed Imbalance Energy attributable to each resource in each Settlement Interval shall be settled by debiting or crediting, as appropriate, the specific Scheduling Coordinator's RTD IIE Settlement Amount. The RTD IIE Settlement Amounts for the Standard Ramping Energy shall be zero. The RTD IIE Settlement Amounts for RTD Optimal Energy, RTD Minimum Load Energy, Regulation Energy, Ramping Energy Deviation, RTD Derate Energy, and RTD Pumping Energy shall be calculated as the product of the sum of all of these types of Energy and the RTD LMP. For MSS Operators that have elected net Settlement, the RTD IIE Settlement Amounts for Energy dispatched through the RTD optimization shall be calculated as the product of the RTD MSS Price and the sum of the following types of Energy: RTD Minimum Load Energy from System Units dispatched in Real-Time, Regulation Energy, Ramping Energy Deviation, RTD Derate Energy, MSS Load Following Energy, and RTD Pumping Energy. For MSS Operators that have elected gross Settlement, regardless of whether that entity has elected to follow its Load or to participate in RUC, the RTD Instructed Imbalance Energy for such entities is settled similarly to non-MSS entities as provided in this Section 11.5.1.2. The remaining RTD IIE Settlement Amounts are determined as follows: (1) RTD IIE Settlement Amounts for Residual Imbalance Energy are determined pursuant to Section 11.5.5; and (2) RTD IIE Settlement Amounts for Exceptional Dispatches are settled pursuant to Section 11.5.6.

11.5.2 Uninstructed Imbalance Energy

Scheduling Coordinators shall be credited or charged a UIE Settlement Amount for each LAP, PNode or Scheduling Point for which the CAISO calculates an Uninstructed Imbalance Energy quantity for each Settlement Interval. Uninstructed Imbalance Energy quantities are calculated for each resource that has a Day-Ahead Schedule, Dispatch Instruction, Real-Time Interchange Export Schedule or Metered Quantity. For MSS Operators electing gross Settlement, regardless of whether that entity has elected to follow its Load or to participate in RUC, the Uninstructed Imbalance Energy for such entities is settled similarly to how Uninstructed Imbalance Energy for non-MSS entities is settled as provided in this Section 11.5.2. The CAISO shall account for Uninstructed Imbalance Energy every five minutes based on the resource's Dispatch Instruction. For all resources, including Generating Units, System Units of MSS Operators that have elected gross Settlement, Physical Scheduling Plants, System Resources,

Distributed Energy Resource Aggregations and all Participating Load, Reliability Demand Response Resources, and Proxy Demand Resources, the UIE Settlement Amount is calculated for each Settlement Interval as the product of its Uninstructed Imbalance Energy MWh quantity and the applicable RTD LMP. The UIE Settlement Amount for non-Participating Load and MSS Demand under gross Settlement is settled as described in Section 11.5.2.2. For MSS Operators that have elected net Settlement, the UIE Settlement Amount is calculated for each Settlement Interval as the product of its Uninstructed Imbalance Energy quantity and RTD MSS Price.

11.5.2.1 Resource Specific Tier 1 UIE Settlement Interval Price

The Resource-Specific Tier 1 UIE Settlement Interval Price is calculated as the resource's total FMM IIE Settlement Amount and RTD IIE Settlement Amount, calculated pursuant to Sections 11.5.1.1 and 11.5.1.2 for that Settlement Interval divided by its total FMM Instructed Imbalance Energy quantity (MWh) calculated pursuant to Sections 11.5.1.1 and 11.5.1.2.

11.5.2.2 Hourly Real-Time Demand Settlement

The Default LAP Hourly Real-Time Price will apply to CAISO Demand and MSS Demand under net Settlement of imbalance energy, except for CAISO Demand not settled at the Default LAP as provided in Section 30.5.3.2, and per the methodology as may be further defined in the Business Practice Manuals. For each Settlement Interval, the differences between the Day-Ahead Scheduled CAISO Demand and Metered Demand (MWh) is settled at the Default LAP Hourly Real-Time Price or the Custom LAP Hourly Real-Time Price, as appropriate. For each Default LAP, the CAISO calculates the applicable Default LAP Hourly Real-Time Price as the weighted average LMP of the four Default LAP FMM LMPs and the twelve (12) five-minute Default LAP RTD LMPs. The CAISO calculates the weighted average LMP for each Default LAP as the summation of the weighted average SMEC, the weighted average MCC, and the weighted average MCL for that Default LAP. The CAISO calculates the weighted average SMEC, MCC, and MCL for each applicable Trading Hour based on the four applicable Default LAP FMM SMECs, MCCs, and MCLs, respectively, and the twelve (12) applicable Default LAP RTD SMECs, MCCs, and MCLs, respectively. For each Custom LAP, the CAISO calculates the applicable Custom LAP Hourly Real-Time Price as the weighted average LMP of the four Custom LAP FMM LMPs and the twelve (12) five-minute Custom LAP RTD LMPs. The CAISO calculates the weighted average LMP for each Custom

LAP as the summation of the weighted average SMEC, the weighted average MCC, and the weighted average MCL for that Custom LAP. The CAISO calculates the weighted average SMEC, MCC, and MCL for each applicable Trading Hour based on the four applicable Custom LAP FMM SMECs, MCCs, and MCLs, respectively, and the twelve (12) applicable Custom LAP RTD SMECs, MCCs, and MCLs, respectively. In calculating the weighted average SMEC, MCC, and MCL for each hour for either the Default LAPs or Custom LAPs, the CAISO determines the weights based on the difference between Day-Ahead Schedules at the applicable LAP and the CAISO Forecast of CAISO Demand used in the FMM multiplied by the relevant FMM LMP at the applicable LAP plus the difference between the CAISO Forecast of CAISO Demand used in the FMM and the CAISO Forecast of CAISO Demand used in the RTD multiplied by the relevant RTD LMP at the applicable LAP divided by the sum of the difference between Day-Ahead Schedules at the applicable LAP and the CAISO Forecast of CAISO Demand used in the FMM plus the difference between the CAISO Forecast of CAISO Demand used in the FMM and the CAISO Forecast of CAISO Demand used in the RTD. Furthermore, the Default LAP Hourly Real-Time Prices and the Custom LAP Hourly Real-Time Prices will be bounded by the maximum and the lowest LMP and its components, for the applicable Trading Hour from those relevant intervals at the relevant LAP. If the calculated price exceeds the upper boundary or is below the lower boundary, then the Default LAP Hourly Real-Time Price or the Custom LAP Hourly Real-Time Price, as appropriate, instead will be calculated based on a weighted average price with the weightings based on gross deviations (absolute value of each deviation).

The Hourly Real-Time LAP Prices are determined by the requirements in Section 27.2.2.2.

11.5.2.3 Revenue Neutrality Resulting from Changes in LAP Load Distribution Factors

Any resulting revenue from changes in the LAP Load Distribution Factors between the Day-Ahead Market and the Real-Time Dispatch shall be allocated to metered CAISO Demand in the corresponding Default LAP.

11.5.2.4 [Not Used]

11.5.3 Unaccounted For Energy

For each Settlement Interval, the CAISO will calculate Unaccounted For Energy for each utility Service Area for which the IOU or Local Publicly Owned Electric Utility has requested separate Unaccounted For

Energy calculation and has met the requirements applicable to a CAISO Metered Entity. The Unaccounted For Energy will be settled at the applicable LAP Hourly Real-Time Price calculated for each utility Service Area for which Unaccounted For Energy is calculated separately. Unaccounted For Energy will be allocated to each Scheduling Coordinator based on the ratio of its metered CAISO Demand within the relevant utility Service Area for which Unaccounted For Energy is calculated separately to total metered CAISO Demand within that utility Service Area.

11.5.4 Imbalance Energy Pricing; Non-Zero Offset Amount Allocation

11.5.4.1 Real-Time Imbalance Energy Offset

(a) **Financial Value of EIM Transfers.** For each Balancing Authority Area in the EIM Area, the CAISO will calculate the Real-Time Market financial value of EIM Transfers as the product of the EIM Transfer MWh, either positive or negative, and the System Marginal Energy Cost, plus a greenhouse gas financial value credit calculated as the product of the portion of the EIM Transfers that do not correspond to a greenhouse gas compliance obligation under the regulations administered by the California Air Resources Board and the Marginal Greenhouse Gas Cost.

(b) **Initial Calculation.** The CAISO will initially calculate the Real-Time Imbalance Energy Offset to be recovered on a 5-minute basis for each Balancing Authority Area in the EIM Area as the sum of the financial value of EIM Transfers and the Settlement amounts for FMM Instructed Imbalance Energy and RTD Instructed Imbalance Energy, Uninstructed Imbalance Energy, Greenhouse Gas Emissions Cost Revenue, and Unaccounted For Energy, and for the CAISO, Real-Time Virtual Bid Settlement, plus the Real-Time Ancillary Services Congestion revenues and Virtual Awards settlements in the Real-Time Market in accordance with Section 11.3, less the Real-Time Congestion Offset and less the Real-Time Marginal Cost of Losses Offset.

(c) **Allocation.** The CAISO will allocate the adjusted Real-Time Imbalance Energy Offset:

(1) for the CAISO Balancing Authority Area, to Scheduling Coordinators in the CAISO Balancing Authority Area according to Measured Demand; and

(2) for EIM Entity Balancing Authority Areas, to the applicable EIM Entity Scheduling

Coordinator.

(d) **Residual Neutrality Amounts.** The CAISO will allocate any residual Real-Time Imbalance Energy Offset amount to Scheduling Coordinators in the EIM Area based upon EIM Measured Demand.

11.5.4.1.1 Real-Time Congestion Offset.

(a) **Contribution to Marginal Cost of Congestion.** For each Settlement Period of the RTM, the CAISO shall calculate the contribution of each Balancing Authority Area in the EIM Area to the Marginal Cost of Congestion at each resource location and intertie in the EIM Area for each Balancing Authority Area based on the location of the Transmission Constraints in each Balancing Authority Area, EIM External Interties, and constraints enforced outside of the EIM Area needed to manage that Balancing Authority Area's responsibilities.

(b) **Real-Time Congestion Offset.** For each Settlement Period of the RTM, the CAISO shall calculate the Real-Time Congestion Offset for each Balancing Authority Area in the EIM Area as –

(1) the sum of the product of the contribution of that Balancing Authority Area as determined in subsection (a) of this section, the Marginal Cost of Congestion component of the Locational Marginal Price at each resource location in the EIM Area, and the imbalance energy at that resource location, including Virtual Bids at that resource location;

(2) minus any Virtual Bid adjustment as determined in accordance with section 11.5.4.1.1(d).

(c) **Treatment of EIM Internal Interties.**

(1) **Characterization of Transmission Rights.** As the terms are used for the purposes assigning congestion revenue to a Balancing Authority Area pursuant to section (c)(3), the CAISO or an EIM Entity provides –

(A) transmission "to" an EIM Internal Intertie if a transaction using that transmission must compete at that location with transactions using

transmission that is not provided by the CAISO or an EIM Entity;

(B) transmission "through" an EIM Internal Intertie if a transaction using that transmission does not compete at that location with transactions using transmission that is not provided by the CAISO or an EIM Entity.

(2) **EIM Intertie that Operates Only as an EIM Internal Intertie.** In performing the calculation in subsection (a) of this section in the case of an EIM Intertie that operates only as an EIM Internal Intertie, the CAISO shall determine a Balancing Authority Area's contribution to the Congestion at the intertie by –

(A) dividing the congestion revenue equally to each side of the intertie as determined by the Balancing Authority Area boundary at that intertie; then

(B) allocating the congestion revenue divided in subsection (c)(12)(A) of this section to each side of the intertie among the Balancing Authority Areas that share that side of the intertie in proportion to the Balancing Authority Area's contribution to the EIM Transfer limit.

(3) **EIM Intertie that Operates Both as an EIM Internal Intertie and an EIM External Intertie or a Scheduling Point.** In performing the calculation in subsection (a) of this section in the case of an EIM Intertie that operates both as an EIM Internal Intertie and an EIM External Intertie or Scheduling Point, the CAISO shall determine a Balancing Authority Area's contribution to the Congestion at the intertie by –

(A) assigning congestion revenue attributable to a constraint at the EIM Internal Intertie associated with the CAISO's or an EIM Entity's provision of transmission to the EIM Internal Intertie to the Balancing Authority Areas in the EIM Area that provide transmission to the EIM Internal Intertie in proportion to each EIM Entity's contribution to the EIM Transfer limit;

(B) assigning congestion revenue attributable to a constraint at the EIM

Internal Intertie associated with the CAISO's or an EIM Entity's provision of transmission through the EIM Internal Intertie to the Balancing Authority Areas in the EIM Area that provide transmission through the EIM Internal Intertie in accordance with the calculation in subsection (c)(2) of this section; and

(C) assigning congestion revenue attributable to the EIM External Intertie or the Scheduling Point to the Balancing Authority Area in the EIM Area that manages the transmission rights on that intertie.

(4) **EIM Intertie that Operates Only as an EIM External Intertie.** In performing the calculation in subsection (a) of this section in the case of an EIM Intertie that operates only as an EIM External Intertie, the CAISO shall determine a Balancing Authority Area's contribution to the Congestion at the intertie by allocating the congestion revenue to the Balancing Authority Area in the EIM Area that manages the intertie.

(d) **Virtual Bid Adjustment.**

(1) **Individual Constraint Calculation.** For each Transmission Constraint in an EIM Entity Balancing Authority Area, the CAISO will calculate a Virtual Bid adjustment as the product of that Transmission Constraint's FMM Shadow Price and the lesser of –

(A) the Flow Impact of Virtual Bids and

(B) the Flow Impacts of all Day-Ahead Scheduled Energy and EIM Base Schedules less the Flow Impacts of FMM Schedules,

but not less than zero.

(2) **EIM Entity Balancing Authority Area Calculation.** Each EIM Entity Balancing Authority Area's Virtual Bid adjustment shall be the sum of the individual Transmission Constraint calculation for all Transmission Constraints within that EIM Entity Balancing Authority Area.

(e) **Allocation.** The CAISO will allocate –

(1) the Real-Time Congestion Offset for each EIM Entity Balancing Authority Area to the applicable EIM Entity Scheduling Coordinator;

(2) the Real-time Congestion Offset for the CAISO Balancing Authority Area in accordance with Section 11.5.4.2; and

(3) the Virtual Bid adjustment from each individual constraint calculation to each Scheduling Coordinator who submitted Virtual Bids based on that Scheduling Coordinator's Virtual Award's pro rata share of the gross positive Congestion revenues received by all Virtual Awards from that Transmission Constraint.

11.5.4.1.2 Real-Time Marginal Cost of Losses Offset

(a) **Calculation.** The CAISO will calculate the Real-Time Marginal Cost of Losses Offset for each Balancing Authority Area as the sum of the product of the Marginal Loss component of the LMP and all positive or negative FMM Instructed Imbalance Energy, RTD Instructed Imbalance Energy, Uninstructed Imbalance Energy, and Unaccounted For Energy in the Balancing Authority Area.

(b) **Allocation.** The CAISO will allocate the amounts determined according to section 11.5.4.1.2(a) –

(1) for the CAISO Balancing Authority Area, according to section 11.5.4.2; and

(2) for EIM Entity Balancing Authority Areas, to the applicable EIM Entity Scheduling Coordinator.

11.5.4.2 Allocations of Non-Zero Amounts of the Sum of the FMM Instructed Imbalance Energy, RTD Instructed Imbalance Energy, RTD Imbalance Energy, Uninstructed Imbalance Energy, Unaccounted For Energy, the Real-Time Ancillary Services Congestion Revenues and Real-Time Virtual Awards Settlements

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 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 FMM Instructed Imbalance Energy, RTD Instructed Imbalance Energy, RTD Imbalance Energy, Uninstructed Imbalance Energy, Unaccounted For Energy, the Real-Time Ancillary Services Congestion revenues and Virtual Awards settlements in the Real-Time Market in accordance with Section 11.3, 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 issue credits 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 issue credits for the resulting non-zero differences of the sum of the Settlement amounts for FMM Instructed Imbalance Energy, RTD Instructed Imbalance Energy, RTD Imbalance Energy, Uninstructed Imbalance Energy, and Unaccounted For Energy, the Real-Time Ancillary Services Congestion Revenues and Virtual Awards settlements in the Real-Time Market in accordance with Section 11.3, 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 issue credits for the resulting non-zero differences of the sum of the Settlement amounts for FMM Instructed Imbalance Energy, RTD Instructed Imbalance Energy, RTD Imbalance Energy, Uninstructed Imbalance Energy, and Unaccounted For Energy, the Real-Time Ancillary Services Congestion Revenues and Virtual Awards settlements in the Real-Time Market in accordance with Section 11.3, less Real-Time Congestion Offset and less the Real-Time Marginal Cost of Losses Offset.

11.5.5 Settlement Amount for Residual Imbalance Energy

11.5.5.1 In General

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, as mitigated pursuant to Section 39.7 that led to the Residual Imbalance Energy from the relevant Dispatch Interval in which the resource was dispatched, subject to additional rules specified in this section below and in Section 11.17. The relevant Dispatch Interval and Bid that led to the Residual Imbalance Energy may occur prior or subsequent to the interval in which the relevant Residual Imbalance Energy occurs and can be contiguous, or not, with the applicable Trading Hour in which the relevant Residual Imbalance Energy Settlement Interval occurs.

11.5.5.2 Eligible Intermittent Resources

For Eligible Intermittent Resources, the Settlement Amount for any portion of the resource's Residual Imbalance Energy that is greater than its forecasted output for a particular Settlement Interval will be the product of the MWh of Residual Imbalance Energy above the resource's forecasted output for that Settlement Interval and the applicable RTD Locational Marginal Price or RTD MSS Price if the resource is MSS Net settled.

11.5.5.3 Metered Sub-Systems

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), except in the case of Eligible Intermittent Resources which are settled as specified in Section 11.5.5.2.

11.5.5.4 Rerated Minimum Load

When a Scheduling Coordinator increases the Minimum Load pursuant to Section 9.3.3, for the Settlement Interval(s) during which the affected resource is ramping up towards or ramping down from

such a Minimum Load change, the Residual Imbalance Energy for the applicable Settlement Interval(s) will be re-classified as Derate Energy and will be credited at the applicable RTD Locational Marginal Price.

11.5.6 Settlement Amounts for RTD Instructed Imbalance Energy from Exceptional Dispatch

For each Settlement Interval, the RTD IIE Settlement Amount from each type of Exceptional Dispatch described in Section 34.11 is calculated as the sum of the products of the relevant FMM Instructed Imbalance Energy or RTD Instructed Imbalance Energy quantity for the Settlement Interval and the relevant FMM or RTD LMP Settlement price for each type of Exceptional Dispatch as further described in this Section 11.5.6. For MSS Operators the Settlement for FMM Instructed Imbalance Energy or RTD Instructed Imbalance Energy from Exceptional Dispatches is conducted in the same manner, regardless of any MSS elections (net/gross Settlement, Load following or opt-in/opt-out of RUC). Except for the Settlement price, Exceptional Dispatches to perform Ancillary Services testing, to perform PMax testing, and to perform pre-commercial operation testing for Generating Units are otherwise settled in the same manner as provided in Section 11.5.6.1. Notwithstanding any other provisions of this Section 11.5.6, the Exceptional Dispatch Settlement price that is applicable in circumstances in which the CAISO applies Mitigation Measures to Exceptional Dispatch of resources pursuant to Section 39.11 shall be calculated as set forth in Section 11.5.6.7.

11.5.6.1 Settlement for FMM Instructed Imbalance Energy or RTD Instructed Imbalance Energy from Exceptional Dispatches used for System Emergency Conditions, for a Market Disruption, to Mitigate Overgeneration or to Prevent or Relieve Imminent System Emergencies

The Exceptional Dispatch Settlement price for incremental FMM Instructed Imbalance Energy or RTD Instructed Imbalance Energy that is delivered as a result of an Exceptional Dispatch for System Emergency conditions, for a Market Disruption, to mitigate Overgeneration conditions, or to prevent or relieve an imminent System Emergency, including forced Start-Ups and Shut-Downs, is the higher of the (a) applicable FMM or RTD LMP; (b) the Energy Bid price; (c) the Default Energy Bid price if the resource has been mitigated through the MPM in the Real-Time Market and for the Energy that does not have an Energy Bid price; or (d) the negotiated price as applicable to System Resources. The Exceptional

Dispatch price for incremental FMM Instructed Imbalance Energy or RTD Instructed Imbalance Energy that is delivered from an RMR Resource as a result of an Exceptional Dispatch for System Emergency conditions; for a Market Disruption; to mitigate Overgeneration conditions; or to prevent or relieve an imminent System Emergency, including forced Start-Ups and Shut-Downs, is the higher of (a) applicable FMM or RTD LMP; (b) the Energy Bid price adjusted to remove Opportunity Costs; or (c) the Default Energy Bid price adjusted to remove Opportunity Costs. Costs for incremental Energy for this type of Exceptional Dispatch are settled in two steps: (1) incremental Energy is first settled at the applicable FMM or RTD LMP and included in the total FMM IIE Settlement Amount or RTD IIE Settlement Amount described in Sections 11.5.1.1 and 11.5.1.2; and (2) the incremental Energy Bid Cost in excess of the applicable FMM or RTD LMP at the relevant Location is settled pursuant to Section 11.5.6.1.1. The Exceptional Dispatch Settlement price for decremental FMM Instructed Imbalance Energy or RTD Instructed Imbalance Energy that is delivered as a result of an Exceptional Dispatch Instruction for a Market Disruption, or to prevent or relieve a System Emergency, is the minimum of (a) the FMM or RTD LMP; (b) the Energy Bid price subject to Section 39.6.1.4; (c) the Default Energy Bid price if the resource has been mitigated through the MPM in the Real-Time Market and for the Energy that does not have an Energy Bid price; or (d) the negotiated price as applicable to System Resources. The Exceptional Dispatch price for decremental FMM Instructed Imbalance Energy or RTD Instructed Imbalance Energy that is delivered from an RMR Resource as a result of an Exceptional Dispatch for Emergency System conditions; for a Market Disruption; to mitigate Overgeneration conditions; or to prevent or relieve an imminent System Emergency, is the minimum of the (a) applicable FMM or RTD LMP; (b) the Energy Bid price adjusted to remove Opportunity Costs; or (c) the Default Energy Bid price adjusted to remove Opportunity Costs. All Energy costs for decremental FMM Instructed Imbalance Energy or RTD Instructed Imbalance Energy associated with this type of Exceptional Dispatch are included in the total FMM IIE Settlement Amount or RTD IIE Settlement Amount described in Sections 11.5.1.1 and 11.5.1.2.

11.5.6.1.1 Settlement of Excess Cost Payments for Exceptional Dispatches used for System Emergency Conditions, for a Market Disruption, and to Avoid an Imminent System Emergency

The Excess Cost Payment for incremental Exceptional Dispatches used for emergency conditions, for a

Market Disruption, or to avoid an imminent System Emergency is calculated for each resource for each Settlement Interval as the cost difference between the Settlement amount calculated pursuant to Section 11.5.6.1 for the applicable Exceptional Dispatch at the FMM or RTD LMP and delivered Exceptional Dispatch quantity at one of the following three costs: (1) the resource's Energy Bid Cost; (2) the Default Energy Bid cost; or (3) the Energy cost at the negotiated price, as applicable for System Resources, for the relevant Exceptional Dispatch. The Excess Cost Payment for incremental Exceptional Dispatches used for System Emergency conditions; for a Market Disruption; or to avoid an imminent System Emergency for an RMR Resource is the cost difference between the Settlement amount calculated pursuant to Section 11.5.6.1 and one of the following two costs: (1) the RMR Resource's Energy Bid price adjusted to remove Opportunity Costs; or (2) the Default Energy Bid price adjusted to remove Opportunity Costs.

11.5.6.1.2 Settlement for Instructed Imbalance Energy from Exceptional Dispatches to Storage Resources to Hold State of Charge

The CAISO will settle storage resources that receive an Exceptional Dispatch to hold a State of Charge pursuant to Sections 11.5.6 and 11.5.6.1 for any FMM Instructed Imbalance Energy or RTD Instructed Imbalance Energy to move to the targeted State of Charge plus the resource's opportunity cost for holding the State of Charge. The CAISO will calculate this opportunity cost starting from the first Operating Interval when the resource met and followed the Exceptional Dispatch through the end of the Operating Day. The CAISO will calculate the difference between the resource's maximum potential RTM Energy revenues without the Exceptional Dispatch to hold the State of Charge and the resource's maximum potential RTM Energy revenues with the Exceptional Dispatch to hold State of Charge. If the resource's maximum potential RTM Energy revenues without the Exceptional Dispatch to hold State of Charge are higher than the resource's maximum potential RTM Energy revenues with the Exceptional Dispatch to hold State of Charge, then the resource will receive the positive difference between these two values, which is its opportunity cost. The CAISO will calculate the resource's opportunity costs based on its Master File characteristics, Bids, State of Charge, Day-Ahead Schedules, and the applicable Locational Marginal Prices.

11.5.6.2 Settlement of Instructed Imbalance Energy from Exceptional Dispatches Caused

by Modeling Limitations

The Exceptional Dispatch Settlement price for FMM Instructed Imbalance Energy or RTD Instructed Imbalance Energy that is consumed or delivered as a result of an Exceptional Dispatch to mitigate or resolve Congestion as a result of a transmission-related modeling limitation in the FNM as described in Section 34.11.3 is the maximum of (a) the FMM or RTD LMP; (b) the Energy Bid price; (c) the Default Energy Bid price if the resource has been mitigated through the MPM in the Real-Time Market and for the Energy that does not have an Energy Bid price; or (d) the negotiated price as applicable to System Resources. The Exceptional Dispatch Price for FMM Instructed Imbalance Energy or RTD Instructed Imbalance Energy that is consumed or delivered by an RMR Resource as a result of Exceptional Dispatch to mitigate or resolve Congestion as a result of a transmission-related modeling limitation in the FNM as described in Section 34.11.3 is the maximum of: (a) the applicable FMM or RTD LMP; (b) the Energy Bid price adjusted to remove Opportunity Costs; or (c) the Default Energy Bid price adjusted to remove Opportunity Costs. Costs for incremental Energy for this type of Exceptional Dispatch are settled in two steps: (1) incremental Energy is first settled at the FMM or RTD LMP and included in the total FMM IIE Settlement Amount or RTD IIE Settlement Amount described in Sections 11.5.1.1 and 11.5.1.2; and (2) the incremental Energy Bid costs in excess of the applicable LMP at the relevant Location are settled per Section 11.5.6.2.3. The Exceptional Dispatch Settlement price for decremental FMM Instructed Imbalance Energy or RTD Instructed Imbalance Energy for this type of Exceptional Dispatch is the minimum of (a) the FMM or RTD LMP; (b) the Energy Bid price; (c) the Default Energy Bid price if the resource has been mitigated through the MPM in the Real-Time Market and for the Energy that does not have an Energy Bid price; or (d) the negotiated price as applicable to System Resources. The Exceptional Dispatch Settlement price for decremental FMM Instructed Imbalance Energy or RTD Instructed Imbalance Energy for this type of Exceptional Dispatch from an RMR Resource is the minimum of: (a) the FMM or RTD LMP; (b) the Energy Bid price adjusted to remove Opportunity Costs; or (c) the Default Energy Bid price adjusted to remove Opportunity Costs. Costs for decremental FMM Instructed Imbalance Energy or RTD Instructed Imbalance Energy associated with this type of Exceptional Dispatch are settled in two steps: (1) decremental Energy is first settled at the FMM or RTD LMP and included in the total FMM IIE Settlement Amount or RTD IIE Settlement Amount described in Sections 11.5.1.1 and

11.5.1.2; and (2) the decremental Energy Bid costs in excess of the applicable LMP at the relevant Location are settled per Section 11.5.6.2.3.

11.5.6.2.1 [Not Used]

11.5.6.2.2 [Not Used]

11.5.6.2.3 Settlement of Excess Cost Payments for Exceptional Dispatches used for Transmission-Related Modeling Limitations

The Excess Cost Payment for Exceptional Dispatches used for transmission-related modeling limitations as described in Section 34.11.3 is calculated for each resource for each Settlement Interval as the cost difference between the Settlement amount calculated pursuant to Section 11.5.6.2 for the applicable delivered Exceptional Dispatch quantity at the FMM or RTD LMP and one of the following three costs: (1) the resource's Energy Bid Cost; (2) the Default Energy Bid cost; or (3) the Energy cost at the negotiated price, as applicable for System Resources, for the relevant Exceptional Dispatch. The Excess Cost Payment for Exceptional Dispatches for transmission-related modeling limitations as described in Section 34.11.3 is calculated for each RMR Resource for each Settlement Interval as the cost difference between the Settlement amount calculated pursuant to Section 11.5.6.2 for the applicable delivered Exceptional Dispatch quantity at the FMM or RTD LMP and one of the following two costs: (1) the resource’s Energy Bid Cost adjusted to remove Opportunity Costs; or (2) the Default Energy Bid cost adjusted to remove Opportunity Costs, for the relevant Exceptional Dispatch.

11.5.6.2.4 Exceptional Dispatches for Non-Transmission-Related Modeling Limitations

The Exceptional Dispatch Settlement price for incremental FMM Instructed Imbalance Energy or RTD Instructed Imbalance Energy that is consumed or delivered as a result of an Exceptional Dispatch to mitigate or resolve Congestion that is not a result of a transmission-related modeling limitation in the FNM as described in Section 34.11.3 is the maximum of the (a) FMM or RTD LMP; (b) Energy Bid price; (c) the Default Energy Bid price if the resource has been mitigated through the MPM in the Real-Time Market and for the Energy that does not have an Energy Bid price; or (d) the negotiated price as applicable to System Resources. For RMR Resources, the Exceptional Dispatch Settlement price for incremental FMM Instructed Imbalance Energy or RTD Instructed Imbalance Energy as a result of an Exceptional Dispatch to mitigate or resolve Congestion that is not a result of a transmission-related modeling limitation

in the FNM as described in Section 34.11.3 is the maximum of: (a) FMM or RTD LMP; (b) Energy Bid price adjusted to remove Opportunity Costs; or (c) the Default Energy Bid price adjusted to remove Opportunity Costs. For resources that receive an Exceptional Dispatch energy instruction prior to the Operating Day, the Exceptional Dispatch Settlement price is the maximum of the (a) applicable FMM or RTD LMP; (b) IFM Energy Bid price; or (c) the Default Energy Bid price if the resource has been mitigated through the MPM in the Day-Ahead Market and for the Energy that does not have a IFM Energy Bid price. All costs for incremental Energy for this type of Exceptional Dispatch will be included in the total FMM IIE Settlement Amount or RTD IIE Settlement Amount described in Sections 11.5.1.1 and 11.5.1.2. The Exceptional Dispatch Settlement price for decremental FMM Instructed Imbalance Energy or RTD Instructed Imbalance Energy for this type of Exceptional Dispatch is the minimum of the (a) FMM or RTD LMP; (b) Energy Bid Price; (c) Default Energy Bid price if the resource has been mitigated through the MPM in the Real-Time Market and for the Energy that does not have an Energy Bid price; or (d) negotiated price as applicable to System Resources. For RMR Resources; the Exceptional Dispatch Settlement for decremental FMM Instructed Imbalance Energy or RTD Instructed Imbalance Energy for this type of Exceptional Dispatch is the minimum of the: (a) FMM or RTD LMP; (b) Energy Bid price adjusted to remove Opportunity Costs; or (c) Default Energy Bid price adjusted to remove Opportunity Costs. All costs for decremental FMM Instructed Imbalance Energy or RTD Instructed Imbalance Energy associated with this type of Exceptional Dispatch are included in the total FMM IIE Settlement Amount or RTD IIE Settlement Amount described in Sections 11.5.1.1 and 11.5.1.2.

11.5.6.2.5 Allocation of Exceptional Dispatch Excess Cost Payments

11.5.6.2.5.1 Allocation of Exceptional Dispatch Excess Cost Payments to PTOs

The total Excess Cost Payments calculated pursuant to Section 11.5.6.2.3 for the FMM Instructed Imbalance Energy or RTD Instructed Imbalance Energy from Exceptional Dispatches instructed as a result of a transmission-related modeling limitation in the FNM as described in Section 34.11.3 in that Settlement Interval shall be charged to the Participating Transmission Owner in whose PTO Service Territory the transmission-related modeling limitation as described in Section 34.11.3 is located. If the modeling limitation affects more than one Participating TO, the Excess Cost Payments shall be allocated

in proportion to the Transmission Revenue Requirements of the affected Participating TOs with PTO Service Territories. Costs allocated to Participating TOs under this section shall constitute Reliability Services Costs.

11.5.6.2.5.2 Allocation of Exceptional Dispatch Costs to Scheduling Coordinators

Excess Cost Payments for the Exceptional Dispatches used for emergency conditions and to avoid Market Disruption and System Emergencies as determined pursuant to Section 11.5.6.1.1 shall be charged to Scheduling Coordinators as follows in a two-step process. First, each Scheduling Coordinator's charge shall be the lesser of:

(i) the pro rata share of total Excess Cost Payment based upon the ratio of each Scheduling Coordinator's Net Negative Uninstructed Deviations to the total system Net Negative Uninstructed Deviations; or

(ii) the amount obtained by multiplying the Scheduling Coordinator's Net Negative Uninstructed Deviation for each Settlement Interval and a weighted average price. The weighted average price is equal to the total Excess Cost Payments to be allocated divided by the MWh of FMM Exceptional Dispatch Energy or RTD Exceptional Dispatch Energy associated with the Excess Cost Payment.

Second, any remaining unallocated costs shall be allocated to all Scheduling Coordinators pro-rata based on their Measured Demand. For a Scheduling Coordinator of an MSS Operator that has elected to follow Load, allocation of this second category of Excess Cost Payments will be based on net metered MSS Demand. In addition, to the extent the Exceptional Dispatches are made to resolve congestion internal to the MSS, the Scheduling Coordinator for such an MSS will also be subject to these two categories of Excess Cost Payments.

A Scheduling Coordinator shall be exempt from the first category of the Excess Cost Payment allocation for a Settlement Interval if the Scheduling Coordinator has sufficient incremental Energy Bids that are from physically available resources in the Real-Time Market for Energy to cover its Net Negative Uninstructed Deviation in the given Settlement Interval and that have been approved by the CAISO consistent with Sections 30.7.12 and 30.11.

11.5.6.3 Settlement for Instructed Imbalance Energy from Exceptional Dispatches for

Condition 2 Legacy RMR Units

11.5.6.3.1 Pricing for Exceptional Dispatch of Legacy RMR Units

If the CAISO dispatches a Legacy RMR Unit that has selected Condition 2 of its Legacy RMR Contract to Start-Up or provide Energy other than a Start-Up or Energy pursuant to the Legacy RMR Contract, the CAISO shall issue credits as follows:

(a) if the Owner has elected Option A of Schedule G, two times the Start-Up Cost specified in Schedule D to the applicable Legacy RMR Contract for any Start-Up incurred, and 1.5 times the rate specified in Equation 1a or 1b below times the amount of Energy delivered in response to the Dispatch Instructions;

(b) if the Owner has elected Option B of Schedule G, three times the Start-Up Cost specified in Schedule D to the applicable Legacy RMR Contract for any Start-Up incurred, and the rate specified in Equation 1a or 1b below times the amount of Energy delivered in response to the Dispatch Instruction.

Equation 1a

$$\text{Energy Price (\$/MWh)} = \frac{(AX^3 + BX^2 + CX + D)}{X} * P * E + \text{Variable O\&M Rate}$$

Equation 1b

$$\text{Energy Price (\$/MWh)} = \frac{A * (B + CX + DeFX) * P * E}{X} + \text{Variable O\&M Rate}$$

Where:

- for Equation 1a, A, B, C, D and E are the coefficients given in Table C1-7a of the applicable Legacy RMR Contract;
- for Equation 1b, A, B, C, D, E and F are the coefficients given in Table C1-7b of the applicable Legacy RMR Contract;
- X is the Unit output level during the applicable settlement period, MWh;
- P is the Hourly Fuel Price as calculated by Equation C1-8 in Schedule C using the Commodity Prices in accordance with the applicable Legacy RMR Contract;

Variable O&M Rate ($/MWh): as shown on Table C1-18 of the applicable Legacy RMR Contract.

11.5.6.3.2 Allocation of Costs from Exceptional Dispatch Calls to Condition 2 RMR Units

(a) All costs associated with Energy provided by a Condition 2 RMR Unit operating other than according to a RMR Dispatch shall be allocated in accordance with Section 11.5.4.2.

(b) Start-Up Costs for Legacy Condition 2 RMR Units providing service outside the Legacy RMR Contract shall be treated similar to costs under Section 11.5.6.2.5.2.

11.5.6.4 Settlement of Instructed Imbalance Energy from Exceptional Dispatches for Testing

The Exceptional Dispatch Settlement price for incremental FMM Instructed Imbalance Energy and RTD Instructed Imbalance Energy that is consumed or delivered as a result of an Exceptional Dispatch for purposes of Ancillary Services testing, periodic testing, including PMax testing, or pre-commercial operation testing for Generating Units is the maximum of the FMM or RTD LMP or the Default Energy Bid price. All Energy costs for these types of Exceptional Dispatch will be included in the FMM IIE Settlement Amount and RTD IIE Settlement Amount described in Sections 11.5.1.1 and 11.5.1.2.

11.5.6.5 Settlement of RTD Instructed Imbalance Energy from Black Start

Unless otherwise specified in a Black Start Agreement, all FMM IIE Settlement Amounts or RTD IIE Settlement Amounts associated with Black Start receive the Exceptional Dispatch Settlement price as provided in Section 11.5.6.1, but the costs are allocated pursuant to Section 11.4.

11.5.6.6 Settlement from Instructed Imbalance Energy from Exceptional Dispatches for Real-Time ETC and TOR Self-Schedules

The Exceptional Dispatch Settlement price for FMM Instructed Imbalance Energy or RTD Instructed Imbalance Energy from Real-Time ETC and TOR Self-Schedules shall be the FMM or RTD LMP. The FMM IIE Settlement Amount and RTD IIE Settlement Amount for this type of Exceptional Dispatch shall be calculated as the product of the sum of all of these types of Energy and the FMM or RTD LMP. All Energy costs for these types of Exceptional Dispatches will be included in the FMM IIE Settlement Amount and RTD IIE Settlement Amount described in Sections 11.5.1.1 and 11.5.1.2.

11.5.6.7 Settlement of FMM or RTD Exceptional Dispatch Energy

11.5.6.7.1 Settlement of FMM or RTD Exceptional Dispatch Energy from Exceptional Dispatches of Resources Eligible for Supplemental Revenues

Except as specified in Section 11.5.6.7.3, the Exceptional Dispatch Settlement price for the FMM Exceptional Dispatch Energy or RTD Exceptional Dispatch Energy delivered by a resource that satisfies all of the criteria set forth in Section 39.10.1 shall be the higher of (a) the resource's Energy Bid price or (b) the FMM or RTD LMP.

11.5.6.7.2 Settlement of FMM or RTD Exceptional Dispatch Energy from Exceptional Dispatches of Resources Not Eligible for Supplemental Revenues

Except as specified in Section 11.5.6.7.3, the Exceptional Dispatch Settlement price for the FMM Exceptional Dispatch Energy or RTD Exceptional Dispatch Energy delivered by a resource that satisfies all of the criteria set forth in Section 39.10.2 shall be the higher of (a) the Default Energy Bid price or (b) the Resource-Specific Settlement Interval LMP.

11.5.6.7.3 Exception to the Other Provisions of Section 11.5.6.7

If the Energy Bid price for a resource that satisfies all of the criteria set forth in Sections 39.10.1 or 39.10.2 is lower than the Default Energy Bid price for the resource, and the FMM or RTD LMP is lower than both the Energy Bid price for the resource and the Default Energy Bid price for the resource, the FMM Exceptional Dispatch Energy or RTD Exceptional Dispatch Settlement price for the Exceptional Dispatch Energy delivered by the resource shall be the Energy Bid price for the resource.

11.5.7 Congestion Credit and Marginal Credit of Losses Credit

11.5.7.1 RTM Congestion Credit for ETCs and TORs

The CAISO shall not apply charges or issue credits to Scheduling Coordinators related to the MCC associated with all Points of Receipt and Points of Delivery pairs associated with valid and balanced ETC Self-Schedules or TOR Self-Schedules after the Day-Ahead Market. The balanced portion for each ETC or TOR contract for each Settlement Interval will be based on the difference between: (1) the minimum of (a) the total Demand, (b) the total ETC or TOR Supply Self-Schedule submitted in RTM, including changes after twenty (20) minutes before the applicable Trading Hour if such change is permitted by the Existing Contract, or (c) the Existing Contract maximum capacity as specified in the TRTC Instructions; and (2) the valid and balanced portion of the Day-Ahead Schedule. In determining the balanced portions, the CAISO evaluates the amounts based on the following variables: (a) for exports and imports, the CAISO shall use the schedule quantity specified in the Interchange schedule used for check out between

CAISO and other Balancing Authority Areas; (b) for CAISO Demand, the CAISO shall use the Gross Load associated with the applicable ETC or TOR; and (c) for all Generation the CAISO shall use the quantity specified in the Dispatch Instructions. For each Scheduling Coordinator, the CAISO shall determine for each Settlement Interval the applicable RTM Congestion Credit for FMM Instructed Imbalance Energy or RTD Instructed Imbalance Energy, which can be positive or negative, as the sum of the product of the relevant MWh quantity and the applicable weighted average MCC at each Point of Receipt and Point of Delivery associated with the valid and balanced portions of that Scheduling Coordinator's ETC or TOR Self-Schedules. The weights in the two markets will be based on the absolute values of the (a) deviation of the FMM Schedule or the CAISO Forecast of CAISO Demand used in the FMM from Day-Ahead Schedules and (b) deviation of the RTD schedule or the CAISO Forecast of CAISO Demand used in the RTD from Day-Ahead Schedules.

11.5.7.2 RTM Marginal Cost of Losses Credit for Eligible TOR Self-Schedules

For all Points of Receipt and Points of Delivery pairs associated with a valid and balanced TOR Self-Schedule submitted to the RTM pursuant to an existing agreement between the TOR holder and either the CAISO or a Participating TO as specified in Section 17.3.3, the CAISO shall not impose any charge or issue any credit to the Scheduling Coordinator related to the MCL associated with such TOR Self-Schedules and will instead impose any applicable charges for losses as specified in the existing agreement between the TOR holder and either the CAISO or a Participating TO applicable to the relevant TOR. In any case in which the TOR holder has an existing agreement regarding its TORs with either the CAISO or a Participating TO, the provisions of the agreement shall prevail over any conflicting provisions of this Section 11.5.7.2. Where the provisions of this Section 11.5.7.2 do not conflict with the provisions of the agreement, the provisions of this Section 11.5.7.2 shall apply to the subject TORs. The balanced portion of the TOR Self-Schedule after the Day-Ahead Market is the same balanced quantity mentioned in this Section 11.5.7.2 for the TOR Self-Schedule. For each Scheduling Coordinator, the CAISO shall determine for each Settlement Interval the applicable RTM Marginal Cost of Losses Credit for Eligible TOR Self-Schedules for FMM Instructed Imbalance Energy and RTD Instructed Imbalance Energy, which can be positive or negative, as the sum of the product of the relevant MWh quantity and the weighted average MCL at each of the eligible Points of Receipt and Points of Delivery associated with the valid and

balanced portions of that Scheduling Coordinator's TOR Self-Schedules. The weights in the two markets will be based on the absolute values of the: (a) deviation of the FMM Schedule or the CAISO Forecast Of CAISO Demand used in the FMM from Day-Ahead Schedules; and (b) deviation of the RTD schedule or the CAISO Forecast Of CAISO Demand used in the RTD from Day-Ahead Schedules. For losses that the CAISO shall charge pursuant to Section 17.3.3, the specific loss charge amount shall be the product of: (a) the specific loss percentage as may be specified in an applicable agreement between the TOR holder and the CAISO or an existing agreement between the TOR holder and a Participating TO; (b) the weighted average SMEC price from the FMM and RTD markets with weights based on the absolute values of (1) deviation of FMM schedule or CAISO Forecast Of CAISO Demand used in the FMM from Day-Ahead Schedules and (2) deviation of RTD schedule or CAISO Forecast Of CAISO Demand used in the RTD from Day-Ahead Schedules; and (c) the balanced contract quantity mentioned in Section 11.5.7.1.

11.5.8 Settlement for Emergency Assistance

This Section 11.5.8 shall apply to Settlement for emergency assistance provided to or by the CAISO. In any case in which the CAISO has entered into an agreement regarding emergency assistance, which agreement has been accepted by FERC, the provisions of the agreement shall prevail over any conflicting provisions of this Section 11.5.8. Where the provisions of this Section 11.5.8 do not conflict with the provisions of the FERC-accepted agreement, the provisions of this Section 11.5.8 shall apply to the subject emergency assistance.

11.5.8.1 Settlement for Energy Purchased by the CAISO for System Emergency Conditions, to Avoid Market Disruption, or to Prevent or Relieve Imminent System Emergencies, Other than Exceptional Dispatch Energy

The Settlement price for Energy that is delivered to the CAISO from a utility in another Balancing Authority Area as a result of a CAISO request pursuant to Section 42.1.5 or any other provision for assistance in System Emergency conditions, to avoid a Market Disruption, or to prevent or relieve an imminent System Emergency, other than Energy from an Exceptional Dispatch, shall be either (i) a negotiated price agreed upon by the CAISO and the seller or (ii) a price established by the seller for such

emergency assistance in advance, as may be applicable. In the event no Settlement price is established prior to the delivery of the emergency Energy, the default Settlement price shall be the simple average of the relevant FMM and RTD LMPs at the applicable Scheduling Point, plus all other charges applicable to imports to the CAISO Balancing Authority Area, as specified in the CAISO Tariff. If the default Settlement price is determined by the seller not to compensate the seller for the value of the emergency Energy delivered to the CAISO, then the seller shall have the opportunity to provide the CAISO with cost support information demonstrating that a higher price is justified. The cost support information must be provided in writing to the CAISO within thirty (30) days following the date of the provision of emergency assistance. The CAISO shall have the discretion to credit that higher price based on the seller's justification of this higher price. The CAISO will provide notice of its determination whether to credit such a higher price within thirty (30) days after receipt of the cost support information. Any dispute regarding the CAISO's determination whether to credit a higher price for emergency assistance based on cost support information shall be subject to the CAISO ADR Procedures. Credit by the CAISO for such emergency assistance will be made in accordance with the Settlement process, billing cycle, and billing and payment timeline set forth in the CAISO Tariff. The costs for such emergency assistance, including the credit of a price based on cost support information, will be settled in two steps: (1) the costs will first be settled at the simple average of the relevant Dispatch Interval LMPs and included in the total FMM IIE Settlement Amount and RTD IIE Settlement Amount as described in Sections 11.5.1.1 and 11.5.1.2; and (2) costs in excess of the simple average of the relevant Dispatch Interval LMPs plus other applicable charges will be settled in accordance with Section 11.5.8.1.1. The allocation of the FMM IIE Settlement Amount and RTD IIE Settlement Amount settled in accordance with Sections 11.5.1.1 and 11.5.1.2 will be settled according to Section 11.5.4.2.

11.5.8.1.1 Settlement and Allocation of Excess Costs Payments for Emergency Energy Purchases, Other than Exceptional Dispatch Energy, to Scheduling Coordinators

The Excess Cost Payments for emergency Energy purchased in the circumstances specified in Section 11.5.8.1 is calculated for each purchase for each Settlement Interval as the cost difference between the Settlement amount calculated pursuant to Section 11.5.8.1 for the delivered purchase quantity and the simple average of the relevant Dispatch Interval LMPs at the applicable Scheduling Point. The Excess

Cost Payments for emergency Energy purchased in the circumstances specified in Section 11.5.8.1 shall be allocated in the same manner as specified in Section 11.5.6.2.5.2 for the allocation of the Excess Cost Payments portion of credits for Exceptional Dispatches for emergency conditions.

11.5.8.2 Settlement for Energy Supplied by the CAISO in Response to a Request for Emergency Assistance

The Settlement price for emergency Energy that is delivered by the CAISO to a utility in another Balancing Authority Area in response to a request for emergency assistance shall be the simple average of the relevant Dispatch Interval LMPs at the applicable Scheduling Point, which shall serve as the effective market price for that Energy, plus all other charges applicable to exports from the CAISO Balancing Authority Area, as specified in the CAISO Tariff and will be included in the total FMM IIE Settlement Amount and RTD IIE Settlement Amount as described in Sections 11.5.1.1 and 11.5.1.2 and will be allocated according to Section 11.5.4.2. Such price may be estimated prior to delivery and finalized in the Settlement process. The CAISO will establish a Scheduling Coordinator account, if necessary, for the purchaser for the sole purpose of facilitating the Settlement of such emergency assistance. Payment to the CAISO for such emergency assistance shall be made in accordance with the Settlement process, billing cycle, and payment timeline set forth in the CAISO Tariff.

11.5.9 Flexible Ramping Product

The CAISO will settle the Flexible Ramping Product as set forth in Section 11.25.

11.6 PDRs, RDRRs, Distributed Energy Resource Aggregations, Non-Generator Resources

11.6.1 Settlement of Energy Transactions Involving PDRs or RDRRs Using Customer Load Baseline Methodology

Settlements for Energy provided by Demand Response Providers from Proxy Demand Resources or Reliability Demand Response Resources shall be based on the Demand Response Energy Measurement for the Proxy Demand Resources or Reliability Demand Response Resources. The Demand Response Energy Measurement for a Proxy Demand Resource or Reliability Demand Response Resource shall be the quantity of Energy equal to the difference between the (i) Customer Load Baseline for the Proxy

Demand Resource or Reliability Demand Response Resource and (ii) either the actual underlying consumption or the quantity of Energy calculated pursuant to Section 10.1.7 for the Proxy Demand Resource or Reliability Demand Response Resource for a Demand Response Event. Scheduling Coordinators will be responsible for calculating and submitting Demand Response Energy Measurements in 5-minute intervals. For such Proxy Demand Resources or Reliability Demand Response Resources, the Scheduling Coordinator will calculate the relevant Customer Load Baseline as set forth in Section 4.13.4. If the Proxy Demand Resource or Reliability Demand Response uses behind-the-meter generation to offset Demand, and has elected to always provide Meter Data consisting of its total gross consumption, the Demand Response Energy Measurement shall be the quantity of Energy equal to the difference between (i) the Customer Load Baseline, which derives from the gross consumption independent of offsetting Energy from behind-the-meter generation for the Proxy Demand Resource or Reliability Demand Response Resource, and (ii) the gross underlying consumption, independent of offsetting Energy from the behind-the-meter generation. Demand Response Energy Measurements for Proxy Demand Resources and Reliability Demand Response Resources will only be settled in intervals where their total Expected Energy is above zero. Scheduling Coordinators may not submit Demand Response Energy Measurements in Settlement Intervals where the total Expected Energy did not exceed zero.

11.6.2 Settlement of Energy Transactions Using Metering Generator Output Methodology

Settlements for Energy provided by Demand Response Providers from registered behind-the-meter generation in Proxy Demand Resources or Reliability Demand Response Resources shall be based on their Demand Response Energy Measurement. The Demand Response Energy Measurement for Proxy Demand Resources or Reliability Demand Response Resources consisting of registered behind-the-meter generation shall be the quantity of Energy equal to the difference between (i) the Energy output of the Proxy Demand Resources or Reliability Demand Response Resources, and (ii) the Generator Output Baseline for the behind-the-meter generation registered in the Proxy Demand Resource or Reliability Demand Response Resource, which derives from the Energy output of the behind-the-meter generation only, independent of offsetting facility Demand. In calculating the Energy output of such generation, the Meter Data must represent the Energy output of the behind-the-meter generation up to the total facility

Demand, but excluding output that would represent an export of Energy from that location in any Settlement Interval in which the behind-the-meter generation is exporting Energy (i.e., where the behind-the-meter generation Energy output exceeds its location Demand). For such behind-the-meter generation, the Generator Output Baseline will be calculated as set forth in Section 4.13.4.2. Demand Response Energy Measurements will be calculated and submitted in 5-minute intervals. In cases where the Demand Response Energy Measurements are less than zero within a 5-minute interval, that measurement will be submitted as zero. Demand Response Energy Measurements for Proxy Demand Resources and Reliability Demand Response Resources will only be settled in intervals where their total Expected Energy is above zero.

11.6.3 Settlement of Energy Transactions Involving PDRs or RDRRs Using Customer Load Baseline and Metering Generator Output Methodologies

Settlements for Energy provided by Demand Response Providers using Proxy Demand Resources or Reliability Demand Response Resources that include (i) separately metered, registered behind-the-meter generation Energy output Meter Data, exclusive of facility consumption data pursuant to Sections 4.13.4.2 and 11.6.2, and Proxy Demand Resources or Reliability Demand Response Resources that (ii) reduce consumption independent and separately metered from offsetting behind-the-meter generation pursuant to Sections 4.13.4 and 11.6.1, shall be the sum of the Demand Response Energy Measurements for the Proxy Demand Resources or Reliability Demand Response Resources as if they were settled separately and independently pursuant to Sections 11.6.1 and 11.6.2. Demand Response Energy Measurements will be calculated and submitted in 5-minute intervals. Demand Response Energy Measurements for Proxy Demand Resources and Reliability Demand Response Resources will only be settled in intervals where their total Expected Energy is above zero.

11.6.4 Settlements of Proxy Demand Resources and Reliability Demand Response Resources in the Real-Time Market

The CAISO will calculate RTM Schedules and Awards for Proxy Demand Resources and Reliability Demand Response Resources at the relevant RTM Locational Marginal Price at the relevant Scheduling Point consistent with Section 11.5. The portion of an Hourly Block

Schedule for Energy that becomes financially binding will constitute an FMM Schedule. A cleared

Economic Hourly Block Bid is not eligible for Bid Cost Recovery. Ramping Energy Deviations, Residual Imbalance Energy, and Standard Ramping Energy do not apply to Proxy Demand Resources and Reliability Demand Response Resources with Hourly Block or FMM Schedules.

11.6.5 Settlement of Distributed Energy Resource Aggregations

Settlements for Energy provided by a Distributed Energy Resource Provider from a Distributed Energy Resource Aggregation shall be based on the applicable PNode or Aggregated PNode of the Distributed Energy Resource Aggregation. For Distributed Energy Resource Aggregations comprising a single PNode, settlement for Energy transactions would reflect the LMP at that PNode. For Distributed Energy Resource Aggregations comprising multiple PNodes settlement for Energy transactions would be the weighted average LMP of the PNode(s) based on the applicable Generation Distribution Factors submitted through the Distributed Energy Resource Aggregation's Bid or as registered in the Master File. Consistent with the provisions of Section 11.5.2, the CAISO will impose UIE on a Distributed Energy Resource Provider if the Distributed Energy Resource Provider's Distributed Energy Resource Aggregation does not follow a Dispatch Instruction.

11.6.5.1 Settlement of Distributed Energy Resource Aggregations with Demand Curtailment

Settlements for Energy and Demand curtailment provided by a Distributed Energy Resource Provider from a Distributed Energy Resource Aggregation that includes Distributed Curtailment Resources will be consistent with Section 11.6.5. The CAISO will settle such Distributed Energy Resource Aggregations based on the sum of (1) the net Energy provided by the Distributed Energy Resources, if any, accounting for any Load and any negative Energy from energy storage resources, and (2) the Demand curtailment provided by the Distributed Curtailment Resources, represented as positive Supply. The Scheduling Coordinator for such Distributed Energy Resource Aggregation must submit its Settlement Quality Meter Data in the Settlement Quality Meter Data Systems, which consists of data reflecting:

(1) the net injection or withdrawal of Energy from any Distributed Energy Resources that are not Distributed Curtailment Resources; and

(2) the Demand curtailment provided by the Distributed Curtailment Resources, calculated consistent with the requirements of Section 11.6.1.

11.6.6 Settlements of Non-Generator Resources

Settlements for Energy generated or consumed by a Non-Generator Resource or a resource using Non-Generator Resource Generic Modeling functionality will reflect the applicable PNode or Aggregated PNode. For such resources comprising a single PNode, settlement for Energy transactions will reflect the LMP at that PNode. For such resources comprising multiple PNodes settlement for Energy transactions will reflect the weighted average LMP of the PNode(s) based on the applicable Generation Distribution Factors submitted through the resources' Bid or as registered in the Master File. Consistent with the provisions of Section 11.5.2, the CAISO will impose UIE on a resource's Scheduling Coordinator if the resource does not follow a Dispatch Instruction. When operating in a negative range between PMin and 0, the CAISO will not consider a Non-Generator Resource or a resource using Non-Generator Resource Generic Modeling functionality as Measured Demand so long as the resource can generate Energy. If a Non-Generator Resource operates solely as dispatchable demand response, the CAISO will treat the resource as Measured Demand.

Where Scheduling Coordinators elect to submit end-of-hour state-of-charge targets, storage resources participating as Non-Generator Resources will be ineligible for RTM Bid Cost Shortfalls in the two hours preceding the scheduled Operating Hour. Where Scheduling Coordinators elect to submit Self-Schedules in the CAISO Real-Time Markets, storage resources participating as Non-Generator Resources will be ineligible for RTM Bid Cost Shortfalls in the hour preceding the scheduled Operating Hour. Where the CAISO dispatches storage resources participating as Non-Generator Resources to charge or discharge pursuant to Sections 8.4.1.1(g) or 8.4.3 for the Real-Time Market, they will be ineligible for RTM Bid Cost Shortfalls.

11.6.7 Settlement of Proxy Demand Resources using the Load-Shift Methodology

The CAISO will settle separately the consumption Resource ID and curtailment Resource ID of a Proxy Demand Resource using the load-shift methodology. The Demand Response Energy Measurement for the consumption Resource ID will be the quantity of Energy equal to the difference between (i) its Customer Load Baseline calculated pursuant to Section 4.13.4.7 and (ii) its actual underlying negative Energy for a Demand Response Event. The Demand Response Energy Measurement for the curtailment Resource ID will be the quantity of Energy from the behind-the-meter energy storage equal to the difference between (i) its Generator Output Baseline calculated pursuant to Section 4.13.4.7 and (ii) its

actual underlying production for a Demand Response Event. If the Proxy Demand Resource elects to curtail local onsite Demand independent of the behind-the-meter energy storage, the Scheduling Coordinator will add the Demand Response Energy Measurement calculated for the onsite Load pursuant to this Section 11.6 to the Demand Response Energy Measurement of the curtailment Resource ID. Scheduling Coordinators will be responsible for calculating and submitting Demand Response Energy Measurements in 5-minute intervals. Demand Response Energy Measurements for Proxy Demand Resources will only be settled in intervals where their total Expected Energy is above zero. The CAISO will calculate the respective bid cost recoveries for each Resource ID consistent with Section 11.8. The consumption Resource ID will not recover Start-Up Costs, Minimum Load Costs, Pumping Costs, Pump Shut-Down Costs, or Transition Costs, but may recover Energy Bid Costs.

11.6.8 Submission of Demand Response Monitoring Data

Scheduling Coordinators for Proxy Demand Resources, Reliability Demand Response Resources, and Distributed Curtailment Resources must submit a complete set of Demand Response Monitoring Data in the Settlement Quality Meter Data Systems by the SQMD submission deadline defined in section 10.3.6.3 for the Trading Day on which a Demand Response Event occurred. However, only Demand Response Energy Measurements will be considered Settlement Quality Meter Data. Failure to timely submit Demand Response Monitoring Data is subject to Sanction under Section 37.7.1. To the extent a Proxy Demand Resource, Reliability Demand Response Resource, or Distributed Curtailment Resource has elected a performance evaluation methodology under Section 4.13.4 that includes a baseline lookback window that can exceed forty-five days, upon CAISO request, the resource's Scheduling Coordinator must submit additional days' worth of underlying hourly consumption or Energy data, up to the maximum baseline lookback period. Such additional data does not constitute Demand Response Monitoring Data.

11.7 Additional MSS Settlements Requirements

11.7.1 MSS Load Following Deviation Penalty

For MSS Operators that have elected to follow their Load as described in Section 4.9.13.2, the Scheduling Coordinator for a Load following MSS Operator shall be charged for: (i) excess MSS Generation supplied to the CAISO Markets and (ii) excess MSS Load relying on CAISO Markets and not served by MSS generating resources. The revenue received from these charges will be used as an off-

set to the CAISO's Grid Management Charge. The charges due from a Scheduling Coordinator will be calculated as follows:

11.7.1.1 If the metered Generation resources and imports into the MSS exceed: (i) the metered Demand and exports from the MSS; and (ii) Energy expected to be delivered by the Scheduling Coordinator for the MSS in response to the CAISO's Dispatch Instructions and/or Regulation Set Point signals issued by the CAISO's AGC by more than the MSS Deviation Band, then the credits for excess Energy outside of the MSS Deviation Band shall be rescinded and CAISO will charge the Scheduling Coordinator for the MSS Operator an amount equal to one hundred percent (100%) of the product of the highest LMP credited to the MSS Operator for its Generation in the Settlement Interval and the amount of the FMM Instructed Imbalance Energy or RTD Instructed Imbalance Energy that is supplied in excess of the MSS Deviation Band.

11.7.1.2 If metered Generation resources and imports into the MSS are insufficient to meet: (i) the metered Demand and exports from the MSS; and (ii) Energy expected to be delivered by the Scheduling Coordinator for the MSS in response to the CAISO's Dispatch Instructions and/or Regulation Set Point signals issued by the CAISO's AGC by more than the MSS Deviation Band, then the CAISO will charge the Scheduling Coordinator for the MSS Operator an amount equal to the product of the Default LAP price for the Settlement Interval and two hundred percent (200%) of the shortfall that is outside of the MSS Deviation Band. The charge in the previous sentence is in addition to the charges for the FMM Instructed Imbalance Energy and RTD Instructed Imbalance Energy that serves the excess MSS Demand that may be applicable under Section 11.5.

11.7.2 Neutrality Adjustments and Charges Assessed on MSS SC

The CAISO will assess the Scheduling Coordinator for the MSS the neutrality adjustments and Existing Contracts cash neutrality charges pursuant to Section 11.14 (or collect refunds therefrom) based on the net Measured Demand of the MSS.

11.7.3 Available MSS Operator Exemption for Certain Program Charges

If the CAISO is charging Scheduling Coordinators for summer reliability or Demand reduction programs, the MSS Operator may petition the CAISO for an exemption of these charges. If the MSS Operator provides documentation to the CAISO by November 1 of any year demonstrating that the MSS Operator

has secured capacity reserves for the following calendar year at least equal to one hundred and fifteen percent (115%), on an annual basis, of the peak Demand responsibility of the MSS Operator, the CAISO shall grant the exemption. Eligible capacity reserves for such a demonstration may include on-demand rights to Energy, peaking resources, and Demand reduction programs. The peak Demand responsibility of the MSS Operator shall be equal to the annual peak Demand Forecast of the MSS Load plus any firm power sales by the MSS Operator, less interruptible Loads, and less any firm power purchases. Firm power for the purposes of this Section 11.7.3 shall be Energy that is intended to be available to the purchaser without being subject to interruption or curtailment by the supplier except for Uncontrollable Forces or emergency. To the extent that the MSS Operator demonstrates that it has secured capacity reserves in accordance with this Section 11.7.3, the Scheduling Coordinator for the MSS Operator shall not be obligated to bear any share of the CAISO's costs for any summer Demand reduction program or for any summer reliability Generation procurement program pursuant to Section 42.1.8 for the calendar year for which the demonstration is made.

11.7.4 Emission Cost Responsibility of an SC for an MSS

Unless specified otherwise in the MSS agreement(s), if the CAISO is compensating Generating Units for Emissions Costs, and if an MSS Operator charges the CAISO for the Emissions Costs of the Generating Units serving the Load of the MSS, then the Scheduling Coordinator for the MSS shall bear its proportionate share of the total amount of those costs incurred by the CAISO based on the MSS gross Measured Demand excluding out of state exports and the Generating Units shall be made available to the CAISO through the submittal of Energy Bids. If the MSS Operator chooses not to charge the CAISO for the Emissions Costs of the Generating Units serving the Load of the MSS, then the Scheduling Coordinator for the MSS shall bear its proportionate share of the total amount of those costs incurred by the CAISO based on the MSS's net Measured Demand excluding out-of-state exports. For MSS Operators that have elected to follow their Load, and if an MSS Operator chooses not to charge the CAISO for the Emissions Costs of the Generating Units serving that MSS Operator's Load, then that MSS's Scheduling Coordinator for that Load shall bear its proportionate share of the total amount of those costs incurred by the CAISO based on that MSS's Net Negative Uninstructed Deviations with Load Following Energy included in the netting. The MSS Operator shall make the election whether to charge

the CAISO for these costs on an annual basis on November 1 for the following calendar year.

11.8 Bid Cost Recovery

For purposes of determining the Unrecovered Bid Cost Uplift Payments for each Bid Cost Recovery Eligible Resource as determined in Section 11.8.5 and the allocation of Unrecovered Bid Cost Uplift Payments for each Settlement Interval, the CAISO shall sequentially calculate the Bid Costs, which can be positive (IFM Bid Cost Shortfall, RUC Bid Cost Shortfall, or RTM Bid Cost Shortfall) or negative (IFM Bid Cost Surplus, RUC Bid Cost Surplus, or RTM Bid Cost Surplus) in the IFM, RUC, and the Real-Time Market, as the algebraic difference between the respective IFM Bid Cost, RUC Bid Cost or RTM Bid Cost and the IFM Market Revenues, RUC Market Revenues, or RTM Market Revenues as further described below in this Section 11.8. The RTM Energy Bid Costs and RTM Market Revenues include the FMM Energy Bid Costs. In any Settlement Interval a resource is eligible for Bid Cost Recovery credits pursuant to the rules described in the subsections of Section 11.8 and Section 11.17. Bid Cost Recovery Eligible Resources for different MSS Operators are supply resources listed in the applicable MSS Agreement. All Bid Costs shall be based on Bids as mitigated pursuant to the requirements specified in Section 39.7. Virtual Awards are not eligible for Bid Cost Recovery. Virtual Awards are eligible for make-whole credits due to price corrections pursuant to Section 11.21.2. In order to be eligible for Bid Cost Recovery, Non-Dynamic Resource-Specific System Resources must provide to the CAISO SCADA data by telemetry to the CAISO's EMS in accordance with Section 4.12.3 demonstrating that they have performed in accordance with their CAISO commitments. Scheduling Coordinators for Non-Generator Resources are not eligible to recover Start-Up Bid Costs, Minimum Load Bid Costs, Pumping Costs, Pump Shut-Down Costs, or Transition Bid Costs but are eligible to recover Energy Bid Costs, RUC Availability Payments and Ancillary Service Bid Costs.

11.8.1 CAISO Determination of Self-Commitment Periods

For the purposes of identifying the periods during which a Bid Cost Recovery Eligible Resource is deemed self-committed and thus ineligible for Start-Up Bid Costs, Transition Bid Costs, Minimum Load Bid Costs, IFM Pump Shut-Down Costs and IFM Pumping Costs, the CAISO derives the Self-Commitment Periods as described below. The CAISO will determine the Self-Commitment Periods for Multi-Stage Generating Resources based on the applicable MSG Configuration. MSS resources

designated for Load following are considered to be self-committed if they have been scheduled with non-zero Load following capacity, or are otherwise used to follow Load in the Real-Time. The IFM Self-Commitment Period and RUC Self-Commitment Period will be available as part of the Day-Ahead Market results provided to the applicable Scheduling Coordinator. The interim RTM Self-Commitment Periods as reflected in the RTM will be available as part of the RTM results for the relevant Trading Hour as provided to the applicable Scheduling Coordinator. The final RTM Self-Commitment Period is determined ex-post for Settlements purposes. ELS Resources committed through the ELC Process described in Section 31.7 are considered to have been committed in the IFM Commitment Period for the applicable Trading Day for the purposes of determining BCR settlement in this Section 11.8.

11.8.1.1 IFM Self-Commitment Period

An IFM Self-Commitment Period for a Bid Cost Recovery Eligible Resource shall consist of one or more sets of consecutive Trading Hours during which the relevant Bid Cost Recovery Eligible Resource has either a Self-Schedule or, except for Self-Provided Ancillary Services for Non-Spinning Reserve by a Short Start Unit, has a non-zero amount of Self-Provided Ancillary Services. An IFM Self-Commitment Period for a Bid Cost Recovery Eligible Resource may not be less than the relevant Minimum Run Time (MRT), rounded up to the next hour. Consequently, if a Bid Cost Recovery Eligible Resource first self-commits in hour h of the Trading Day, the self-commitment will be extended to hour h + MRT. Two IFM Self-Commitment Periods for a Bid Cost Recovery Eligible Resource may not be apart by less than the relevant Minimum Down Time (MDT) (rounded up to the next hour). Consequently, if a Bid Cost Recovery Eligible Resource has submitted a Self-Schedule or Submission to Self-Provide an Ancillary Service in hours h and h + n, and n is less than the MDT, the IFM Self-Commitment Period will be extended to the hours in between h and h + n inclusive. The number of IFM Self-Commitment Periods for a Bid Cost Recovery Eligible Resource within a Trading Day cannot exceed the relevant Maximum Daily Start-Ups (MDS), or MDS + 1 if the first IFM Self-Commitment Period is the continuation of an IFM or RUC Commitment Period from the previous Trading Day. Consequently, if a Bid Cost Recovery Eligible Resource has submitted a Self-Schedule or Submission to Self-Provide an Ancillary Service, such that after applying the preceding two rules, the number of disjoint Self Commitment Periods for the Operating Day exceeds the Maximum Daily Start-Ups (MDS), or MDS + 1 if the first IFM Self-Commitment Period is

the continuation of an IFM or RUC Commitment Period from the previous Trading Day, the disjoint Self Commitment Periods with smallest time gap in between will be joined together to bring down the number of disjoint Self Commitment Periods to MDS or MDS +1 as relevant. To determine whether an extension of the IFM Self-Commitment Period applies for Multi-Stage Generating Resources, the CAISO will ensure that the respective Minimum Run Time and Minimum Down Time for both the Generating Unit and MSG Configuration levels are simultaneously respected.

11.8.1.2 Real-Time Self-Commitment Period

A Real-Time Market Self-Commitment Period for a Bid Cost Recovery Eligible Resource shall consist of all consecutive Dispatch Intervals not in an IFM Commitment Period or a RUC Commitment Period where the Bid Cost Recovery Eligible Resource has a Self-Schedule or, except for Self-Provided Ancillary Services for Non-Spinning Reserve by a Short Start Unit, has a non-zero amount of Self-Provided Ancillary Services. A Real-Time Market Self-Commitment Period for a Bid Cost Recovery Eligible Resource may not be less than the relevant MUT (rounded up to the next 15-minute Commitment Interval) when considered jointly with any adjacent IFM Self-Commitment Period. For example, if a Bid Cost Recovery Eligible Resource self-commits at time h, the self-commitment will be extended to Commitment Interval h + MUT, unless an IFM or RUC Commitment Period exists starting after hour h, in which case the self-commitment will be extended to Commitment Interval h + min (MUT, t), where t represents the time interval between the Real-Time Market Self-Commitment Period and the IFM or RUC Commitment Period. A Real-Time Market Self-Commitment Period for a Bid Cost Recovery Eligible Resource may not be apart from an IFM or RUC Commitment Period by less than the relevant MDT (rounded up to the next 15-minute Commitment Interval). For example, if a Bid Cost Recovery Eligible Resource self-commits at time T1 and has a RUC Schedule at time T2 < T1, the Real-Time Market Self-Commitment Period will be extended to the interim Commitment Intervals if T1 - T2< MDT. The number of Real-Time Market Self-Commitment Periods for a Bid Cost Recovery Eligible Resource within a Trading Day, when considered jointly with any adjacent IFM Self-Commitment Period, may not exceed the relevant MDS (or MDS + 1 if the first Real-Time Market Self-Commitment Period is the continuation of a Real-Time Market Commitment Period from the previous Trading Day). For example, if a Bid Cost Recovery Eligible Resource self-commits at time T1 and has a RUC Schedule at time T2 > T1, the Real-

Time Market Self-Commitment Period will be extended to the interim Commitment Intervals if an additional Real-Time Market Start-Up at T1 would violate the MDS constraint. To determine whether an extension of the RTM Self-Commitment Period applies for Multi-Stage Generating Resources, the CAISO will ensure that the respective Minimum Run Time and Minimum Down Time for both the Generating Unit and MSG Configuration levels are simultaneously respected.

11.8.1.3 Multi-Stage Generating Resource Start-Up Bid Costs, Minimum Load Bid Costs, or Transition Bid Costs

For the settlement of the Multi-Stage Generating Resource Start-Up Bid Costs, Minimum Load Bid Costs, and Transition Bid Costs in the IFM, RUC, and RTM, the CAISO will determine the applicable Commitment Period and select the applicable Start-Up Bid Costs, Minimum Load Bid Costs, and Transition Bid Costs based on the following rules.

(1) In any given Settlement Interval, the CAISO will first apply the following rules to determine the applicable Start-Up Bid Costs and Transition Bid Costs for the Multi-Stage Generating Resources. For a Commitment Period in which:

(a) the IFM Commitment Period and/or RUC Commitment Period MSG Configuration(s) are different from the RTM CAISO Commitment Period MSG Configuration, the Multi-Stage Generating Resource's Start-Up Bid Cost and Transition Bid Cost will be settled based on the RTM CAISO Commitment Period MSG Configuration Start-Up Bid Costs, and Transition Bid Costs, as described in Section 11.8.4.1.

(b) there is a CAISO IFM Commitment Period and/or CAISO RUC Commitment Period in any MSG Configuration and there is also a RTM Self-Commitment Period in any MSG Configuration, the Multi-Stage Generating Resource's Start-Up Bid Costs and Transition Bid Costs will be settled based on the CAISO IFM Commitment Period and/or CAISO RUC Commitment Period MSG Configuration(s) Start-Up Bid Costs and Transition Bid Costs, as described in Sections 11.8.2.1 and 11.8.3.1, and further determined pursuant to part (2) of this Section below.

(c) the CAISO IFM Commitment Period and/or CAISO RUC Commitment Period MSG Configuration is the same as the CAISO RTM Commitment Period MSG Configuration, the Multi-Stage Generating Resource's Start-Up Bid Costs and Transition Bid Costs will be settled based on the CAISO IFM Commitment Period and/or CAISO RUC Commitment Period MSG Configuration(s) Start-Up Bid Costs and Transition Bid Costs described in Sections 11.8.2.1 and 11.8.3.1, and further determined pursuant to part (3) of this Section below.

(d) the IFM Self-Commitment Period and RUC Self-Commitment Period MSG Configuration(s) are the same as the CAISO RTM Commitment Period MSG Configuration, then the Multi-Stage Generating Resource's Start-Up Bid Costs and Transition Bid Costs will be settled based on the CAISO RTM Commitment Period MSG Configuration Start-Up Bid Costs and Transition Bid Costs as described in Section 11.8.4.1.

(2) For the purpose of determining which MSG Configuration Minimum Load Bid Costs will apply in any given Commitment Interval, the CAISO will apply the following rules.

(a) If there is a CAISO IFM Commitment Period and/or CAISO RUC Commitment Period, the CAISO will calculate the IFM Minimum Load Costs and/or RUC Minimum Load Costs, pursuant to Section 11.8.2.1 or 11.8.3.1, respectively, based on the MSG Configuration committed in the IFM or RUC.

(b) For purposes of determining the MSG Configuration Minimum Load Bid Costs included in the RTM Minimum Load Costs calculated pursuant to Section 11.8.4.1.2, the CAISO will use the difference between the amounts determined under (i) and (ii) below.

(i) The CAISO will calculate the RTM MSG Configuration Minimum Load Bid Costs as the RTM Minimum Load Cost attributed to the MSG Configuration committed in the RTM, whether that MSG Configuration is Self-Scheduled or CAISO-committed.

(ii) The CAISO will determine one of the two applicable amounts:

a. If there is a Real-Time Market Self-Schedule, the maximum of (A) the Minimum Load Bid Costs attributed to the MSG Configuration either self-Scheduled or CAISO-committed in the IFM or RUC; and (B) the Minimum Load Cost attributed to the MSG Configuration Self-Scheduled in the RTM.

b. If there is no Real-Time Market Self-Schedule, the Minimum Load Bid Costs attributed to the MSG Configuration either self-Scheduled or CAISO-committed in the IFM or RUC.

(3) In any given Settlement Interval, after the rules specified in part (1) and (2) above of this Section have been executed, the CAISO will apply the following rules to determine whether the IFM Start-Up Cost or RUC Start-Up Cost, IFM Minimum Load Cost or RUC Minimum Load Cost, and IFM Transition Cost or RUC Transition Cost apply for Multi-Stage Generating Resources. For a Commitment Period in which:

(a) the IFM Commitment Period MSG Configuration is different from the CAISO RUC Commitment Period MSG Configuration the Multi-Stage Generating Resource's Start-Up Bid Cost, Minimum Load Bid Cost, and Transition Bid Cost will be settled based on the CAISO RUC Commitment Period MSG Configuration Start-Up Bid Cost, Minimum Load Bid Cost, and Transition Bid Cost as described in Section 11.8.3.1.

(b) the CAISO IFM Commitment Period MSG Configuration is the same as the CAISO RUC Commitment Period MSG Configuration, the Multi-Stage Generating Resource's Start-Up Bid Cost, Minimum Load Bid Cost, and Transition Bid Cost will be based on the CAISO IFM Commitment Period MSG Configuration Start-Up Bid Cost, Minimum Load Bid Cost, and Transition Bid Cost as described in Section 11.8.2.1.

11.8.2 IFM Bid Cost Recovery Amount

For purposes of determining the IFM Unrecovered Bid Cost Uplift Payments as determined in Section

11.8.5, and the purposes of allocating Net IFM Bid Cost Uplift as described in Section 11.8.6.4, the CAISO shall calculate the IFM Bid Cost Shortfall or the IFM Bid Cost Surplus as the algebraic difference between the IFM Bid Cost and the IFM Market Revenues for each Settlement Interval, which are determined as described below and subject to the application of the Day-Ahead Metered Energy Adjustment Factor and the Real-Time Performance Metric rules specified in Section 11.8.2.5 and 11.8.4.4, respectively. The IFM Bid Costs shall be calculated pursuant to Section 11.8.2.1 and the IFM Market Revenues shall be calculated pursuant to Section 11.8.2.2.

11.8.2.1 IFM Bid Cost Calculation

For each Settlement Interval, the CAISO shall calculate IFM Bid Cost for each Bid Cost Recovery Eligible Resource as the algebraic sum of the IFM Start-Up Cost, IFM Transition Cost, IFM Minimum Load Cost, IFM Pump Shut-Down Cost, IFM Energy Bid Cost, IFM Pumping Cost, and IFM AS Bid Cost. For Multi-Stage Generating Resources, in addition to the specific IFM Bid Cost rules described in Section 11.8.2.1, the CAISO will apply the rules described in Section 11.8.1.3 to further determine the applicable MSG Configuration-based CAISO Market Start-Up Bid Cost, Transition Bid Cost, and Minimum Load Bid Cost in any given Settlement Interval. For Multi-Stage Generating Resources, the incremental IFM Start-Up Costs, IFM Minimum Load Costs, and IFM Transition Costs to provide Energy Scheduled in the Day-Ahead Schedule or awarded RUC or Ancillary Service capacity for an MSG Configuration other than the self-scheduled MSG Configuration are determined by the IFM rules specified in Section 31.3. For RMR Resources, the CAISO shall calculate the IFM Bid Cost as the algebraic sum of the IFM Start-Up Cost adjusted to remove Opportunity Costs, IFM Transition Cost adjusted to remove Opportunity Costs, IFM Minimum Load Costs adjusted to remove Opportunity Costs, IFM Energy Bid Cost adjusted to remove Opportunity Costs, and IFM AS Bid Cost. The CAISO will also adjust the IFM Bid Costs for RMR Resources, to remove any bid adder that includes costs that were recovered under the RMR Contract.

11.8.2.1.1 IFM Start-Up Cost

The IFM Start-Up Cost for any IFM Commitment Period shall be equal to the Start-Up Bid Costs applicable to the IFM divided by the number of Settlement Intervals within the applicable IFM Commitment Period. For each Settlement Interval, only the IFM Start-Up Cost in a CAISO IFM Commitment Period is eligible for Bid Cost Recovery. The CAISO will determine the IFM Start-Up Costs

for Multi-Stage Generating Resources based on the CAISO-committed MSG Configuration. The following rules shall apply sequentially to qualify the IFM Start-Up Cost in an IFM Commitment Period:

(a) The IFM Start-Up Cost for an IFM Commitment Period shall be zero if there is an IFM Self-Commitment Period within or overlapping with that IFM Commitment Period.

(b) The IFM Start-Up Cost for an IFM Commitment Period shall be zero if the Bid Cost Recovery Eligible Resource is manually pre-dispatched under a Legacy RMR Contract prior to the Day-Ahead Market or the resource is flagged as an RMR Dispatch in the Day-Ahead Schedule in the Day-Ahead Market anywhere within the applicable IFM Commitment Period.

(c) The IFM Start-Up Cost for an IFM Commitment Period shall be zero if there is no actual Start-Up at the start of the applicable IFM Commitment Period because the IFM Commitment Period is the continuation of an IFM Commitment Period, RUC Commitment Period, or RTM Commitment Period from the previous Trading Day.

(d) If an IFM Start-Up is terminated in the Real-Time within the applicable IFM Commitment Period through an Exceptional Dispatch Shut-Down Instruction issued while the Bid Cost Recovery Eligible Resource was starting up, the IFM Start-Up Cost for that IFM Commitment Period shall be prorated by the ratio of the Start-Up Time before termination over the total IFM Start-Up Time.

(e) The IFM Start-Up Cost is qualified if an actual Start-Up occurs within the applicable IFM Commitment Period. An actual Start-Up is detected when the relevant metered Energy in the applicable Settlement Intervals indicates the unit is Off before the time the resource is instructed to be On as specified in its Start-Up Instruction and is On in the Settlement Intervals that fall within the CAISO IFM Commitment Period. The CAISO will determine whether the resource is On for this purpose based on whether the resource's metered Energy is at or above the resource's Minimum Load as registered in the Master File, or if applicable, as modified pursuant to Section 9.3.3.

(f) The IFM Start-Up Cost will be qualified if an actual Start-Up occurs earlier than the start of the IFM Commitment Period if the advance Start-Up is a result of a Start-Up instruction

issued in a RUC or Real-Time Market process subsequent to the IFM, or the advance Start-Up is uninstructed but is still within the same Trading Day and the Bid Cost Recovery Eligible Resource actually stays on until the targeted IFM Start-Up.

(g) The Start- Up Bid Costs for a Bid Cost Recovery Eligible Resource that is a Short Start Unit committed by the CAISO in the IFM and that further receives a Start-Up Instruction from the CAISO in the Real-Time Market to start within the same CAISO IFM Commitment Period, will be qualified for the CAISO IFM Commitment Period instead of being qualified for the CAISO RTM Commitment Period; and Start-Up Bid Costs for subsequent Start-Ups will be further qualified as specified in Section 11.8.4.1.1(h).

11.8.2.1.2 IFM Minimum Load Cost

The IFM Minimum Load Cost for the applicable Settlement Interval shall be the Minimum Load Bid Cost applicable to the Integrated Forward Market, divided by the number of Settlement Intervals in a Trading Hour subject to the rules described below.

(a) For each Settlement Interval, only the IFM Minimum Load Cost in a CAISO IFM Commitment Period is eligible for Bid Cost Recovery.

(b) The IFM Minimum Load Cost for any Settlement Interval is zero if: (1) the Settlement Interval is in an IFM Self Commitment Period for the Bid Cost Recovery Eligible Resource; or (2) the Bid Cost Recovery Eligible Resource is manually pre-dispatched under a Legacy RMR Contract prior to the Day-Ahead Market or the resource is flagged as an RMR Dispatch in the Day-Ahead Schedule for the applicable Settlement Interval.

(c) If the CAISO commits a Bid Cost Recovery Eligible Resource in the Day-Ahead and the resource receives a Day-Ahead Schedule and the CAISO subsequently de-commits the resource in the Real-Time Market, the IFM Minimum Load Costs are subject to the Real-Time Performance Metric for each case specified in Section 11.8.4.4. If the CAISO commits an RMR Resource in the Day-Ahead and the resource receives a Day-Ahead Schedule and the CAISO subsequently de-commits the resource in the Real-Time Market, the sum of IFM Minimum Load Costs, adjusted to remove Minimum Load Opportunity Costs and Variable Minimum Load Operations and Maintenance Adders, are

subject to the Real-Time Performance Metric for each case specified in Section 11.8.4.4.

(d) If a Multi-Stage Generating Resource is committed by the CAISO and receives a Day-Ahead Schedule and subsequently is committed by the CAISO to a lower MSG Configuration where its Minimum Load capacity as registered in the Master File in the Real-Time Market is lower than the CAISO IFM Commitment Period MSG Configuration's Minimum Load as registered in the Master File, the resource's IFM Minimum Load Costs are subject to the Real-Time Performance Metric for each case specified in Section 11.8.4.4. If the CAISO commits an RMR Multi-Stage Generating Resource in the Day-Ahead and the resource receives a Day-Ahead Schedule and the CAISO subsequently de-commits the resource in the Real-Time Market, the sum of IFM Minimum Load Costs, adjusted to remove Minimum Load Opportunity Costs and Variable Minimum Load Operations and Maintenance Adders, are subject to the Real-Time Performance Metric for each case specified in Section 11.8.4.4.

(e) If the conditions in Sections 11.8.2.1.2 (c) and (d) do not apply, then the IFM Minimum Load Cost for any Settlement Interval is zero if the Bid Cost Recovery Eligible Resource is determined to be Off during the applicable Settlement Interval. For the purposes of determining IFM Minimum Load Cost, a Bid Cost Recovery Eligible Resource is assumed to be On if its metered Energy in a Settlement Interval is equal to or greater than the difference between its (i) Minimum Load as registered in the Master File, or if applicable, as modified pursuant to Section 9.3.3, and (ii) the Tolerance Band, and the Metered Energy is greater than zero (0) MWh. Otherwise, such resource is determined to be Off.

(f) For Multi-Stage Generating Resources, the commitment period is determined based on application of section 11.8.1.3. If application of section 11.8.1.3 dictates that the IFM is the Commitment Period, then the calculation of the IFM Minimum Load Costs will depend on whether the IFM committed MSG Configuration is determined to be On. If it is determined to be On, then, the IFM Minimum Load Costs will be based on the Minimum Load Bid Costs of the IFM committed MSG Configuration. For the purposes of determining IFM Minimum Load Cost for a Multi-Stage Generating Resource, a Bid Cost

Recovery Eligible Resource is determined to be On if its metered Energy in a Settlement Interval is equal to or greater than the difference between its IFM MSG Configuration Minimum Load as registered in the Master File, or if applicable, as modified pursuant to Section 9.3.3, and the Tolerance Band, and the Metered Energy is greater than zero (0) MWh. Otherwise, such resource is determined to be Off.

(g) The IFM Minimum Load Costs calculation is subject to the Shut-Down State Variable and is disqualified as specified in Section 11.17.2.

11.8.2.1.3 IFM Pump Shut-Down Cost

For Pumped-Storage Hydro Units and Participating Load only, the IFM Pump Shut-Down Costs for each Settlement Interval shall be equal to the relevant Pump Shut-Down Cost submitted to CAISO in the IFM divided by the number of Settlement Intervals in a Trading Hour that is preceded by a previous commitment by the IFM to pump, in which actual shut down occurs if the unit is committed by the IFM not to pump and actually does not operate in pumping mode in that Settlement Interval (as detected through Meter Data). The IFM Pump Shut-Down Cost for an IFM Shut-Down period shall be zero if: (1) it is followed by an IFM Self-Commitment Period or RTM Self-Commitment Period in generation mode; (2) the Shut-Down is due to an Outage reported through the CAISO's outage management system as described in Section 9; or (3) the Shut-Down is delayed by the RTM past the IFM Shut-Down period in question or cancelled by the RTM before the Shut-Down process has started.

11.8.2.1.4 IFM Pumping Bid Cost

For Pumped-Storage Hydro Units and Participating Load only, the IFM Pumping Bid Cost for the applicable Settlement Interval shall be the Pumping Cost submitted to the CAISO in the IFM divided by the number of Settlement Intervals in a Trading Hour. The Pumping Cost is negative. The Pumping Cost is included in IFM Bid Cost computation for a Pumped-Storage Hydro Unit and Participating Load committed by the IFM to pump or serve Load if it actually operates in pumping mode or serves Load in that Settlement Interval. The IFM Energy Bid Cost for a Participating Load for any Settlement Interval is set to zero for actual Energy consumed in excess of the Day-Ahead Schedule for Demand. The IFM Pumping Cost for any Settlement Interval is zero if: (1) the Settlement Interval is in an IFM Self-Commitment Period for the Bid Cost Recovery Eligible Resource; or (2) the Bid Cost Recovery Eligible

Resource is manually pre-dispatched under a Legacy RMR Contract prior to the Day-Ahead Market or the resource is flagged as a Legacy RMR Dispatch in the Day-Ahead Schedule for the applicable Settlement Interval.

11.8.2.1.5 IFM Energy Bid Cost

For any Settlement Interval, the IFM Energy Bid Cost for Bid Cost Recovery Eligible Resources, except Participating Loads, shall be the integral of the relevant Energy Bid used in the IFM, if any, from the higher of the Bid Cost Recovery Eligible Resource's Minimum Load as defined in the Master File, or if applicable, as modified pursuant to Section 9.3.3, and the Day-Ahead Total Self-Schedule up to the relevant MWh scheduled in the Day-Ahead Schedule, divided by the number of Settlement Intervals in a Trading Hour. The IFM Energy Bid Cost calculations are subject to the application of the Day-Ahead Metered Energy Adjustment Factor, and the Persistent Deviation Metric pursuant to the rules specified in Section 11.8.2.5 and Section 11.17.2.3, respectively. In addition, if the CAISO commits a Bid Cost Recovery Eligible Resource in the Day-Ahead and receives a Day-Ahead Schedule and subsequently the CAISO de-commits the resource in the Real-Time Market, the IFM Energy Bid Costs are subject to the Real-Time Performance Metric for each case specified in Section 11.8.4.4. If the CAISO commits a Multi-Stage Generating Resource in the Day-Ahead Market and the resource receives a Day-Ahead Schedule and subsequently the CAISO de-commits the Multi-Stage Generating Resource to a lower MSG Configuration where its Minimum Load capacity as registered in the Master File in the Real-Time Market is lower than the CAISO IFM Commitment Period MSG Configuration's Minimum Load as registered in the Master File, the resource's IFM Energy Bid Costs are subject to the Real-Time Performance Metric for each case specified in Section 11.8.4.4. The CAISO will determine the IFM Energy Bid Cost for a Multi-Stage Generating Resource at the Generating Unit level. The IFM Energy Bid Cost for RMR Resources shall be the integral of the relevant Energy Bid used in the IFM adjusted to remove Opportunity Costs from the higher of the RMR Resource's Minimum Load as defined in the Master File, or if applicable, as modified pursuant to Section 9.3.3, and the Day-Ahead Total Self-Schedule up to the relevant MWh scheduled in the Day-Ahead Schedule, divided by the number of Settlement Intervals in a Trading Hour.

11.8.2.1.6 IFM AS Bid Cost

For any Settlement Interval, the IFM AS Bid Cost shall be the product of the IFM AS Award from each

accepted IFM AS Bid and the relevant AS Bid Price, divided by the number of Settlement Intervals in a Trading Hour. The CAISO will determine and calculate IFM AS Bid Cost for a Multi-Stage Generating Resource at the Generating Unit level. The IFM AS Bid Cost shall also include Mileage Bid Costs. For any Settlement Interval, the IFM Mileage Bid Cost shall be the product of Instructed Mileage associated with a Day Ahead Regulation capacity award, as adjusted for accuracy consistent with Section 11.10.1.7, and the relevant Mileage Bid price, divided by the number of Settlement Intervals in a Trading Hour. The CAISO will determine and calculate IFM Mileage Bid Cost for a Multi-Stage Generating Resource at the Generating Unit level. For any Settlement Interval, the IFM AS Bid Cost for an RMR Resource shall be zero.

11.8.2.1.7 IFM Transition Cost

For each Settlement Interval, the IFM Transition Costs shall be based on the MSG Configuration to which the Multi-Stage Generating Resource is transitioning and is allocated to the CAISO Commitment Period of that MSG Configuration.

11.8.2.1.7.1 IFM Transition Cost Applicability

Within any eligible IFM CAISO Commitment Period determined pursuant to the rules specified in Section 11.8.1.3, the CAISO shall apply the IFM Transition Costs for the Settlement Intervals in which the Multi-Stage Generating Resource is actually transitioning from the “from” MSG Configuration and reaches the Minimum Load as registered in the Master File, or if applicable, as modified pursuant to Section 9.3.3, of the “to” MSG Configuration to which the Multi-Stage Generating Resource is transitioning, subject to the Tolerance Band.

11.8.2.2 IFM Market Revenue

The CAISO will apply the following rules to calculate a Bid Cost Recovery Eligible Resource’s IFM Market Revenue used for purposes of calculating its IFM Bid Cost Shortfalls and IFM Bid Cost Surpluses calculated pursuant to Section 11.8.2, and for purposes of allocating the Bid Cost Uplift pursuant to Section 11.8.6. The IFM Market Revenue calculations for both CAISO IFM Commitment Periods and Self-Committed Periods will be subject to the Day-Ahead Metered Energy Adjustment Factor pursuant to the rules specified in Section 11.8.2.5.

11.8.2.2.1 CAISO IFM Commitment

For any Settlement Interval in a CAISO IFM Commitment Period the IFM Market Revenue for a Bid Cost Recovery Eligible Resource is the algebraic sum of the two products specified below. In the case of a Multi-Stage Generating Resource, the CAISO will calculate the market revenue at the Generating Unit or Dynamic Resource-Specific System Resource level.

(1) The product of the delivered MWh in the relevant Day-Ahead Schedule in that Trading Hour (where for Pumped-Storage Hydro Units and Participating Load operating in the pumping mode or serving Load the MWh is negative), and the relevant IFM LMP, divided by the number of Settlement Intervals in a Trading Hour.

(2) The product of the IFM AS Award from each accepted IFM AS Bid and the relevant Resource-Specific ASMP, divided by the number of Settlement Intervals in a Trading Hour.

11.8.2.2.2 Resource Self-Committed

For any Settlement Interval in a IFM Self-Commitment Period the IFM Market Revenue for a Bid Cost Recovery Eligible Resource is the algebraic sum of: (1) the product of the MWh above the greater of Minimum Load and Self-Scheduled Energy, in the relevant Day-Ahead Schedule in that Trading Hour and the relevant IFM LMP, divided by the number of Settlement Intervals in a Trading Hour; and (2) the product of the IFM AS Award from each accepted IFM AS Bid and the relevant Resource-Specific ASMP, divided by the number of Settlement Intervals in a Trading Hour.

11.8.2.3 IFM Bid Cost Recovery Amounts for Metered Subsystems

The IFM Bid Cost Recovery for MSS Operators differs based on whether the MSS Operator has elected gross or net Settlement.

11.8.2.3.1 MSS Elected Gross Settlement

For an MSS Operator that has elected gross Settlement, regardless of other MSS optional elections (Load following or RUC opt-in or out), the IFM Bid Cost and the IFM Market Revenue are calculated similarly to non-MSS resources on an individual resource basis as described in Sections 11.8.2.1 and 11.8.2.2, respectively.

11.8.2.3.2 MSS Elected Net Settlement

For an MSS Operator that has elected net Settlement, regardless of other MSS optional elections (Load

following or RUC opt-in or out), the Energy Bid Costs and revenues for IFM Bid Cost Recovery is settled at the MSS level. The IFM Bid Cost as described in Section 11.8.2.1 above and IFM Market Revenue as provided in Section 11.8.2.2 above, of each MSS will be, respectively, the total of the IFM Bid Costs and IFM Market Revenues over all BCR Eligible Resources within the MSS where each BCR Eligible Resource's IFM Market Revenues for its Energy shall be calculated as described in Section 11.2.3.2 at the relevant IFM MSS price. The IFM Bid Cost Shortfalls and IFM Bid Cost Surpluses for Energy and AS are first calculated separately for the MSS for each Trading Hour of the Trading Day with qualified Start-Up Bid Costs and qualified Minimum Load Bid Costs included in the IFM Bid Cost Shortfalls and IFM Bid Cost Surpluses for Energy calculation. The MSS's overall IFM Bid Cost Shortfall or IFM Bid Cost Surplus is then calculated as the algebraic sum of the IFM Bid Cost Shortfall or IFM Bid Cost Surplus for Energy and the IFM Bid Cost Shortfall or IFM Bid Cost Surplus for AS for each Trading Hour.

11.8.2.4 Ramping for IFM Initial Conditions Self-Schedules

The CAISO shall determine the net IFM Bid Cost surplus or net IFM Bid Cost shortage across all full ramp down periods that start with an initial condition at the start of the IFM or a full ramp period within a 24 hour day-ahead market associated with a Self-Schedule any time within the full ramp period. For such full ramp periods associated with an initial condition or Self-Schedule with a net IFM Bid Cost shortfall, the net IFM Energy Bid Cost shortfall will not be included in IFM Bid Cost calculations. For the full ramp periods with a net IFM Bid Cost surplus, the surplus will be included in IFM Bid Cost calculations. For full other ramp periods not associated with an initial condition or Self-Schedule with IFM Energy Bid Cost shortfall, the shortfall will be included in IFM Bid Cost calculations. The CAISO will identify the Trading Hours scheduled as full ramp up periods as of the first hour where the resource is ramping up at full ramp until the last hour where the resource is ramping up at full ramp. Likewise, a full ramp down period will be identified as of first hour where the resource is ramping down at full ramp until the last hour that the resource is ramping down at full ramp.

11.8.2.5 Calculation and Application of the Day-Ahead Metered Energy Adjustment Factor to IFM Bid Costs and Market Revenues

The CAISO will adjust for each Bid Cost Recovery Eligible Resource the IFM Energy Bid Cost and IFM

Market Revenue calculations by multiplying the Day-Ahead Metered Energy Adjustment Factor with the amounts derived as specified in Sections 11.8.2.1.5 and 11.8.2.2, respectively. In addition, the CAISO will apply the Real-Time Performance Metric to the IFM Energy Bid Costs, IFM Minimum Load Costs IFM Pumping Costs and IFM Market Revenues, as described in 11.8.4.4. The CAISO will not apply the Day-Ahead Metered Energy Adjustment Factor to Non-Generator Resources.

11.8.2.5.1 Calculation of Day-Ahead Metered Energy Adjustment Factor

The CAISO will calculate the Day-Ahead Metered Energy Adjustment Factor for each BCR Eligible Resource through the following steps:

a) For Generation Unit and Resource-Specific-System Resource scheduled by CAISO in the Day-Ahead Market

Step 1: If the resource's Effective Day-Ahead Scheduled Energy is greater than or equal to its Day-Ahead Minimum Load Energy, and is greater than zero, then the calculation will proceed to step two. Otherwise, the calculation will proceed to step six.

Step 2: If (1) the resource's Metered Energy less Regulation Energy is less than its Day-Ahead Minimum Load Energy less the Tolerance Band; or (2) the resource's Metered Energy less Regulation Energy is less than or equal to zero, then the Day-Ahead Metered Energy Adjustment Factor will be set to zero (0). Otherwise, the calculation will proceed to step three.

Step 3: If the absolute value of the result of the resource's Metered Energy less its Regulation Energy less the Effective Day-Ahead Scheduled Energy, is less than or equal to the Performance Metric Tolerance Band, then the Day-Ahead Metered Energy Adjustment Factor will be set to one (1). Otherwise, the calculation will proceed to step four.

Step 4: If the resource's Effective Day-Ahead Scheduled Energy less its Day-Ahead Minimum Load Energy is equal to zero, then the Day-Ahead Metered Energy Adjustment Factor will be set to one (1). Otherwise, the calculation will proceed to step five.

Step 5: The resource's Day-Ahead Metered Energy Adjustment Factor will be the minimum of: (A) the number one (1); or (B) the maximum of (i) the number zero (0), and (ii) the ratio of the resource's (a)

Metered Energy less the Day-Ahead Minimum Load Energy and less the Regulation Energy, and (b) the Effective Day-Ahead Scheduled Energy, less the Day-Ahead Minimum Load Energy.

Step 6: If the resource's Effective Day-Ahead Scheduled Energy is less than its Day-Ahead Minimum Load Energy and if the resource's Effective Day-Ahead Scheduled Energy is greater than zero (0), then its Day-Ahead Metered Energy Adjustment Factor will be set to one (1). Otherwise, the calculation will proceed to step seven.

Step 7: If the Day-Ahead Scheduled Energy is positive and the resource's Expected Energy is less than or equal to zero, and its Metered Energy is less than or equal to zero, then its Day-Ahead Metered Energy Adjustment Factor will be set to one (1). Otherwise, its Day-Ahead Metered Energy Adjustment Factor will be set to zero (0).

b) Participating Load Pumped-Storage Hydro Units and Pumping Load scheduled by CAISO to pump in the Day-Ahead Market

Step 1: If the Day-Ahead Pumping Energy is negative and its Expected Energy is negative, then its Day-Ahead Metered Energy Adjustment Factor will be the minimum of: (A) the number one (1); or (B) the maximum of (i) the number zero (0) and (ii) the ratio of the resource's Metered Energy and its Expected Energy. Otherwise, proceed to step two.

Step 2: If the Day-Ahead Pumping Energy is negative and the resource's Expected Energy is greater than or equal to zero, and its Metered Energy is greater than or equal to zero, then its Day-Ahead Metered Energy Adjustment Factor will be (1). Otherwise, its Day-Ahead Metered Energy Adjustment Factor will be set to zero (0).

11.8.2.5.2 Application of Day-Ahead Metered Energy Adjustment Factor

The CAISO will apply the Day-Ahead Metered Energy Adjustment Factor to the IFM Pumping Bid Costs in the same manner in which the CAISO applies the Day-ahead Metered Energy Adjustment Factor to the IFM Energy Bid Costs as specified in this Section 11.8.2.5.2 and its subsections.

11.8.2.5.2.1 If the IFM Energy Bid Costs and the IFM Market Revenues for the amounts of Day-Ahead

Scheduled Energy above the Bid Cost Recovery Eligible Resource's Minimum Load are greater than or equal to zero (0), the CAISO will apply the Day-Ahead Metered Energy Adjustment Factor to the IFM Energy Bid Costs, but not the IFM Market Revenue.

11.8.2.5.2.2 If the IFM Energy Bid Costs are greater than or equal to zero (0) and the IFM Market Revenues are negative, the CAISO will apply the Day-Ahead Metered Energy Adjustment Factor to both the IFM Energy Bid Costs and IFM Market Revenues.

11.8.2.5.2.3 If the IFM Energy Bid Costs are negative and IFM Market Revenues are greater or equal to zero, the CAISO will not apply the Day-Ahead Metered Energy Adjustment Factor to IFM Energy Bid Costs or IFM Market Revenues.

11.8.2.5.2.4 If the IFM Energy Bid Costs and the IFM Market Revenues are both negative, the CAISO will apply the Day-Ahead Metered Energy Adjustment Factor to the IFM Market Revenues, but it will not apply it to the IFM Energy Bid Costs.

11.8.3 RUC Bid Cost Recovery Amount

For purposes of determining the RUC Unrecovered Bid Cost Uplift Payments as determined in Section 11.8.5 and for the purposes of allocating Net RUC Bid Cost Uplift as described in Section 11.8.6.5, the CAISO shall calculate the RUC Bid Cost Shortfall or the RUC Bid Cost Surplus as the algebraic difference between the RUC Bid Cost and the RUC Market Revenues for each Bid Cost Recovery Eligible Resource for each Settlement Interval. The RUC Bid Costs shall be calculated pursuant to Section 11.8.3.1 and the RUC Market Revenues shall be calculated pursuant to Section 11.8.3.2. The CAISO will include Bid Cost Recovery costs related to Short Start Units committed in Real-Time because of awarded RUC Capacity in RTM Compensation Costs.

11.8.3.1 RUC Bid Cost Calculation

For each Settlement Interval, the CAISO shall determine the RUC Bid Cost for a Bid Cost Recovery Eligible Resource as the algebraic sum of the RUC Start-Up Cost, RUC Transition Cost, RUC Minimum Load Cost, and RUC Availability Bid Cost. For Multi-Stage Generating Resources, in addition to the specific RUC Bid Cost rules described in Section 11.8.3.1, the rules described in Section 11.8.1.3 will be applied to further determine the applicable MSG Configuration-based CAISO Market Start-Up Bid Costs, Transition Bid Costs, and Minimum Load Bid Costs. For Multi-Stage Generating Resources, the

incremental RUC Start-Up Costs, RUC Minimum Load Costs, and RUC Transition Costs to provide RUC awarded capacity for an MSG Configuration other than the self-scheduled MSG Configuration are determined by the RUC optimization rules in specified in Section 31.5. For each Settlement Interval, the CAISO shall determine the RUC Bid Cost for an RMR Resource as the algebraic sum of the RUC Start-Up Cost adjusted to remove Opportunity Costs and Variable Start-Up Operations and Maintenance Adders, and RUC Transition Cost adjusted to remove Opportunity Costs and Variable Start-Up Operations and Maintenance Adders.

11.8.3.1.1 RUC Start-Up Cost

The RUC Start-Up Cost for any Settlement Interval in a RUC Commitment Period shall consist of Start-Up Bid Cost of the Bid Cost Recovery Eligible Resource for the applicable RUC Commitment Period divided by the number of Settlement Intervals in the applicable RUC Commitment Period. For each Settlement Interval, only the RUC Start-Up Cost in a CAISO RUC Commitment Period is eligible for Bid Cost Recovery. The CAISO will determine the RUC Start-Up Cost for a Multi-Stage Generating Resource based on the MSG Configuration committed by the CAISO in RUC.

The following rules shall be applied in sequence and shall qualify the RUC Start-Up Cost in a RUC Commitment Period:

(a) The RUC Start-Up Cost for a RUC Commitment Period is zero if there is an IFM Commitment Period within that RUC Commitment Period.

(b) The RUC Start-Up Cost for a RUC Commitment Period is zero if the Bid Cost Recovery Eligible Resource is manually pre-dispatched under an RMR Contract prior to the Day-Ahead Market or is flagged as an RMR Dispatch in the Day-Ahead Schedule anywhere within that RUC Commitment Period.

(c) The RUC Start-Up Cost for a RUC Commitment Period is zero if there is no RUC Start-Up at the start of that RUC Commitment Period because the RUC Commitment Period is the continuation of an IFM Commitment Period, RUC Commitment Period, or RTM Commitment Period from the previous Trading Day.

(d) The RUC Start-Up Cost for a RUC Commitment Period is zero if the Start-Up is delayed beyond the RUC Commitment Period in question or cancelled by the Real-Time Market

prior to the Bid Cost Recovery Eligible Resource starting its start-up process.

(e) If a RUC Start-Up is terminated in the Real-Time within the applicable RUC Commitment Period through an Exceptional Dispatch Shut-Down Instruction issued while the Bid Cost Recovery Eligible Resource is starting up, the RUC Start-Up Cost is prorated by the ratio of the Start-Up Time before termination over the RUC Start-Up Time.

(f) The RUC Start-Up Cost for a RUC Commitment Period is qualified if an actual Start-Up occurs within that RUC Commitment Period. An actual Start-Up is detected when the relevant metered Energy in the applicable Settlement Intervals indicates that the resource is Off before the time the resource is instructed to be On as specified in its Start-Up Instruction and is On in the Settlement Intervals that fall within the CAISO RUC Commitment Period. The CAISO will determine whether the resource is On for this purpose based on whether its metered Energy is at or above the resource's Minimum Load as registered in the Master File, or if applicable, as modified pursuant to Section 9.3.3.

(g) The RUC Start-Up Cost shall be qualified if an actual Start-Up occurs. An actual Start-Up is detected when the relevant metered Energy in the applicable Settlement Intervals indicates the unit is Off before the time the resource is instructed to be On as specified in its Start Up Instruction and is On in the Settlement Intervals that fall within the CAISO RUC Commitment Period.

11.8.3.1.2 RUC Minimum Load Cost

The RUC Minimum Load Cost for the applicable Settlement Interval shall be the Minimum Load Bid Cost of the Bid Cost Recovery Eligible Resource, divided by the number of Settlement Intervals in a Trading Hour. For each Settlement Interval, only the RUC Minimum Load Cost in a CAISO RUC Commitment Period is eligible for Bid Cost Recovery. The RUC Minimum Load Cost for any Settlement Interval is zero if: (1) the Bid Cost Recovery Eligible Resource is manually pre-dispatched under a Legacy RMR Contract or the resource is flagged as an RMR Dispatch in the Day-Ahead Schedule in that Settlement Interval; (2) the Bid Cost Recovery Eligible Resource is not committed or Dispatched in the Real-time Market in the applicable Settlement Interval; or (3) the applicable Settlement Interval is included in an IFM Commitment

Period. For the purposes of determining RUC Minimum Load Cost for a Bid Cost Recovery Eligible Resource, recovery of the RUC Minimum Load Cost is subject to the Real-Time Performance Metric as specified in Section 11.8.4.4. For Multi-Stage Generating Resources, the commitment period is further determined based on application of section 11.8.1.3. The RUC Minimum Load Cost calculation will be subject to the Shut-Down State Variable and disqualified as specified in Section 11.17.2.

11.8.3.1.3 RUC Availability Bid Cost

The RUC Availability Bid Cost is calculated as the product of the RUC Award with the relevant RUC Availability Bid price, divided by the number of Settlement Intervals in a Trading Hour. The RUC Availability Bid Cost for a Bid Cost Recovery Eligible Resource for a Settlement Interval is zero if the Bid Cost Recovery Eligible Resource is operating below its RUC Schedule, and also has a negative Uninstructed Imbalance Energy (UIE) magnitude in that Settlement Interval in excess of: (1) five (5) MWh divided by the number of Settlement Intervals in the Trading Hour; or (2) three percent (3%) of its maximum capacity divided by the number of Settlement Intervals in a Trading Hour. The CAISO will determine the RUC Availability Bid Cost based on the Multi-Stage Generating Resource Generating Unit level. The RUC Availability Cost for a Bid Cost for an RMR Resource for a Settlement Interval is zero.

11.8.3.1.4 RUC Transition Cost

For each Settlement Interval, the RUC Transition Costs shall be based on the MSG Configuration to which the Multi-Stage Generating Resource is transitioning and is allocated to the CAISO commitment period of that MSG Configuration.

11.8.3.1.4.1 RUC Transition Costs Applicability

Within any eligible RUC CAISO Commitment Period determined pursuant to the rules specified in Section 11.8.1.3, the CAISO shall apply the RUC Transition Costs for the Settlement Intervals in which the Multi-Stage Generating Resource is actually transitioning from the “from” MSG Configuration and reaches the Minimum Load as registered in the Master File, or if applicable, as modified pursuant to Section 9.3.3, of the “to” MSG Configuration to which the Multi-Stage Generating Resource is transitioning, subject to the Tolerance Band.

11.8.3.2 RUC Market Revenues

For any Settlement Interval, the RUC Market Revenue for a Bid Cost Recovery Eligible Resource is the

RUC Availability Payment as specified in Section 11.2.2.1 divided by the number of Settlement Intervals in a Trading Hour. If the RUC Availability Bid Cost of a BCR Eligible Resource is reduced to zero (0) in a Settlement Interval because of Uninstructed Deviation as stated in Section 11.8.3.1.3, then the RUC Market Revenue for that resource for that Settlement Interval shall also be set to zero (0) since the resource is subject to rescission of RUC Availability Payments as specified in Section 31.5.7. The CAISO will determine the RUC Market Revenues for Multi-Stage Generating Resources based on the Generating Unit level.

11.8.3.3 RUC Bid Cost Recovery for Metered Subsystem

11.8.3.3.1 MSS Elected Gross Settlement

For an MSS Operator that has elected gross Settlement, regardless of other MSS optional elections (Load following or RUC opt-in or out), the RUC Bid Cost and the RUC Market Revenue are calculated similarly to non-MSS resources on an individual resource basis as described in Sections 11.8.3.1 and 11.8.3.2, respectively.

11.8.3.3.2 MSS Elected Net Settlement

For an MSS Operator that has elected net Settlement, regardless of other MSS optional elections (Load following or RUC opt-in or out), the RUC Bid Costs and RUC Market Revenue are combined with RTM Bid Cost and RTM Market Revenue on an MSS level, consistent with the Energy Settlement as calculated according to Section 11.8.4.3.2.

11.8.4 RTM Bid Cost Recovery Amount

For purposes of determining the RTM Unrecovered Bid Cost Uplift Payments as determined in Section 11.8.5, and for the purposes of allocation of Net RTM Bid Cost Uplift as described in Section 11.8.6.6 the CAISO shall calculate the RTM Bid Cost Shortfall or the RTM Bid Cost Surplus as the algebraic difference between the RTM Bid Cost and the RTM Market Revenues for each Settlement Interval. The RTM Bid Costs shall be calculated pursuant to Section 11.8.4.1. The RTM Market Revenues shall be calculated pursuant to Section 11.8.4.2. The Energy subject to RTM Bid Cost Recovery is the FMM Instructed Imbalance Energy or RTD Instructed Imbalance Energy described in Section 11.5.1, excluding Standard Ramping Energy, Residual Imbalance Energy, FMM Exceptional Dispatch Energy or RTD Exceptional Dispatch Energy, FMM Derate Energy or RTD Derate Energy, Ramping Energy Deviation, Regulation

Energy and MSS Load Following Energy regardless of whether the Energy is from the FMM or RTD, and is subject to the application of the Real-Time Performance Metric as described in Section 11.8.4.4 and the Persistent Deviation Metric described in Section 11.17.

11.8.4.1 RTM Bid Cost Calculation

For each Settlement Interval, the CAISO shall calculate RTM Bid Cost for each Bid Cost Recovery Eligible Resource, as the algebraic sum of the RTM Start-Up Cost, RTM Minimum Load Cost, RTM Transition Cost, RTM Pump Shut-Down Cost, RTM Energy Bid Cost, RTM Pumping Cost and RTM AS Bid Cost. For each Settlement Interval, the CAISO shall calculate RTM Bid Cost for each RMR Resource as the algebraic sum of the RTM Start-Up Cost adjusted to remove Opportunity Costs and Variable Start-Up Operations and Maintenance Adders, RTM Transition Costs adjusted to remove Opportunity Costs and Variable Start-Up Operations and Maintenance Adders, RTM Energy Bid Cost adjusted to remove Opportunity Costs and Variable Energy Operations and Maintenance Adders, and RTM AS Bid Cost. For Multi-Stage Generating Resources, in addition to the specific RTM Bid Cost rules described in Section 11.8.4.1, the rules described in Section 11.8.1.3 will be applied to further determine the applicable MSG Configuration-based CAISO Market Start-Up Bid Cost, Transition Bid Cost, and Minimum Load Bid Cost, in a given Settlement Interval. For Multi-Stage Generating Resources, the incremental RTM Start-Up Cost, RTM Minimum Load Cost, and RTM Transition Cost to provide RTM committed Energy or awarded Ancillary Services capacity for an MSG Configuration other than the self-scheduled MSG Configuration are determined by the RTM optimization rules in specified in Section 34.

11.8.4.1.1 RTM Start-Up Cost

For each Settlement Interval of the applicable RTM Commitment Period, the RTM Start-Up Cost shall consist of the Start-Up Bid Cost of the Bid Cost Recovery Eligible Resource applicable to the Real-Time Market divided by the number of Settlement Intervals in the applicable RTM Commitment Period. For each Settlement Interval, only the RTM Start-Up Cost in a CAISO RTM Commitment Period is eligible for Bid Cost Recovery. The CAISO will determine the RTM Start-Up Cost for a Multi-Stage Generating Resource based on the MSG Configuration committed by the CAISO in the RTM. The following rules shall be applied in sequence and shall qualify the RTM Start-Up Cost in an RTM Commitment Period:

(a) The RTM Start-Up Cost is zero if there is an RTM Self-Commitment Period within the

RTM Commitment Period.

(b) The RTM Start-Up Cost is zero if the Bid Cost Recovery Eligible Resource has been manually pre-dispatched under a Legacy RMR Contract or the resource is flagged as an RMR Dispatch in the Day-Ahead Schedule or Real-Time Market anywhere within that RTM Commitment Period.

(c) The RTM Start-Up Cost is zero if the Bid Cost Recovery Eligible Resource is started within the Real-Time Market Commitment Period pursuant to an Exceptional Dispatch issued in accordance with Section 34.11.2 to: (1) perform Ancillary Services testing; (2) perform pre-commercial operation testing for Generating Units; or (3) perform PMax testing.

(d) The RTM Start-Up Cost is zero if there is no RTM Start-Up at the start of that RTM Commitment Period because the RTM Commitment Period is the continuation of an IFM Commitment Period or RUC Commitment Period from the previous Trading Day.

(e) If an RTM Start-Up is terminated in the Real-Time within the applicable RTM Commitment Period through an Exceptional Dispatch Shut-Down Instruction issued while the Bid Cost Recovery Eligible Resource is starting up, the RTM Start-Up Cost is prorated by the ratio of the Start-Up Time before termination over the Real-Time Market Start-Up Time.

(f) The RTM Start-Up Cost shall be qualified if an actual Start-Up occurs within that RTM Commitment Period. An actual Start-Up is detected when the relevant metered Energy in the applicable Settlement Interval(s) indicates the unit is Off before the time the resource is instructed to be On as specified in its Start-Up Instruction and is On in the Settlement Interval that falls within the CAISO RTM Commitment Period. The CAISO will determine whether the resource is On for this purpose based on whether its metered Energy is at or above the resource's Minimum Load as registered in the Master File, or if applicable, as modified pursuant to Section 9.3.3. The CAISO will determine that the Multi-Stage Generating Resource is On based on the MSG Configuration that the CAISO has committed in the Real-Time Market.

(g) The RTM Start-Up Cost for an RTM Commitment Period shall be qualified if an actual Start-Up occurs earlier than the start of the RTM Start-Up, if the relevant Start-Up is still within the same Trading Day and the Bid Cost Recovery Eligible Resource actually stays on until the RTM Start-Up, otherwise the Start-Up Bid Cost is zero for the RTM Commitment Period.

(h) For Short-Start Units, the first Start-Up Bid Costs within a CAISO IFM Commitment Period are qualified IFM Start-Up Costs as described above in Section 11.8.2.1.1(g). For subsequent Start-Ups of Short-Start Units after the CAISO Shuts Down a resource and then the CAISO issues a Start-Up Instruction pursuant to a CAISO RTM Commitment Period within the CAISO IFM Commitment Period, the Start-Up Bid Costs shall be qualified as RTM Start-Up Costs, provided that the resource actually Shut-Down and Started-Up based on CAISO Shut-Down and Start-Up Instructions.

11.8.4.1.2 RTM Minimum Load Cost

The RTM Minimum Load Cost is the Minimum Load Bid Cost of the Bid Cost Recovery Eligible Resource applicable for the Real-Time Market, divided by the number of Settlement Intervals in a Trading Hour. For each Settlement Interval, only the RTM Minimum Load Cost in a CAISO RTM Commitment Period is eligible for Bid Cost Recovery. The RTM Minimum Load Cost for any Settlement Interval is zero if: (1) the Settlement Interval is included in a RTM Self-Commitment Period for the Bid Cost Recovery Eligible Resource; (2) the Bid Cost Recovery Eligible Resource has been manually dispatched under a Legacy RMR Contract or the resource has been flagged as an RMR Dispatch in the Day-Ahead Schedule or the Real-Time Market in that Settlement Interval; (3) for all resources that are not Multi-Stage Generating Resources, that Settlement Interval is included in an IFM Commitment Period or RUC Commitment Period; or (4) the Bid Cost Recovery Eligible Resource is committed pursuant to Section 34.11.2 for the purpose of performing Ancillary Services testing, pre-commercial operation testing for Generating Units, or PMax testing. A resource's RTM Minimum Load Costs for Bid Cost Recovery purposes are subject to the application of the Real-Time Performance Metric as specified in Section 11.8.4.4. For Multi-Stage Generating Resources, the commitment period is further determined based on application of Section 11.8.1.3. For all Bid Cost Recovery Eligible Resources that the CAISO Shuts Down, either through an

Exceptional Dispatch or an Economic Dispatch through the Real-Time Market, from its Day-Ahead Schedule that was also from a CAISO commitment, the RTM Minimum Load Costs will include negative Minimum Load Bid Costs for Energy between the Minimum Load as registered in the Master File, or if applicable, as modified pursuant to Section 9.3.3, and zero (0) MWhs.

11.8.4.1.3 RTM Pump Shut-Down Cost

The RTM Pump Shut-Down Cost for each Settlement Interval is the relevant Pump Shut-Down Cost submitted by the Scheduling Coordinator only for Pumped-Storage Hydro Units and Participating Load, divided by the number of Settlement Intervals in which such resource was committed by the Real-Time Market in a Trading Hour with scheduled pumping operation and in which an actual Shut-Down occurs and the resource does not actually operate in pumping mode or serve Load in that Settlement Interval (as detected through Meter Data). The RTM Pump Shut-Down Cost for a Real-Time Market Shut-Down event shall be zero if: (1) it is followed by a RTM Self-Commitment Period in generation mode or offline mode; or (2) the Shut-Down is due to an Outage reported through the CAISO's outage management system as described in Section 9.

11.8.4.1.4 RTM Pumping Bid Cost

For Pumped-Storage Hydro Units and Participating Load only, the RTM Pumping Bid Cost for the applicable Settlement Interval shall be the Pumping Cost submitted to the CAISO in the RTM divided by the number of Settlement Intervals in a Trading Hour. The Pumping Cost is negative since it represents the amount the entity is willing to pay to pump or serve Load. The Pumping Cost is included in RTM Bid Cost computation for a Pumped-Storage Hydro Unit and Participating Load committed by the Real-Time Market to pump or serve Load, if it actually operates in pumping mode or serves Load in that Settlement Interval. The RTM Energy Bid Cost for a Participating Load for any Settlement Interval is set to zero for any Energy consumed in excess of instructed Energy. The RTM Pumping Bid Cost for any Settlement Interval is zero if: (1) the Settlement Interval is included in a RTM Self-Commitment Period for the Bid Cost Recovery Eligible Resource; (2) the Bid Cost Recovery Eligible Resource has been manually dispatched under an RMR Contract or the resource has been flagged as an RMR Dispatch in the Day-Ahead Schedule or the Real-Time Market in that Settlement Interval; (3) the Bid Cost Recovery Eligible Resource is not actually in pumping mode in that Settlement Interval; (4) that Settlement Interval is

included in an IFM or RUC Commitment Period; or (5) the Bid Cost Recovery Eligible Resource is committed pursuant to Section 34.11.2 for the purpose of performing Ancillary Services testing or pre-commercial operation testing.

11.8.4.1.5 RTM Energy Bid Cost

For any Settlement Interval, the RTM Energy Bid Cost for the Bid Cost Recovery Eligible Resource except Participating Loads shall be computed as the sum of the products of each RTD Instructed Imbalance Energy portion, except Standard Ramping Energy, Residual Imbalance Energy, FMM Exceptional Dispatch Energy or RTD Exceptional Dispatch Energy, FMM Derate Energy or RTD Derate Energy, MSS Load Following Energy, Ramping Energy Deviation and Regulating Energy, with the relevant Energy Bid prices, the Default Energy Bid price, or the Locational Marginal Price, if any, as further described in Section 11.17, for each Dispatch Interval in the Settlement Interval. For Settlement Intervals for which the Bid Cost Recovery Eligible Resource is ramping up to or down from a rerated Minimum Load that was increased pursuant to Section 9.3.3 for the Real-Time Market, the RTM Energy incurred by the ramping will be classified as FMM Derate Energy or RTD Derate Energy and will not be included in Bid Cost Recovery. For a Bid Cost Recovery Eligible Resource that is ramping up to or down from an Exceptional Dispatch, the relevant Energy Bid Cost related to the Energy caused by ramping will be settled on the same basis as the Energy Bid used in the Settlement of the Exceptional Dispatch that led to the ramping. The RTM Energy Bid Cost for a Bid Cost Recovery Eligible Resource, including Participating Loads and Proxy Demand Response Resources, for a Settlement Interval is subject to the Real-Time Performance Metric as described in Section 11.8.4.4 and the Persistent Deviation Metric as described in Section 11.17. Any Uninstructed Imbalance Energy in excess of FMM Instructed Imbalance Energy and RTD Instructed Imbalance Energy is also not eligible for Bid Cost Recovery. For a Multi-Stage Generating Resource the CAISO will determine the RTM Energy Bid Cost based on the Generating Unit level. For RMR Resources, the CAISO will determine the RTM Energy Bid Cost based on the relevant Energy Bid adjusted to remove Opportunity Costs.

11.8.4.1.5.1 RTM Energy Bid Cost for Storage Resources

When a storage resource participating as a Non-Generator Resource receives a Dispatch Instruction in the Fifteen-Minute Market that results in incremental Energy to its Day-Ahead Energy Schedule, or a

Dispatch Instruction in the Real-Time Dispatch that results in incremental Energy to its Schedule from the Fifteen-Minute Market, the Energy Bid price used for purposes of calculating a Real-Time Market Energy Bid Cost in any Fifteen-Minute Market or Real-Time Dispatch interval will reflect the lower of the following two values: (1) the storage resource's Energy Bid in the Real-Time Market for that interval, or (2) the greater of its Day-Ahead Locational Marginal Price, its Real-Time Market Default Energy Bid, or its Real-Time Locational Marginal Price for that interval.

In intervals when a storage resource participating as a Non-Generator Resource does not have a Day-Ahead Energy Schedule or only participates in Energy Imbalance Market and receives a Dispatch Instruction in the Fifteen-Minute Market for incremental Energy or a Real-Time Dispatch that results in incremental Energy to its Schedule from the Fifteen-Minute Market, the Energy Bid price used for purposes of calculating a Real-Time Market Energy Bid Cost in any Fifteen-Minute Market or Real-Time Dispatch interval will reflect the lower of the following two values: (1) the storage resource's Energy Bid in the Real-Time Market for that interval, or (2) the greater of its Real-Time Market Default Energy Bid, or its Real-Time Locational Marginal Price for that interval.

When a storage resource participating as a Non-Generator Resource receives a Dispatch Instruction in the Fifteen-Minute Market that results in decremental Energy or no change to its Day-Ahead Energy Schedule, or a Dispatch Instruction in the Real-Time Dispatch that results in decremental Energy or no change to its Schedule from the Fifteen-Minute Market, the Energy Bid price used for purposes of calculating a Real-Time Market Energy Bid Cost in any Fifteen-Minute Market or Real-Time Dispatch interval will reflect the greater of the following two values: (1) the storage resource's Energy Bid in the Real-Time Market for that interval, or (2) the lower of its Day-Ahead Locational Marginal Price, its Real-Time Market Default Energy Bid, or its Real-Time Locational Marginal Price for that interval.

In intervals when a storage resource participating as a Non-Generator Resource does not have a Day-Ahead Energy Schedule or only participates in the Energy Imbalance Market and receives a Dispatch Instruction in the Fifteen-Minute Market that results in decremental Energy or a Dispatch Instruction in the Real-Time Dispatch that results in decremental Energy or no change to its Schedule from the Fifteen-Minute Market, the Energy Bid price used for purposes of calculating a Real-Time Market Energy Bid Cost in any Fifteen-Minute Market or Real-Time Dispatch interval will reflect the greater of the following

two values: (1) the storage resource's Energy Bid in the Real-Time Market for that interval, or (2) the lower of its Real-Time Market Default Energy Bid or its Real-Time Locational Marginal Price for that interval.

11.8.4.1.6 RTM AS Bid Cost

For each Settlement Interval, the Real-Time Market AS Bid Cost shall be the product of the average Real-Time Market AS Award from each accepted AS Bid submitted in the Settlement Interval for the Real-Time Market, reduced by any relevant tier-1 No Pay capacity in that Settlement Interval (but not below zero), with the relevant AS Bid price. The average Real-Time Market AS Award for a given AS in a Settlement Interval is the sum of the 15-minute Real-Time Market AS Awards in that Settlement Interval, each divided by the number of 15-minute Commitment Intervals in a Trading Hour and prorated to the duration of the Settlement Interval (10/15 if the Real-Time Market AS Award spans the entire Settlement Interval, or 5/15 if the Real-Time Market AS Award spans half the Settlement Interval). For a Multi-Stage Generating Resource the CAISO will determine the RTM AS Bid Cost based on the Generating Unit level. The Real-Time Market AS Bid Cost shall also include Mileage Bid Costs. For each Settlement Interval, the Real-Time Mileage Bid Cost shall be the product of Instructed Mileage associated with a Real-Time Regulation capacity award, as adjusted for accuracy consistent with Section 11.10.1.7, and the relevant Mileage Bid price divided by the number of Settlement Intervals for the Real-Time Market in a Trading Hour. The CAISO will determine and calculate the Real Time Market Mileage Bid Cost for a Multi-Stage Generating Resource at the Generating Unit level. For an RMR Resource, the RTM AS Bid Cost shall be zero.

11.8.4.1.7 RTM Transition Cost

For each Settlement Interval, the RTM Transition Costs shall be based on the MSG Configuration to which the Multi-Stage Generating Resource is transitioning and are allocated to the CAISO commitment period of that MSG Configuration.

11.8.4.1.7.1 RTM Transition Cost Applicability

Within any eligible RTM CAISO Commitment Period determined pursuant to the rules specified in Section 11.8.1.3, the CAISO shall apply the RTM Transition Costs for the Settlement Intervals in which the Multi-Stage Generating Resource is actually transitioning from the "from" MSG Configuration and reaches the

Minimum Load as registered in the Master File, or if applicable, as modified pursuant to Section 9.3.3, of the "to" MSG Configuration to which the Multi-Stage Generating Resource is transitioning, subject to the Tolerance Band.

11.8.4.2 RTM Market Revenue Calculations

11.8.4.2.1 For each Settlement Interval in a CAISO Real-Time Market Commitment Period, the RTM Market Revenue for a Bid Cost Recovery Eligible Resource is the algebraic sum of the elements listed below in this Section. For Multi-Stage Generating Resources the RTM Market Revenue calculations will be made at the Generating Unit level.

(a) The sum of the products of the FMM or RTD Instructed Imbalance Energy (including Minimum Load Energy of the Bid Cost Recovery Eligible Resource committed in RUC and where for Pumped-Storage Hydro Units and Participating Load operating in the pumping mode or serving Load, the MWh is negative), except Standard Ramping Energy, Residual Imbalance Energy, Exceptional Dispatch Energy, Derate Energy, MSS Load following Energy, Ramping Energy Deviation and Regulation Energy, with the relevant FMM and RTD LMP, for each Dispatch Interval in the Settlement Interval. These amounts are subject to the Real-Time Performance Metric and the Persistent Deviation Metric as described in Sections 11.8.4.4 and 11.17, respectively. For storage resources that receive an Exceptional Dispatch to hold a State of Charge, the RTM Market Revenue will include revenues from the opportunity cost to hold the State of Charge but not the Exceptional Dispatch Energy to reach the State of Charge.

(b) The product of the Real-Time Market AS Award from each accepted Real-Time Market AS Bid in the Settlement Interval with the relevant ASMP, divided by the number of fifteen (15)-minute Commitment Intervals in a Trading Hour (4), and prorated to the duration of the Settlement Interval.

(c) The relevant tier-1 No Pay charges for that Bid Cost Recovery Eligible Resource in that Settlement Interval.

(d) The Forecasted Movement and Uncertainty Awards Settlement Amounts as calculated pursuant to Section 11.25 are included in the RTM Market Revenues calculation, not

including:

(1) the amounts rescinded pursuant to Section 11.25.3;

(2) Forecasted Movement revenue when there are changes in Self-Schedules across consecutive Trading Hours; and

(3) Forecasted Movement revenue when there are changes in EIM Base Schedules across consecutive Trading Hours without Economic Bids.

11.8.4.2.2 For each Settlement Interval in a non-CAISO Real-Time Market Commitment Period, the Real-Time Market Revenue for a Bid Cost Recovery Eligible Resource is the algebraic sum of the following:

(a) The sum of the products of the FMM or RTD Instructed Imbalance Energy (excluding the Minimum Load Energy of Bid Cost Recovery Eligible Resources committed in RUC), except, Standard Ramping Energy, Residual Imbalance Energy, Exceptional Dispatch Energy, Derate Energy, MSS Load Following Energy, Ramping Energy Deviation and Regulating Energy, with the relevant FMM or RTD Market LMP, for each Dispatch Interval in the Settlement Interval. These amounts are subject to the Real-Time Performance Metric and the Persistent Deviation Metric as described in Sections 11.8.4.4 and 11.17, respectively.

(b) The product of the Real-Time Market AS Award from each accepted Real-Time Market AS Bid in the Settlement Interval with the relevant ASMP, divided by the number of fifteen (15)-minute Commitment Intervals in a Trading Hour (4), and prorated to the duration of the Settlement Interval.

(c) The relevant tier-1 No Pay charges for that Bid Cost Recovery Eligible Resource in that Settlement Interval.

(d) The Forecasted Movement and Uncertainty Awards Settlement Amounts as calculated pursuant to Section 11.25 are included in the RTM Market Revenues calculation, not including:

(1) the amounts rescinded pursuant to Section 11.25.3;

(2) Forecasted Movement revenue when there are changes in Self-Schedules across consecutive Trading Hours; and

(3) Forecasted Movement revenue when there are changes in EIM Base Schedules across consecutive Trading Hours without Economic Bids.

11.8.4.3 RTM Bid Cost Recovery for Metered Subsystems

In addition to the exclusions to actual Energy delivered as provided in Section 11.8.4, for MSS resources, the Energy subject to RTM Bid Cost Recovery also excludes Minimum Load Energy if the resource is not committed by the CAISO in the Real-Time. As provided below, the RTM Bid Cost Recovery for MSS Operators differs based on whether the MSS Operator has elected gross or net Settlement; except that the calculation of the RTM Bid Costs and RTM Market Revenues for Ancillary Services will be as provided in Sections 11.8.4.1.6 and 11.8.4.2 and does not vary on the basis of the MSS's election of gross or net Settlement.

11.8.4.3.1 MSS Elected Gross Settlement

For an MSS Operator that has elected gross Settlement, regardless of other MSS optional elections (Load following or RUC opt-in or out), the RTM Bid Cost and RTM Market Revenue of the RTD Instructed Imbalance Energy subject to Bid Cost Recovery is determined for each resource in the same way these amounts are determined for a non-MSS resource pursuant to the rules specified in Section 11.8.4. The RTM Bid Cost Shortfall or Surplus for Energy and Ancillary Services in total is determined for each Trading Hour of the RTM over the Trading Day by taking the algebraic difference between the RTM Bid Cost and RTM Market Revenue.

11.8.4.3.2 MSS Elected Net Settlement

For MSS entities that have elected net Settlement regardless of other MSS optional elections (i.e., Load following or not, or RUC opt-in or out), unlike non-MSS resources, the RUC Bid Cost Shortfall or RUC Bid Cost Surplus and RTM Bid Cost Shortfall or RTM Bid Cost Surplus is treated at the MSS level and not at the resource specific level, and is calculated as the RUC Bid Cost Shortfall or RUC Bid Cost Surplus and RTM Bid Cost Shortfall or RTM Bid Cost Surplus of all BCR Eligible Resources within the MSS. In calculating the Energy RTM Market Revenue for all the resources within the MSS as provided in Section 11.8.4.2, the CAISO will use the FMM MSS Price or the RTD MSS Price, as applicable. The RUC Bid Cost Shortfall, RUC Bid Cost Surplus, RTM Bid Cost Shortfall, and RTM Bid Cost Surplus for Energy, RUC Availability and Ancillary Services are first calculated separately for the MSS for each Settlement

Interval of the Trading Day, with qualified Start-Up Bid Costs, qualified Minimum Load Bid Costs and qualified Multi-Stage Generator Transition Bid Costs included into the RUC Bid Cost Shortfalls, RUC Bid Cost Surpluses, RTM Bid Cost Shortfalls, and RTM Bid Cost Surpluses of Energy calculation. The MSS's overall RUC Bid Cost Shortfall or RUC Bid Cost Surplus, and RTM Bid Cost Shortfall or RTM Bid Cost Surplus is then calculated as the algebraic sum of the RUC Bid Cost Shortfall or RUC Bid Cost Surplus and RTM Bid Cost Shortfall or RTM Bid Cost Surplus for Energy and the RUC Bid Cost Shortfall or RUC Bid Cost Surplus and RTM Bid Cost Shortfall or RTM Bid Cost Surplus for Ancillary Services for each Settlement Interval.

11.8.4.4 Application of the Real-Time Performance Metric

The CAISO will adjust the RTM Energy Bid Cost, the RTM Market Revenues, and RTM Minimum Load Costs, the IFM Minimum Load Cost and IFM Energy Bid Cost calculations, and the IFM Market Revenues determined pursuant to Sections 11.8.4.1.5, 11.8.4.2, 11.8.4.1.2, 11.8.2.1.2, 11.8.2.1.5 and 11.8.2.2, respectively, by multiplying the Real-Time Performance Metric with those amounts for the applicable Settlement Interval, pursuant to the rules specified in this Section 11.8.4.4 and its subsections. The CAISO will apply the Real-time Performance Metric to the IFM Pumping Bid Costs and RTM Pumping Bid Costs in the same manner in which the CAISO applies the Real-time Performance Metric to the RTM Energy Bid Costs as specified in this Section 11.8.4.4, and its subsections.

11.8.4.4.1 If the RTM Energy Bid Costs plus the RUC Minimum Load Costs and RTM Minimum Load Costs and the RTM Market Revenues are greater than or equal to zero (0), the CAISO will apply the Real-Time Performance Metric to RTM Energy Bid Costs, RUC Minimum Load Costs and RTM Minimum Load Costs, and not the RTM Market Revenues. In addition, for the cases described in Sections 11.8.2.1.2(c) and (d), if the IFM Energy Bid Costs plus the IFM Minimum Load Costs and the IFM Market Revenues are greater than or equal to zero (0), the CAISO will apply the Real-Time Performance Metric instead of Day-Ahead Metered Energy Adjustment Factor to the IFM Minimum Load Costs and IFM Energy Bid Costs, and not the IFM Market Revenues.

11.8.4.4.2 If the RTM Energy Bid Costs plus the RUC Minimum Load Costs and RTM Minimum Load Costs are greater than or equal to zero (0) and the RTM Market Revenues are negative, the CAISO will apply the Real-Time Performance Metric to the RTM Energy Bid Costs, RUC Minimum Load Costs

and RTM Minimum Load Costs and the RTM Market Revenues. In addition, for the cases described in Sections 11.8.2.1.2(c) and (d), if the IFM Energy Bid Costs plus the IFM Minimum Load Costs are greater than or equal to zero (0) and the IFM Market Revenues are negative the CAISO will apply the Real-Time Performance Metric instead of the Day-ahead Metered Energy Adjustment Factor to the IFM Minimum Load Costs and IFM Energy Bid Costs, and IFM Market Revenues.

11.8.4.4.3 If the RTM Energy Bid Costs plus the RUC Minimum Load Costs and RTM Minimum Load Costs are negative and the RTM Market Revenues are greater than or equal to zero (0), the CAISO will not apply Real-Time Performance Metric to the RTM Energy Bid Costs, RUC Minimum Load Costs and RTM Minimum Load Costs or the RTM Market Revenues. In addition, for the cases described in Sections 11.8.2.1.2(c) and (d), if the sum of IFM Energy Bid Costs and the IFM Minimum Load Costs is negative and the IFM Market Revenue is greater than or equal to zero (0), the CAISO will not apply the Real-Time Performance Metric to the IFM Minimum Load Costs, IFM Energy Bid Costs or the IFM Market Revenues.

11.8.4.4.4 If the RTM Energy Bid Costs plus the RUC Minimum Load Costs and RTM Minimum Load Costs, and the RTM Market Revenues are negative, the CAISO will apply the Real-Time Performance Metric to the RTM Market Revenues but not the RTM Energy Bid Costs or the RUC Minimum Load Costs and RTM Minimum Load Costs. In addition, for the cases described in Sections 11.8.2.1.2(c) and (d), if the IFM Energy Bid Costs plus the IFM Minimum Load Costs and the IFM Market Revenues are negative, the CAISO will apply the Real-Time Performance Metric instead of the Day-Ahead Metered Energy Adjustment Factor to the IFM Market Revenues but not the IFM Minimum Load Costs and IFM Energy Bid Costs.

11.8.4.4.5 If for a given Settlement Interval the absolute value of the resource's Metered Energy, less Regulation Energy and less Expected Energy, is less than or equal to the Performance Metric Tolerance Band, then the CAISO will not apply the Real-Time Performance Metric to the calculation of the RTM Energy Bid Cost, RUC Minimum Load Cost and RTM Minimum Load Cost, or RTM Market Revenue.

11.8.5 Unrecovered Bid Cost Uplift Payment

Bid Cost Recovery Eligible Resources will receive an Unrecovered Bid Cost Uplift Payment as described

in this Section below. For Multi-Stage Generating Resources, Unrecovered Bid Cost Uplift Payments will be calculated and made at the Generating Unit level and not the MSG Configuration level. MSS Bid Cost Recovery Eligible Resources by MSS Operators that have elected net settlement will receive Unrecovered Bid Cost Uplift Payment for MSS Bid Cost Recovery Eligible Resources at the MSS level and not by individual resource. MSS Bid Cost Recovery Eligible Resources by MSS Operators that have elected gross settlement will receive Unrecovered Bid Cost Uplift Payments at the MSS Bid Cost Recovery Eligible Resource level like all other resources.

11.8.5.1 IFM Unrecovered Bid Cost Uplift Payment

Scheduling Coordinators shall receive an IFM Unrecovered Bid Cost Uplift Payment for a Bid Cost Recovery Eligible Resource, if the net of all IFM Bid Cost Shortfalls and IFM Bid Cost Surpluses calculated pursuant to Section 11.8.2 over a Trading Day is positive.

11.8.5.2 RUC and RTM Unrecovered Bid Cost Uplift Payment

Scheduling Coordinators shall receive RUC and RTM Unrecovered Bid Cost Uplift Payments for a Bid Cost Recovery Eligible Resource, if the net of all RUC Bid Cost Shortfalls and RUC Bid Cost Surpluses calculated pursuant to Section 11.8.3, and the RTM Bid Cost Shortfalls and RTM Bid Cost Surpluses calculated pursuant to Section 11.8.4, for that Bid Cost Recovery Eligible Resource over a Trading Day is positive. For Metered Subsystems that have elected net settlement, the Unrecovered Bid Cost Uplift Payment will be the sum, if positive, of the RUC, and RTM Bid Cost Shortfall or RUC, and RTM Bid Cost Surplus for each Trading Hour over the Trading Day for all Bid Cost Recovery Eligible Resources in the MSS.

11.8.6 System-Wide IFM, RUC and RTM Bid Cost Uplift Allocation

11.8.6.1 Determination of IFM, RUC and RTM Bid Cost Uplift

For each Settlement Interval, the CAISO shall determine the IFM, RUC and RTM Bid Cost Uplift for purposes of allocating the IFM, RUC and RTM Bid Cost Uplift as described below. In determining the IFM, RUC and RTM Bid Cost Uplifts below, the Unrecovered Bid Cost Uplift Payments for MSS BCR Eligible Resources in Metered Subsystems where the MSS Operator has elected net Settlement will be included on an MSS basis and not on an individual resource basis.

(i) The IFM Bid Cost Uplift shall be the net of the IFM Bid Cost Shortfalls and IFM Bid Cost

Surpluses for a Settlement Interval of all Bid Cost Recovery Eligible Resources with Unrecovered Bid Cost Uplift Payments.

(ii) The RUC Bid Cost Uplift shall be the net of the RUC Bid Cost Shortfalls and RUC Bid Cost Surpluses for a Settlement Interval of all Bid Cost Recovery Eligible Resources in the CAISO Balancing Authority Area with Unrecovered Bid Cost Uplift Payments.

(iii) The RTM Bid Cost Uplift shall be the net of the RTM Bid Cost Shortfalls and RTM Bid Cost Surpluses for a Settlement Interval of all Bid Cost Recovery Eligible Resources with Unrecovered Bid Cost Uplift Payments.

11.8.6.2 Sequential Netting of RUC and RTM Bid Cost Uplift

For each Settlement Interval, the Net RUC or Real-Time Market Bid Cost Uplift is determined for the purposes of allocating Net RUC or Real-Time Market Bid Cost Uplift by the following netting rules applied:

(i) The Net RUC Bid Cost Uplift is equal to the greater of zero or any positive RUC Bid Cost Uplift offset by negative Real-Time Market Bid Cost Uplift.

(ii) The Net Real-Time Market Bid Cost Uplift is equal to the greater of zero or any positive Real-Time Market Bid Cost Uplift offset by any negative RUC Bid Cost Uplift.

11.8.6.3 Determination of Total Positive CAISO Markets Uplifts

11.8.6.3.1 Total Positive IFM Uplifts

Any positive Net IFM Bid Cost Uplifts are reduced by scaling them with the uplift ratio in Section 11.8.6.3.1(iii) to determine the Total IFM Uplift (for a Settlement Interval) as follows:

(i) The Total IFM Uplift is the Net IFM Bid Cost Uplift for all Settlement Intervals in the IFM Market.

(ii) The Total Positive IFM Uplift is determined as the sum of the positive IFM Bid Cost Uplift for all Settlement Intervals in the IFM Market.

(iii) The uplift ratio is equal to the Total IFM Uplift divided by the Total Positive IFM Uplift.

11.8.6.3.2 Net RUC Bid Cost Uplift and RTM Bid Cost Uplift

The CAISO will determine the Net RUC Bid Cost Uplift and the Net RTM Bid Cost Uplift to be allocated to each Balancing Authority Area in the EIM Area as follows:

(i) For each Balancing Authority Area separately, the CAISO will calculate a combined RUC

Bid Cost Uplift and RTM Bid Cost Uplift amount based on the RUC Bid Cost Shortfall, RUC Bid Cost Surplus, RTM Bid Cost Shortfall, and RTM Bid Cost Surplus of each supply resource located within the Balancing Authority Area for each Settlement Interval.

(ii) For each Balancing Authority Area separately, for each Trading Day, the CAISO will calculate a daily combined total RUC Bid Cost Uplift and RTM Bid Cost Uplift amount as the sum of all the Settlement Interval values calculated according to Section 11.8.6.3.2(i).

(iii) For each Balancing Authority Area separately, for each Trading Day, the CAISO will calculate a combined total positive RUC Bid Cost Uplift and RTM Bid Cost Uplift amount as the sum of the positive Settlement Interval values calculated according to Section 11.8.6.3.2(i).

(iv) The CAISO will calculate the daily uplift ratio for the RUC and RTM, for each Balancing Authority Area in the EIM Area, as the daily combined total RUC Bid Cost Uplift and RTM Bid Cost Uplift amount, calculated according to Section 11.8.6.2(ii), divided by the daily combined total positive RUC Bid Cost Uplift and RTM Bid Cost Uplift, calculated according to Section 11.8.6.2(iii).

(v) For each Settlement Interval and each Balancing Authority Area in the EIM Area, the CAISO will multiply the applicable daily uplift ratio with each combined total positive RUC Bid Cost Uplift and each combined total RTM Bid Cost Uplift to determine the Net RUC Bid Cost Uplift and the preliminary Net RTM Bid Cost Uplift, respectively, for each Balancing Authority Area.

(vi) The CAISO shall adjust the preliminary Net RTM Bid Cost Uplift amounts calculated in Section 11.8.6.3.2(v) by –

(a) dividing the sum of net EIM Transfers out of a Balancing Authority Area by that Balancing Authority Area’s EIM Measured Demand, and the net EIM Transfer out of the Balancing Authority Area;

(b) multiplying the preliminary Net RTM Bid Cost Uplift amounts by the ratio calculated in Section 11.8.6.3.2(vi)(a); and

(c) reducing the preliminary Net RTM Bid Cost Uplift amounts of the EIM Entity

Balancing Authority Area with the net transfer out by the amount calculated in Section 11.8.6.3.2(vi)(b) and adding that amount to the EIM Entity Balancing Authority Area with the net transfer in to determine the final preliminary Net RTM Bid Cost Uplift amounts.

(vii) For each Settlement Interval, the Net RUC Bid Cost Uplift and final Net RTM Bid Cost Uplift apportionment by Settlement Interval for each Balancing Authority Area in the EIM Area will be the sum of the amounts calculated in Sections 11.8.6.3.2(v) and, for Net RTM Bid Cost Uplift only, 11.8.6.3.2(vi) for each Balancing Authority Area in the EIM Area.

11.8.6.4 Allocation of IFM Bid Cost Uplift

For each Trading Hour of the IFM the hourly IFM Bid Cost Uplift is allocated as follows:

11.8.6.4.1 Allocation in the First Tier

The hourly IFM Bid Cost Uplift is allocated in the first tier as follows:

(i) The hourly amount of IFM Bid Cost Uplift allocated to each Scheduling Coordinator is equal to the product of the IFM Bid Cost Uplift rate and the IFM uplift obligation for the Scheduling Coordinator.

(ii) The IFM Bid Cost Uplift rate is equal to the IFM Bid Cost Uplift divided by the sum of the positive IFM Load Uplift Obligations for all Scheduling Coordinators and the IFM system-wide Virtual Demand Award uplift obligation, subject to the condition that the IFM Bid Cost Uplift rate cannot exceed the ratio of the hourly IFM Bid Cost Uplift for the Trading Hour divided by the maximum of (a) the sum of all hourly IFM Load Uplift Obligations for all Scheduling Coordinators in that Trading Hour or (b) the sum of all hourly Generation scheduled in the Day-Ahead Schedule and IFM upward AS Awards for all Scheduling Coordinators from CAISO-committed Bid Cost Recovery Eligible Resources in that Trading Hour.

(iii) The IFM uplift obligation for each Scheduling Coordinator is equal to the sum of the IFM Load Uplift Obligation for the Scheduling Coordinator and any IFM Virtual Demand Award uplift obligation for the Scheduling Coordinator.

(iv) The IFM Load Uplift Obligation for each Scheduling Coordinator, including Scheduling Coordinators for Metered Subsystems regardless of their MSS optional elections (net/gross Settlement, Load following, RUC opt-in/out), is equal to the positive difference between the total Demand scheduled in the Day-Ahead Schedule of that Scheduling Coordinator and the sum of scheduled Generation and scheduled imports from the Self-Schedules in the Day-Ahead Schedule of that Scheduling Coordinator, adjusted by any applicable Inter-SC Trades of IFM Load Uplift Obligations.

(v) The IFM system-wide Virtual Demand Award uplift obligation is calculated for each hour in the IFM and is equal to maximum of zero (0) or the following quantity: the total system-wide Virtual Demand Awards from the IFM minus the total system-wide Virtual Supply Awards from the IFM, plus the minimum of zero (0) or the following quantity: the total amount of Scheduled Demand (which excludes Virtual Demand Awards), minus Measured Demand.

(vi) For each Scheduling Coordinator with positive net Virtual Demand Awards, the IFM Virtual Demand Award uplift obligation is equal to the product of (a) the positive net Virtual Demand Awards for the Scheduling Coordinator divided by the sum of each Scheduling Coordinator's positive net Virtual Demand Award and (b) the IFM system-wide Virtual Demand Award uplift obligation. For each Scheduling Coordinator with negative net Virtual Demand Awards, the IFM Virtual Demand Award uplift obligation is zero (0).

11.8.6.4.2 Allocation in the Second Tier

In the second tier, Scheduling Coordinators, including Scheduling Coordinators for MSS Operators that have elected both to not follow their Load and gross Settlement, will be charged for an amount equal to any remaining hourly IFM Bid Cost Uplift for the Trading Hour in proportion to the Scheduling Coordinator's Measured Demand. Scheduling Coordinators for MSS Operators that have elected to either follow their Load or net Settlement, or both, will be charged for an amount equal to any remaining hourly IFM Bid Cost Uplift for the Trading Hour in proportion to their MSS Aggregation Net Measured Demand.

11.8.6.5 Allocation of RUC Compensation Costs

11.8.6.5.1 Calculation of RUC Compensation Costs

For each Trading Hour of the RUC, the CAISO shall calculate the RUC Compensation Costs as the sum of the RUC Availability Payment and the hourly Net RUC Bid Cost Uplift.

11.8.6.5.2 Calculation of the Hourly Net RUC Bid Cost Uplift

For each Trading Hour of the RUC, the hourly Net RUC Bid Cost Uplift is determined as the sum over the Settlement Intervals in that Trading Hour of the product of any positive Net RUC Bid Cost Uplift remaining in the Settlement Interval after the sequential netting in Section 11.8.6.2 and the application of the uplift ratio as determined in Section 11.8.6.3. Consistent with Section 31.5.2.2, Scheduling Coordinators for MSS Operators that have opted out of RUC participation, or opt-out of RUC by default as a result of having elected to Load follow, will not be subject to any RUC Bid Cost Uplift allocation. Scheduling Coordinators for MSS Operators that have opted-into RUC, and consequently also are non-Load following and under gross Settlement, will receive the allocation of hourly Net RUC Bid Cost Uplift like all other Scheduling Coordinators.

11.8.6.5.3 Allocation of the RUC Compensation Costs

11.8.6.5.3.1 Allocation of the First Tier

Hourly RUC Compensation Costs are allocated in the first tier as follows:

(i) The amount of RUC Compensation Costs allocated to each Scheduling Coordinator is equal to the product of the RUC Bid Cost Uplift rate and the RUC obligation for the Scheduling Coordinator. Participating Load will not be subject to the first-tier allocation of RUC Compensation Costs to the extent that the Participating Load's Net Negative CAISO Demand Deviation in that Trading Hour is incurred pursuant to a CAISO directive to consume in a Dispatch Instruction.

(ii) The RUC Bid Cost Uplift rate is equal to the lower of (a) the RUC Compensation Costs to meet Measured Demand divided by the sum of each Scheduling Coordinator's Net Negative CAISO Demand Deviation and any positive net system-wide Virtual Supply Awards in that Trading Hour, or (b) the RUC Compensation Cost divided by the total RUC Award, for all Scheduling Coordinators in that Trading Hour.

(iii) The RUC obligation for each Scheduling Coordinator is equal to the sum of the Net Negative CAISO Demand Deviation for the Scheduling Coordinator in that Trading Hour and any RUC Bid Cost obligation for Virtual Supply Awards for the Scheduling Coordinator.

(iv) The portion of the RUC Compensation Costs to meet Measured Demand are equal to the RUC Compensation Cost minus the excess load share, where the excess load share is equal to the product of (a) the RUC Compensation Cost divided by total RUC Capacity and (b) the maximum of zero (0) or the amount by which the CAISO Forecast of CAISO Demand exceeds Measured Demand.

(v) For each Scheduling Coordinator with positive net Virtual Supply Awards, the RUC Bid Cost obligation for Virtual Supply Awards is equal to the product of (a) the positive net Virtual Supply Awards for the Scheduling Coordinator divided by the sum of each Scheduling Coordinator's positive net Virtual Supply Awards and (b) any positive net system-wide Virtual Supply Awards. For each Scheduling Coordinator with non-positive net Virtual Supply Awards, the RUC Bid Cost obligation for Virtual Supply Awards is zero (0).

11.8.6.5.3.2 Allocation in the Second Tier

In the second tier, the Scheduling Coordinator shall be charged an amount equal to any remaining RUC Compensation Costs in proportion to the Scheduling Coordinator's metered CAISO Demand in any Trading Hour, including any RUC Compensation Costs that were not recovered in the first tier pursuant to Section 11.8.6.5.3.1.

11.8.6.6 Allocation of Net RTM Bid Cost Uplift

(i) For the CAISO Balancing Authority Area, the CAISO will determine the hourly Net RTM Bid Cost Uplift as the sum over all of the Settlement Intervals of the Trading Hour of any positive Net RTM Bid Cost Uplift determined in Section 11.8.6.3.2. The hourly RTM Bid Cost Uplift in the CAISO Balancing Authority Area is allocated to Scheduling Coordinators, including Scheduling Coordinators for MSS Operators that have elected (a) not to follow their Load, and (b) gross Settlement, in proportion to their Measured

Demand plus any FMM reductions not associated with valid and balanced ETCs, TORs or Converted Rights Self-Schedules in the Day-Ahead Market for the Trading Hour. For Scheduling Coordinators for MSS Operators that have elected (a) not to follow their Load, and (b) net Settlement, the hourly RTM Bid Cost Uplift is allocated in proportion to their MSS Aggregation Net Measured Demand plus any FMM reductions not associated with valid and balanced ETCs, TORs or Converted Rights Self-Schedules in the Day-Ahead Market. For Scheduling Coordinators of MSS Operators that have elected to follow their Load, the RTM Bid Cost Uplift shall be allocated in proportion to their MSS Net Negative Uninstructed Deviation plus any FMM reductions not associated with valid and balanced ETCs, TORs or Converted Rights Self-Schedules in the Day-Ahead Market. Accordingly, each Scheduling Coordinator shall be charged an amount equal to its Measured Demand plus any FMM reductions not associated with valid and balanced ETCs, TORs or Converted Rights Self-Schedules in the Day-Ahead Market times the RTM Bid Cost Uplift rate, where the RTM Bid Cost Uplift rate is computed as the Net RTM Bid Cost Uplift amount divided by the sum of Measured Demand plus any FMM reductions not associated with valid and balanced ETCs, TORs or Converted Rights Self- Schedules in the Day-Ahead Market across all Scheduling Coordinators for the Trading Hour. Any real-time reductions after HASP results are published to HASP Block Intertie Schedules in response to Dispatch Instructions or real-time scheduling curtailments are not allocated any Net RTM Bid Cost Uplift.

(ii) For EIM Entity Balancing Authority Areas, the CAISO will allocate the amounts determined according to Section 11.8.6.3.2 to the applicable EIM Entity Scheduling Coordinator.

11.9 Inter-SC Trades

11.9.1 Physical Trades

Inter-SC Trades of Energy in the Day-Ahead Market will be settled separately from Inter-SC Trades of Energy in the RTM. Both the Day-Ahead and RTM Inter-SC Trades of Energy will be settled on an hourly basis and the two respective Settlement amounts between the two parties for each market shall net to

zero. All MWh quantities of Physical Trades submitted to the CAISO for Settlement in the Day-Ahead Market that are confirmed through the Physical Trade post market confirmation as provided in Section 28.1.6.3 shall be settled at the Day-Ahead LMP at the relevant PNode. All MWh quantities of Physical Trades that are reduced during the Physical Trade post market confirmation shall be settled at the relevant Existing Zone (EZ) Generation Trading Hub price. All MWh quantities of Physical Trades submitted to the CAISO for Settlement in the RTM that are confirmed through the Physical Trade post market confirmation pursuant to Section 28.1.6.3 shall be settled at the simple average of the four FMM LMPs at the relevant Pricing Node. All MWh quantities of Physical Trades submitted for Settlement in RTM that are reduced during the Physical Trade post market confirmation shall be settled at the FMM price for the EZ Generation Trading Hub.

11.9.2 Inter-SC Trades at Aggregated Pricing Nodes

Inter-SC Trades of Energy at Aggregated Pricing Nodes in the Day-Ahead Market will be settled separately from Inter-SC Trades at Aggregated Pricing Nodes in the RTM. Both the Day-Ahead and RTM Inter-SC Trades at Aggregated Pricing Nodes will be settled on an hourly basis and the two respective Settlement amounts between the two parties for each market shall net to zero. All MWh quantities of Inter-SC Trades at Aggregated Pricing Nodes submitted to the CAISO for Settlement in the Day-Ahead Market shall be settled at the relevant Day-Ahead Aggregated Pricing Node price such as the Existing Zone (EZ) Generation Trading Hub price or LAP price. All MWh quantities of Inter-SC Trades at Aggregated Pricing Nodes submitted to the CAISO for Settlement in the RTM shall be settled at the relevant Real-Time Aggregated Pricing Node price.

11.10 Settlements for Ancillary Services

11.10.1 Settlements for Contracted Ancillary Services

The CAISO shall operate a daily Settlement function for Ancillary Services it contracts for with Scheduling Coordinators. The Scheduling Coordinators supplying Ancillary Services will be credited based on the prices and quantities determined in accordance with this Section 11.10.

11.10.1.1 Ancillary Services in DAM

Payments to Scheduling Coordinators with AS Awards shall be equal to the ASMP calculated as provided in Section 27.1.2 for each Ancillary Service for the applicable trading hour in which the capacity is

procured multiplied by the quantity of the capacity awarded for the Ancillary Service in each of the Ancillary Service Regions for the applicable trading hour in which the capacity is procured. Suppliers with Self-Provided Ancillary Services are not eligible to receive credit for Ancillary Service Awards based on ASMPs; Self-Provided Ancillary Services are compensated at the user rate for the service being self-provided as described in Sections 11.10.2, 11.10.3 and 11.10.4.

11.10.1.1.1 Congestion Charges for Day-Ahead Intertie Ancillary Service Awards

Suppliers of Day-Ahead Ancillary Services Awards and qualified Self-Provided Ancillary Services over the Interties, including Pseudo-Ties of Generating Units to the CAISO Balancing Authority Area, also are charged for Congestion if the Ancillary Service Award or the qualified Self-Provided Ancillary Service is at a congested Scheduling Point. The charge shall be equal to the Shadow Price of the applicable congested Scheduling Point multiplied by the quantity of the Ancillary Service Award or the capacity of the qualified Self-Provided Ancillary Service for the Settlement Period; provided, however, that no such charge for Congestion will apply to any qualified Self-Provided Ancillary Service that is within the entitlement of an Existing Right, Converted Right or Transmission Ownership Right.

11.10.1.2 Ancillary Services Provided in HASP

The HASP optimization establishes Ancillary Services Awards and prices for Ancillary Services provided from HASP Block Intertie Schedules. The CAISO pays Scheduling Coordinators that supply Ancillary Services from HASP Block Intertie Schedules an amount equal to the product of the simple average of the ASMPs computed for the four FMM intervals for each Ancillary Service as described in Section 27.1.2, and the quantity of the capacity awarded for the Ancillary Service in the Settlement Period. The CAISO charges Scheduling Coordinators that receive an Ancillary Service Award or have qualified Self-Provided Ancillary Services at a Scheduling Point in the FMM the simple average of the fifteen (15) minute Marginal Cost of Congestion over the applicable Trading Hour as described in Section 11.10.1.2.1.

11.10.1.2.1 Congestion Charges

If a Scheduling Coordinator, including a Scheduling Coordinator for a Pseudo-Tie of a Generating Unit to the CAISO Balancing Authority Area, receives an Ancillary Services Award or provides a qualified Self-Provided Ancillary Service at a congested Scheduling Point, the CAISO will charge or credit the

Scheduling Coordinator for Congestion. The charge or credit for Congestion at such locations is equal to the simple average of the fifteen (15) minute applicable intertie constraint Shadow Price over the applicable Trading Hour at the location of the Ancillary Service Award, multiplied by the quantity of Ancillary Services Award or the capacity of the qualified Self-Provided Ancillary Service for the Settlement Period. No such charge or credit for Congestion will apply when the Scheduling Coordinator provides Ancillary Services from HASP Block Intertie Schedules at Scheduling Points pursuant to the CAISO Tariff rules that apply to Existing Rights and Transmission Ownership Rights.

11.10.1.3 Ancillary Services Provided in the FMM

Suppliers of Ancillary Services from resources awarded in FMM are credited at a price equal to one-quarter of the fifteen (15) minute ASMP (in $/MW/h) in each fifteen (15) minute interval of the applicable Trading Hour in which the capacity is procured for each Ancillary Service times the amount of the capacity awarded (MW) for the Ancillary Service in the relevant Ancillary Services Region for the applicable trading hour in which the capacity is procured. For each Ancillary Service, the ASMP is calculated as set forth in Section 27.1.2. Suppliers of Self-Provided Ancillary Services in the Real-Time Market are not eligible to receive credit using the ASMP; rather to the extent the self-provision is qualified it will be valued at the user rate for the relevant service (i.e., will either reduce the Ancillary Services Obligation or receive the user rate if it exceeds the Scheduling Coordinator's Ancillary Service Obligation) as described in Sections 11.10.2, 11.10.3 and 11.10.4.

11.10.1.3.1 Congestion Charges for Real-Time Intertie Ancillary Service Awards from Dynamic System Resources and Pseudo-Ties

For each Settlement Period, the suppliers of Real-Time Ancillary Services Awards, Ancillary Services from Pseudo-Ties of Generating Units to the CAISO Balancing Authority Area, or qualified Self-Provided Ancillary Services at Scheduling Points for Dynamic System Resources shall be charged for Congestion and such charge shall be equal to the simple average of the fifteen (15) minute Shadow Prices at the applicable Scheduling Point for the applicable Trading Hour for the awarded or Self-Provided Ancillary Service multiplied by the quantity of the Ancillary Service Award for the capacity of the qualified Self-Provided Ancillary Service for the Settlement Period; provided, however, that no such charge for

Congestion will apply to any qualified Self-Provided Ancillary Service that is within the entitlements of an Existing Right or Transmission Ownership Right.

11.10.1.4 Voltage Support

The total credits for each Scheduling Coordinator for Voltage Support in any Settlement Period shall be the sum of commitment costs, FMM Instructed Imbalance Energy or RTD Instructed Imbalance Energy Settlement as a result of Exceptional Dispatch pursuant to CAISO Tariff Section 11.5.6 and any opportunity costs, if any, due to an Exceptional Dispatch that limits Energy output to enable reactive energy production. The opportunity cost shall be calculated based on the product of the Energy amount that would have cleared the market at the price of the FMM or RTD LMP minus the higher of the Energy Bid price or the Default Energy Bid price. The Opportunity Cost for an RMR Resource shall be calculated based on the product of the Energy amount that would have cleared the market and the price of the FMM or RTD LMP minus the higher of the Energy Bid price adjusted to remove Opportunity Costs or the Default Energy Bid price adjusted to remove Opportunity Costs.

If applicable, Scheduling Coordinators shall also receive any credits under any long-term contracts due for the Settlement Period. FMM Exceptional Dispatches or RTD Exceptional Dispatches for incremental or decremental Energy needed for Voltage Support procured through Exceptional Dispatch pursuant to Section 34.11.2 will be credited and settled in accordance with Section 11.5.6. RMR Resources and Condition 2 Legacy RMR Units providing Voltage Support are not eligible for an Opportunity Cost pursuant to this Section 11.10.1.4.

11.10.1.5 [Not Used]

11.10.1.6 Inadvertent Interchange between Balancing Authority Areas

The CAISO shall calculate imbalances between scheduled, instructed and actual quantities of Energy provided based upon Meter Data obtained pursuant to Section 10. Schedules between Balancing Authority Areas shall be deemed as being delivered in accordance with Good Utility Practice. Dynamic Schedules shall be integrated over time through the Operating Hour and the MWh quantity obtained by such integration shall be deemed to be the associated scheduled Interchange for that Operating Hour. The difference between actual and scheduled Interchange shall then be addressed in accordance with the WECC and NERC inadvertent Interchange practices and procedures. Following this practice, all

Dynamic Schedules for Ancillary Services provided to the CAISO from Dynamic System Resources in other Balancing Authority Areas shall be deemed delivered to the CAISO. The difference between the Energy requested by the CAISO and that actually delivered by the other Balancing Authority Area shall then be accounted for and addressed through the WECC and NERC inadvertent Interchange practices and procedures.

11.10.1.7 Regulation Performance Credits and Accuracy Adjustments

Resources supplying Mileage from contracted or self-provided Regulation in the Day-Ahead Market are credited a Mileage clearing price for each MW of Instructed Mileage during the Settlement Period. If a resource is awarded incremental Regulation in the Real-Time Market, the Instructed Mileage shall be divided between the Day Ahead Market and Real Time Market, in proportion to the Day-Ahead and Real-Time Regulation Capacity awards. Instructed Mileage associated with a Day-Ahead Market award will be credited the Day-Ahead Mileage clearing price. Instructed Mileage associated with a Real-Time Market award will be credited the Real-Time Mileage clearing price. The CAISO will adjust a resource's Mileage credits based on the accuracy of the resource's response to CAISO EMS signals. To determine this accuracy adjustment, the CAISO will sum a resource's Automatic Generation Control set points for each four (4) second Regulation interval every fifteen (15) minutes and then sum the absolute value of the deviations from the Automatic Generation Control set point for each four (4) second regulation interval during that fifteen (15) minute period. The CAISO will divide the sum of the resource's Automatic Generation Control set points less the sum of the resource's total deviations by the sum of the resource's Automatic Generation Control set points. The CAISO will apply the resulting accuracy percentage to the resource's Regulation performance credits. In the event of lost accuracy data, the CAISO will use the simple average of the resource's previous ten (10) accuracy percentages for the periods of missing data for settlement purposes.

11.10.2 Settlement for User Charges for Ancillary Services

The CAISO shall determine a separate hourly user rate for Regulation Down Reserve, Regulation Up Reserve, Spinning Reserve, and Non-Spinning Reserve purchased for each Settlement Period. The hourly user rates for Regulation Down, Regulation Up, Spinning Reserve, and Non-Spinning Reserve include the cost incurred by the CAISO across the Day-Ahead Market and the Real-Time Market to

procure this service. In computing the user rate for each service the quantity (MW) and costs of any substituting Ancillary Service will be treated as if they are costs and MW associated with the Ancillary Service need they are being used to fulfill. Each rate will be charged to Scheduling Coordinators on a volumetric basis applied to each Scheduling Coordinator's obligation for the specific Ancillary Service concerned which it has not self-provided, as adjusted by any Inter-SC Trades of Ancillary Services. Each Scheduling Coordinator's obligation for Regulation Down Reserve, Regulation Up Reserve, Spinning Reserve, and Non-Spinning Reserve shall be calculated in accordance with this Section 11.10.2, notwithstanding any adjustment to the quantities of each Ancillary Service purchased by the CAISO in accordance with Section 8.2.3.5.

Ancillary Services Obligations for an individual Scheduling Coordinator (before taking into account Self-Provided Ancillary Services) or Inter-SC Trades of Ancillary Services may be negative. Credits for such negative obligations will be in accordance with the rates calculated in this Section 11.10.2, except that a Scheduling Coordinator's credit shall be reduced pro rata to the extent the sum of the negative obligations of all Scheduling Coordinators with the negative Ancillary Services Obligation (before self-provision or Inter-SC Trade) exceeds the obligation of all Scheduling Coordinators with positive obligation net of Self-Provided Ancillary Services, as specified in Section 11.10.5 in any Settlement Period, the net procurement quantity of Regulation Up, Regulation Down, Spinning Reserve, or Non-Spinning Reserve purchased by the CAISO in the Day-Ahead Market and the Real-Time Market due to the operation of Section 8.2.3.5 is zero (0), then the user rate for that Ancillary Service type will be zero (0). With respect to each Settlement Period, in addition to the user rates determined in accordance with this Section 11.10.2, each Scheduling Coordinator shall be charged an additional amount equal to its proportionate share, based on total purchases by Scheduling Coordinators of Regulation Down, Regulation Up, Spinning Reserve, and Non-Spinning Reserve of the amount, if any, by which (i) the total credits to Scheduling Coordinators pursuant to this Section 11.10.2 for the Day-Ahead Market and the Real-Time Market, exceed (ii) the total amounts charged to Scheduling Coordinators pursuant to this Section 11.10.2, for the Day-Ahead Market and the Real-Time Market. If total amounts charged to Scheduling Coordinators exceed the total credits to Scheduling Coordinators, each Scheduling Coordinator will be refunded its proportionate share, based on total purchases by Scheduling Coordinators of Regulation

Down, Regulation Up, Spinning Reserve, and Non-Spinning Reserve.

With respect to each Settlement Period, in addition to Ancillary Service charges at the applicable user rates determined in accordance with this Section 11.10.2, each Scheduling Coordinator shall be charged additional neutrality adjustment amounts for each Ancillary Service type pursuant to Sections 11.10.2.1.4, 11.10.2.2.3, 11.10.3.4, and 11.10.4.4 and a neutrality adjustment amount for upward Ancillary Service types pursuant to Section 11.14.

11.10.2.1 Regulation Service

Regulation Up Reserve and Regulation Down Reserve charges shall be calculated separately.

11.10.2.1.1 Regulation Down Reserve

The charges to a Scheduling Coordinator for Regulation Down Reserve for each Settlement Period of the Trading Day are based upon the product of Scheduling Coordinator's hourly obligation for Regulation Down Reserve (MW) and the hourly user rate for Regulation Down Reserve ($/MW).

11.10.2.1.2 Hourly User Rate for Regulation Down Reserve

The hourly user rate for Regulation Down is the total Regulation Down Reserve Cost ($) for each Settlement Period divided by the total Net Procurement of Regulation Down by the CAISO (MW) for each Settlement Period. The CAISO's Regulation Down Reserve Cost is equal to: (i) the revenues credited to the suppliers of the total awarded Regulation Down Reserve capacity in the Day-Ahead Market and Real-Time Market for the Settlement Period, minus, (ii) the credits rescinded in the Settlement Period due to the unavailability of the Regulation Down under any of the provisions of Section 8.10.8. The Net Procurement of Regulation Down Reserves is equal to: (i) the amount (MW) of total awarded Regulation Down Reserve capacity in the Day-Ahead Market and Real-Time Market for the Settlement Period, minus, (ii) the Regulation Down Reserve capacity associated with credits rescinded for the Settlement Period pursuant to any of the provisions of Section 8.10.8.

11.10.2.1.3 Hourly Net Obligation for Regulation Down Reserve

Each Scheduling Coordinator's hourly net obligation for Regulation Down is determined as follows: (a) the Scheduling Coordinator's metered CAISO Demand multiplied by the Scheduling Coordinator's Ancillary Services Obligation percentage for Regulation Down, reduced by accepted Self-Provided Ancillary Services specified as Regulation Down, plus or minus any Regulation Down Reserve obligations for the

hour acquired or sold through Inter-SC Trades of Ancillary Services. Each Scheduling Coordinator's Ancillary Services Obligation percentage for Regulation Down in that hour is equal to the total requirement for Regulation Down in that hour divided by the hourly metered CAISO Demand for that hour.

11.10.2.1.4 Regulation Down Neutrality Adjustment

For each Settlement Period, the difference between the Regulation Down Reserve Cost determined in Section 11.10.2.1.2 and the total revenue from all Scheduling Coordinators in the Regulation Down charge pursuant to Section 11.10.2.1.3 shall be allocated to all Scheduling Coordinators in proportion to their Regulation Down obligation quantity.

11.10.2.1.5 Regulation Down Mileage Costs

The charges to a Scheduling Coordinator for Regulation Down Mileage in any Settlement Period of the Trading Day are the product of the Scheduling Coordinator's Ancillary Services Obligation percentage in that Settlement Period and the user rate for Regulation Down Mileage ($/MW) for that Settlement Period. The user rate for Regulation Down Mileage is the total cost for Regulation Down Mileage ($) for each Settlement Period divided by the total Regulation Down Ancillary Service Obligation (MW) for each Settlement Period.

11.10.2.2 Regulation Up

The charges to a Scheduling Coordinator for Regulation Up for each Settlement Period of the Trading Day are based upon the product of the Scheduling Coordinator's hourly obligation for Regulation Up (MW) and the hourly user rate for Regulation Up ($/MW).

11.10.2.2.1 Hourly User Rate for Regulation Up

The hourly user rate for Regulation Up is the total Regulation Up cost ($) for each Settlement Period divided by the total Net Procurement of Regulation Up by the CAISO (MW) for each Settlement Period. The CAISO's Regulation Up cost is equal to: (i) the revenues credited to the suppliers of the total awarded Regulation Up capacity in the Day-Ahead Market and Real-Time Market for the Settlement Period, minus, (ii) the credits rescinded in the Settlement Period due to the unavailability of the Regulation Up under any of the provisions of Section 8.10.8. The Net Procurement of Regulation Up is equal to: (i) the amount (MWs) of total awarded Regulation Up capacity in the Day-Ahead Market and Real-Time Market for the Settlement Period, minus, (ii) the Regulation Up capacity associated with credits

rescinded for the Settlement Period, pursuant to any of the provisions of Section 8.10.8.

11.10.2.2.2 Hourly Net Obligation for Regulation Up

Each Scheduling Coordinator's hourly net obligation for Regulation Up is determined as follows: (a) the Scheduling Coordinator's metered CAISO Demand multiplied by the Scheduling Coordinator's Ancillary Services Obligation percentage for Regulation Up, reduced by accepted Self-Provided Ancillary Services specified as Regulation Up, plus or minus any Regulation Up Reserve obligations for the hour acquired or sold through Inter-SC Trades of Ancillary Services. The Scheduling Coordinator's total Regulation Up Reserve obligation for the applicable Trading Hour may only be less than zero if that credit supports an Inter-SC Trade of Ancillary Services. Each Scheduling Coordinator's Ancillary Services Obligation percentage for Regulation Up in that hour is equal to the total requirement for Regulation Down in that hour divided by the hourly metered CAISO Demand for that hour.

11.10.2.2.3 Regulation Up Neutrality Adjustment

For each Settlement Period, the difference between the Regulation Up net requirement at the hourly Regulation Up user rate determined in Section 11.10.2.2.2 and the total revenue collected from all Scheduling Coordinators in the Regulation Up charge pursuant to Section 11.10.2.2.1 shall be allocated to all Scheduling Coordinators in proportion to their Regulation Up Reserve Obligation quantity. The Regulation Up net requirement is the Real-Time Regulation Up requirement net of the sum of effective qualified Regulation Up self-provision over all resources.

11.10.2.2.4 Regulation Up Mileage Costs

The charges to a Scheduling Coordinator for Regulation Up Mileage in any Settlement Period of the Trading Day are the product of the Scheduling Coordinator's Ancillary Services Obligation percentage in that Settlement Period and the user rate for Regulation Up Mileage ($/MW) in that Settlement Period. The user rate for Regulation Up Mileage is the total cost for Regulation Up Mileage ($) for each Settlement Period divided by the total Regulation Up Ancillary Service Obligation (MW) for each Settlement Period.

11.10.3 Spinning Reserves

11.10.3.1 Spinning Reserves Obligation

The charges to a Scheduling Coordinator for Spinning Reserves for each Settlement Period of the

Trading Day are based upon the product of the Scheduling Coordinator's hourly obligation for Spinning Reserves (MW) and the hourly user rate for Spinning Reserves ($/MW).

If the Scheduling Coordinator's Operating Reserve Obligation (before self-provision or Inter-SC Trade of Spinning Reserve or Non-Spinning Reserve) is negative, the SC may be entitled to a credit rather than a charge. In that case, the quantity of the SC's negative Operating Reserve Obligation (before self-provision and Inter-SC Trade) shall be multiplied by the Negative Operating Reserve Obligation Credit Adjustment Factor (NOROCAF) computed for the Trading Hour as specified in Section 11.10.5.

11.10.3.2 Hourly User Rate for Spinning Reserves

The hourly user rate for Spinning Reserves is the ratio of: (1) the sum of the portion of Spinning Reserve Cost used to meet the spin requirement and the portion of Regulation Up cost that can substitute for Spinning Reserve and (2) the Net Procurement quantity of Spinning Reserves by the CAISO ($/MW).

The cost of Regulation Up substituting for Spinning Reserve is the user rate for Regulation Up multiplied by the quantity of Regulation Up used to satisfy the Spinning Reserve requirement.

The CAISO's Spinning Reserve Cost is equal to: (i) the revenues credited to the suppliers of the total awarded Spinning Reserve capacity in the Day-Ahead Market, HASP, and Real-Time Market, minus, (ii) the credits rescinded due to either the failure to conform to Dispatch Instructions or the unavailability of the Spinning Reserves under Section 8.10.8. The Net Procurement of Spinning Reserves is equal to: (i) the amount (MWs) of total awarded Spinning Reserve capacity in the Day-Ahead Market, HASP, and Real-Time Market, minus, (ii) the Spinning Reserve capacity associated with credits rescinded pursuant to any of the provisions of Section 8.10.8. The amount (MW) of awarded Spinning Reserve capacity includes the amounts (MW) associated with any Regulation Up Reserve capacity used as Spinning Reserve under Section 8.2.3.5.

11.10.3.3 Hourly Net Obligation for Spinning Reserves

Each Scheduling Coordinator's hourly net obligation for Spinning Reserves is determined as follows: the Scheduling Coordinator's total Ancillary Services Obligation for Operating Reserve for the hour multiplied by the ratio of the CAISO's total Ancillary Services Obligation for Spinning Reserves in the hour to the CAISO's total Operating Reserve Obligations in the hour (and if negative, multiplied by NOROCAF),

reduced by the accepted Self-Provided Ancillary Services for Spinning Reserves, plus or minus any Spinning Reserve Obligations for the hour acquired or sold through Inter-SC Trades of Ancillary Services. The Scheduling Coordinator's total Operating Reserve Obligation for the hour is the sum of six (6) percent of its CAISO Demand and three (3) percent of its Energy for exports from the CAISO Balancing Authority Area (excluding export Dynamic Schedules); less three (3) percent of its Energy from imports into the CAISO Balancing Authority Area (excluding import Dynamic Schedules). The Scheduling Coordinator's total Operating Reserve Obligation for the applicable Trading Hour may be less than zero (0) only if the resulting credit supports an Inter-SC Trade of Ancillary Services or the credit results from the portion of Operating Reserve Obligation associated with Energy from imports. The CAISO does not apply Self-Provided Ancillary Services to reduce a Scheduling Coordinator's total Operating Reserve Obligation for the applicable Trading Hour below zero (0).

11.10.3.4 Spinning Reserve Neutrality Adjustment

For each Settlement Period, the difference between the Spinning Reserve net requirement at the hourly Spinning Reserve user rate determined in Section 11.10.3.2 and the total revenue from all Scheduling Coordinators in the Spinning Reserve charge pursuant to Section 11.10.3.3 shall be allocated to all Scheduling Coordinators in proportion to their Spinning Reserve obligation quantity. The Spinning Reserve net requirement is the Real-Time Spinning Reserve requirement net of the sum of effective qualified Spinning Reserve self-provision over all resources.

11.10.4 Non-Spinning Reserves

11.10.4.1 Non-Spinning Reserves Obligation

The charges to an SC for Non-Spinning Reserves for each Settlement Period of the Trading Day are based upon the product of SC's hourly obligation for Non-Spinning Reserves (MWs) and the hourly user rate for Non-Spinning Reserves ($/MW).

If the Scheduling Coordinator's Operating Reserve Obligation (before self-provision or Inter-SC Trade of Spinning Reserve or Non-Spinning Reserve) is negative, the Scheduling Coordinator may be entitled to a credit rather than a charge. In that case, the quantity of the Scheduling Coordinator's negative Non-Spinning Reserve Obligation (before self-provision and Inter-SC Trade) shall be multiplied by the Negative Operating Reserve Obligation Credit Adjustment Factor (NOROCAF) computed for the Trading

Hour as specified in Section 11.10.5.

11.10.4.2 Hourly User Rate Non-Spinning Reserves

The hourly user rate for Non-Spinning Reserves is calculated as the ratio of: i) the sum of the portion of the Non-Spinning Reserve Cost used to meet the Non-Spinning requirement and a portion of the Regulation Up and Spinning Reserve costs that can substitute for Non-Spinning Reserve and ii) the Net Procurement quantity of Non-Spinning Reserves by the CAISO ($/MW). The CAISO's Non-Spinning Reserve Cost includes the costs associated with any Regulation Up Reserve or Spinning Reserve capacity used as Non-Spinning Reserve under Section 8.2.3.5.

The CAISO's Non-Spinning Reserve Cost is equal to: (i) the revenues credited to the suppliers of the total awarded Non-Spinning Reserve capacity in the Day-Ahead Market and Real-Time Market, minus, (ii) the credits rescinded due to either the failure to conform to CAISO Dispatch Instructions or the unavailability of the Non-Spinning Reserves under Section 8.10.8. The Net Procurement of Non-Spinning Reserves is equal to: (i) the amount (MWs) of total awarded Non-Spinning Reserve capacity in the Day- Ahead Market and Real-Time Market, minus, (ii) the Non-Spinning Reserve capacity associated with credits rescinded pursuant to any of the provisions of Section 8.10.8. The amount (MW) of awarded Non-Spinning Reserve capacity includes the amounts (MW) associated with any Regulation Up Reserve or Spinning Reserve capacity used as Non-Spinning Reserve under Section 8.2.3.5.

11.10.4.3 Hourly Net Obligation for Non-Spinning Reserves

Each Scheduling Coordinator's hourly net obligation for Non-Spinning Reserves is determined as follows: the product of the Scheduling Coordinator's total Ancillary Services Obligation for Operating Reserve for the hour (and if negative, multiplied by NOROCAF) multiplied by the ratio of the CAISO's total Ancillary Services Obligation for Non-Spinning Reserves in the hour to the CAISO's total Operating Reserve obligations in the hour, reduced by the accepted Self-Provided Ancillary Services for Non-Spinning Reserves, plus or minus any Non-Spinning Reserve Obligations for the hour acquired or sold through Inter-SC Trades of Ancillary Services. The Scheduling Coordinator's total Operating Reserve Obligation for the hour is the sum of six (6) percent of its CAISO Demand and three (3) percent of its Energy for exports from the CAISO Balancing Authority Area (excluding export Dynamic Schedules); less three (3) percent of its Energy from imports into the CAISO Balancing Authority Area (excluding import Dynamic

Schedules). The Scheduling Coordinator's total Operating Reserve Obligation for the applicable Trading Hour may be less than zero (0) only if the resulting credit supports an Inter-SC Trade of Ancillary Services or the credit results from the portion of Operating Reserve Obligation associated with Energy from imports. The CAISO does not apply Self-Provided Ancillary Services to reduce a Scheduling Coordinator's total Operating Reserve Obligation for the applicable Trading Hour below zero (0).

11.10.4.4 Non-Spinning Reserve Neutrality Adjustment

For each Settlement Period, the difference between the Non-Spinning Reserve net requirement at the hourly Non-Spinning Reserve user rate determined in Section 11.10.4.2 and the total revenue from all Scheduling Coordinators in the Non-Spinning Reserve charge pursuant to Section 11.10.4.3 shall be allocated to all Scheduling Coordinators in proportion to their Non-Spinning Reserve Obligation quantity. The Non-Spinning Reserve net requirement is the Real-Time Non-Spinning Reserve requirement net of the sum of effective qualified Non-Spinning Reserve self-provision over all resources.

11.10.5 Negative Operating Reserve Obligation Adjustment

In exceptional cases, it may happen that the net total quantity of Operating Reserve Obligations of all Scheduling Coordinators in a Trading Hour after accounting for qualified self provision is negative. In this case the net negative Operating Reserve Obligation is not usable by the CAISO, since Self-Provided Ancillary Service is qualified before IFM based on CAISO's estimate of firm imports. In such a case, the negative Operating Reserve Obligations of all Scheduling Coordinators with negative Operating Reserve Obligation is reduced pro rata. This is done by computing the Negative Operating Reserve Obligation Credit Adjustment Factor (NOROCAF) as the lower of one (1) or the ratio of (a) net total quantity of Operating Reserve Obligations of all Scheduling Coordinators with positive Operating Reserve Obligation net of qualified self provision of Operating Reserves, but before any Inter-SC Trades of Ancillary Services, and (b) the sum of negative Operating Reserve Obligations of all Scheduling Coordinators with negative Operating Reserve Obligation before considering any Self-Provided Ancillary Services or Inter-SC Trade of AS.

11.10.6 Upward Ancillary Services Neutrality Adjustment

For each Settlement Period the difference between the upwards Ancillary Service cost and the sum of the total Ancillary Services obligation and neutrality adjustments will be allocated to all Scheduling

Coordinators in proportion to their upward Ancillary Service Obligation (before taking into consideration the Inter-SC Trades of Ancillary Services). The CAISO shall exclude EIM Transfers between the CAISO and an EIM Entity from the calculation of the upwards Ancillary Service Obligation for this neutrality adjustment. The upwards Ancillary Service cost is the sum of the upward Ancillary Services credits issued pursuant to Sections 11.10.1.1, 11.10.1.2, and 11.10.3.1. The total upward Ancillary Services obligation and neutrality adjustments is the sum of the requirements in Sections 11.10.2.2.2, 11.10.2.2.3, 11.10.3.1, 11.10.3.4, 11.10.4.1, and 11.10.4.4.

11.10.7 Voltage Support

The Voltage Support user rate for any Settlement Period shall be calculated based on the sum of Voltage Support credits issued to Scheduling Coordinators in accordance with Section 11.10.1.4, divided by Gross Load, excluding metered Demand inside an MSS except as provided by Section 4.9.4.4.
The Voltage Support charge for any Settlement Period payable by a Scheduling Coordinator is the Voltage Support user rate multiplied by the quantity of Gross Load, excluding Demand within an MSS except as provided by Section 4.9.4.4, for which that Scheduling Coordinator is responsible in that Settlement Period.

11.10.8 [Not Used]

11.10.9 Settlements of Rescission of Credits for AS Capacity

The rescission of credits for Ancillary Services for Undispatchable, Unavailable, and Undelivered Capacity applies to Ancillary Services that are awarded in the Day-Ahead Market or Real-Time Market and the rescission will be the weighted average of the Ancillary Service Marginal Prices (ASMPs) and Ancillary Services Award amounts for a resource across the Day-Ahead Market and Real-Time Market. For Self-Provided Ancillary Service capacity that becomes Undispatchable Capacity, Unavailable Capacity, or Undelivered Capacity, the rescission of Ancillary Services self-provision in the Day-Ahead Market and Real-Time Market reduces the relevant Scheduling Coordinator's effective Ancillary Services self-provision in the Ancillary Services cost allocation, effectively resulting in a charge back at the relevant Ancillary Services rate. The rescission of credits in this Section 11.10.9 shall not apply to a capacity credit for any particular Ancillary Service if the weighted average Ancillary Service Marginal Price (ASMP)

is less than or equal to zero (0).

11.10.9.1 Rescission Undispatchable AS

If a Scheduling Coordinator has Undispatchable Capacity that it is obligated to supply to the CAISO during a Settlement Interval, the Ancillary Service capacity credit for the amount of Energy that cannot be delivered from the Generating Unit, Participating Load, Proxy Demand Resource, System Unit or System Resource for the Settlement Interval shall be rescinded; provided, however, that to the extent an Ancillary Service procured in the IFM from a Non-Dynamic System Resource to the CAISO Balancing Authority Area becomes Undispatchable Capacity due to an Intertie transmission derate before the Operating Hour for which it was procured, in rescinding the Ancillary Service capacity credit, the CAISO shall credit back to the Scheduling Coordinator any charge for Congestion assessed pursuant to Section 11.10.1.1.1, but at the lower of the Day-Ahead and simple average of the fifteen (15) minute Real-Time Shadow Price over the applicable Trading Hour on the corresponding Intertie.

11.10.9.2 Rescission of Credits for Unavailable Ancillary Service Capacity

Credits to the Scheduling Coordinator representing the Generating Unit, Participating Load, Proxy Demand Resource, System Unit or System Resource for the Ancillary Service capacity used to supply Uninstructed Imbalance Energy shall not be eliminated to the extent of the deficiency if: (i) the deficiency in the availability of Ancillary Service capacity from the Generating Unit, Participating Load, Proxy Demand Resource, System Unit or System Resource is attributable to control exercised by the CAISO in that Settlement Interval through AGC operation, an RMR Dispatch Notice, or an Exceptional Dispatch; or (ii) a penalty is imposed under Section 8.10.7 with respect to the deficiency.

In calculating the amount of the credit to be rescinded under Section 8.10.8.2, the CAISO shall reduce the credit for Ancillary Service capacity otherwise payable for the Settlement Interval by the product of the applicable prices and the amount of Ancillary Service capacity from which the Generating Unit, Participating Load, Proxy Demand Resource, System Unit or System Resource has supplied Uninstructed Imbalance Energy in that Settlement Interval.

11.10.9.3 Rescission of Credits for Undelivered Ancillary Service Capacity

If the total metered output of a Generating Unit, Participating Load, System Unit or System Resource is insufficient to supply the amount of FMM Instructed Imbalance Energy or RTD Instructed Imbalance

Energy associated with a Dispatch Instruction issued in accordance with awarded or self-provided Spinning Reserves or awarded or self-provided Non-Spinning Reserves in any Settlement Interval, then the capacity credit associated with the difference between the scheduled amount of each Ancillary Service for which insufficient Energy was delivered and the actual output attributed to the response to the Dispatch Instruction shall be rescinded. If, after the issuance of a Dispatch Instruction associated with Non-Spinning Reserves, the actual response of a Proxy Demand Resource is insufficient to supply the amount of FMM Instructed Imbalance Energy or RTD Instructed Imbalance Energy associated with a Dispatch Instruction issued in accordance with awarded or self-provided Non-Spinning Reserves, then the capacity credit associated with the difference between the scheduled amount and the actual amount attributed to the response to the Dispatch Instruction (as established pursuant to the applicable Business Practice Manual) shall be rescinded. However, no capacity credit shall be rescinded if the shortfall in the metered output of the Generating Unit, Participating Load, Proxy Demand Resource, System Unit, or System Resource is less than a deadband amount published by the CAISO on the CAISO Website at least twenty-four hours prior to the Settlement Interval. For any Settlement Interval with respect to which no deadband amount has been published by the CAISO, the deadband amount shall be zero MWh. For purposes of these calculations, total metered output will not include Energy provided or reduced as a result of AGC signals.

11.10.9.4 Allocation of Rescinded Ancillary Services Capacity Credits

Credits rescinded pursuant to Sections 8.10.8 and 11.10.9 shall be allocated to Scheduling Coordinators in proportion to their Ancillary Services Obligation for the same Trading Day.

11.11 RACs and Wheeling Transactions

11.11.1 Regional Access Charge

Regional Access Charges will be levied in accordance with Section 26.1 and Appendix F, Schedule 3.

11.11.2 Wheeling Through and Wheeling Out Transactions

The CAISO shall calculate, account for and settle charges and credits for Wheeling Through and Wheeling Out transactions in accordance with Section 26.1.4 and Appendix F, Schedule 3, Section 14.

11.11.3 Reporting Gross Load and Excess Behind the Meter Production

In reporting Gross Load to the CAISO, each Scheduling Coordinator also will report the extent to which

Excess Behind the Meter Production served that Gross Load. The value for Excess Behind the Meter Production will be reported as a separate value, and Scheduling Coordinators must include Load served by Excess Behind the Meter Production in reporting Gross Load. The CAISO will use Excess Behind the Meter Production values for informational purposes and to ensure Scheduling Coordinators report Gross Load accurately. The CAISO will publish Excess Behind the Meter Production values on OASIS.

11.12 Participating Intermittent Resources

11.12.1 [Not Used]

11.12.2 [Not Used]

11.12.3 Participating Intermittent Resource Fees

11.12.3.1 Forecasting Fee

A fee to defray the costs of the implementation of the forecasting service for Eligible Intermittent Resources shall be assessed to Scheduling Coordinators for Eligible Intermittent Resources as specified in Schedule 4 of Appendix F.

11.12.3.2 [Not Used]

11.12.3.3 [Not Used]

11.12.4 [Not Used]

11.13 Settlements of RMR Charges and Credits

This section applies to RMR Resources, which are resources subject to an RMR Contract entered into after September 1, 2018. For Legacy RMR Units, refer to Appendix H.

11.13.1 Daily RMR Settlement

The Daily RMR Settlement for each RMR Resource will include the Daily RMR Capacity Payment plus the Daily Variable Cost Payment plus the Daily Additional Cost Settlement minus the Daily RMR Excess Revenues minus the Daily RMR Exceptional Dispatch Revenues.

11.13.2 Daily RMR Capacity Payment

The Daily RMR Capacity Payment consists of the Daily Availability Payment plus the Daily Surcharge Payment from Schedule B of the applicable RMR Contract.

11.13.3 Daily Variable Cost Payment

For each Trading Day, the CAISO shall calculate IFM Bid Cost Recovery Amount described in Section

11.8.2 and RTM Bid Cost Recovery Amount described in Section 11.8.4 for each RMR Resource while adjusting to remove Major Maintenance Cost and Opportunity Cost adders, calculated pursuant to Section 30.4.6, including any if the limits used to calculate the Opportunity Cost are established pursuant to Article 6 of the RMR Contract. The RMR Resource shall receive any Unrecovered Bid Cost Uplift Payment(s) as described in Section 11.8.5. The Daily Variable Cost Uplift Settlement is the sum of the IFM Unrecovered Bid Cost Uplift Payment as described in Section 11.8.5.1 and the RUC and RTM Unrecovered Bid Cost Uplift Payment as described in Section 11.8.5.2.

11.13.4 Daily Additional Cost Settlement

For each Trading Day, the CAISO will calculate any additional Costs associated with an RMR Resource responding to a CAISO-issued Exceptional Dispatch pursuant to Section 34.11 to calculate the Daily Additional Cost Settlement.

11.13.5 Daily RMR Excess Revenues

For each Trading Day, the CAISO will calculate the Daily RMR Excess Revenues as the total CAISO daily sum of IFM excess credit, RC excess credit, and RTM excess credit. The RMR Resource will have its RMR Capacity Payment reduced by the IFM excess credit, if the net of all IFM Bid Cost Shortfalls and IFM Bid Cost Surpluses calculated pursuant to Section 11.8.2 over a Trading Day is negative. The RMR Resource will have its RMR Capacity Payment reduced by the RUC excess credit, if the net of all RUC Bid Cost Shortfalls and RUC Bid Cost Surpluses calculated pursuant to Section 11.8.3 over a Trading Day is negative. The RMR Resource will have its RMR Capacity Payment reduced by the RTM excess credit, if the net of all RTM Bid Cost Shortfalls and RTM Bid Cost Surpluses calculated pursuant to Section 11.8.4 over a Trading Day is negative.

11.13.6 Daily RMR Exceptional Dispatch Excess Revenues

Daily Exceptional Dispatch excess credit is the total CAISO daily sum of Settlement Interval Exceptional Dispatch surplus credits. For each Settlement Interval, the Exceptional Dispatch surplus credit is the net of Settlement Bid Cost Amounts for FMM Instructed Imbalance Energy and RTD Instructed Imbalance Energy from Exceptional Dispatch and FMM IIE Settlement Amounts and RTD Instructed Imbalance Energy from Exceptional Dispatch pursuant to Section 11.5.6, where Exceptional Dispatch Settlement amounts for exceeds Exceptional Dispatch Bid Cost Settlement amounts. Bid Cost Settlement amounts

for FMM Instructed Imbalance Energy and RTD Instructed Imbalance Energy from Exceptional Dispatch is calculated as the products of the relevant FMM Instructed Imbalance Energy or RTD Instructed Imbalance Energy quantity for the Settlement Interval and the relevant Bid Cost Settlement price. The Exceptional Dispatch Bid Cost Settlement price for incremental FMM Instructed Imbalance Energy or RTD Instructed Imbalance Energy for this type of Exceptional Dispatch is the maximum of: (a) the Energy Bid price adjusted to remove Opportunity Costs; and (b) the Default Energy Bid price adjusted to remove Opportunity Costs. The Exceptional Dispatch Bid Cost Settlement price for incremental FMM Instructed Imbalance Energy or RTD Instructed Imbalance Energy for this type of Exceptional Dispatch is the maximum of: (a) the Energy Bid price adjusted to remove Opportunity Costs; and (b) the Default Energy Bid price adjusted to remove Opportunity Costs.

11.13.7 Daily RMR Cost Allocation

The CAISO shall allocate amounts credited to RMR Resources through the Daily RMR Settlement to Scheduling Coordinators representing Load-Serving Entities that serve load in the TAC Area(s) in which the need for the RMR Contract arose. These amounts will be allocated to each such Scheduling Coordinator based on the pro-rated share of each Load-Serving Entity's TAC Area Metered Demand to the total TAC Area metered Demand recorded in the CAISO settlement system for actual days of any settlement month period for which the RMR Contract was in effect.

11.13.8 [Not Used]

11.13.9 [Not Used]

11.13.10 [Not Used]

11.14 Neutrality

The CAISO shall be authorized to issue charges or credits as special adjustments in regard to:

(a) amounts required to reach an accounting trial balance of zero in the course of the Settlement process in the event that the charges calculated as due from CAISO Debtors are lower than credits calculated as due to the CAISO Creditors for the same Trading Day, which includes any amounts required to round up any invoice amount expressed in dollars and cents to the nearest whole dollar amount. These charges will be allocated amongst the Scheduling Coordinators who traded on that Trading Day pro rata to their

Measured Demand in MWh of Energy for that Trading Day. In the event that the charges due from CAISO Debtors are higher than the credits due to CAISO Creditors, the CAISO shall allocate a credit to the Scheduling Coordinators who traded on that Trading Day pro rata to their Measured Demand in MWh of Energy for that Trading Day; and

(b) awards payable by or to the CAISO pursuant to good faith negotiations or CAISO ADR Procedures that the CAISO is not able to allocate to or to collect from a Market Participant or Market Participants in accordance with Section 13.5.3. These charges will be allocated among Scheduling Coordinators over an interval determined by the CAISO and pro rata based on EIM Measured Demand during that interval, if the dispute concerned the Real-Time Market, or otherwise Measured Demand during that interval.

11.15 Section 42.1 Contracts

The CAISO shall calculate and levy charges for the recovery of costs incurred under contracts entered into by the CAISO under the authority granted in Section 42.1 in accordance with Section 42.1.8 or any other contract approved by FERC.

11.16 Additional AS and RUC Credit Rescission Requirements

The following provisions apply to the Settlement of rescission of credits for Ancillary Services and RUC Capacity in addition to the provisions of Sections 8.10.8 and 11.10.9 for Ancillary Services and Sections 31.5.7 and 11.2.2.2 for RUC Capacity.

11.16.1 Resources with More Than One Capacity Obligation

If the Generating Unit, Participating Load, Proxy Demand Resource, System Unit or System Resource is scheduled to provide more than one capacity obligation in a Settlement Interval, the order in which the non-compliant Ancillary Service and RUC Capacity will be apportioned to the various services under Section 8.10.8 is as follows. For Undispatchable Capacity the non-compliant capacity is first apportioned to RUC Capacity and then to any Non-Spinning Reserves. If the amount of Undispatchable Capacity exceeds the amount of Non-Spinning Reserves, then the credit shall be eliminated for Spinning Reserves. For Unavailable Capacity or Undelivered Capacity the non-compliant capacity is first apportioned to any Non-Spinning Reserves. If the amount of non-compliant Ancillary Service capacity exceeds the amount of Non-Spinning Reserves, then the credit shall be eliminated for Spinning

Reserves. If the same Ancillary Service is scheduled in the Day-Ahead Market or Real-Time Market, then the credits shall be rescinded in proportion to the amount of each Ancillary Service scheduled in each market. If the same Ancillary Service is self-provided and Bid, the order of rescission will be first the amount of Ancillary Service amounts submitted in Bids and then the Self-Provided Ancillary Service.

11.16.2 Load-Following MSSs with an AS or RUC Capacity Obligation

If a Load following MSS Operator is scheduled to provide Ancillary Service capacity, RUC Capacity, or some combination thereof in a Settlement Interval and if the scheduled capacity or a portion thereof is unavailable for some reason during the Settlement Interval, the non-compliant Ancillary Services and RUC Capacity (i.e., Undispatchable, Unavailable, or Undelivered Capacity) will be not be apportioned to the capacity designated by the MSS Operator as Load following up capacity and Load following down capacity. In determining which of the MSS Operator's capacity obligations were not available in Real-Time, the capacity designated by the MSS Operator as Load following up capacity and Load following down capacity shall be preserved or take precedence over the other capacity obligations.

11.17 Application of the Persistent Deviation Metric

The CAISO will modify the Bid Cost Recovery calculations described in Section 11.8 and Residual Imbalance Energy credits in Section 11.5.5 as described below to address persistent deviations that expand Bid Cost Recovery credits beyond what is necessary for purposes of ensuring Bid Cost Recovery.

11.17.1 Persistent Deviation Threshold and Mitigation

The CAISO will calculate the Persistent Deviation Metric and evaluate each resource's response to a CAISO Dispatch in each Settlement Interval relative to the Persistence Deviation Metric Threshold as described below. The Persistent Deviation Metric Threshold evaluation will be based on the number of Settlement Intervals flagged within a rolling two-Trading Hour window. The CAISO will flag each Settlement Interval pursuant to the threshold conditions specified in Section 11.17.1.1, and apply the Persistent Deviation Metric pursuant to the rules specified in Section 11.17.1.2.

11.17.1.1 Persistent Deviation Threshold Conditions

11.17.1.1.1 Case 1

The CAISO will flag a Settlement Interval (t): (1) if Expected Energy is greater than Day-Ahead Scheduled

Energy in that Settlement Interval (t), the Metered Energy is greater than the Expected Energy in that Settlement Interval (t), and the Metered Energy in the prior Settlement Interval (t-1) is less than the Expected Energy in the given Settlement Interval (t); and (2) if the Metered Energy, less Regulation Energy, less the Expected Energy in that Settlement Interval (t) is greater than ten (10) percent of the amount the resource can be Dispatched at full ramp over the Settlement Interval (t) and the Persistent Deviation Metric is greater than one hundred and ten (110) percent.

11.17.1.1.2 Case 2

The CAISO will flag a Settlement Interval (t): (1) if the Expected Energy exceeds the Day-Ahead Scheduled Energy in that Settlement Interval (t), and Metered Energy in the prior Settlement Interval (t-1) exceeds the Expected Energy in that Settlement Interval (t); and (2) if the Metered Energy less the Regulation Energy and less Expected Energy in that Settlement Interval (t) is greater than ten (10) percent of the amount the resource can be Dispatched at full ramp over the Settlement Interval (t) and the Persistent Deviation Metric is less than ninety (90) percent.

11.17.1.1.3 Case 3

The CAISO will flag a Settlement Interval (t): (1) if the Expected Energy is less than the Day-Ahead Scheduled Energy, and Metered Energy is less than the Expected Energy in that Settlement Interval (t), and Metered Energy in the prior Settlement Interval (t-1) is less than the Expected Energy in the given Settlement Interval (t); and (2) if the Metered Energy less Regulation Energy less Expected Energy in that Settlement Interval (t) is greater than ten percent (10) of the amount the unit could be Dispatched at full ramp over the Settlement Interval (t) and the Persistent Deviation Metric is less than ninety (90) percent.

11.17.1.1.4 Case 4

The CAISO will flag a Settlement Interval (t): (1) if the Expected Energy is less than the Day-Ahead Scheduled Energy, and Metered Energy is less than the Expected Energy in that Settlement Interval (t), and Metered Energy in the prior Settlement Interval (t-1) is greater than the Expected Energy in the given Settlement Interval (t); and (2) if the Metered Energy less Regulation Energy less Expected Energy is greater than (10) percent of the amount the resource can be Dispatched at full ramp over the Settlement Interval (t) and the Persistent Deviation Metric is greater than one hundred and ten (110) percent.

11.17.1.2 Persistent Deviation Adjustments

The CAISO will apply the following rules to evaluate the resource's performance relative to the Persistent Deviation Metric Threshold and will apply the Persistent Deviation Metric as specified below.

11.17.1.2.1 Rule 1

If six (6) or fewer Settlement Intervals out of the previous twenty-four (24) Settlement Intervals are flagged pursuant to the rules in Section 11.17.1.1, then: (a) the RTM Energy Bid Costs will be based on the applicable Energy Bid price as specified in Section 11.8.4.1.5, and (b) Residual Imbalance Energy will be settled based on the reference hour Energy Bid as specified in Section 11.5.5.

11.17.1.2.2 Rule 2

If seven (7) or more Settlement Intervals of the previous twenty-four (24) Settlement Intervals are flagged as exceeding the Persistent Deviation Metric Threshold, then for all the previous twenty-four (24) Settlement Intervals in the two-hour window: (a) the RTM Energy Bid Costs specified in Section 11.8.4.1.5 (i) for FMM Optimal Energy or RTD Optimal Energy above the Day-Ahead Scheduled Energy will be based on the lesser of the applicable Default Energy Bid price, the applicable Energy Bid price, as mitigated, or the applicable FMM or RTD LMP; and (ii) for FMM Optimal Energy or RTD Optimal Energy below the Day-Ahead Scheduled Energy will be based on the greater of the applicable Default Energy Bid price, the applicable Energy Bid price, as mitigated, or the applicable FMM or RTD LMP; and (b) Residual Imbalance Energy as specified in Section 11.5.5 (i) for Residual Imbalance Energy above the Day-Ahead Scheduled Energy will be based on the lesser of the applicable Default Energy Bid price, the relevant Energy Bid Price, as mitigated, or the applicable RTD LMP; and (ii) Residual Imbalance Energy below the Day-Ahead Scheduled Energy will be based on the greater of the applicable Default Energy Bid price, the relevant Energy Bid Price, or the applicable RTD LMP.

11.17.1.2.3 Rule 3

Once a Settlement Interval is flagged as exceeding the Persistent Deviation Metric Threshold, it remains flagged when it is considered in the subsequent rolling two-Trading Hour evaluation window and its bid basis qualification for that Settlement Interval will not change.

11.17.1.2.4 Rule 4

If a Settlement Interval's bid basis is determined by the Rule 1 above in a previous evaluation and it has not been flagged, it can be re-determined and flagged pursuant to the additional rules in a subsequent

rolling two-Trading Hour evaluation window based on the Persistent Deviation Metric Threshold.

11.17.2 Shut-Down Adjustment

11.17.2.1 Disqualification Based on Advisory Schedules

From the Dispatch Interval in which the CAISO has determined that the Dispatch Operating Point minus the Shut-Down State Variable is less than or equal to the Minimum Load as registered in the Master File, or if applicable, as modified pursuant to Section 9.3.3, and until the Shut-Down State Variable is reset, the IFM Minimum Load Costs, RUC Minimum Load Costs, or RTM Minimum Load Costs, as applicable, will be disqualified from the Bid Cost Recovery calculation.

11.17.2.2 Disqualification Based on ADS Shut-Down Instruction

In the event that the CAISO issues a binding Shut-Down Instruction through ADS, a resource will not be eligible for recovery of RTM Minimum Load Costs or RUC Minimum Load Costs from the point of the Shut-Down Instruction forward for the duration of the resource's registered Minimum Down Time. If a resource ignores the binding Shut-Down Instruction and it has a Day-Ahead Schedule, the resource is not eligible for IFM Minimum Load Cost recovery as specified in Section 11.8.1.2 for the minimum of: 1) the resource's Minimum Down Time; and 2) the IFM Commitment Period.

11.17.2.3 Bid Basis for Settlement Bid Cost Recovery

For any resource that receives a Shut-Down Instruction in the Real-Time Market, any Integrated Forward Market Energy Bid Cost Recovery or Real-Time Market Energy Bid Cost Recovery that may otherwise apply pursuant to the rules in Section 11.8 will be based on the relevant Energy Bid price, as mitigated, that was considered by the Real-Time Market in making the decision to shut down the resource for the length of time defined by the greater of (a) the resource's Minimum Down Time or (b) the period in which it is Off after the Shut-Down time, which is not to exceed the time until the end of the Trading Day.

11.17.3 Application of Persistent Deviation Metric to Eligible Intermittent Resources' Residual Imbalance Energy

For a Settlement Interval, the Persistent Deviation Metric does not apply to the Settlement amounts defined in Section 11.5.5.2.

11.18 Emissions Costs

11.18.1 Emissions Costs Charges

The CAISO shall charge each Scheduling Coordinator in accordance with this Section 11.18, which will be used to fund the verified Emissions Costs incurred by an Emissions Eligible Generator during a CAISO Commitment Period. The CAISO shall levy this administrative charge (the Emissions Cost charge) each month, against all Scheduling Coordinators based upon each Scheduling Coordinator's (1) Balancing Authority Area Gross Load, and (2) Demand within California outside of the CAISO Balancing Authority Area that is served by exports from the CAISO Balancing Authority Area. .

11.18.2 CAISO Emissions Costs Trust Account

All sums representing Emissions Cost charges received by the CAISO shall be deposited in the CAISO Emissions Cost Trust Account. The CAISO Emissions Cost Trust Account shall be an interest-bearing account separate from all other accounts maintained by the CAISO, and no other funds shall be commingled in it at any time.

11.18.3 Rate for the Emission Cost Trust Account

The rate at which the CAISO will assess the Emissions Cost charge shall be at the projected annual total of all Emissions Costs incurred by Emissions Eligible Generators during CAISO Commitment Period, adjusted for interest projected to be earned on the monies in the CAISO Emissions Cost Trust Account, divided by the sum of the Balancing Authority Area Gross Load and the projected Demand within California outside of the CAISO Balancing Authority Area that is served by exports from the CAISO Balancing Authority Area of all Scheduling Coordinators for the applicable year ("Emissions Cost Demand"). The initial rate for the Emissions Cost charge, and all subsequent rates for the Emissions Cost charge, shall be posted on the CAISO Website.

11.18.4 Adjustment of the Rate for the Emissions Cost Charge

The CAISO may adjust the rate at which the CAISO will assess the Emissions Cost charge on a monthly basis, as necessary, to reflect the net effect of the following:

(a) the difference, if any, between actual Emissions Cost Demand and projected Emissions Cost Demand;

(b) the difference, if any, between the projections of the Emissions Costs incurred by Emissions Eligible Generators during a CAISO Commitment Period and the actual

Emissions Costs incurred by Emissions Eligible Generators during a CAISO Commitment Period as invoiced to the CAISO and verified in accordance with this Section 11.18; and

(c) the difference, if any, between actual and projected interest earned on funds in the CAISO Emissions Cost Trust Account.

The adjusted rate at which the CAISO will assess the Emissions Cost charge shall take effect on a prospective basis on the first day of the next calendar month. The CAISO shall publish all data and calculations used by the CAISO as a basis for such an adjustment on the CAISO Website at least five (5) days in advance of the date on which the new rate shall go into effect.

11.18.5 Credits and Debits of Emissions Cost Charges from SCs

In addition to the surcharges or credits permitted under Section 11.29.7.3, the CAISO may credit or debit, as appropriate, the account of a Scheduling Coordinator for any over- or under-assessment of Emissions Cost charges that the CAISO determines occurred due to the error, omission, or miscalculation by the CAISO or the Scheduling Coordinator

11.18.6 Submission of Cost Invoices by RMR Owner

Scheduling Coordinators on behalf of RMR Resources that incur costs during a CAISO Commitment Period that are not recoverable pursuant to the CAISO Daily RMR Settlement but are recoverable under the applicable RMR Contract may submit to the CAISO an invoice pursuant to Schedule C of the RMR Contract in the form specified on the CAISO Website with appropriate documentation. The CAISO will review and any amounts accepted will be paid by the CAISO on the next practicable Invoice and allocated pursuant to Section 11.13.5.

11.18.7 Emissions Cost Invoices

The CAISO shall credit Scheduling Coordinators for all Emissions Costs submitted in an Emissions Cost Invoice and demonstrated to be during a CAISO Commitment Period. If the Emissions Costs indicated in the applicable air quality districts' final invoice statements include emissions produced by operation not during a CAISO Commitment Period, the CAISO shall credit an amount equal to Emissions Costs multiplied by the ratio of the MWh associated with the CAISO Commitment Period to the total MWh associated with such Emissions Costs. The CAISO shall credit Emissions Cost Invoices each month in accordance with the CAISO Payments Calendar from the funds available in the CAISO Emissions Cost

Trust Account. To the extent there are insufficient funds available in the CAISO Emissions Cost Trust Account in any month to credit all Emissions Costs submitted in an Emissions Cost Invoice and demonstrated to be during a CAISO Commitment Period, the CAISO shall make pro rata credit of such Emissions Costs and shall adjust the rate at which the CAISO will assess the Emissions Cost charge in accordance with Section 11.18.4. Any outstanding Emissions Costs owed from previous months will be paid in the order of the month in which such costs were invoiced to the CAISO. The CAISO's obligation to credit Emissions Costs is limited to the obligation to credit Emissions Cost charges received. All disputes concerning credit of Emissions Cost Invoices shall be subject to CAISO ADR Procedures, in accordance with Section 13.

11.19 FERC Annual Charges

11.19.1 FERC Annual Charge Recovery Rate

11.19.1.1 Obligation for FERC Annual Charges

Each Scheduling Coordinator shall be obligated to pay for the FERC Annual Charges for its use of the CAISO Controlled Grid to transmit electricity, including any use of the CAISO Controlled Grid through Existing Contracts scheduled by the Scheduling Coordinator. Any FERC Annual Charges to be assessed by FERC against the CAISO for such use of the CAISO Controlled Grid shall be assessed against Scheduling Coordinators at the FERC Annual Charge Recovery Rate. Such assessment shall be levied monthly against all Scheduling Coordinators based upon each Scheduling Coordinator's metered Demand and exports.

11.19.1.2 Annual Charges Assessment

Scheduling Coordinators shall pay FERC Annual Charges assessed against them by the CAISO on a monthly or annual basis. Scheduling Coordinators that pay FERC Annual Charges on a monthly basis shall make the payment for such charges on the Payment Date for any market Invoice or Payment Advice containing the charges. Scheduling Coordinators that must pay FERC Annual Charges on an annual basis shall make the payment for such charges no later than the Payment Date stated on the Invoice for FERC Annual Charges. For Scheduling Coordinators electing monthly settlement of the FERC Annual Charges, these charges are assessed for a given Trading Month in the same semi-monthly Invoice and Payment Advice containing the market Settlement and Grid Management Charge issued in accordance

with the CAISO Payments Calendar. For Scheduling Coordinators electing yearly assessment of the FERC Annual Charges, the charges for a given Trading Month that are due annually are issued in accordance with the CAISO Payments Calendar on the same day as the market Invoice or Payment Advice but in a separate Invoice as indicated in Section 11.29.10. Further, the FERC Annual Charges amounts are provided to Scheduling Coordinators at least twice a month in their Settlement Statements. Once the final FERC Annual Charge Recovery Rate is received from FERC in the spring or summer of the following year, revised FERC Annual Charges will be calculated and included on a supplemental Invoice or Payment Advice. All Scheduling Coordinators shall make payment for such charges within five (5) Business Days after the CAISO issues such supplemental Invoice.

11.19.2 FERC Annual Charge Trust Account

All funds collected by the CAISO for FERC Annual Charges shall be deposited in the FERC Annual Charge Trust Account. The FERC Annual Charge Trust Account shall be an interest-bearing account separate from all other accounts maintained by the CAISO, and no other funds shall be commingled in it at any time. The CAISO shall disburse funds from the FERC Annual Charge Trust Account in order to pay the FERC any and all FERC Annual Charges assessed against the CAISO.

11.19.3 Determination of the FERC Annual Charge Recovery Rate

11.19.3.1 Annual Charge Obligation

The FERC Annual Charge Recovery Rate shall be set at the projected total FERC Annual Charge Obligation with regard to transactions on the CAISO Controlled Grid during the year in which the FERC Annual Charge Recovery Rate is collected, adjusted for interest projected to be earned on the monies in the FERC Annual Charge Trust Account ("Annual Charge Obligation"), divided by the projected Demand and exports during that year for all entities subject to assessment of FERC Annual Charges by the CAISO ("Annual Charge Demand"). The FERC Annual Charge Recovery Rate for the period from January 1, 2001 until the first adjustment of the FERC Annual Charge Recovery Rate goes into effect shall be posted on the CAISO Website at least fifteen (15) days in advance of the date on which the initial rate will go into effect.

11.19.3.2 Adjustments to FERC Annual Charge Recovery Rate

The CAISO may adjust the FERC Annual Charge Recovery Rate on a quarterly basis, as necessary, to

reflect the net effect of the following:

(a) the difference, if any, between actual Annual Charge Demand and projected Annual Charge Demand during the year-to-date;

(b) the difference, if any, between the projections of the Annual Charge Obligation and the Annual Charge Demand upon which the charge for the year is based and the CAISO's most current projections of those values, provided that the projection of the Annual Charge Obligation may only be adjusted on an annual basis for changes in the Federal Energy Regulatory Commission's budget for its electric regulatory program or changes in the projected total transmission volumes subject to assessment of FERC Annual Charges;

(c) the difference, if any, between actual and projected interest earned on funds in the FERC Annual Charge Trust Account; and

(d) any positive or negative balances of funds collected for FERC Annual Charges in a previous year after all Invoices for FERC Annual Charges for that year have been paid by the CAISO, other than those that are addressed through the mechanism described in Section 11.19.3.4.

11.19.3.3 Effectiveness of FERC Annual Charge Recovery Rate

The adjusted FERC Annual Charge Recovery Rate shall take effect on the first day of the calendar quarter. The CAISO shall publish all data and calculations used by the CAISO as a basis for such an adjustment on the CAISO Website at least fifteen (15) days in advance of the date on which the new rate shall go into effect.

11.19.3.4 Under- Or Over-Recovery of FERC Annual Charge Recovery Rate

If the FERC Annual Charges assessed by FERC against the CAISO for transactions on the CAISO Controlled Grid during any year exceed or fall short of funds collected by the CAISO for FERC Annual Charges with respect to that year by a range of ten (10) percent or less, the CAISO shall take such under- or over-recovery into account through an adjustment to the FERC Annual Charge Recovery Rate in accordance with this Section. Any deficiency of available funds necessary to pay for any assessment of FERC Annual Charges payable by the CAISO may be covered by an advance of funds from the CAISO's

Grid Management Charge, provided any such advanced funds will be repaid. If the CAISO's collection of funds for FERC Annual Charges with respect to any year results in an under- or over-recovery of greater than ten (10) percent, the CAISO shall either assess a surcharge against all active Scheduling Coordinators for the amount under-recovered or shall issue a credit to all active Scheduling Coordinators for the amount over-recovered. The surcharge or credit shall be allocated among all active Scheduling Coordinators based on the percentage of the surcharge or credit that reflects the active Scheduling Coordinators' metered Demand and exports during the relevant year. For purposes of this section, an "active Scheduling Coordinator" shall be a Scheduling Coordinator certified by the CAISO in accordance with this CAISO Tariff at the time the CAISO issues a surcharge or credit under this section. The CAISO will issue any surcharges or credits under this section within sixty (60) days of receiving a FERC Annual Charge assessment from the FERC.

11.19.4 Credits and Debits of FERC Annual Charges from SCs

In addition to the surcharges or credits permitted under this CAISO Tariff, the CAISO shall credit or debit the appropriate Scheduling Coordinator for any over- or under-assessment of FERC Annual Charges that the CAISO determines occurred due to the error, omission, or miscalculation by the CAISO or the Scheduling Coordinator.

11.20 NERC/WECC Charges

11.20.1 Responsibility for NERC/WECC Charges

(a) The CAISO shall invoice Scheduling Coordinators for all of the NERC/WECC Charges that are invoiced to the CAISO by the WECC on behalf of itself, NERC, and/or regional advisory bodies. Each Scheduling Coordinator shall be obligated to pay the CAISO all of the NERC/WECC Charges it is invoiced by the CAISO in accordance with this Section 11.20. Each Scheduling Coordinator's responsibility for NERC/WECC Charges is based on the Scheduling Coordinator's NERC/WECC Metered Demand.

(b) The CAISO's calculation of collateral requirements and other credit requirements under the CAISO Tariff will not include any adjustment for a Scheduling Coordinator's NERC/WECC Charges.

11.20.2 [Not Used]

11.20.3 [Not Used]

11.20.4 Process for Invoicing NERC/WECC Charges

With regard to the NERC/WECC Charges to be assessed by the WECC for each NERC/WECC Charge Assessment Year, the following processes shall apply:

(a) The CAISO will issue a Market Notice that will include the total of all Scheduling Coordinators' NERC/WECC Metered Demand for the calendar year two years prior to the NERC/WECC Charge Assessment Year. On or after the date on which the CAISO issues this Market Notice, the CAISO will notify each Scheduling Coordinator in writing of the Scheduling Coordinator's NERC/WECC Metered Demand for the calendar year two years prior to the NERC/WECC Charge Assessment Year. Each Scheduling Coordinator shall have sixty (60) calendar days from the date the CAISO provides it with this notification in writing to raise any disputes concerning the CAISO's calculation of the Scheduling Coordinator's NERC/WECC Metered Demand for the calendar year two years prior to the NERC/WECC Charge Assessment Year.

(b) The CAISO will report to the WECC the total of all Scheduling Coordinators' NERC/WECC Metered Demand for the calendar year two years prior to the NERC/WECC Charge Assessment Year, including any adjustments to the calculation of NERC/WECC Metered Demand for that year made by the CAISO in response to disputes raised by Scheduling Coordinators pursuant to Section 11.20.4(a). The report will also include any adjustments to the calculation of NERC/WECC Metered Demand, based on decisions by the WECC to permit such adjustments, that the CAISO has time to reflect in the report and that the WECC provides to the CAISO in a written statement in accordance with the CAISO-WECC Billing Services Agreement. This report shall facilitate the WECC's calculation of actual NERC/WECC Charges to be invoiced to the CAISO for the NERC/WECC Charge Assessment Year.

(c) The CAISO will issue a Market Notice setting forth the Preliminary NERC/WECC Charge Rate for the NERC/WECC Charge Assessment Year.

(d) By August 31 of the year preceding the NERC/WECC Charge Assessment Year, the CAISO will issue Preliminary NERC/WECC Charge Invoices for the NERC/WECC Charge Assessment Year.

(e) Within five (5) Business Days after receipt of the WECC's invoice to the CAISO setting forth the assessment of NERC/WECC Charges for the NERC/WECC Charge Assessment Year, the CAISO shall issue a Market Notice setting forth the Final NERC/WECC Charge Rate for the NERC/WECC Charge Assessment Year. The Final NERC/WECC Charge Rate for the NERC/WECC Charge Assessment Year shall be based on (i) the total NERC/WECC Charges for the NERC/WECC Charge Assessment Year that were invoiced to the CAISO by the WECC, divided by (ii) the total of all Scheduling Coordinators' NERC/WECC Metered Demand including any adjustments to the calculation of NERC/WECC Metered Demand as reported to the WECC pursuant to Section 11.20.4(b), and including any additional adjustments to the calculation of NERC/WECC Metered Demand, based on decisions by the WECC to permit such adjustments, that the WECC provides to the CAISO in a written statement in accordance with the CAISO-WECC Billing Services Agreement.

(f) Within fifteen (15) Business Days after receipt of the WECC invoice to the CAISO setting forth the assessment for NERC/WECC Charges for the NERC/WECC Charge Assessment Year, the CAISO will issue Final NERC/WECC Charge Invoices that allocate NERC/WECC Charges for the NERC/WECC Charge Assessment Year to Scheduling Coordinators based on (i) each Scheduling Coordinator's NERC/WECC Metered Demand as adjusted pursuant to Sections 11.20.4(b) and 11.20.4(e) and pursuant to any additional adjustments that the WECC provides to the CAISO in a written statement in accordance with the CAISO-WECC Billing Services Agreement, multiplied by (ii) the Final NERC/WECC Charge Rate for the NERC/WECC Charge Assessment Year. If and to the extent that a Scheduling Coordinator has not already paid all of the NERC/WECC Charges for the NERC/WECC Charge Assessment Year that it is required to pay, the Scheduling Coordinator's Final NERC/WECC Charge Invoice will show the amount the

Scheduling Coordinator is still required to pay. If and to the extent that a Scheduling Coordinator has already paid in excess of the NERC/WECC Charges for the NERC/WECC Charge Assessment Year that the Scheduling Coordinator is required to pay, the Scheduling Coordinator's Final NERC/WECC Charge Invoice will show the amount the Scheduling Coordinator will be credited.

11.20.5 Timely Payments

Scheduling Coordinators shall make timely payments to the CAISO pursuant to Preliminary NERC/WECC Charge Invoices within thirty (30) calendar days of issuance of such invoices. Scheduling Coordinators shall make timely payments to the CAISO pursuant to Final NERC/WECC Charge Invoices within fifteen (15) Business Days of issuance of such invoices.

11.20.6 NERC/WECC Charge Trust Account

The CAISO shall deposit all payments received pursuant to Preliminary NERC/WECC Charge Invoices and Final NERC/WECC Charge Invoices in the NERC/WECC Charge Trust Account. The NERC/WECC Charge Trust Account shall be separate from all other accounts maintained by the CAISO, and no other funds shall be commingled in it at any time. The CAISO shall disburse funds from the NERC/WECC Charge Trust Account in order to pay the WECC any and all NERC/WECC Charges invoiced to the CAISO.

11.20.7 Preliminary and Final NERC/WECC Charge Invoices

The CAISO shall invoice NERC/WECC Charges to Scheduling Coordinators by issuing Preliminary NERC/WECC Charge Invoices and Final NERC/WECC Charge Invoices. The Preliminary NERC/WECC Charge Invoices and Final NERC/WECC Charge Invoices shall be issued in accordance with the schedules set forth in this Section 11.20, provided that the CAISO may issue a Market Notice informing Scheduling Coordinators that the CAISO will implement a temporary modification to that schedule and setting forth the reasons for such modification, in which case the modified schedule described in that Market Notice shall govern.

11.20.7.1 Confirmation

It is the responsibility of each Scheduling Coordinator to notify the CAISO if the Scheduling Coordinator fails to receive a Preliminary NERC/WECC Charge Invoice or a Final NERC/WECC Charge Invoice in

accordance with the applicable schedule. Each Scheduling Coordinator shall be deemed to have received its Preliminary NERC/WECC Charge Invoice or a Final NERC/WECC Charge Invoice on the date specified in the applicable schedule, unless the Scheduling Coordinator notifies the CAISO to the contrary.

11.20.7.2 Validation

Each Scheduling Coordinator shall have the opportunity to review the terms of the Preliminary NERC/WECC Charges Invoices and the Final NERC/WECC Charge Invoices that it receives. The Scheduling Coordinator shall be deemed to have validated each Preliminary NERC/WECC Charge Invoice or Final NERC/WECC Charge Invoice unless it has raised a dispute within ten (10) calendar days from the date of issuance. Once validated, a Preliminary NERC/WECC Charge Invoice or Final NERC/WECC Charge Invoice shall be binding on the Scheduling Coordinator to which it relates.

11.20.7.3 Disputes and Dispute-Related Corrections

Scheduling Coordinators shall be prohibited from disputing any Preliminary NERC/WECC Charge Invoice or Final NERC/WECC Charge Invoice, except on grounds that an error in a Preliminary NERC/WECC Charge Invoice or Final NERC/WECC Charge Invoice is due to a mere typographical or other ministerial error by the CAISO. A Scheduling Coordinator that wishes to dispute a NERC/WECC Charge Invoice on such grounds shall give the CAISO notice of dispute in writing within ten (10) calendar days of issuance. The notice of dispute shall state clearly the issue date of the Preliminary NERC/WECC Charge Invoice or Final NERC/WECC Charge Invoice, the item or calculation disputed, and the reasons for the dispute, and shall be accompanied by all available evidence reasonably required to support the claim. If the Scheduling Coordinator is correct that the Preliminary NERC/WECC Charge Invoice or Final NERC/WECC Charge Invoice contains a typographical or other ministerial error and the resolution of the dispute makes correction necessary, the CAISO shall issue a corrected Preliminary NERC/WECC Charge Invoice or a corrected Final NERC/WECC Charge Invoice within fifteen (15) calendar days of issuance of the invoice that is being corrected.

Each Scheduling Coordinator that receives a Preliminary NERC/WECC Charge Invoice or a Final NERC/WECC Charge Invoice shall pay any net debit and shall be entitled to receive any net credit in a

Preliminary NERC/WECC Charge Invoice or a Final NERC/WECC Charge Invoice on the Payment Date, regardless of whether there is any dispute regarding the amount of the debit or credit. The CAISO will issue corrected Preliminary NERC/WECC Charge Invoices or corrected Final NERC/WECC Charge Invoices if the resolution of a dispute concerning a Preliminary NERC/WECC Charge Invoice or a Final NERC/WECC Charge Invoice, brought pursuant to this Section 11.20, makes such a correction necessary.

11.20.8 Provision of Payments and Information to the WECC

(a) The CAISO will forward to the WECC, at least three (3) Business Days prior to January 2 of each NERC/WECC Charge Assessment Year, (i) the amounts collected pursuant to Final NERC/WECC Charge Invoices for the NERC/WECC Charge Assessment Year and (ii) a list of all Scheduling Coordinators that have failed to make full payment pursuant to their NERC/WECC Charge Invoices and the amounts that are unpaid.

(b) 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.

(c) 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.

11.20.9 Reliability Coordinator Services Charge

11.20.9.1 Responsibility for the Reliability Coordinator Service Charge

(a) Each Scheduling Coordinator, including Scheduling Coordinators that are also RC Customers, shall be obligated to pay the CAISO all of the RC Services Charges it is invoiced by the CAISO in accordance with Section 11.20.9.

(b) The responsibility of each Scheduling Coordinator in the CAISO Balancing Authority Area for the RC Services Charge shall be allocated based on the Scheduling Coordinator's share of the total NERC/WECC Metered Demand for the CAISO'S Balancing Authority Area. A Scheduling Coordinator without any NERC/WECC Metered Demand during an allocation period shall be assessed the minimum RC Services Charge set forth in Appendix F, Schedule 7.

(c) The CAISO's calculation of collateral requirements and other credit requirements under the CAISO Tariff shall include an adjustment for the Scheduling Coordinator's allocable share of the RC Services Charge, if applicable, except that the Estimated Aggregated Liability calculated for the Scheduling Coordinator shall not include extrapolated amounts for the RC Services Charge under Section 12.1.3.1.1(d).

11.20.9.2 Calculation and Assessment

(a) The CAISO will provide Scheduling Coordinators with an RC Services Invoice by the first Business Day of each calendar year for RC Services to be provided during that calendar year, except for the initial period for RC Services. The initial period of RC Services will be invoiced from the RC Services Date, as determined in accordance with Section 19.2(b)(6) through the end of that calendar year, and will be invoiced at the same time the CAISO invoices RC Customers from the year following the initial period. The initial period will be prorated based on the portion of time during the initial calendar year that RC Service are provided.

(b) The CAISO shall calculate the RC Services Charge allocable to each Scheduling

Coordinator by using the RC Services Charge rate for the assessment year determined under Appendix F, Schedule 7, multiplied by the most recent NERC/WECC Metered Demand for that Scheduling Coordinator determined under Section 11.20.4. A Scheduling Coordinator without any such NERC/WECC Metered Demand shall be assessed the minimum RC Services Charge set forth in Appendix F, Schedule 7.

(c) Scheduling Coordinators shall make timely payment to the CAISO within 21 Business Days of the date the invoices were issued pursuant to Section 11.20.9.2(a).

11.20.9.3 Confirmation

(a) It is the responsibility of each Scheduling Coordinator to notify the CAISO if the Scheduling Coordinator fails to receive its invoice for the RC Services Charge in accordance with the schedule in Section 11.20.9.2(a).

(b) Each Scheduling Coordinator shall be deemed to have received its invoice for the RC Services Charge on the date specified in Section 11.20.9.2(a) unless the Scheduling Coordinator notifies the CAISO to the contrary.

11.20.9.4 Validation

(a) Each Scheduling Coordinator shall have the opportunity to review the terms of the invoice for the RC Services Charge and shall be deemed to have validated that invoice unless it raises a dispute within 21 Business Days of the date of issuance.

(b) Once validated, an invoice for the RC Services Charge shall be binding on the Scheduling Coordinator to which it relates.

11.20.9.5 Disputes and Corrections

(a) Scheduling Coordinators shall be prohibited from disputing any RC Services Charge, except on grounds that an error causes the invoiced amount to differ from the amount that would result from the application of the rate set forth in the CAISO Tariff.

(b) Any dispute of an invoice on the grounds specified in Section 11.20.9.5(a) shall be submitted and processed in accordance with the dispute resolution procedures for the RC Services Charge set forth in Sections 19.7 and 19.10.

(c) If the CAISO determines that an invoice contains an error that causes the invoiced

amount to differ from the amount that would result from the application of the rate set forth in the CAISO Tariff, and the resolution of the dispute makes correction necessary, the CAISO will issue a corrected invoice within 21 Business Days of the date the initial invoice was issued.

(d) Each Scheduling Coordinator that receives an invoice for the RC Services Charge shall pay any net debit and shall be entitled to receive any net credit specified on a corrected invoice. Payment of any net debit shall be due within 21 Business Days of the date the corrected invoice was issued.

11.20.9.6 Payment Default.

(a) In the event a Scheduling Coordinator defaults on the payment of all or any portion of the RC Services Charge invoiced under Section 11.20.9.2(c) or 11.20.9.5(d), the CAISO shall have the right under Section 11.29.13.3 to enforce the financial security provided by the defaulting Scheduling Coordinator, and to take any such other action under Sections 11.29.12 or 11.29.13, as necessary, to obtain payment for the default amount.

(b) To the extent all or any portion of the default amount remains unpaid, the CAISO:

(1) may at its discretion issue an invoice for the unpaid RC Services Charge; and

(2) if such invoice is issued for a payment default, shall allocate responsibility for the unpaid amount to Scheduling Coordinators with NERC/WECC Metered Demand, excluding the CAISO Debtor that has not paid the payment default amount, based on the most recent NERC/WECC Metered Demand for each Scheduling Coordinator determined under Section 11.20.

(c) Scheduling Coordinators shall make timely payment to the CAISO within 21 Business Days of the date the default invoices were issued pursuant to Section 11.20.9.6(b).

11.20.9.7 Modification to Schedule

Notwithstanding the provisions in Section 11.20.9, the CAISO may issue a Market Notice informing Scheduling Coordinators that the CAISO will implement a temporary modification to the billing and payment schedule for the RC Services Charge and setting forth the reasons for such modification, in which case the modified schedule described in that Market Notice shall govern.

11.21 Make Whole Payments

11.21.1 Price Corrections for 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 FMM such that either a portion of or the entire cleared CAISO Demand or export Economic Bid curve becomes uneconomic, then the CAISO will calculate and apply the Price Correction Derived LMP for settlement of day-ahead CAISO Demand and exports in Sections 11.2.1.2, 11.2.1.3, and 11.2.1.4, and FMM exports in Section 11.5.1.1. The CAISO shall not calculate and apply a Price Correction Derived LMP for settlement of exports that are part of a Schedule that results from Bids submitted in violation of Section 30.5.5. The CAISO will calculate a Price Correction Derived LMP for each affected CAISO Demand and exports as follows: the total cleared MWhs of CAISO Demand or exports in the Day-Ahead Schedule or FMM 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 FMM Schedule, as applicable. The make-whole payment amount will be calculated on an hourly basis determined by the area between the Scheduling Coordinator's CAISO Demand or Export Bid curve and the corrected LMP, which is calculated as the MWhs for each of the cleared bid segments in the Day-Ahead Schedule or FMM Schedule for the affected resource, multiplied by the maximum of zero or the corrected LMP minus the bid segment price. For the purpose of this calculation, the CAISO will not factor in a make-whole payment amount for Self-Scheduled CAISO Demand or exports. Any non-zero amounts in revenue collected as a result of the application of the Price Correction Derived LMP will be captured through the calculation of the IFM Congestion Charge reflected in Section 11.2.4.1 and the allocation of non-zero amounts of the sum of FMM Instructed Imbalance Energy and RTD Imbalance Energy, Uninstructed Imbalance Energy, and Unaccounted for Energy in accordance with Section 11.5.4.

11.21.2 Price Correction for Settlement of Virtual Awards

If the CAISO corrects an LMP pursuant to Section 35 that affects a Virtual Award such that either a portion or the entirety of the Virtual Bid Curve associated with the Virtual Award becomes uneconomic, then the CAISO will calculate and apply the price correction for settlement of Virtual Awards as follows: the total cleared MWhs of Virtual Awards multiplied by the corrected LMP, plus the make-whole amount.

The make-whole amount for Virtual Demand Awards will be calculated on an hourly basis determined by the area between the Virtual Bid Curve and the corrected LMP, which is calculated as the MWhs in each of the cleared Virtual Bid segments of the Virtual Demand Bid multiplied by the maximum of zero or the corrected LMP minus the Virtual Bid segment price. For Virtual Supply Awards, the make-whole amount will be calculated on an hourly basis determined by the area between the Virtual Bid Curve and the corrected LMP, which is calculated as the MWhs in each of the cleared Virtual Bid segments of the Virtual Supply Bid multiplied by the maximum of zero or the Virtual Bid segment price minus the corrected LMP.

11.21.3 Make Whole Payments for HASP Block Intertie Schedules

11.21.3.1 Eligibility for Make Whole Payments

The CAISO may issue a notice of anticipated or actual Operating Reserve deficiencies either the day before an applicable Trading Day or during an applicable Trading Day. During any Trading Hours in which such a notice is in effect, Scheduling Coordinators with HASP Block Intertie Schedules that bid into the Real-Time Market in accordance with Section 30.5.7.3 or Section 30.5.7.4 and receive an FMM Schedule above their import Day-Ahead Scheduled Energy, if any, or an FMM Schedule below their export Day-Ahead Scheduled Energy will be eligible for an hourly make whole payment for FMM Optimal Energy as described in this Section. If, however, during the intervals in which the CAISO's notice is in effect a Scheduling Coordinator's Intertie resource has either an Under/Over Delivery Quantity in any FMM interval and is subject to the provisions of Section 11.31 or has an Intertie Day-Ahead Schedule that is wholly or partially reversed through an FMM Schedule and is subject to the provisions of Section 11.32, then the Scheduling Coordinator's Intertie resource will not be eligible for the make whole payment described in this Section. HASP Block Intertie Schedules that are part of Wheeling Through transactions are not eligible for the make whole payment described in this Section.

The CAISO may suspend the effectiveness of this Section if the CAISO determines that make whole payments have not resulted in incremental supply. The CAISO may discontinue any suspension or limitation at any time it determines such suspension or limitation is no longer appropriate.

11.21.3.2 Calculation of Make Whole Payments

The CAISO will calculate an hourly make whole payment for each HASP Block Intertie Schedule based upon the FMM Optimal Energy above a Scheduling Coordinator's import Day-Ahead Scheduled Energy

or as FMM Optimal Energy below a Scheduling Coordinator's export Day-Ahead Scheduled Energy. The make-whole payment will equal the positive difference between the Scheduling Coordinator's HASP Block Intertie Schedule Bid price and the relevant hourly average FMM Locational Marginal Prices for the applicable Trading Hour multiplied by the FMM Optimal Energy delivered by the HASP Block Intertie Schedule during that Trading Hour.

11.21.3.3 Allocation of Make Whole Payments Costs

The CAISO will calculate the cost of make whole payments for HASP Block Intertie Schedules in each Settlement Interval of the Trading Hour.

(a) The CAISO will allocate the cost of make whole payments attributed to the CAISO Balancing Authority Area as follows:

(1) Scheduling Coordinators in proportion to their Measured Demand in the same Trading Hour in which the CAISO calculates the make whole payment;

(2) Scheduling Coordinators for Metered Subsystem Operators that have elected (i) not to follow their Load, and (ii) gross Settlement, in proportion to their Measured Demand plus any FMM reductions not associated with valid and balanced Existing Transmission Contracts, Transmission Ownership Rights or Converted Rights Self-Schedules in the Day-Ahead Market in the same Trading Hour in which the CAISO calculates the make whole payment;

(3) Scheduling Coordinators for Metered Subsystem Operators that have elected (i) not to follow their Load and (ii) net Settlement, in proportion to their Metered Subsystem Aggregation Net Measured Demand plus any FMM reductions not associated with valid and balanced Existing Transmission Contracts, Transmission Ownership Rights, or Converted Rights Self-Schedules in the Day-Ahead Market in the same Trading Hour in which the CAISO calculates the make whole payment.

(4) Scheduling Coordinators of Metered Subsystem Operators that have elected to follow their Load, in proportion to their Metered Subsystem Net Negative Uninstructed Deviation plus any FMM reductions not associated with valid and balanced Existing Transmission Contracts, Transmission Ownership Rights, or Converted Rights Self-Schedules in the Day-Ahead Market in the same Trading Hour in which the CAISO calculates the make whole payment.

11.22 Grid Management Charge

11.22.1 CAISO's Obligation

11.22.1.1 FERC's Uniform System of Accounts

The CAISO shall maintain a set of financial statements and records in accordance with the FERC's Uniform System of Accounts.

11.22.1.2 [Not Used]

11.22.2 Costs Recovered Through the Grid Management Charge

The Grid Management Charge shall recover the following costs incurred by the CAISO, as described in more detail in Appendix F, Schedule 1:

(1) CAISO Operating Costs;

(2) CAISO Other Costs and Revenues;

(3) CAISO Financing Costs; and

(4) CAISO Operating Cost Reserve adjustment; and

(5) CAISO Cash-Funded Capital and Project Costs.

11.22.2.1 [Not Used]

11.22.2.2 [Not Used]

11.22.2.3 [Not Used]

11.22.2.4 [Not Used]

11.22.2.5 Allocation of the GMC Among Scheduling Coordinators

The costs will be allocated to the service charges that comprise the Grid Management Charge according to the formula in Appendix F, Schedule 1, Part A. The costs recovered through the Grid Management Charge shall not exceed $202 million for 2024, $245 million for 2025, and $250 million for 2026 and thereafter unless the CAISO submits a tariff amendment increasing this amount pursuant to Section 205 of the FPA and FERC accepts such amendment. The service charges, as described in more detail in Appendix F, Schedule 1, Part A, are as follows:

(a) Market Services Charge;

(b) System Operations Charge (for 2024 and 2025);

(c) System Operations Real-Time Dispatch Charge (for 2026 and thereafter);

(d) System Operations Balancing Authority Area Services Charge (for 2026 and thereafter); and

(e) CRR Services Charge.

As described in the Business Practice Manual, the CAISO assesses these charges separately on all Scheduling Coordinators based on their demand, energy, or ancillary services, as applicable, consistent with the formulae set out in Appendix F, Schedule 1, Part A.

11.22.2.5.1 Market Services Charge

Subject to Section 11.22.4, the Market Services Charge for each Scheduling Coordinator is calculated according to the formula in Appendix F, Schedule 1, Part A.

11.22.2.5.2 System Operations Charge

Subject to Section 11.22.4, the System Operations Charge for each Scheduling Coordinator is calculated according to the formula in Appendix F, Schedule 1, Part A. This charge will expire December 31, 2025, and the charges described in 11.22.2.5.3 and 11.22.2.5.4 will apply thereafter.

11.22.2.5.3 System Operations Real-Time Dispatch Charge

Beginning in 2026, the CAISO will calculate the System Operations Real-Time Dispatch Charge for each Scheduling Coordinator according to the formula in Appendix F, Schedule 1, Part A, subject to Section 11.22.4.

11.22.2.5.4 System Operations Balancing Authority Area Services Charge

Beginning in 2026, the CAISO will calculate the System Operations Balancing Authority Area Services Charge for each Scheduling Coordinator according to the formula in Appendix F, Schedule 1, Part A, subject to Section 11.22.4.

11.22.2.5.5 CRR Services Charge

The CRR Services Charge for each Scheduling Coordinator is calculated according to the formula in Appendix F, Schedule 1, Part A.

11.22.2.6 Calculation and Adjustment of the Grid Management Charge

The charges set forth in Section 11.22.2.5 that comprise the Grid Management Charge shall be calculated annually through the formula set forth in Appendix F, Schedule 1, Part A. The CAISO shall

post on the CAISO Website each year, before the rates go into effect, as described in Appendix F, Schedule 1, Part D, data showing the adjustment to the rates to reflect any change in the annual revenue requirement, variance between forecast and actual costs for the previous year or period, or any surplus revenues from the previous year or period, or the inability to recover from a Scheduling Coordinator its share of the Grid Management Charge, or any under-achievement of a forecast of the billing determinant volumes used to establish the rates. Appendix F, Schedule 1, Part B sets forth the conditions under which a quarterly adjustment to the Grid Management Charge will be made.

11.22.2.6.1 Credits and Debits of the Grid Management Charge

In addition to the adjustments permitted under Section 11.29.7.3.3, the CAISO shall credit or debit, as appropriate, the account of a Scheduling Coordinator for any overpayment or underpayment of the Grid Management Charge that the CAISO determines occurred due to error, omission, or miscalculation by the CAISO or the Scheduling Coordinator.

11.22.3 [Not Used]

11.22.4 TOR Charges

The CAISO will exempt TORs from the Market Services Charge and the system operations charges that are calculated through the formula set forth in Appendix F, Schedule 1, Part A. The TOR Charge will be $0.325/MWh, assessed on the minimum of a Scheduling Coordinator's TOR supply or TOR demand per Settlement Interval. The TOR Charge is subject to adjustment as described in Appendix F, Schedule 1, Part A. The CAISO will credit amounts recovered through the TOR Charge against the revenue requirement for the system operations' real-time dispatch charges.

11.22.5 Bid Segment Fee

Each Scheduling Coordinator submitting a Bid will be subject to a Bid Segment Fee of $0.005 per segment of the Bid. The Bid Segment Fee is subject to adjustment as described in Appendix F, Schedule 1, Part A. The CAISO will credit amounts recovered through the Bid Segment Fee against the revenue requirement for Market Services Charge as described in Appendix F, Schedule 1, Part A.

11.22.6 CRR Transaction Fee

Each Scheduling Coordinator submitting a CRR Allocation nomination or CRR Auction bid will be subject to a CRR Transaction Fee of $1.00 per submitted nomination or bid. The CRR Transaction Fee is subject

to adjustment as described in Appendix F, Schedule 1, Part A. The CAISO will credit amounts recovered through the CRR Transaction Fee against the revenue requirement for CRR Services Charge as described in Appendix F, Schedule 1, Part A.

11.22.7 Inter-Scheduling Coordinator Trade Transaction Fee

Each Scheduling Coordinator submitting an Inter-Scheduling Coordinator Trade will be subject to a Inter-Scheduling Coordinator Trade Transaction Fee of $1.00 per party per Inter-Scheduling Coordinator Trade. The Inter-Scheduling Coordinator Trade Transaction Fee is subject to adjustment as described in Appendix F, Schedule 1, Part A. The CAISO will credit amounts recovered through the Inter-Scheduling Coordinator Trade Transaction Fee against the revenue requirement for Market Services Charge as described in Appendix F, Schedule 1, Part A.

11.22.8 Scheduling Coordinator ID Charge

The Scheduling Coordinator ID Charge for each Scheduling Coordinator is $1,500.00 per month, per Scheduling Coordinator ID Code for any Trading Month in which the Scheduling Coordinator has market activity. The Scheduling Coordinator ID Charge is subject to adjustment as described in Appendix F, Schedule 1, Part A. The CAISO will credit amounts recovered through the Scheduling Coordinator ID Charges against the revenue requirement for Market Services Charges as described in Appendix F, Schedule 1, Part A.

11.23 Penalties for Uninstructed Imbalance Energy

Effective December 1, 2004, the CAISO shall not charge any Uninstructed Deviation Penalties pursuant to this Section 11.23 until FERC issues an order authorizing the CAISO to charge Uninstructed Deviation Penalties pursuant to this section. Beginning with Settlement Statements for the first Trading Day for which FERC authorizes the CAISO to charge Uninstructed Deviation Penalties pursuant to this section, the CAISO shall charge Scheduling Coordinators Uninstructed Deviation Penalties for Uninstructed Imbalance Energy resulting from resource deviations outside a Tolerance Band from their Dispatch Operating Point, for dispatched resources, or their Day-Ahead Schedule otherwise. The Uninstructed Deviation Penalty will be applied as follows:

(a) The Uninstructed Deviation Penalty for negative Uninstructed Imbalance Energy will be

calculated and assessed in each Settlement Interval. The Uninstructed Deviation Penalty for positive Uninstructed Imbalance Energy will be calculated and assessed in each Settlement Interval in which the CAISO has not declared a staged System Emergency;

(b) The Uninstructed Deviation Penalty will apply to pre-Dispatched Bids from Non-Dynamic System Resources identified, when such a pre-Dispatch Instruction is issued more than forty (40) minutes prior to the relevant Operating Hour, subject to the following conditions: (i) the Uninstructed Deviation Penalty will only apply to the pre-Dispatched amount of the Bid that is declined or not delivered, (ii) the Uninstructed Deviation Penalty will not apply to a portion of a pre-Dispatched Bid that is subsequently not delivered at the direction of a Balancing Authority, including the CAISO, due to a curtailment of transmission capability or to prevent curtailment of native firm load occurring subsequent to issuing the pre-Dispatch Instruction, (iii) the Uninstructed Deviation Penalty will not apply to Uninstructed Imbalance Energy resulting from declining subsequent intra-hour Dispatch Instructions. Dynamically scheduled Dynamic System Resources, to the extent they deviate from their Day-Ahead Schedule plus any Dispatch Instructions, will be subject to the Uninstructed Deviation Penalty.

(c) The Uninstructed Deviation Penalty will not apply to Load, Curtailable Demand, or Demand Response Services.

(d) [Not Used]

(e) The Uninstructed Deviation Penalty will not apply to Regulatory Must-Run Generation or Participating Intermittent Resources that meet the scheduling obligations established in the Eligible Intermittent Resources Protocol in Appendix Q. No other applicable charges will be affected by this exemption. The Uninstructed Deviation Penalty also will not apply to Qualifying Facilities (QFs), including those that are dynamically scheduled, that have not executed and are not required pursuant to this CAISO Tariff to execute a Participating Generator Agreement (PGA) or Qualifying Facility Participating Generator Agreement.

(f) All MSS resources designated as Load-following resources pursuant to Section 4.9.13.2 (regardless of gross or net settlement election) are exempt from Uninstructed Deviation

Penalties in this Section 11.23. All MSS resources not designated as Load-following resources pursuant to Section 4.9.13.2 (regardless of gross or net Settlement election) are subject to Uninstructed Deviation Penalties in this Section 11.23.

(g) The Uninstructed Deviation Penalty will apply to Generating Units providing Regulation and dynamically scheduled Dynamic System Resources providing Regulation to the extent that Uninstructed Deviations from such resources exceed each resource's actual Regulation range plus the applicable Tolerance Band. Resources providing Regulation and generating within their relevant Regulating range (or outside their relevant Regulating range as a direct result of CAISO control or instruction) will be deemed to have zero (0) deviations for purposes of the Uninstructed Deviation Penalty.

(h) The Uninstructed Deviation Penalty will be calculated and assessed for each resource individually.

(i) The Uninstructed Deviation Penalty shall not apply to any Uninstructed Imbalance Energy resulting from compliance with a directive by the CAISO or the Reliability Coordinator.

(j) [Not Used]

(k) The Uninstructed Deviation Penalty will not apply when the applicable LMP is negative or zero.

(l) The Uninstructed Deviation Penalty for positive Uninstructed Imbalance Energy will be the amount of the Uninstructed Imbalance Energy in excess of the Tolerance Band multiplied by a price equal to one hundred (100) percent of the corresponding LMP. The relevant LMP will be calculated for each UDP Location as the ten-minute weighted average price of two five-minute Dispatch Interval LMPs and the two five-minute optimal Instructed Imbalance Energy quantities. The net effect of the Uninstructed Deviation Penalty and the Settlement for positive Uninstructed Imbalance Energy beyond the Tolerance Band will be that the CAISO will not issue a credit for such Energy.

(m) The Uninstructed Deviation Penalty for negative Uninstructed Imbalance Energy will be the amount of the Uninstructed Imbalance Energy in excess of the Tolerance Band multiplied by a price equal to fifty (50) percent of the corresponding Resource-Specific

Settlement Interval LMP or, in the case of aggregated resources, the Settlement Interval Penalty Location Real-Time LMP.

(n) The Uninstructed Deviation Penalty will not apply to deviations from Energy delivered as part of a scheduled test so long as the test has been scheduled by the Scheduling Coordinator with the CAISO or the CAISO has initiated the test for the purposes of validating unit performance.

(o) The Uninstructed Deviation Penalty shall not apply to any excess Energy delivered from or any shortfall of Energy not delivered from an Exceptional Dispatch involving a Generating Unit or a System Unit unless the CAISO and the supplier have agreed upon the time of, duration of, and amount of Energy to be delivered in the out-of-market transaction and the CAISO reflects the out-of-market transaction in its Real-Time Expected Energy calculations. The Uninstructed Deviation Penalty shall apply to Energy outside the Tolerance Band from out-of-market transactions with dynamically scheduled Dynamic System Resources to the extent the agreed-to Energy is not delivered or over-delivered, and to any Energy from Non-Dynamic System Resources to the extent the agreed-to Energy is not delivered if that over- or under-delivery was due to action taken by or not taken by the System Resource and not the result of action taken by a Balancing Authority due to a curtailment of firm transmission capability or to prevent curtailment of native firm load occurring subsequent to the out-of-market transaction.

(p) The Uninstructed Deviation Penalty shall not apply to Generating Units and dynamically scheduled Dynamic System Resources with Uninstructed Imbalance Energy if the Generating Unit or dynamically scheduled Dynamic System Resource was physically incapable of delivering the expected Energy or if systems malfunctions prevent receipt of Dispatch Instructions, provided that the Generating Unit or dynamically scheduled Dynamic System Resource had notified the CAISO within thirty (30) minutes of the onset of an event that prevents the resource from performing its obligations. A Generating Unit or dynamically scheduled Dynamic System Resource must notify CAISO operations staff of its reasons for failing to deliver the Expected Energy in accordance with Section

9.3.10.6 and must provide information to the CAISO that verifies the reason the resource failed to comply with the Dispatch Instruction within forty-eight (48) hours of the Operating Hour in which the instruction is issued.

(q) Adjustments to any Generating Unit, Curtailable Demand and System Resource Day-Ahead Schedules or HASP Intertie Schedules made in accordance with the terms of TRTC Instructions for Existing Contracts or TORs shall not be subject to Uninstructed Deviation Penalties. Valid changes to ETC Self-Schedules or TOR Self-Schedules submitted after the close of the HASP or the RTM shall not be subject to Uninstructed Deviation Penalties.

(r) Any changes made to Schedules prior to the CAISO issuing HASP Intertie Schedules shall not be subject to Uninstructed Deviation Penalties.

(s) Uninstructed Deviation Penalties shall not be charged to any deviation from a Dispatch Instruction that does not comply with the requirements set forth in this CAISO Tariff.

(t) Amounts collected as Uninstructed Deviation Penalties shall first be assigned to reduce the portion of above-LMP costs that would otherwise be assigned pro rata to all Scheduling Coordinators in that Settlement Interval. Any remaining portion of amounts collected as Uninstructed Deviation Penalties after satisfying these sequential commitments shall be treated in accordance with Section 11.29.9.6.3.

(u) Condition 2 RMR Units shall be exempt from Uninstructed Deviation Penalties.

(v) The Uninstructed Deviation Penalty shall not apply to positive Uninstructed Imbalance Energy attributable to operation below the Generating Unit's Minimum Operating Limit from the time the Generating Unit synchronizes to the grid to the earlier of (1) the Settlement Interval in which the Generating Unit produces a quantity of Energy that represents an average rate of delivery over such Settlement Interval in excess of the Generating Unit's Minimum Operating Limit plus the applicable Tolerance Band, or (2) the first Settlement Interval after the expiration of a period of time that begins at the end of the Settlement Interval in which the Generating Unit synchronizes to the grid and ends after the Generating Unit's maximum Start-Up Time as specified in the Master File. The

Uninstructed Deviation Penalty shall not apply to any positive Uninstructed Imbalance Energy attributable to operation below the Generating Unit's Minimum Operating Limit for a duration equal to the minimum of two Settlement Intervals or the time specified in the Master File for the Generating Unit to disconnect from the grid after reaching its Minimum Operating Limit following either (1) the last Settlement Interval of an hour in which the Generating Unit had a non-zero Day-Ahead Schedule or (2) the Settlement Interval in which the Generating Unit is expected to reach its Minimum Operating Limit based on the applicable Ramp Rate when the CAISO instructed the Generating Unit to Shut-Down. The amount of Uninstructed Imbalance Energy exempted from the Uninstructed Deviation Penalty shall not exceed the amount of the Generating Unit's Minimum Operating Limit plus the applicable Tolerance Band. This exception from the application of the Uninstructed Deviation Penalty does not apply to Dynamic System Resources.

(w) UDP shall not apply to deviations by a Generating Unit that are attributable to any automatic response to a system disturbance, including a response to correct frequency decay, in accordance with Applicable Reliability Criteria for the duration of the system disturbance, and for an additional five (5) minutes when a Generating Unit's deviation is in the same direction as the mitigating frequency response.

(x) The Uninstructed Deviation Penalty shall not apply in the event that a malfunction in a CAISO system application causes an infeasible Dispatch Instruction to be communicated or prevents timely communication of a Dispatch Instruction or a SLIC malfunction prevents a resource from reporting an event that affects the resource's ability to deliver Energy.

(y) The Uninstructed Deviation Penalty shall not apply to a failure to comply with a manual Dispatch Instruction that is not confirmed by a Dispatch Instruction transmitted through the CAISO's Automated Dispatch System.

(z) The Uninstructed Deviation Penalty shall not apply if a Dispatch Instruction is validated after the start time of the instruction from the Settlement Interval in which the Dispatch Instruction was first effective to the earliest Settlement Interval, inclusive, in which the

resource is able to respond to the Dispatch Instruction.

11.24 [Not Used]

11.24.1 [Not Used]

11.24.2 [Not Used]

11.24.3 [Not Used]

11.24.4 [Not Used]

11.25 Settlement of Flexible Ramping Product

11.25.1 Settlement of Forecasted Movement

11.25.1.1 Generally

The CAISO will settle Forecasted Movement for a direction as specified in this Section 11.25.1 by Balancing Authority Area for each Balancing Authority Area that has a distinct Uncertainty Requirement for that direction, as specified in Section 44.2.4.1, and separately will settle Forecasted Movement for a direction as specified in this Section 11.25.1 for the group of Balancing Authority Areas that shares a common Uncertainty Requirement for that direction, as specified in Section 44.2.4.1.

11.25.1.2 FMM.

The CAISO will settle FMM Forecasted Movement with Scheduling Coordinators as follows, where upward movement is a positive amount and downward movement is a negative amount:

(a) the product of the Forecasted Movement calculated for each resource pursuant to Section 44.3 in MWhs and the applicable FMM Flexible Ramp Up Price; plus

(b) the product of the Forecasted Movement calculated for each resource pursuant to Section 44.3 in MWhs and the product of the applicable FMM Flexible Ramp Down Price and negative one.

11.25.1.3 RTD.

The CAISO will settle RTD Forecasted Movement with Scheduling Coordinators as follows, where upward movement is a positive amount and downward movement is a negative amount:

(a) the product of the difference between the RTD Forecasted Movement and the FMM Forecasted Movement for the relevant Settlement Interval, both calculated for each resource pursuant to Section 44.3 in MWhs, and the applicable RTD Flexible Ramp Up

Price , less any rescission amounts pursuant to section 11.25.3; plus

(b) the product of the difference between the RTD Forecasted Movement and the FMM Forecasted Movement for the relevant Settlement Interval, both calculated for each resource pursuant to Section 44.3 in MWhs, and the product of the applicable RTD Flexible Ramp Down Price and negative one, less any rescission amounts pursuant to section 11.25.3.

11.25.1.4 Allocation of Residual Forecasted Movement Settlements.

For Balancing Authority Areas that share a common Uncertainty Requirement for a direction, as specified in Section 44.2.4.1, the CAISO will settle amounts remaining after settlement of Forecasted Movement pursuant to Section 11.25.1 to each Scheduling Coordinator based on its EIM Demand or metered CAISO Demand in proportion to the total EIM Demand and metered CAISO Demand within that group of Balancing Authority Areas sharing a common Uncertainty Requirement.

For a Balancing Authority Area that has a distinct Uncertainty Requirement for a direction, as specified in Section 44.2.4.1, the CAISO will settle amounts remaining after settlement of Forecasted Movement pursuant to Section 11.25.1 to each Scheduling Coordinator based on its EIM Demand or metered CAISO Demand in proportion to the total EIM Demand or metered CAISO Demand within that single Balancing Authority Area.

11.25.2 Settlement of Uncertainty Requirement

11.25.2.1 Credit to Resources.

On a daily basis, the CAISO will settle Uncertainty Awards to resources for providing the Uncertainty Requirement at the applicable Flexible Ramp Up Price or Flexible Ramp Down Price less any credit rescission for each interval pursuant to Section 11.25.3.

11.25.2.2 Allocation of Costs of Uncertainty Movement Procured.

11.25.2.2.1 Settlement Process.

(a) **Generally.** The CAISO will settle Uncertainty Awards for a direction as specified in this Section 11.25.2.2 by Balancing Authority Area for each Balancing Authority Area that has a distinct Uncertainty Requirement for that direction, as specified in Section 44.2.4.1, or separately will settle Uncertainty Awards for a direction as specified in this Section

11.25.2.2 for the group of Balancing Authority Areas that shares a common Uncertainty Requirement for that direction, as specified in Section 44.2.4.1.

(b) **Daily.** The CAISO will initially –

(1) allocate the cost of the Uncertainty Awards for a direction on a daily basis according to the categories as set forth in Sections 11.25.2.2.2 and 11.25.2.2.3 within the group of Balancing Authority Areas that shares a common Uncertainty Requirement for that direction or within a Balancing Authority Area that has a distinct Uncertainty Requirement for that direction, as applicable; and

(2) allocate the daily amounts to Scheduling Coordinators as set forth in Section 11.25.2.2.4.

(c) **Monthly.** The CAISO will resettle the costs of the Uncertainty Awards by –

(1) reversing the daily allocation;

(2) assigning the monthly costs of the Uncertainty Awards to Peak Flexible Ramp Hours and Off-Peak Flexible Ramp Hours;

(3) separately allocating the monthly Peak Flexible Ramp Hours amounts and Off-Peak Flexible Ramp Hours amounts to the categories as set forth in Sections 11.25.2.2.2 and 11.25.2.2.3 within the group of Balancing Authority Areas that shares a common Uncertainty Requirement for that direction or within a Balancing Authority Area that has a distinct Uncertainty Requirement for that direction, as applicable; and

(4) allocating the monthly amounts in each category to Scheduling Coordinators as set forth in Section 11.25.2.2.4.

11.25.2.2.2 Allocation of Charges to Categories.

(a) **Determination of Uncertainty Movement for Resources.** For each interval, the CAISO will calculate the net Uncertainty Movement of each resource according to the following categories:

(1) for Supply resources other than non-Dynamic System Resources as the difference between the Dispatch Instruction of the binding interval in the next

RTD run and the first advisory RTD interval in the current run.

(2) for non-Dynamic System Resources and export schedules as the difference between the schedule used in the RTD (accounting for ramp) for the binding interval in the next RTD run and the schedule used for the first advisory interval in the current RTD run.

(b) **RTD Uncertainty Movement.** The CAISO will determine the total net RTD Uncertainty Movement for each category separately for the group of Balancing Authority Areas that shares a common Uncertainty Requirement for that direction or a Balancing Authority Area that has a distinct Uncertainty Requirement for that direction, as applicable–

(1) for the category of Supply resources, which shall not include non-Dynamic System Resources, as the net sum of the five-minute Uncertainty Movement determined pursuant to Section 11.25.2.2.2 of all the Supply resources in the category.

(2) for the category of Intertie resources, which shall comprise non-Dynamic System Resources and exports, as the net sum of the five-minute Uncertainty Movement determined pursuant to Section 11.25.2.2 of all the non-Dynamic System resources and export schedules.

(3) for the non-Participating Load category, as the difference between –

(A) the CAISO Forecast of CAISO Demand, the CAISO forecast of Balancing Authority Area EIM Demand, or the CAISO forecast of EIM Area EIM Demand, as applicable, of the binding interval in the next RTD run; and

(B) the CAISO Forecast of CAISO Demand, the CAISO forecast of Balancing Authority Area EIM Demand, or the CAISO forecast of EIM Area EIM Demand, as applicable, for the first advisory interval in the current RTD run.

11.25.2.2.3 Assignment of Uncertainty Costs to Categories.

The CAISO will allocate the total Uncertainty Award cost calculated pursuant to this section 11.25.2.2 to

each category described in Section 11.25.2.2.2(b) based on –

(a) for upward Uncertainty Award cost, the ratio of such category's positive Uncertainty Movement to the sum of the positive Uncertainty Movements of all categories with positive Uncertainty Movement for each Balancing Authority Area within the group of Balancing Authority Areas that shares a common Uncertainty Requirement for that direction or within a Balancing Authority Area that has a distinct Uncertainty Requirement for that direction, as applicable; and

(b) for downward Uncertainty Award costs, the ratio of such category's negative Uncertainty Movement to the sum of the negative Uncertainty Movements of all categories with negative Uncertainty Movement for each Balancing Authority Area within the group of Balancing Authority Areas that shares a common Uncertainty Requirement for that direction or within a Balancing Authority Area that has a distinct Uncertainty Requirement for that direction, as applicable.

11.25.2.2.4 Allocation to Scheduling Coordinators.

(a) **Non-Participating Load Category.** The CAISO will allocate the Uncertainty Awards costs of the non-Participating Load category to Scheduling Coordinators –

(1) for upward Uncertainty Award cost in proportion to the Scheduling Coordinator's negative non-Participating Load UIE, excluding the non-Participating Load of an MSS that has elected to load-follow according to an MSS Agreement, without netting that UIE across Settlement Intervals, to the total of such negative non-Participating Load UIE, without netting that UIE across Settlement Intervals, within the group of Balancing Authority Areas that shares a common Uncertainty Requirement for that direction or within a Balancing Authority Area that has a distinct Uncertainty Requirement for that direction, as applicable, and

(2) for downward Uncertainty Award cost calculated pursuant to Section 11.25, in proportion to the Scheduling Coordinator's daily positive non-Participating Load UIE, excluding the non-Participating Load of an MSS that has elected to load-follow according to an MSS Agreement, without netting that UIE across

Settlement Intervals, to the total of such positive non-Participating Load UIE, without netting that UIE across Settlement Intervals, within the group of Balancing Authority Areas that shares a common Uncertainty Requirement for that direction or within a Balancing Authority Area that has a distinct Uncertainty Requirement for that direction, as applicable.

(b) **Supply Category.** The CAISO will allocate the Uncertainty Awards costs of the Supply category to Scheduling Coordinators for each resource in the Supply category based on the sum of the resource's Uncertainty Movement and UIE –

(1) for upward Uncertainty Award cost in proportion to the Scheduling Coordinator's positive sum of the resource's Uncertainty Movement and UIE, without netting that sum across Settlement Intervals, to the total positive sum of all resources' Uncertainty Movement and UIE, without netting that sum across Settlement Intervals, within the group of Balancing Authority Areas that shares a common Uncertainty Requirement for that direction or within a Balancing Authority Area that has a distinct Uncertainty Requirement for that direction, as applicable; and

(2) for downward Uncertainty Award cost in proportion to the Scheduling Coordinator's negative sum of the resource's Uncertainty Movement and UIE, without netting that sum across Settlement Intervals, to the total negative sum of all resources' Uncertainty Movement and UIE, without netting that sum across Settlement Intervals, within the group of Balancing Authority Areas that shares a common Uncertainty Requirement for that direction or within a Balancing Authority Area that has a distinct Uncertainty Requirement for that direction, as applicable; except that

(3) for the MSS that have elected to load follow pursuant to an MSS Agreement, the CAISO will calculate the positive and negative sums specified above for each Settlement Interval as the sum of MSS non-Participating Load UIE, Supply resources within the MSS UIE, MSS Load Following Energy, MSS Load Following Operational Adjustments, and Uncertainty Movement of resources

within the MSS Aggregation.

(c) **Intertie Category.** The CAISO will allocate the Uncertainty Awards costs of the Intertie category to Scheduling Coordinators for each non-Dynamic System Resource and export based on the sum of the resource's Uncertainty Movement and Operational Adjustment –

(1) for upward Uncertainty Award cost in proportion to the magnitude of the Scheduling Coordinator's negative Operational Adjustment for non-Dynamic System Resources, or positive Operational Adjustment for export resources, to the sum of the magnitudes of such Operational Adjustments within the group of Balancing Authority Areas that shares a common Uncertainty Requirement for that direction or within a Balancing Authority Area that has a distinct Uncertainty Requirement for that direction, as applicable, without netting that sum across Settlement Intervals; and

(2) for downward Uncertainty Award cost in proportion to the magnitude of the Scheduling Coordinator's positive Operational Adjustment for non-Dynamic System Resources, or negative Operational Adjustment for export resources, to the sum of the magnitudes of such Operational Adjustments within the group of Balancing Authority Areas that shares a common Uncertainty Requirement for that direction or within a Balancing Authority Area that has a distinct Uncertainty Requirement for that direction, as applicable, without netting that sum across Settlement Intervals; and

(3) for the purposes of the allocations specified above, the MSS Load Following Operational Adjustment is excluded.

(d) **Uncertainty Award Cost Offset.** If the sum of the settlement of Uncertainty Awards and the charges to Scheduling Coordinators for Uncertainty Award costs is nonzero, either within the group of Balancing Authority Areas that shares a common Uncertainty Requirement for that direction or within a Balancing Authority Area that has a distinct Uncertainty Requirement for that direction, then the CAISO will allocate such amounts to Scheduling Coordinators based on their metered EIM Demand or metered CAISO

Demand in proportion to the total metered EIM Demand and metered CAISO Demand within that group of Balancing Authority Areas sharing a common Uncertainty Requirement for that direction or based on their metered CAISO Demand or metered EIM Demand in proportion to the total metered demand within a Balancing Authority Area that has a distinct Uncertainty Requirement for that direction, respectively.

11.25.3 Rescission

11.25.3.1 Amount of Rescission.

For each Settlement Interval in which a resource has either a UIE deviation or Operational Adjustment and a Flexible Ramping Product settlement, separately for upward and downward, the CAISO will rescind Settlement Amount for the overlap of the UIE or Operational Adjustment and the sum of RTD Forecasted Movement and Uncertainty Award, at the RTD Flexible Ramp Up Price or Flexible Ramp Down Price.

11.25.3.2 Order of Rescission.

The CAISO will apply any rescission amount first to any Uncertainty Award, in the applicable direction, and then apply any remaining rescission amount to Forecasted Movement, in the applicable direction.

11.25.4 [Not Used]

11.25.5 [Not Used]

11.26 [Not Used]

11.27 Voltage Support Charges

The CAISO shall calculate, account for and settle charges and credits for Voltage Support as set out in Sections 11.10.1.4, 11.10.7, and the applicable Business Practice Manual.

11.28 Calculating, Charging and Disbursing Default Interest

The CAISO shall calculate, charge and disburse all collected default Interest in accordance with the CAISO Tariff.

11.29 Accounting, Billing, and Payment

11.29.1 Billing and Payment Process Based on Settlement Statements

The Initial Settlement Statement T+9B and any Recalculation Settlement Statement will constitute the basis for billing in accordance with the CAISO Tariff. The Initial Settlement Statement T+9B will constitute the basis for billing in the first instance. The Recalculation Settlement Statements will constitute the basis

for billing for adjustments to the Initial Settlement Statement T+9B.

11.29.2 One Agreement Will Govern All Settlement, Billing, and Payment

This Section applies to every Business Associate that is a party to more than one agreement with the CAISO that governs settlement, billing and payment. These agreements are: Scheduling Coordinator Agreements, EIM Entity Scheduling Coordinator Agreements (regardless whether the addendum for EDAM is effective), CRR Entity Agreements, the Transmission Control Agreement (for Participating Transmission Owners) and Black Start Agreements. Collectively, these agreements, including any successors to these agreements, are referred to in this Section as "Billing and Payment Agreements." One of the Billing and Payment Agreements between the Business Associate and the CAISO will be designated to govern all CAISO settlements, whether those settlements are under this Section 11, Section 29.11 or Section 33.11, and all billing and payment arising from those settlements, including but not limited to payment and collection of all amounts due from the Business Associate to the CAISO and all amounts due from the CAISO to the Business Associate under all Billing and Payment Agreements between the Business Associate and the CAISO. For avoidance of doubt, Scheduling Coordinators, Candidate CRR Holders, CRR Holders, CRR Entities, Participating Transmission Owners and Black Start Generators that are party to Black Start Agreements are obligated to pay all Invoices and entitled to receive payment on Payment Advices issued to the Business Associate pursuant to Section 11, Section 29.11 or Section 33.11. The designated agreement will be the agreement that appears first on this list:

a) Transmission Control Agreement;

b) Scheduling Coordinator Agreement;

c) EIM Scheduling Coordinator Agreement;

d) CRR Entity Agreement;

e) Black Start Agreement.

If the Business Associate is party to more than one agreement of the same type, such as two or more Scheduling Coordinator Agreements, then the first-executed agreement of that type is designated. Nothing in this Section shall limit or otherwise affect the obligation of the Business Associate to comply with the terms of every Billing and Payment Agreement to which it is a party.

11.29.3 [Not Used]

11.29.4 [Not Used]

11.29.5 General Principles for Production of Settlement Statements

11.29.5.1 Basis of Settlement

The basis of each Settlement Statement will be the debiting or crediting of an account in the name of the relevant Business Associate.

11.29.5.2 Settlement Statements

(a) For each Settlement Period of the Trading Day, the CAISO will calculate for each charge the amounts debited and the amounts credited and shall arrive at a net amount debited or credited. Each of these net amounts will appear in the Settlement Statements that the CAISO will provide to the relevant Business Associate.

(b) The components of the Grid Management Charge will be included in an Initial Settlement Statement T+9B, and any Recalculation Settlement Statement with the other types of charges referred to in Section 11.

11.29.5.3 Data Files

Settlement Statements will be accompanied by data files of supporting information for the relevant Business Associate 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 penalties;

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

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

11.29.5.4 Settlement Software

The CAISO Settlement software will be audited by an independent firm of auditors competent to carry out audits of such software to determine its consistency with the CAISO Tariff. In any dispute regarding Settlement calculations, a certificate from the firm of auditors that the CAISO software is consistent with the CAISO Tariff will be prima facie proof that the charges shown in a Settlement Statement have been calculated in a method consistent with the CAISO Tariff. Nothing in this section will be deemed to establish the burden of proof with respect to Settlement calculations in any proceeding.

11.29.6 [Not Used]

11.29.7 Settlements Cycle

For Section 11.29.7, the use of the uncapitalized term “business day” refers to a day that the CAISO is open for business. This deviates from the formal definition in Appendix A of the capitalized term “Business Day” because it includes certain holidays that are federally recognized but remain regular operation days for the CAISO. Please see the Business Practice Manual for the most current list of affected holidays.

11.29.7.1 Timing of Settlements Process

The CAISO will issue: (i) Initial Settlement Statements T+9B on the ninth (9) business day from the relevant Trading Day (T+9B); (ii) Recalculation Settlement Statements T+70B on the seventieth (70) business day from the relevant Trading Day (T+70B); (iii) Recalculation Settlement Statements T+11M on the two hundred thirty-fourth (234) business day after the Trading Day, which is approximately eleven (11) months after the Trading Day (T+11M), if necessary; (iv) Recalculation Settlement Statements T+21M on the four hundred forty-sixth (446) business day after the Trading Day, which is approximately twenty-one (21) calendar months from the relevant Trading Day (T+21M), if necessary; (v) Recalculation Settlement Statements T+24M on the five hundred twelfth (512) business day after the Trading Day, which is approximately twenty-four (24) calendar months from the relevant Trading Day (T+24M), if necessary and (vi) any Unscheduled Recalculation Settlement Statement issued pursuant to Section 11.29.7.3. The CAISO will issue a Market Notice if a Recalculation Settlement Statement T+11M, Recalculation Settlement Statement T+21M, Recalculation Settlement Statement T+24M, or any Unscheduled Recalculation Settlement Statement pursuant to Section 11.29.7.3 is issued for a Trading Day. The CAISO will notify affected Market Participants regarding failed or late issuance of any

settlement statements specified above and will rectify such failed or late issuance pursuant to its procedure posted on the CAISO Website.

11.29.7.1.1 Initial Settlement Statement T+9B

The CAISO will provide to each Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO for validation an Initial Settlement Statement T+9B for each Trading Day within nine (9) business days of the relevant Trading Day, covering all Settlement Periods in that Trading Day. The Initial Settlement Statement T+9B shall be based on the Settlement Quality Meter Data (actual or Scheduling Coordinator estimated) received in SQMDS. In the event Actual Settlement Quality Meter Data or Scheduling Coordinator Estimated Settlement Quality Meter Data is not received from a Scheduling Coordinator or CAISO Metered Entity, the CAISO will estimate Settlement Quality Meter Data for that outstanding metered Demand or Generation, including Demand Response Resources, for the Initial Settlement Statement T+9B calculation as follows:

(a) CAISO Estimated Settlement Quality Meter Data for metered Generation will be based on total Expected Energy.

(b) CAISO Estimated Settlement Quality Meter Data for metered Demand, including Non-Participating TO demand will be based on Scheduled Demand by the appropriate LAP. This value will be increased by fifteen (15) percent if the total actual system Demand in Real Time, as determined by the CAISO each hour, is greater than the total Scheduled Demand by more than fifteen (15) percent. CAISO Estimated Settlement Quality Meter Demand for Participating Load will not be increased by fifteen (15) percent.

(c) CAISO Estimated Settlement Quality Meter Data for Demand Response will be calculated using the same method as set forth in Section 11.1.4(a) for metered Generation.

(d) To estimate net load for a Metered Subsystem, the CAISO will apply a monthly historical based net/gross ratio to the MSS's estimated gross load. The historical monthly ratio shall be specific to each MSS Operator and shall be calculated as the sum of each entity's monthly actual net load divided by the sum of each entity's monthly actual gross load of the previous year.

11.29.7.1.2 Recalculation Settlement Statements

The CAISO will provide to each Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO Recalculation Settlement Statements in accordance with the CAISO Tariff and the CAISO Payments Calendar. Recalculation Settlement Statements will be in a format similar to that of the Initial Settlement Statement T+9B and will include the same granularity of information provided in the Initial Settlement Statement T+9B as amended following the validation procedure.

11.29.7.1.3 [Not Used]

11.29.7.1.4 [Not Used]

11.29.7.1.5 [Not Used]

11.29.7.2 Interest

Interest will be applied to any incremental changes between Initial Settlement Statement T+9B and Recalculation Settlement Statement T+70B, and thereafter to any incremental changes between each subsequent Recalculation Settlement Statement through Recalculation Settlement Statement T+24M. Interest will be calculated on a daily basis and will apply from the Payment Date for the Invoice of Payment Advice to the Payment Date for the next Recalculation Settlement Statement. The rate of interest will be the interest rate calculated in accordance with 18 C.F.R. Section 35.19a.

11.29.7.2.1 [Not Used]

11.29.7.3 Unscheduled Recalculation Settlement Statements

11.29.7.3.1 Unscheduled Reissue Recalculation Settlement Statement

The CAISO will issue an Unscheduled Reissue Recalculation Settlement Statement to correct a miscalculation that occurred on a Recalculation Settlement Statement T+11M if the following criteria are met:

- The miscalculation occurred as a result of a CAISO data transfer error or other similar data processing error;
- The miscalculation was identified by the CAISO, Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO on a timely basis within the dispute timeline applicable to the Recalculation Settlement Statement; and
- The financial impact of the miscalculation on the market as a whole was greater than

$1,000,000 for the Trading Day. For purposes of determining whether the $1,000,000 threshold for issuing the unscheduled recalculation settlement statement has been met, the CAISO will calculate the financial impact resulting from an error based on the dollar value of the charges that were mistakenly assessed due to the error.

The CAISO will issue a Market Notice to advise the Market Participants that a miscalculation occurred and that it will be corrected in an Unscheduled Reissue Recalculation Settlement Statement. The CAISO will issue the Unscheduled Reissue Recalculation Settlement Statement no less than thirty (30) days after the date that the Market Notice was issued and will include the net adjustment amounts in the next available regularly scheduled invoice. Any miscalculation due to a CAISO data transfer error or other similar data processing error that does not meet the criteria set forth in this section will be corrected on the next Recalculation Settlement Statement T+21M or Recalculation Settlement Statement T+24M as appropriate.

11.29.7.3.2 Unscheduled Directed Recalculation Settlement Statement

Except as provided in 11.29.7.4, the CAISO will not issue Recalculation Settlement Statements other than Recalculation Settlement Statements T+70B; Recalculation Settlement Statements T+11M, Recalculation Settlement Statements T+21M, Recalculation Settlement Statements T+24M, and Unscheduled Reissue Recalculation Settlement Statements unless directed by the CAISO Governing Board or pursuant to a FERC order.

11.29.7.3.3 If an Unscheduled Directed Recalculation Settlement Statement is ordered by the CAISO Governing Board, the CAISO will arrange to have the Recalculation Settlement Statement carried out as soon as is reasonably practicable following the CAISO Governing Board's order, subject to the availability of staff and computer time, compatible software, appropriate data, and other resources.

11.29.7.3.4 The cost of an Unscheduled Directed Recalculation Settlement Statement will be borne by the Business Associate requesting it, unless an additional Recalculation Settlement Statement was needed due to a clerical oversight or error on the part of the CAISO staff.

11.29.7.3.5 Where an Unscheduled Directed Recalculation Settlement Statement indicates that the accounts of Business Associates should be debited or credited to reflect alterations to Settlements previously made under the CAISO Tariff, for those Business Associates affected by the additional

Recalculation Settlement Statement, the CAISO will reflect the amounts to be debited or credited in the next scheduled weekly Invoice or Payment Advice.

11.29.7.3.6 Unscheduled Directed Recalculation Settlement Statements may be invoiced separately from market activities in accordance with Section 11.29.10.3.

11.29.7.4 Settlement Cycle for Trading Days before January 1, 2021

For Trading Days January 1, 2018 through December 31, 2020 only, the following additional rules apply:

11.29.7.4.1 Timing of Settlements Process

Instead of the Settlement Statements identified in Section 11.29.7.1, the CAISO will publish Settlement Statements as follows:

(a) Initial Settlement Statements T+3B on the third (3) business day from the relevant Trading Day (T+3B);

(b) Recalculation Settlement Statements T+12B on the twelfth (12) business day from the relevant Trading Day (T+12B);

(c) Recalculation Settlement Statements T+55B on the fifty-fifth (55) business day from the relevant Trading Day (T+55B);

(d) Recalculation Settlement Statements T+9M on the one-hundred and ninety-fourth (194) business day after the Trading Day, which is approximately nine (9) months after the Trading Day (T+9M), if necessary;

(e) Recalculation Settlement Statements T+18M on the three hundred and eighty third (383) business day after the Trading Day, which is approximately eighteen (18) calendar months from the relevant Trading Day (T+18M), if necessary;

(f) Recalculation Settlement Statements T+33M on the six hundred and ninety-third (693) business day after the Trading Day, which is approximately thirty-three (33) calendar months from the relevant Trading Day (T+33M), if necessary; and

(g) Recalculation Settlement Statements T+36M on the seven hundred and fifty-ninth (759) business day after the Trading Day, which is approximately thirty-six (36) calendar months from the relevant Trading Day (T+36M), if necessary.

11.29.7.4.2 Initial Settlement Statement T+3B

The CAISO will provide to each Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO for validation an Initial Settlement Statement T+3B for each Trading Day within three (3) business days of the relevant Trading Day, covering all Settlement Periods in that Trading Day. Each Initial Settlement Statement T+3B will be solely based on CAISO Estimated Settlement Quality Meter Data in accordance with Section 11.29.7.4.3. The Initial Settlement Statement T+3B will include the following:

(a) the amount payable or receivable by the Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO for each charge referred to in Section 11 for each Settlement Period in the relevant Trading Day;

(b) the total amount payable or receivable by that Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO for each charge in that Trading Day after the amounts payable and the amounts receivable under (a) have been netted off pursuant to Section 11.29; and

(c) the components of each charge.

11.29.7.4.3 CAISO Estimates for Initial Settlement Statement T+3B

Notwithstanding any other provisions of the CAISO Tariff, Initial Settlement Statement T+3B shall be solely based on CAISO Estimated Settlement Quality Meter Data for metered Demand, metered Generation, and Demand Response. CAISO Estimated Settlement Quality Meter Data shall be calculated as follows:

(a) CAISO Estimated Settlement Quality Meter Data for metered Generation will be based on total Expected Energy.

(b) CAISO Estimated Settlement Quality Meter Data for metered Demand, including Non-Participating TO demand, will be based on Scheduled Demand by the appropriate LAP. This value will be increased by fifteen (15) percent if the total actual system Demand in Real Time, as determined by the CAISO each hour, is greater than the total Scheduled Demand by more than fifteen (15) percent. CAISO Estimated Settlement Quality Meter Demand for Participating Load will not be increased by fifteen (15) percent.

(c) CAISO Estimated Settlement Quality Meter Data for Demand Response will be

calculated using the same method as set forth in Section 11.1.4(a) for metered Generation. The Proxy Demand Response Default Load Adjustment will not be estimated or applied for purposes of calculating Initial Settlement Statement T+3B.

(d) To estimate net load for a Metered Subsystem, the CAISO will apply a monthly historical based net/gross ratio to the MSS's estimated gross load. The historical monthly ratio shall be specific to each MSS Operator and shall be calculated as the sum of each entity's monthly actual net load divided by the sum of each entity's monthly actual gross load of the previous year.

(e) The CAISO will estimate E-Tag for Interchange Schedules for System Resources based on total Expected Energy, and for EIM Transfer system resources based on Dispatch Instructions.

(f) The CAISO will not estimate Unaccounted For Energy under Section 11.5.3, Real-Time Imbalance Energy Offset adjustment under Section 11.5.4.1(c), allocation of RTM Bid Cost Up-lift adjustment under Section 11.8.6.3.2(iv), or MSS deviation charges under 11.7.1 for purposes of calculating Initial Settlement Statement T+3B.

11.29.7.4.4 Meter Data and SQMD for Recalculation Settlement State T+12B

(a) The CAISO's Recalculation Settlement Statement T+12B shall be based on the Settlement Quality Meter Data (actual or Scheduling Coordinator estimated) received in SQMDS. In the event Actual Settlement Quality Meter Data or Scheduling Coordinator Estimated Settlement Quality Meter Data is not received from a Scheduling Coordinator or CAISO Metered Entity, the CAISO will estimate Settlement Quality Meter Data for that outstanding metered Demand or Generation, including Demand Response Resources, for the Recalculation Settlement Statement T+12B calculation. CAISO Estimated Settlement Quality Meter Data for metered Generation, metered Demand, and Demand Response will be calculated using the same method as set forth in Section 11.29.7.4.3.

(b) Scheduling Coordinators must submit Actual Settlement Quality Meter Data for the Scheduling Coordinator Metered Entities they represent to the CAISO no later than midnight on the forty-eighth (48) business day after the Trading Day (T+48B) for the Recalculation Settlement Statement T+55B calculation. A Scheduling Coordinator that timely submits Actual Settlement Quality Meter Data for the

Initial Settlement Statement T+12B may submit revised Actual Settlement Quality Meter Data for the Recalculation Settlement Statement T+55B no later than the forty-eighth (48) business day after the Trading Day pursuant to this Section.

(1) When Actual Settlement Quality Meter Data is not received by the CAISO for a Scheduling Coordinator Metered Entity by forty-eight (48) business days after the Trading Day (T+48B), the Scheduling Coordinator has failed to submit complete and accurate meter data as required by Section 37.5.2.1 and will be subject to monetary penalty pursuant to Section 37.5.2.2.

(2) Any Scheduling Coordinator Estimated Settlement Quality Meter Data submitted by a Scheduling Coordinator on behalf of the Scheduling Coordinator Metered Entities it represents that is not replaced with Actual Settlement Quality Meter Data by forty-eight (48) business days after the Trading Day (T+48B) has failed to submit complete and accurate meter data as required by Section 37.5.2.1 and will be subject to monetary penalty pursuant to Section 37.5.2.2. In the absence of Actual Settlement Quality Meter Data, Scheduling Coordinator Estimated Settlement Quality Meter Data will be used in the Recalculation Settlement Statements.

(3) The CAISO will not estimate a Scheduling Coordinator Metered Entity's Settlement Quality Meter Data for any outstanding metered Demand and/or Generation for use in a Recalculation Settlement Statement T+55B calculation. Any previous CAISO Estimated Settlement Quality Meter Data that the Scheduling Coordinator does not replace with Actual Settlement Quality Meter Data by forty-eight (48) business days after the Trading Day (T+48B) will be set to zero. A Scheduling Coordinator that fails to replace CAISO Estimated Settlement Quality Meter Data with Actual Settlement Quality Meter Data by forty-eight (48) business days after the Trading Day (T+48B) has failed to provide complete and accurate Settlement Quality Meter Data as required by Section 37.5.2.1 and will be subject to monetary penalty pursuant to Section 37.5.2.2.

(c) Scheduling Coordinators may submit Actual Settlement Quality Meter Data for the Scheduling Coordinator Metered Entities they represent to the CAISO for use in Recalculation Settlement Statement T+9M up to one hundred seventy two business days after the Trading Day (T+172B). Scheduling Coordinators submitting Actual Settlement Quality Meter Data after forty-eight business days after the Trading Day (T+48B) have failed to provide complete and accurate Settlement Quality Meter Data as required by Section 37.5.2.1 and will be subject to monetary penalty pursuant to Section 37.5.2.2. Any Actual Settlement Quality Meter Data that is submitted by a Scheduling Coordinator after T+172B, will be rejected by the CAISO and not used in settlement calculations.

11.29.7.4.5 Basis for Billing and Payment

Instead of Section 11.29.10.2, the following will apply: The Initial Settlement Statement T+3B and any Recalculation Settlement Statement will constitute the basis for billing in accordance with the CAISO Tariff. The Initial Settlement Statement T+3B will constitute the basis for billing for all charges in the first instance. The Recalculation Settlement Statements will constitute the basis for billing for adjustments to charges set forth in the Initial Settlement Statement T+3B.

11.29.7.4.6 Unscheduled Reissue Recalculation Settlement Statement

The CAISO will issue an Unscheduled Reissue Recalculation Settlement Statement to correct a miscalculation that occurred on a Recalculation Settlement Statement T+9M or Recalculation Settlement Statement T+18M if the criteria stated in Section 11.29.7.3.1 are met. Any miscalculation due to a CAISO data transfer error or other similar data processing error that does not meet these criteria will be corrected on the next Recalculation Settlement Statement T+18M or Recalculation Settlement Statement T+33M as appropriate. If the criteria stated in Section 11.29.7.3.1 are met, the CAISO will follow the process described in that section.

11.29.7.4.7 Review of Initial Settlement Statement T+3B

Each Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO will have the opportunity to review the terms of the Initial Settlement Statement T+3B that it receives. Because this settlement statement is solely based on CAISO Estimated Settlement Quality Meter Data, which will be reconciled to actual data on subsequent Recalculation Settlement Statements, it is not subject to dispute or exception. The Initial Settlement Statement T+3B will be binding on the Scheduling Coordinator, CRR

Holder, Black Start Generator, or Participating TO that it relates to.

11.29.7.4.8 Validation of Recalculation Settlement Statements and Right of Dispute

(a) Each Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO will have the opportunity to review the terms of any Recalculation Settlement Statement that it receives, and the right to dispute items in Recalculation Settlement Statements as described in subsection (b)(ii). The Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO will be deemed to have validated each Recalculation Settlement Statement unless it has raised a dispute or reported an exception that satisfies the requirements of subsection (b). Once validated, a Recalculation Settlement Statement will be binding, meaning that the Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO that it relates to waives any and all right to bring any form of legal or equitable challenge in any forum to any of the charges or credits on the Recalculation Settlement Statement.

(b) A dispute or exception must satisfy requirements (i) through (v) below.

(i) Contents of Notice. The notice of the dispute, if any, must clearly state: the Trading Day; the issue date of the Recalculation Settlement Statement; which Recalculation Settlement Statement contains the disputed item (*i.e.,* T+12B, T+9M, etc.); the item disputed; the reasons for the dispute; and the amount claimed (if appropriate). In addition, the notice of dispute must be accompanied with all available evidence reasonably required to support the claim;

(ii) Items subject to dispute. With respect to a Recalculation Settlement Statement T+12B or a Recalculation Settlement Statement T+55B, any item is subject to dispute except for CAISO or Scheduling Coordinator Estimated Settlement Quality Meter Data. With respect to a Recalculation Settlement Statement T+9M, Recalculation Settlement Statement T+18M, Recalculation Settlement Statement T+33M, the only items subject to dispute are incremental changes that appear on that Recalculation Settlement Statement, meaning a change in dollar value of a specific Charge Code or any new Charge Codes or Trading Day charges appearing for the first time. An incremental change may include the manner in which the CAISO implemented adjustments in response to a dispute that it accepted;

(iii) T+36M not subject to dispute. Recalculation Settlement Statement T+36M will not be subject

to either a dispute by a Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO, or adjustment by the CAISO, except as directed by the CAISO Governing Board or by an order issued by FERC. Nothing herein shall be construed to restrict the right of the CAISO or any Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO to seek redress from FERC in accordance with the Federal Power Act;

(iv) Means of submittal. The notice of dispute must be submitted through the means specified in the Business Practice Manual;

(v) Deadline: A dispute of a Recalculation Settlement Statement T+12B must be submitted no later than fourteen (14) business days from the date of issuance. A dispute of a Recalculation Settlement Statement T+55B, a Recalculation Settlement Statement T+9M, a Recalculation Settlement Statement T+18M, a Recalculation Settlement Statement T+33M, or an Unscheduled Recalculation Settlement Statement issued pursuant to either Section 11.29.7.3 or Section 11.29.7.4.6 must be submitted no later than twenty-two (22) business days from the date of issuance.

11.29.7.4.9 Complex Disputes

The CAISO will make reasonable efforts to reach a determination to approve or deny a complex dispute resulting from: (i) a Recalculation Settlement Statement T+12B, a Recalculation Settlement Statement T+55B, or a Recalculation Settlement Statement T+9M no later than fifteen (15) months after the Trading Day so that any resultant adjustment will be included on the Recalculation Settlement Statement T+18M; and (ii) a Recalculation Settlement Statement T+18M and an Unscheduled Recalculation Settlement Statement, no later than thirty-one (31) months after the Trading Day so that any resultant adjustment will be included on the Recalculation Settlement Statement T+33M.

11.29.8 Confirmation and Validation

For Section 11.29.8, the use of the uncapitalized term “business day” refers to a day that the CAISO is open for business. This deviates from the formal definition in Appendix A of the capitalized term “Business Day” because it includes certain holidays that are federally recognized but remain regular operation days for the CAISO. Please see the Business Practice Manual for the most current list of affected holidays.

11.29.8.1 Confirmation

It is the responsibility of each Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO to notify the CAISO if it fails to receive a Settlement Statement on the date specified for the publication of such Settlement Statement in the CAISO Payments Calendar. Each Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO will be deemed to have received its Settlement Statement on the dates specified, unless it notifies the CAISO to the contrary.

11.29.8.2 Validation of Recalculation Settlement Statements and Right of Dispute

(a) Each Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO will have the opportunity to review the terms of any Settlement Statement that it receives, and the right to dispute items in Settlement Statements described in subsection (b)(ii). The Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO will be deemed to have validated each Settlement Statement unless it has raised a dispute or reported an exception that satisfies the requirements of subsection (b). Once validated, a Settlement Statement will be binding, meaning that the Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO that it relates to waives any and all right to bring any form of legal or equitable challenge in any forum to any of the charges or credits on the Settlement Statement.

(b) A dispute or exception must satisfy requirements (i) through (v) below.

(i) Contents of Notice. The notice of the dispute, if any, must clearly state: the Trading Day; the issue date of the Settlement Statement; which Recalculation Settlement Statement contains the disputed item (*i.e.,* T+9B, T+11M, etc.); the item disputed; the reasons for the dispute; and the amount claimed (if appropriate). In addition, the notice of dispute must be accompanied with all available evidence reasonably required to support the claim;

(ii) Items subject to dispute. With respect to an Initial Settlement Statement T+9B, and Recalculation Settlement Statement T+70B any item is subject to dispute except for CAISO or Scheduling Coordinator Estimated Settlement Quality Meter Data. With respect to a Recalculation Settlement Statement T+11M, Recalculation Settlement Statement T+21M, the only items subject to dispute are incremental changes that appear

on that Recalculation Settlement Statement, meaning a change in dollar value of a specific Charge Code or any new Charge Codes or Trading Day charges appearing for the first time. An incremental change may include the manner in which the CAISO implemented adjustments in response to a dispute that it accepted;

(iii) T+24M not subject to dispute. Recalculation Settlement Statement T+24M will not be subject to either a dispute by a Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO, or adjustment by the CAISO, except as directed by the CAISO Governing Board or by an order issued by FERC. Nothing herein shall be construed to restrict the right of the CAISO or any Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TOs to seek redress from FERC in accordance with the Federal Power Act.

(iv) Means of submittal. The notice of dispute must be submitted through the means specified in the Business Practice Manual;

(v) Deadline: A dispute of a Settlement Statement must be submitted no later than twenty-two (22) business days from the date of issuance.

11.29.8.3 [Not Used]

11.29.8.4 Recurring Disputes or Exceptions

A Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO may request the CAISO to treat as recurring a dispute or exception raised in accordance with Sections 11.29.8.2 above. A request for recurring treatment may be made for any valid reason provided that Settlement Statements for subsequent Trading Days would be affected, including, but not limited to, that the disputed calculation will recur, or that a disagreement as to policy will affect calculations in subsequent Settlement Statements. If a Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO wishes to request that the CAISO treat a dispute as recurring, it must, in the notice, clearly indicate that it requests such treatment and set forth in detail the reasons that support such treatment. To the extent possible, the Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO must state the types of charges and dates to which the dispute will apply, and provide estimates of the amounts that will likely be claimed on each date.

The CAISO will make a determination on such a request within five (5) business days of receipt. To preserve its right to dispute an item, a Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO must continue to raise a dispute or report an exception until it is notified by the CAISO that the CAISO agrees to treat the dispute or exception as recurring. If the CAISO grants a request to treat a dispute or exception as recurring, the dispute raised or exception reported by the Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO will be deemed to apply to every subsequent Settlement Statement provided to the Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO from the date that the CAISO grants the request for recurrent treatment until: a) ninety (90) days have elapsed, unless the CAISO indicates a different expiration date on its response to the request, in which case the expiration date shall be as stated by the CAISO in its response; or b) the dispute or exception is resolved, whichever is shorter. The CAISO may deny a request that the CAISO treat a dispute as recurring for any valid reason, including because the request is not adequately specific as to the basis for recurring treatment or the subsequent calculations that will be affected.

11.29.8.4.1 [Not Used]

11.29.8.4.2 [Not Used]

11.29.8.4.3 [Not Used]

11.29.8.4.4 [Not Used]

11.29.8.4.5 [Not Used]

11.29.8.4.6 [Not Used]

11.29.8.4.7 [Not Used]

11.29.8.4.8 [Not Used]

11.29.8.4.9 [Not Used]

11.29.8.5 CAISO Timeline for Determining Settlement Statement Disputes

The timeline for the CAISO to reach a determination on a settlement statement dispute will be as follows:

(a) The CAISO will reach a determination to approve or deny a dispute, and provide electronic notice of the outcome to the Scheduling Coordinator that submitted the dispute, no later than thirty-one (31) business days after the end of the dispute period for

that settlement statement; with the exception of complex disputes or unless otherwise agreed to by the disputing Scheduling Coordinator. In the event that the CAISO's determination results in an adjustment to credits and/or charges, the CAISO in its notice to the disputing Scheduling Coordinator will identify the subsequent recalculation settlement statement expected to include the adjustment.

(b) Complex settlement statement disputes involve policy considerations, entail extensive research, require granular review of previous market runs, include complicated data or calculations, or depend on additional information to be provided by the disputing Scheduling Coordinator or a third party. The CAISO in its sole discretion may designate a settlement statement dispute to be a complex dispute. The CAISO will advise the disputing Scheduling Coordinator within thirty-one (31) business days after the end of the dispute period for that settlement statement if a dispute is a complex dispute. The CAISO will make reasonable efforts to reach a determination to approve or deny a complex dispute resulting from: (i) an Initial Settlement Statement T+9B no later than nine (9) months after the Trading Day so that any resultant adjustment will be included on the Recalculation Settlement Statement T+11M; and (ii) Recalculation Settlement Statement T+70B or a Recalculation Settlement Statement T+11M and an Unscheduled Recalculation Settlement Statement, no later than nineteen (19) months after the Trading Day so that any resultant adjustment will be included on the Recalculation Settlement Statement T+21M.

11.29.8.6 Payment Pending Dispute

Each Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO that receives an Invoice or Payment Advice must pay any net debit and, subject to the limitations in Section 11.29.17.1, will be entitled to receive any net credit shown in the Invoice or Payment Advice on the Payment Date, whether or not there is any dispute regarding the amount of the debit or credit. The settlement dispute process in Section 11.29.8.2 (or 11.29.7.4.8) will apply to the disputed amount, and any claims related to the outcome of the settlement dispute process will be governed by Section 13.

11.29.8.7 CAISO Determination of Disputes and Further Dispute Resolution

Valid disputes regarding data appearing on a Settlement Statement will be reflected in a later Recalculation Settlement Statement for that Trading Day. If a Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO disagrees with the CAISO's resolution of a dispute, it may initiate dispute resolution under Section 13 of the CAISO Tariff pursuant to the deadlines set forth in Section 13. If a Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO does not initiate dispute resolution under Section 13 of the CAISO Tariff within the time period set forth in Section 13, the Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO will be deemed to have validated the Settlement Statement. Once validated, a Settlement Statement will be binding, meaning that the Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO that it relates to waives any and all right to bring any form of legal or equitable challenge in any forum to any of the charges or credits on the Settlement Statement.

11.29.9 Payment Procedures

11.29.9.1 Payments by and to the CAISO

(a) All Scheduling Coordinators, CRR Holders, Black Start Generators, and Participating TOs shall discharge their obligations to pay the amounts owed by them and shall receive payments of all amounts owed to them solely in accordance with this CAISO Tariff.

(b) All financial transactions are denominated in United States dollars and cents.

(c) All payments by the CAISO to Business Associates or to the CAISO by Business Associates shall be made by electronic means authorized in the Business Practice Manual.

11.29.9.2 CAISO Accounts to be Established

The CAISO is authorized to establish and maintain bank accounts and obtain lines of credit and other banking facilities (not exceeding an aggregate amount set by the CAISO Governing Board) necessary for the operation of its Settlement and billing procedures. Each such account shall be maintained at a bank or other financial institution in California. Unless otherwise specified in this CAISO Tariff the CAISO will recover all costs incurred in connection with these CAISO banking facilities through the appropriate component of the Grid Management Charge. The CAISO shall establish and operate the following accounts:

11.29.9.2.1 A CAISO Clearing Account to and from which all payments under this Section 11.29 are made;

11.29.9.2.2 A CAISO Reserve Account from which any debit balances on the CAISO Clearing Account at the close of banking business on each Business Day shall be settled or reduced in accordance with this CAISO Tariff. The CAISO shall use the Financial Security provided by a Scheduling Coordinator, CRR Holder, or Candidate CRR Holder pursuant to Section 12, if necessary, to clear any debit balances on the CAISO Reserve Account that may arise as a result of that Scheduling Coordinator's or CRR Holder's failure to pay an amount due under this CAISO Tariff;

11.29.9.2.3 A CAISO Surplus Account;

11.29.9.2.4 A CAISO Penalty Reserve Account; and

11.29.9.2.5 Such other accounts as the CAISO deems necessary or convenient for the purpose of efficiently implementing the funds transfer system under this CAISO Tariff. The CAISO shall notify Market Participants of the establishment of such accounts through the CAISO Website and by issuance of a Market Notice.

11.29.9.3 Accounts for Scheduling Coordinators, CRR Holders, Black Start Generators, and Participating TOs

Each Scheduling Coordinator, CRR Holder, Black Start Generator, and Participating TO shall establish and maintain at all times a Settlement Account at a commercial bank located in the United States and reasonably acceptable to the CAISO which can effect money transfers via electronic means as specified in the Business Practice Manual where payments to and from the CAISO Clearing Account shall be made in accordance with this CAISO Tariff. Scheduling Coordinators, CRR Holders, and Black Start Generators may, but will not be required to, maintain separate accounts for receipts and payments. Each Scheduling Coordinator, CRR Holder, and Black Start Generator shall notify the CAISO of its account details and of any changes to those details in accordance with the provisions of its Scheduling Coordinator Agreement, CRR Entity Agreement, or Black Start Agreement. Participating TOs will notify the CAISO of their Settlement Account details in accordance with Section 2.2.1 of their Transmission Control Agreement and may notify the CAISO from time to time of any changes by giving at least seven (7) days written notice before the new account becomes operational.

11.29.9.4 [Not Used]

11.29.9.5 No Co-Mingling

The CAISO shall not co-mingle any funds standing to the credit of a CAISO Account with its other funds and shall promptly withdraw any amounts paid into a CAISO Account representing amounts paid for the account of the CAISO.

11.29.9.6 Use of Accounts

11.29.9.6.1 Clearing Account

(a) Subject to Section 11.29.11.2, and unless the CAISO instructs otherwise pursuant to Section 11.29.11, each CAISO Debtor shall ensure that the amount shown on the Invoice as payable by that CAISO Debtor shall be received into the CAISO Clearing Account for value not later than 10:00 a.m. on the Payment Date.

(b) On the Payment Date, the CAISO shall be entitled to cause the transfer of such amounts held in a Scheduling Coordinator's or CRR Holder's CAISO prepayment account to the CAISO Clearing Account as provided in Section 11.29.11.2.

The CAISO shall calculate the amounts available for distribution to CAISO Creditors on the Payment Date and shall give irrevocable instructions to the CAISO Bank to remit from the CAISO Clearing Account to the relevant Settlement Accounts maintained by the CAISO Creditors, the aggregate amounts determined by the CAISO to be available for payment to CAISO Creditors for value by close of business on the Payment Date if no CAISO Debtors are in default. If a CAISO Debtor is in default and until all defaulting amounts have been collected, the CAISO shall remit payments as soon as practical within five (5) Business Days of the collection date posted in the CAISO Payments Calendar. If required, the CAISO shall instruct the CAISO Bank to transfer amounts from the CAISO Reserve Account to enable the CAISO Clearing Account to clear.

The CAISO is authorized to instruct the CAISO Bank to debit the CAISO Clearing Account and transfer to the relevant CAISO Account sufficient funds to pay in full the Grid Management Charge and FERC Annual Charges falling due on any Payment Date with priority over any other payments to be remitted on that or on subsequent days out of the CAISO Clearing Account.

11.29.9.6.2 Reserve Account

The CAISO Reserve Account shall be available to the CAISO for the purpose of providing funds to clear the CAISO Clearing Account in the event that there are insufficient funds in the CAISO Clearing Account to pay CAISO Creditors. If there are insufficient funds in the CAISO Clearing Account to pay CAISO Creditors and clear the account on any Payment Date due to either payment default by one or more CAISO Debtors or to application of Section 11.29.10.2, the CAISO shall transfer funds from the CAISO Reserve Account to the CAISO Clearing Account to clear it by close of banking business on that Payment Date pursuant to Section 11.29.13.4. If there are excess funds in the CAISO Clearing Account on any Payment Date due to application of Section 11.29.10.2, the CAISO shall transfer the excess funds from the CAISO Clearing Account to the CAISO Reserve Account.

If the CAISO Reserve Account is drawn upon, the CAISO shall as soon as possible begin collection efforts consistent with Section 11.29.20 against the defaulting Scheduling Coordinator or CRR Holder, including making any calculations or taking any other appropriate action in order to replenish the CAISO Reserve Account including drawing on any credit support or other Financial Security provided by the defaulting Scheduling Coordinator or CRR Holder pursuant to Section 12 or serving demands on any defaulting Scheduling Coordinator or CRR Holder if Financial Security has been exhausted or if no Financial Security is available due to establishment of an Unsecured Credit Limit.

11.29.9.6.2.1 Replenishing the CAISO Reserve Account Following Payment Default

If the CAISO has debited the CAISO Reserve Account then:

(a) If, after the CAISO has debited the CAISO Reserve Account on a Payment Date, the CAISO Bank receives a payment from a CAISO Debtor which has not been (but should have been, if it had been received on a timely basis) credited to the CAISO Clearing Account by 10:00 am on the Payment Date and which required the debiting of the CAISO Reserve Account, such payment shall be credited to the CAISO Reserve Account.

(b) The proceeds of any enforcement of Financial Security and/or amounts recovered under proceedings shall be credited to the CAISO Reserve Account in accordance with the priorities specified in Section 11.29.17.3.

(c) If, after taking reasonable action, the CAISO determines that the default amount (or any part) and/or Interest cannot be recovered, the CAISO shall notify Market Participants of

the identity of the defaulting Business Associate together with the unrecoverable amounts and such amounts shall be allocated in accordance with Section 11.29.17 of the CAISO Tariff with corresponding credits to the CAISO Reserve Account. Provided, however, that if the default amount is for an invoice or invoices that were issued after the invoices containing the T+24M Recalculation Settlement Statements for the relevant Trading Days, then CAISO has the option of not allocating in accordance with Section 11.29.17 up to $2,000 of the default amount, and instead using the funds from the CAISO Reserve Account to cover the default amount on a permanent basis.

11.29.9.6.3 Surplus Account

The CAISO shall establish and maintain a bank account denominated the CAISO Surplus Account. The CAISO Surplus Account shall include the following:

(a) Any amounts paid to the CAISO in respect of penalties or Sanctions referred to in Section 11.14 shall be credited to the CAISO Surplus Account, subject, however, to Section 11.29.9.6.1(b).

(b) The funds referred to in Section 11.29.9.6.1(a) pertaining to penalties or Sanctions as provided in Section 11.14 shall first be applied towards any expenses, loss or costs incurred by the CAISO except for that portion of those amounts collected pursuant to 37.9.4. Any excess after such application will be credited to the CAISO Surplus Account pursuant to 11.29.9.6.1(a).

(c) The funds referred to in Section 11.29.9.6.1(a) pertaining to default Interest referred to in Section 11.29.13.1 shall first be applied towards any unpaid CAISO Creditor balances for the Trading Month in which the default Interest was assessed and second to any other unpaid CAISO Creditor balances. Only after all unpaid CAISO Creditor balances are satisfied in full will any excess funds pertaining to default Interest be credited to the CAISO Surplus Account pursuant to Section 11.29.9.6.1(a).

In the event that there are funds in the CAISO Surplus Account in excess of an amount to be determined by the CAISO Governing Board and identified in a Market Notice by the CAISO to Market Participants, the amount of such excess will be distributed to Scheduling Coordinators using the same method of

apportioning the refund as the method employed in apportioning the liability for the Grid Management Charge.

11.29.9.6.4 CAISO Penalty Reserve Account

(a) The CAISO Penalty Reserve Account will be available to the CAISO for the purpose of using funds collected for late payments of amounts set forth in Invoices pursuant to Section 11.29.14(c) and for late postings of Financial Security pursuant to Section 12.5.2(c) to clear the CAISO Clearing Account in the event that there are insufficient funds in the CAISO Clearing Account to pay CAISO Creditors according to the rules in Section 11.29.13.4.. The CAISO Penalty Reserve Account will be an interest-bearing account separate from all other accounts maintained by the CAISO, and no other funds will be commingled in it at any time.

(b) On December 31 of each year, the CAISO will draw any funds then available in the CAISO Penalty Reserve Account in excess of five (5) million dollars and will apply that excess to offset the following year's Grid Management Charge revenue requirement pursuant to Schedule 1 of Appendix F.

(c) If the CAISO Penalty Reserve Account is drawn upon, the CAISO will as soon as possible thereafter begin collection efforts consistent with Section 11.29.20 against the defaulting Scheduling Coordinator or CRR Holder, including making any calculations or taking any other appropriate action in order to replenish the CAISO Penalty Reserve Account, including drawing on any credit support or other Financial Security provided by the defaulting Scheduling Coordinator or CRR Holder pursuant to Section 12 or serving demands on any defaulting Scheduling Coordinator if Financial Security has been exhausted or if no Financial Security is available due to establishment of an Unsecured Credit Limit.

11.29.9.6.4.1 Replenishment Following Payment Default

If the CAISO has debited the CAISO Penalty Reserve Account, then:

(a) If, after the CAISO has debited the CAISO Penalty Reserve Account on a Payment Date, the CAISO Bank receives a payment from a CAISO Debtor which has not been (but should have been, if it

had been received on a timely basis) credited to the CAISO Clearing Account by 10:00 am on the Payment Date and which required the debiting of the CAISO Penalty Reserve Account, such payment shall be credited to the CAISO Penalty Reserve Account, less any amounts due to Market Participants.

(b) The proceeds of any enforcement of Financial Security and/or amounts recovered under proceedings shall be credited to the CAISO Penalty Reserve Account in accordance with the priorities specified in Section 11.29.17.3.

11.29.10 Billing and Payment

The CAISO shall prepare and issue to each Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO an Invoice or Payment Advice on Wednesday of each week, which will be deemed to have been issued on Wednesday if it is issued by 5:00 a.m. the next calendar day. If Wednesday falls on a federal holiday, the CAISO will issue the Invoice or Payment Advice on the next business day. Each Invoice or Payment Advice shall show the amount that is payable by or to each Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO, which amount shall equal the positive or negative total of all net charges reflected on the relevant Settlement Statements, the Payment Date, being the date on which such amounts is to be paid or received, and details of the CAISO Clearing Account to which any amounts owed by or to Scheduling Coordinators, CRR Holder, Black Start Generator, or Participating TO is to be paid. Amounts owed from a Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO that is a CAISO Debtor are expressed as a positive amount on an Invoice. Amounts owed to a Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO that is a CAISO Creditor are expressed as a negative amount on a Payment Advice. Payments for the items referred to in an Invoice shall be made four (4) business days after the date on which the weekly Invoice or Payment Advice is issued. If the fourth (4) business day after an Invoice or Payment Advice is issued falls on a federal holiday, then the Payment Date for the Invoice or Payment Advice shall be the next business day. For Section 11.29.10, the use of the uncapitalized term “business day” refers to a day that the CAISO is open for business. This deviates from the formal definition in Appendix A of the capitalized term “Business Day” because it includes certain holidays that are federally recognized but remain regular operation days for the CAISO. Please see the Business Practice Manual for the most current list of affected holidays.

11.29.10.1 Billing Periods

Each Invoice or Payment Advice will include Settlement Statements as provided in the CAISO Payments Calendar. Each billing period will be shown and totaled separately on the Invoice or Payment Advice but the net Invoice or Payment Advice will reflect the entity's net financial obligations in all billing periods included on the Invoice or Payment Advice.

11.29.10.2 Elimination of Invoices and Payment Advices Under $10.00

Invoices and Payment Advices due to or from any Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO for amounts less than $10.00 will be adjusted to $0.00 and no amount will be due to or from that Scheduling Coordinator, CRR Holder, Black Start Generator, or Participating TO for that Invoice or Payment Advice.

11.29.10.3 Other Invoicing Provisions

The Invoices or Payment Advices will also include any disbursements associated with a shortfall receipt distribution.

A separate Invoice for the FERC Annual Charges due annually will be issued by the CAISO to the Scheduling Coordinator in accordance with Section 11.19.1.2. The CAISO will issue separate Invoices for NERC/WECC Charges as described in Section 11.20.

A shortfall invoice showing the adjustments to payments resulting from any shortfall allocation will be issued by the CAISO to Scheduling Coordinators in the event of a payment default in accordance with Section 11.29.17.1.

In the event of an allocation of a payment default in accordance with Section 11.29.17.2, the CAISO may issue a shortfall invoice to Default-Invoiced SCIDs pursuant to Section 11.29.17.2.1.

Unscheduled Directed Recalculation Settlement Statements, the financial outcomes of CAISO ADR Procedures and any other dispute resolution, amounts due under Black Start Agreements and penalties for paying Invoices or posting Financial Security late may be invoiced separately from market activities. The CAISO shall provide a Market Notice at least five (5) business days prior to such invoicing identifying the components of such Invoice or Payment Advice.

11.29.10.4 Balancing of Market Accounts in Absence of Meter Data

Settlements shall not be cleared for final processing until the accounting trial balance is zero. In order to

publish a Settlement Statement, the CAISO may use estimated, disputed, or calculated Meter Data. When actual verified Meter Data is available and all of the disputes raised by Scheduling Coordinators, CRR Holders, Black Start Generators, and Participating TOs during the validation process described in Section 11.29.8 have been determined, the CAISO shall recalculate the amounts payable and receivable by the affected Scheduling Coordinators, CRR Holders, Black Start Generators, and Participating TOs or by all Scheduling Coordinators, CRR Holders, Black Start Generators, and Participating TOs, if applicable, as soon as reasonably practical and shall show any required adjustments as a debit or credit in the next Settlement Statement.

11.29.10.5 Use of Estimated Data

In the event of an emergency or a failure of any of the CAISO software or business systems, the CAISO may use estimated Settlement Statements and Invoices and Payment Advices and may implement any temporary variation of the timing requirements relating to the Settlement Statements and Invoices and Payment Advices. Details of the variation and the method chosen to produce estimated data, Settlement Statements and Invoices and Payment Advices will be published on the CAISO Website.

11.29.10.6 Payment of Estimated Statements and Invoices

When estimated Settlement Statements and Invoices or Payment Advices are issued by the CAISO, payments between the CAISO and Market Participants shall be made on an estimated basis and the necessary corrections shall be made by the CAISO as soon as practicable. The corrections will be reflected as soon as practicable in later Settlement Statements and Invoices and Payment Advices issued by the CAISO unless the CAISO has authorized the adjustment pursuant to Section 11.29.11. Failure to make such estimated payments shall result in the same consequences as a failure to make actual payments.

11.29.10.7 Validation of Estimated Statements and Invoices

The CAISO shall use its best efforts to verify the estimated data and to make the necessary corrections as soon as practicable. The corrections will be reflected as soon as practicable in later Settlement Statements and Invoices and Payment Advices issued by the CAISO.

11.29.10.8 Estimated Statements to be Final

In the event that the CAISO is of the opinion that, despite its best efforts, it is not possible for it to verify

the estimated data because actual data is not reasonably expected to become available to the CAISO in the foreseeable future, the CAISO shall consult with the Market Participants in order to develop the most appropriate substitute data including using data provided by Market Participants. Following such determination of substitute data, the CAISO shall send to the relevant Market Participants revised Settlement Statements and Invoices and Payment Advices. The provisions of Section 11.29.8.6 shall apply to payment of revised Invoices issued in accordance with these emergency procedures. Failure to make payments of such revised Invoices shall result in the same consequences as a failure to make actual payments.

11.29.11 Instructions for Payment

Unless the CAISO instructs otherwise, each Scheduling Coordinator or CRR Holder shall ensure that the amount shown on the Invoice as payable by that Scheduling Coordinator or CRR Holder is received into the CAISO Clearing Account for value no later than 10:00 a.m. on the Payment Date.

11.29.11.1 Payment in Event of Verifiable Error

In the event of a verifiable error that would be reversed on a future Invoice or Payment Advice, the CAISO may instruct a CAISO Debtor to reduce its payment in the amount of a specific charge reflected on an Invoice. Any such occurrence will not constitute a payment default under the CAISO Tariff. If the CAISO directs such a reduction in payment, it shall make offsetting adjustments on future Invoices or Payment Advices of the Business Associates that received settlement credits corresponding to the verifiably erroneous charge. The CAISO will inform those entities of the adjustments to their Invoices or Payment Advices.

11.29.11.2 Prepayments

(a) A Scheduling Coordinator or CRR Holder may choose to pay at an earlier date than the Payment Date specified in the CAISO Payments Calendar by way of prepayment, provided it notifies the CAISO by electronic means before submitting its prepayment.

(b) Prepayment notifications must specify the dollar amount prepaid.

(c) Prepayments must be made by Scheduling Coordinators or CRR Holders via electronic means authorized in the Business Practice Manual into their CAISO prepayment accounts designated by the CAISO. The relevant Scheduling Coordinator or CRR Holder

shall grant the CAISO a security interest on all funds in its CAISO prepayment account.

(d) On any Payment Date the CAISO shall be entitled to cause funds from the relevant Scheduling Coordinator's or CRR Holder's CAISO prepayment account to be transferred to the CAISO Clearing Account in such amounts as may be necessary to discharge in full that Scheduling Coordinator's or CRR Holder's payment obligation arising in relation to that Payment Date by way of set-off or recoupment.

(e) Any funds held in the relevant Scheduling Coordinator's or CRR Holder's CAISO prepayment account shall be treated as part of that Scheduling Coordinator's or CRR Holder's Financial Security.

(f) Interest (or other income) accruing on the relevant Scheduling Coordinator's or CRR Holder's CAISO prepayment account shall inure to the benefit of that Scheduling Coordinator or CRR Holder and shall be added to the balance of its CAISO prepayment account on a monthly basis.

(g) Funds held in a CAISO prepayment account by a Scheduling Coordinator or CRR Holder may be recouped, offset or applied by the CAISO to any outstanding financial obligations of that Scheduling Coordinator or CRR Holder to the CAISO.

11.29.11.3 System Failure

11.29.11.3.1 At CAISO Debtor's Bank

If any CAISO Debtor becomes aware that a payment will not, or is unlikely to be, received by the CAISO Bank by 10:00 am on the relevant Payment Date for any reason (including failure of the Fedwire or any computer system), it shall immediately notify the CAISO, giving full details of the payment delay (including the reasons for the payment delay). The CAISO Debtor shall make all reasonable efforts to remit payment as soon as possible, by an alternative method if necessary, to ensure that funds are received for value no later than 10:00 am on the Payment Date, or as soon as possible thereafter.

11.29.11.3.2 At the CAISO's Bank

In the event of failure of any electronic transfer system affecting the CAISO Bank, the CAISO shall use reasonable efforts to establish alternative methods of remitting funds to the CAISO Creditors' Settlement Accounts by close of banking business on that Payment Date, or as soon as possible thereafter. The

CAISO shall notify the CAISO Debtors and the CAISO Creditors of occurrence of the system failure and the alternative methods and anticipated time of payment. In the event that a payment is received late by the CAISO Bank due to either a system failure affecting the CAISO Bank or untimely performance of an ACH draft debit for which the CAISO is responsible, the enforcement actions set forth in Section 11.29.14 shall not apply to such late payment.

11.29.12 CAISO's Responsibilities

On the due date for payment of amounts shown in an Invoice, the CAISO shall ascertain whether all amounts required to be received into the CAISO Clearing Account have been credited to it. If any such amount has not been so credited, it shall ascertain which CAISO Debtors have failed to pay the amount owed by them and it may, subject to any notice or cure provisions in this Section 11.29, exercise any rights available under the CAISO Tariff or under applicable law to recover any overdue amount. The obligation of the CAISO to pay CAISO Creditors monies owed for a given billing period shall be limited so that the aggregate liability of the CAISO for such payments does not exceed the sum of

a) the amounts paid to the CAISO Clearing Account for that billing period,
b) additional amounts recovered by the CAISO by enforcing any Financial Security provided by a defaulting CAISO Creditor to cover any shortfall for that billing period, and
c) amounts transferred to the CAISO Clearing Account from the CAISO Reserve Account and the CAISO Penalty Reserve Account pursuant to Section 11.29.9.6.1 to cover any shortfall for that billing period

less GMC due to the CAISO and FERC Annual Charges for the same billing period and amounts shown as due to other internal accounts, such as the balancing accounts for CRRs, RAAIM or penalties issues under Section 37, and adjusted to account for the application of Section 11.29.10.2 to Payment Advices.

11.29.13 Non-Payment by a Scheduling Coordinator or CRR Holder

11.29.13.1 Notification and Interest

If a CAISO Debtor becomes aware that a payment for which it is responsible will not be received into the CAISO Clearing Account on time, it shall immediately notify the CAISO of the fact and the reason for the non-payment. If the CAISO Debtor fails to pay any sum to the CAISO when due and after the CAISO draws upon any available Financial Security provided by the defaulting Scheduling Coordinator or CRR

Holder, the CAISO Debtor shall owe Interest on the overdue amount for the period from the Payment Date to the date on which the payment is received into the CAISO Clearing Account, together with any related transaction costs incurred by the CAISO. The CAISO shall apply all Interest revenue on the default amount according to the accounts or Market Participants that were affected by the default, whether that was CAISO Reserve Account, the Penalty Reserve Account, any other internal accounts, losses allocated on a *pro rata* basis to CAISO Creditors in relation to amounts past due, or, if the default amount was allocated pursuant to Section 11.29.17.2, to Default-Invoiced SCIDs. Interest revenue shall be distributed to accounts in the same order as payment of defaulted receivables set forth in Section 11.29.17.3, in relation to amounts past due in the order of the creation of such debts.

11.29.13.2 Payment Default

Subject to Section 11.29.13.6, if by 10:00 am on a Payment Date the CAISO, in its reasonable opinion, believes that all or any part of any amount due to be received into the CAISO Clearing Account from any CAISO Debtor has not been received and there are insufficient funds in the relevant CAISO Debtor's CAISO prepayment account (the amount of insufficiency being referred to as the "default amount"), the CAISO shall take the following actions to enable the CAISO Clearing Account to clear not later than the close of banking business on the relevant Payment Date.

11.29.13.3 Enforcing the Financial Security of a Defaulting Scheduling Coordinator or CRR Holder

Subject to Section 11.29.13.6, the CAISO shall make reasonable endeavors to enforce the defaulting CAISO Debtor's Financial Security (if any) to the extent necessary to pay the default amount. If it is not practicable to obtain clear funds in time to effect payment to CAISO Creditors on the same day the CAISO shall proceed in accordance with Sections 11.29.13.4 or 11.29.17.1 as applicable.

11.29.13.4 Use of CAISO Reserve Account and CAISO Penalty Reserve Account

If there are funds standing to the credit of the CAISO Reserve Account or the CAISO Penalty Reserve Account (including the proceeds of drawings under banking facilities described in Sections 11.29.9.6.2 and 11.29.9.6.4), the CAISO shall, assuming sufficient funds are available from the one or both accounts to clear the CAISO Market, debit the CAISO Reserve Account, the CAISO Penalty Reserve Account or a combination of the two with the default amount to clear the CAISO Clearing Account and effect payment

to the CAISO Creditors. Provided, however, that the CAISO shall not draw funds from the CAISO Reserve Account for the purpose of covering a payment default that would leave a balance in the CAISO Reserve Account below $1,000.

If funds available from the two accounts combined are not sufficient to clear the market, the CAISO may in its discretion use the funds nevertheless to mitigate the default. In exercising discretion under this rule, the CAISO shall use reasonable diligence to determine what use or expected use of the funds in the reserve accounts would provide the greatest expected benefit to Market Participants overall.

11.29.13.5 Action against a Defaulting CAISO Debtor

The CAISO shall as soon as possible after taking action under 11.29.13.4 take any steps it deems appropriate against the defaulting CAISO Debtor to recover the default amount (and any Interest as set out in Section 11.29.13.3 including enforcing any Financial Security, exercising its rights of recoupment or set-off and/or bringing proceedings against the defaulting CAISO Debtor pursuant to Section 11.29.21.1.

11.29.13.6 Default to be Remedied Promptly

In the event that the CAISO reasonably believes that an outstanding amount which has not been paid by 10:00 am on the relevant Payment Date, is likely to be paid no later than close of banking business on the next Business Day then the CAISO may, but shall not be obliged to, delay enforcing that CAISO Debtor's Financial Security or taking other measures to recover payment until after the close of banking business on the next Business Day but Interest shall nonetheless accrue pursuant to Section 11.29.13.1.

11.29.13.7 Set-Off and Recoupment

The CAISO is authorized to recoup, set off and apply any amount owed on any Payment Advice to which any defaulting CAISO Debtor is or will be entitled, in or towards the satisfaction of any of that CAISO Debtor's debts on any Invoice arising under the CAISO Settlement and billing process.

11.29.13.8 Application of Funds Received

The CAISO shall apply payments received or other amounts collected in connection with default amounts in accordance with Section 11.29.17.3 and, for Interest amounts, Section 11.29.13.1.

11.29.13.9 Interest Accruing while Enforcing the Financial Security

If the CAISO has debited the CAISO Reserve Account or the Penalty Reserve Account and it subsequently succeeds in enforcing the Financial Security provided by the defaulting CAISO Debtor, the

CAISO shall be entitled to withdraw from such Financial Security in addition to the default amount, all costs incurred and Interest accrued to the CAISO as a result of debiting the CAISO Reserve Account or the Penalty Reserve Account from the date of such debit to the date of enforcement of the said Financial Security.

11.29.13.10 [Not Used]

11.29.14 Enforcement Actions for Late Payments

Each Market Participant that is late in paying the amount set forth in an Invoice from the CAISO is subject to the following enforcement actions:

(a) After each of the first four (4) times during a rolling twelve (12) month period that a Market Participant is late in paying the amount set forth in an Invoice from the CAISO, the CAISO will send the delinquent Market Participant a warning notice.

(b) After the fifth time during a rolling twelve (12) month period that a Market Participant is late in paying the amount set forth in an Invoice, the CAISO may revoke the Market Participant's Unsecured Credit Limit and require the Market Participant to post cash or another form of Financial Security reasonably acceptable to the CAISO in lieu of unsecured credit or any other form of Financial Security to secure the Market Participant's financial obligations. The CAISO will require such a cash posting or other form of Financial Security for no fewer than twelve (12) months following the month in which the Market Participant's third delinquency occurs, and the CAISO may then return to the Market Participant all or a portion of the posted cash or other form of Financial Security, reinstate the Market Participant's ability to use an Unsecured Credit Limit, and reinstate the Market Participant's ability to use unsecured credit or other form of Financial Security to secure the Market Participant's financial obligations if, during the intervening time, the Market Participant has timely paid all of the amounts set forth in its Invoices from the CAISO, and timely met any requests for Financial Security pursuant to Section 12.4.

(c) After the fifth time and each subsequent time during a rolling twelve (12) month period that a Market Participant is late in paying the amount set forth in an Invoice, the CAISO

will assess a penalty to the Market Participant equal to the greater of $1,000 or two percent (2%) of the amount set forth in the Invoice that the Market Participant has been late in paying, up to a maximum amount of $20,000 per each late payment for which the CAISO assesses a penalty pursuant to this Section 11.29.14(c). This penalty will be included in the next Invoice to the Market Participant. Penalty amounts collected by the CAISO pursuant to this Section 11.29.14(c) will be treated as set forth in Section 11.29.9.6.4.

(d) After the sixth and any subsequent times during a rolling twelve (12) month period that a Market Participant is late in paying the amount set forth in an Invoice, the CAISO may extend the time period that it imposes the measures described in Section 11.29.14 (b) for the Market Participant's fifth delinquency during a rolling twelve (12) month period.

(e) After the seventh time during a rolling twelve-month period that a Market Participant is late in paying the amount set forth in an Invoice, the CAISO may, notwithstanding any other provision of the CAISO Tariff, (i) suspend any and all rights of the Market Participant under the CAISO Tariff, effective immediately after the CAISO sends written notice of the suspension to the Market Participant, and (ii) terminate any agreement entered into between the CAISO and the Market Participant that allows the Market Participant to participate in the CAISO Markets, effective upon the date the CAISO sends written notice of the termination to the Market Participant or upon the date established in accordance with FERC rules if FERC rules require the CAISO to file the notice of termination with FERC. If the CAISO sends a notice of suspension or termination to a Market Participant pursuant to this Section 11.29.14(e), the Market Participant will not have the right to prevent such suspension or termination by curing its late payment of an amount set forth in an Invoice. The CAISO will, following termination of an agreement pursuant to this Section 11.29.14(e) and within thirty (30) days of being satisfied that no sums remain owing by the Market Participant under the CAISO Tariff, return or release to the Market Participant, as appropriate, any money or credit support provided by such Market Participant to the CAISO under Section 12.

(f) Any time that a Market Participant is late in paying the amount set forth in an Invoice, the CAISO will assess Interest to the Market Participant and will apply Interest payments as set forth in Section 11.29.13.1. Any time that a Market Participant is late in paying the amount set forth in an Invoice, the CAISO may also take other applicable enforcement actions in the CAISO Tariff and in the applicable Business Practice Manual, if deemed necessary by the CAISO to protect the financial integrity of the CAISO Markets.

11.29.15 [Not Used]

11.29.16 Prohibition on Transfers

The CAISO shall at no time instruct the CAISO Bank to transfer any sum from a CAISO Account to another account except as permitted under this CAISO Tariff.

11.29.17 Alternative Payment Procedures

11.29.17.1 Pro Rata Reduction to Payments

If it is not possible to clear the CAISO Clearing Account on a Payment Date because of nonpayment by a CAISO Debtor, which cannot be covered using funds available in the CAISO Reserve Account or the CAISO Penalty Reserve Account, or by enforcing any Financial Security provided by a defaulting CAISO Debtor, the CAISO shall, after deducting Grid Management Charge and FERC Annual Charges in accordance with Section 11.29.9.6.1 and paying amounts shown as due to internal accounts rather than to CAISO Creditors, such as the balancing accounts for CRRs, RAAIM or penalties issued under Section 37, (1) first pay in full every CAISO Creditor whose net amounts receivable on the relevant Payment Date is less than $5,000; and (2) second, reduce payments to all remaining CAISO Creditors proportionately to the net amounts payable to them on the relevant Payment Date to the extent necessary to clear the CAISO Clearing Account through a shortfall allocation. Except to the extent a payment default is on an Invoice that was separate from other market activity under Section 11.29.10.3, each payment default amount allocated to CAISO Creditors through a shortfall allocation under this Section 11.29.17.1 that remains unpaid by the defaulting CAISO Debtor will be allocated as set forth in Section 11.29.17.2. The provisions of this Section 11.29.17.1 shall not apply to the extent the CAISO invokes Section 11.29.11 to direct a CAISO Debtor to not pay charges that are verifiably erroneous, or to non-payment of any penalty amount that a Scheduling Coordinator or CRR Holder has disputed and FERC has specifically authorized

the Scheduling Coordinator or CRR Holder to net its payment to the CAISO by the amount of the penalty in question in accordance with Section 37.9.3.

11.29.17.2 Payment Default Allocation

11.29.17.2.1 Methodology for Allocating Payment Default Amounts

Each payment default amount allocated to CAISO Creditors through a shortfall allocation pursuant to Section 11.29.17.1 and that remains unpaid by the defaulting CAISO Debtor will be allocated on the next practicable Invoices to the Default-Invoiced SCIDs identified in the percentage shares calculated pursuant to Section 11.29.17.2.7 for the relevant calendar quarter, excluding the CAISO Debtor that has not paid the payment default amount. The relevant calendar quarter will be the calendar quarter that included the last full Trading Day before the bankruptcy filing, if the defaulting Market Participant filed for bankruptcy or, if the defaulting Market Participant did not file for bankruptcy, the date of its initial payment default.

Percentage shares for a calendar quarter will be calculated pursuant to the following methodology:

(a) Twenty (20) percent of the payment default amount will be allocated to the Default-Invoiced SCIDs in proportion to the net amounts that were payable in each applicable calendar quarter (and averaged within such calendar quarter) to the Default-Invoiced SCIDs over the applicable Default Look-Back Periods. For Market Participants subject to Default Election option 1, these net amounts will be calculated on an SCID-by-SCID basis. For Market Participants that are eligible for and have chosen Default Election option 2, these net amounts will be calculated by consolidating all of the data for the applicable SCIDs, recognizing any offsetting effect of an individual SCID's positive or negative dollar amount in the consolidated total.

(b) Thirty (30) percent of the payment default amount will be allocated to the Default-Invoiced SCIDs in proportion to the sum of the absolute values of the dollar amounts shown on their Invoices payable or receivable in each applicable calendar quarter (and averaged within such calendar quarter) over the applicable Default Look-Back Periods, after excluding dollar amounts shown on the Invoices for payments and charges for GMC, RMR, and Wheeling Access Charge costs, and after excluding the billing of

Access Charges and the payment of Transmission Revenue Requirements to Participating Transmission Owners. For Market Participants subject to Default Election option 1, the sum of the absolute values of the dollar amounts shown on their Invoices payable or receivable in each applicable calendar quarter will be calculated on an SCID-by-SCID basis. For Market Participants that are eligible for and have chosen Default Election option 2, the absolute values of the net sum of the dollar amounts shown on their Invoices payable or receivable in each applicable calendar quarter will be calculated by consolidating all of the data for the applicable SCIDs, recognizing any offsetting effect of an individual SCID's positive or negative dollar amount in the consolidated total.

(c) Fifty (50) percent of the payment default amount will be allocated to the Default-Invoiced SCIDs in proportion to the largest of the following five (5) amounts calculated in MWh for every month in each applicable calendar quarter (and averaged within such calendar quarter) for each Default-Invoiced SCID over the applicable Default Look-Back Periods using data from T+70B Recalculation Settlement Statements or, when it is not yet available, data from T+9B Recalculation Settlement Statements:

(1) Cleared Day-Ahead Schedules to supply Energy, plus Day-Ahead Ancillary Services Awards and qualified Self-Provided Ancillary Services, plus scheduled supply obligation for Ancillary Services (including imports but excluding RUC Schedules), plus Virtual Supply Awards;

(2) Metered Generation, plus Real-Time Interchange Import Schedules, plus Real-Time Ancillary Services Awards and qualified Self-Provided Ancillary Services, plus FMM Ancillary Services Awards and qualified Self-Provided Ancillary Services, plus Real-Time supply obligation for Ancillary Services;

(3) Cleared Day-Ahead Schedules for Demand (including Demand served by Pumped-Storage Hydro Units and exports) multiplied by one-hundred three (103) percent to reflect Transmission Losses, plus scheduled demand obligation for Ancillary Services, plus Virtual Demand Awards;

(4) Metered Load multiplied by one-hundred three (103) percent to reflect Transmission Losses, plus Real-Time Interchange Export Schedules, plus Real- Time demand obligation for Ancillary Services; or

(5) The greater of (A) the quantity of CRRs acquired in CRR Auctions or transferred through the Secondary Registration System (excluding CRRs acquired in CRR Allocations) or (B) Inter-SC Trades of Energy.

For Market Participants subject to Default Election option 1, each of the five (5) amounts calculated in MWh for every month in each applicable calendar quarter (and averaged within such calendar quarter) will be calculated on an SCID-by-SCID basis. For Market Participants that are eligible for and have chosen Default Election option 2, each of the five (5) amounts calculated in MWh for every month in each applicable calendar quarter (and averaged within such calendar quarter) will be calculated by consolidating all of the data for the applicable SCIDs.

11.29.17.2.2 [Not Used]

11.29.17.2.3 Interest on Allocated Payment Default Amounts

In accordance with Section 11.29.7.2, Interest will be charged to Default-Invoiced SCIDs pursuant to Section 11.29.17.2.1 or to SCIDs pursuant to Section 11.29.17.2.2 to the extent the payment default amounts allocated to those Default-Invoiced SCIDs or SCIDs exceed the payment default amounts allocated to them through a shortfall allocation pursuant to Section 11.29.17.1, and Interest will be paid to Default-Invoiced SCIDs pursuant to Section 11.29.17.2.1 or to SCIDs pursuant to Section 11.29.17.2.2 to the extent the payment default amounts allocated to those Default-Invoiced SCIDs or SCIDs are exceeded by the payment default amounts allocated to them through a shortfall allocation pursuant to Section 11.29.17.1, for the period between the date of the shortfall allocation and the date payments are due for the Invoices on which the allocation of the payment default amounts appear. The Interest payable pursuant to this Section 11.29.17.2.3 will be included on the Invoices on which the allocation of the payment default amounts appear.

11.29.17.2.4 Default Election

(a) Each Market Participant that is a Scheduling Coordinator, a CRR Holder, a Candidate CRR Holder, or a PTO will make an election of either option 1 or option 2 under this

Section 11.29.17.2.4, which will be the Market Participant's Default Election until such time as a subsequent change by the Market Participant of its Default Election from option 1 to option 2 (or vice versa) goes into effect. Each Market Participant that is a Scheduling Coordinator, a CRR Holder, a Candidate CRR Holder, or a PTO shall make only a single Default Election regardless of whether that Market Participant has multiple effective contracts with the CAISO that cause the entity to be a Market Participant. For example, an entity that has signed a Scheduling Coordinator Agreement and a CRR Entity Agreement shall only make a single Default Election.

(i) Option 1: For such Market Participants that choose Default Election option 1, the methodology for allocating payment default amounts set forth in Section 11.29.17.2.1 will apply to each SCID of such Market Participant on an SCID-by-SCID basis, and each SCID of such Market Participant will be a Default-Invoiced SCID.

(ii) Option 2: In order to qualify for Default Election option 2, all of the SCIDs of a Market Participant with one or more effective contracts with the CAISO must certify that they meet one of the following criteria, and the entity must agree that the methodology for allocating payment default amounts set forth in Section 11.29.17.2.1 will apply to all SCIDs created for use under all of the effective contracts with the CAISO based on a consolidation of data for all such SCIDs:

(1) All of the SCIDs are associated with Affiliates or business units under common control where one or more of the Affiliates or business units or a related business entity has more than fifty (50) percent control of the Affiliates or business units, either directly or through one or more intermediaries;

(2) All of the SCIDs are associated with a Joint Powers Authority; or

(3) All of the SCIDs are associated with a municipal utility or state or federal agency.

Each Market Participant that chooses Default Election option 2 will at the same

time select a single SCID to be the sole Default-Invoiced SCID under option 2. This Default-Invoiced SCID will receive Invoices containing payment default amounts allocated on behalf of all of the SCIDs under all contracts between the entity and the CAISO. Allocation of payment default amounts for entities choosing Default Election option 2 will be based on consolidated data from all of the entity's SCIDs. The selection of a single SCID as the sole Default-Invoiced SCID will not in any way relieve any Market Participant subject to Default Election option 2 of any obligation to pay Invoices, including in the event of a default by the Default-Invoiced SCID on a default payment obligation, in which case the CAISO will be entitled to utilize all available Financial Security provided by any defaulting Market Participant subject to Default Election option 2.

(b) [Not Used]

(c) Market Participants may change their Default Elections by October 1 of each calendar year by notifying the CAISO, to become effective on January 1 of the next calendar year. Market Participants that do not change their Default Elections by that date will be deemed to have chosen to continue their current Default Elections.

(d) Each entity that becomes a Scheduling Coordinator, a CRR Holder, a Candidate CRR Holder, or a PTO after one of the dates set forth in Section 11.29.17.2.4(a), -(b), or -(c) will make its Default Election prior to engaging in any transactions in the CAISO Markets. The Default Election of each such entity will remain in effect until the entity makes another Default Election pursuant to this Section 11.29.17.2.4. However, any Market Participant that has already made a Default Election will not be eligible to change its Default Election as a result of its subsequently also becoming a Scheduling Coordinator, a CRR Holder, a Candidate CRR Holder, or a PTO.

(e) Market Participants that do not timely inform the CAISO of their initial Default Elections will be deemed to have chosen Default Election option 1.

11.29.17.2.5 Effect of Change in Default Election

Each time that a Market Participant changes its Default Election pursuant to Section 11.29.17.2.4 from

option 1 to option 2 (or vice versa), the following provisions will apply:

(a) For the first quarter of the calendar year after the change in Default Election goes into effect, the Default-Invoiced SCID(s) will be allocated shares of payment default amounts calculated pursuant to Section 11.29.17.2.1 based on application of the prior election to the first three (3) full calendar quarters of data within the Default Look-Back Period and application of the new election to the most recent full calendar quarter of data within the Default Look-Back Period.

(b) For the second quarter of the calendar year after the change in Default Election goes into effect, the Default-Invoiced SCID(s) will be allocated shares of payment default amounts calculated pursuant to Section 11.29.17.2.1 based on application of the prior election to the first two (2) full calendar quarters of data within the Default Look-Back Period and application of the new election to the most recent two (2) full calendar quarters of data within the Default Look-Back Period.

(c) For the third quarter of the calendar year after the change in Default Election goes into effect, the new Default-Invoiced SCID(s) will be allocated shares of payment default amounts calculated pursuant to Section 11.29.17.2.1 based on application of the prior election to the first full calendar quarter of data within the Default Look-Back Period and application of the new election to the most recent three (3) full calendar quarters of data within the Default Look-Back Period.

(d) For the fourth quarter of the calendar year after the change in Default Election goes into effect, the Default-Invoiced SCID(s) will be allocated shares of payment default amounts calculated pursuant to Section 11.29.17.2.1 based on application of the new election to the entire Default Look-Back Period.

11.29.17.2.6 Default Look-Back Period

(a) The following provisions will apply to each Default-Invoiced SCID for an entity that is a new Market Participant that begins to participate in the CAISO Markets following the effective date of this Section 11.29.17.2.6:

(i) The Default-Invoiced SCID for that Market Participant will first be subject to

allocation of payment default amounts under Section 11.29.17.2.1 in the second calendar quarter following the calendar quarter in which the Market Participant begins to participate in the CAISO Markets and the applicable Default Look-Back Period will be the calendar quarter in which the Market Participant began to participate in the CAISO Markets.

(ii) For the third calendar quarter following the calendar quarter in which the Market Participant begins to participate in the CAISO Markets, the applicable Default Look-Back Period will be the Market Participant's first two (2) calendar quarters of participation in the CAISO Markets.

(iii) For the fourth calendar quarter following the calendar quarter in which the Market Participant begins to participate in the CAISO Markets, the applicable Default Look-Back Period will be the Market Participant's first three (3) calendar quarters of participation in the CAISO Markets.

(iv) For any subsequent calendar quarter in which Section 11.29.17.2.1 is in effect, the applicable Default Look-Back Period will be a total of four (4) full calendar quarters.

11.29.17.2.7 Provision of Information on Percentage Shares

Beginning with the second calendar quarter of 2011, the CAISO will provide to each Default-Invoiced SCID on or about the first Business Day of the applicable calendar quarter its own percentage share of any payment default amount for the calendar quarter that is beginning, subject to adjustment to account for any non-paying CAISO Debtor, based on application of the methodology for allocating payment default amounts set forth in Section 11.29.17.2.1 to the applicable Default Look-Back Period. In calculating the percentage share for each Default-Invoiced SCID pursuant to this Section 11.29.17.2.7, the CAISO will determine the percentage share for each full calendar quarter and will average those quarterly percentage shares.

11.29.17.2.8 Scope of Payment Default Allocation Provisions

The provisions of Section 11.29.17.2 will not apply to the allocation of payment default amounts and interest accrued thereon that are associated with Trading Days that occurred prior to April 1, 2009.

11.29.17.3 Payment of Defaulted Receivables

Collections or any other receipt of defaulted receivables (other than Interest) will be distributed according to the following priorities: First, to any GMC that the CAISO did not receive as a result of any debtor's defaults. Second, to any FERC Annual Charges that were not received as a result of any debtor's defaults. Third, to any internal accounts, for example balancing accounts for CRRs or RAAIM, that were not paid in full as a result of the debtor's defaults. Fourth, to the CAISO Reserve Account to the extent funds were used to cover the debtor's payment default.

Fifth, either *pro rata* to CAISO Creditors for the Payment Advices that were subject to default or, if the defaulted receivables we allocated pursuant to Section 11.29.17.2, to Default-Invoiced SCIDs in proportion to their allocated shares of the defaulted receivables as calculated pursuant to Section 11.29.17.2.1 for the Payment Advice on which the payment default occurred. In either case, distributions will begin with the oldest Payment Advice that has unpaid amounts as a result of the debtor's default. These distributions to unpaid market creditors may be timed in order to reduce the associated administrative burden according to the following rules:

(1) If the total available for payment is less than $5,000, then the funds shall accumulate in an interest-bearing account until either: (a) the account exceeds $5,000, (b) there have been no distributions from the account for six months, or (c) all defaults for a given Payment Advice are available for payment.

(2) If all CAISO Creditors for that Payment Advice have been paid, then the proceeds will either be paid *pro rata* to the CAISO Creditors in the oldest unpaid Payment Advice, or, if the defaulted receivables are allocated pursuant to Section 11.29.17.2, the proceeds will be paid to the Default-Invoiced SCIDs in proportion to their allocated shares of the default amount, as calculated pursuant to Section 11.29.17.2.1 in the oldest unpaid Payment Advice.

(3) All defaulted receivables disbursed under this Section shall be disbursed in accordance with the timeframes set forth in Section 11.29.9.6.1.

Sixth, to the Penalty Reserve Account to the extent funds were used to cover the debtor's payment

default. Seventh, any remaining balance to the CAISO Reserve Account.

11.29.18 [Not Used]

11.29.19 Payment Errors

11.29.19.1 Overpayments

If for any reason, including the negligence of the CAISO Bank or the CAISO, a CAISO Creditor receives an overpayment on any Payment Date, the CAISO Creditor shall within two (2) Business Days from the date of receipt of the funds into its Scheduling Coordinator or CRR Holder Settlement Account, notify the CAISO of the amount of the overpayment and shall forthwith pay the overpayment into a CAISO Account specified by the CAISO.

11.29.19.2 Repayment of Overpayment

If prior to a CAISO Creditor notifying the CAISO of the overpayment, the CAISO receives notice (from the CAISO Bank or otherwise) of the overpayment, the CAISO shall within two (2) Business Days notify the recipient of the overpayment. The CAISO shall be responsible for payment to those entitled to the sum which has been overpaid.

11.29.19.3 Overpayment Held in Trust

Until a CAISO Creditor refunds the overpayment to the CAISO, the CAISO Creditor shall be deemed to hold the amount of such overpayment on trust for CAISO.

11.29.19.4 Interest on Overpayment

(a) If an overpayment is repaid by a CAISO Creditor in accordance with Section 11.29.19.1, the CAISO shall be entitled to interest on the amount of the overpayment at the prime rate of the bank where the Settlement Account of the overpaid CAISO Creditor is located from the date the overpayment was received to the time that the repayment is credited to the relevant CAISO Account.

(b) If the overpayment (or any part of it) is not repaid by a CAISO Creditor in accordance with Section 11.29.19.1, the CAISO shall be entitled to Interest on the amount of the overpayment from the end of the two day period referred to in that section until the repayment is credited to the relevant CAISO Account and the CAISO will be entitled to treat the overpayment (and any Interest accruing thereon) as a default amount to which

Section 11.29.13.2 will apply.

11.29.19.5 Treatment of Amounts Outstanding as a Result of Overpayment

The CAISO shall apply the amount of any overpayment repaid (including interest received) to credit any underpaid CAISO Creditors pro rata to the amounts of their underpayments on the same day of receipt, or if not practicable, on the following Business Day.

11.29.19.6 Underpayments

If for any reason, including the negligence of the CAISO Bank or the CAISO, a CAISO Creditor receives on the relevant Payment Date an underpayment, the CAISO Creditor shall within two (2) Business Days from receipt into its Settlement Account, notify the CAISO of the amount of the underpayment, and the CAISO after consultation with the CAISO Bank, shall use all reasonable endeavors to identify such entity as shall have received any corresponding overpayment and promptly correct the underpayment. If, by reason of negligence, the CAISO holds or has under its control after five (5) Business Days from receipt in the CAISO Clearing Account amounts which it ought properly to have paid to CAISO Creditors, such CAISO Creditors shall be entitled to interest on such amounts, for such period as the CAISO improperly holds or has such amounts under its control.

11.29.20 Defaults

In addition to and not in lieu of any other events specified in this CAISO Tariff as constituting a default, the occurrence of any of the following events shall constitute a default under this CAISO Tariff:

(a) If a Scheduling Coordinator or CRR Holder files a petition or otherwise commences, authorizes, or acquiesces in the commencement of a case, petition, proceeding, or cause of action under any bankruptcy or insolvency law or similar law for the protection of debtors or creditors; or

(b) If a Scheduling Coordinator or CRR Holder has a petition, case, proceeding or cause of action filed or commenced against it and such case, petition, proceeding or cause of action is not withdrawn or dismissed within (30) days after such filing or commencement;

In the event of any default under the CAISO Tariff, the CAISO shall, in addition to any other remedies available at law in equity or under the CAISO Tariff, have the sole and exclusive right to take debt collection action against a Scheduling Coordinator or CRR Holder on account of a default under the terms

of the CAISO Tariff. The CAISO shall make commercially reasonable endeavors to prevent any payment default or recover any default amount. The CAISO shall be entitled to recover from the defaulting Scheduling Coordinator or CRR Holder all costs and expenses associated with its collection efforts, including Interest, attorney's fees, and any related transaction costs as provided in Section 11.29.13.1. In the event of a default by a Participating TO, Black Start Generator, or other Business Associate, the provisions of this CAISO Tariff that apply to defaults by a Scheduling Coordinator or CRR Holder shall apply equally.

11.29.21 [Not Used]

11.29.22 Data Gathering and Storage

11.29.22.1 Required Capabilities

The CAISO shall ensure that the Settlement process shall contain, at a minimum, the following data gathering and storage capabilities:

(a) the accurate, time-sequenced, end-to-end traceability of the Settlements process so that Scheduling Coordinators, CRR Holders and Participating TOs can fully verify their Settlement Statements;

(b) the ability to specify and accept data that is specifically needed for audit trail requirements; and

(c) the archiving of Meter Data, Settlement runs and other information used to prepare Settlement Statements to be consistent with the time frame required to re-run the Settlement process by state laws and the rules of the Local Regulatory Authority.

11.29.22.2 Data Dissemination

Data shall not be disseminated by the CAISO except as permitted in this CAISO Tariff.

11.29.23 Communications

The Initial Settlement Statement T+9B, any Recalculation Settlement Statement, and Invoices, and Payment Advices will be considered issued to CAISO Creditors or CAISO Debtors when released by the CAISO's secure communication system. Communications on a Payment Date relating to payment shall be made by the fastest practical means including by telephone. If there is a failure of a communication system and it is not possible to communicate by electronic means, then the CAISO or CAISO Creditor or

CAISO Debtor, as the case may be, shall communicate by facsimile but only if the recipient is first advised by telephone to expect the facsimile. Methods of communication between the CAISO and Market Participants may be varied by the CAISO giving not less than ten (10) days notice to Market Participants on the CAISO's secure communication system.

11.29.24 CAISO Payments Calendar

11.29.24.1 Preparation

In September of each year, the CAISO will prepare a draft CAISO Payments Calendar for the following calendar year showing for each Trading Day:

(a) The date by which Scheduling Coordinators are required to provide Actual Settlement Quality Meter Data or Scheduling Coordinator Estimated Settlement Quality Meter Data for all their Scheduling Coordinator Metered Entities for each Settlement Period in the Trading Day;

(b) The date on which the CAISO will issue Initial Settlement Statements T+9B and Invoices and Payment Advices for that Trading Day;

(c) The date on which the CAISO will issue the Recalculation Settlement Statements T+70B; T+11M, T+21M, and T+24M, and Invoices and Payment Advices for that Trading Day;

(d) The dates by which Scheduling Coordinators, CRR Holders, Black Start Generators, and Participating TOs are required to notify the CAISO of any disputes in relation to their Initial Settlement Statements T+9B, Recalculation Settlement Statements T+70B, T+11M, and T+21M;

(e) The date and time by which CAISO Debtors are required to have made payments into the CAISO Clearing Account in payment of Invoices for that Trading Day;

(f) The dates and times on which the CAISO Clearing Account will remit payments to the CAISO Creditors of amounts owing to them for that Trading Day; and

(g) In relation to RMR Charges and RMR compensation, the details are set out in Sections 11.13 and 41 and Appendix H for Legacy RMR Units.

The CAISO will make a draft of the CAISO Payments Calendar available on the CAISO Website to Scheduling Coordinators, CRR Holders, Black Start Generators, Participating TOs, and RMR Owners that

may submit comments and objections to the CAISO within two weeks of the date of posting of the draft on the CAISO Website. No later than October 31 in each year, the CAISO will publish the final CAISO Payments Calendar for the following calendar year, after considering the comments and objections received from Scheduling Coordinators, CRR Holders, Black Start Generators, Participating TOs, and RMR Owners. The final CAISO Payments Calendar will be posted on the CAISO Website, and will show for the period from January 1 to December 31 in the next succeeding year (both dates inclusive), the dates that Settlement Statements will be published by the CAISO and the Payment Dates that the CAISO will pay the Participating TOs the Wheeling revenues allocated to them pursuant to Section 26.1.4.3.

11.29.24.2 Distribution

Any CAISO Payments Calendar prepared pursuant to this Section 11.29.24 will be distributed promptly to each Scheduling Coordinator, each Participating TO, the CAISO Bank, the CAISO Audit Committee, and the CAISO Governing Board and will be published on the CAISO Website.

11.29.24.3 Final Calendar Binding

The final CAISO Payments Calendar shall be binding on the CAISO and on Scheduling Coordinators, CRR Holders, Black Start Generators, Participating TOs and RMR Owners.

11.29.24.4 Calendar Content and Format

The CAISO may change the content or format of the CAISO Payments Calendar. The CAISO may also produce a summary outline of the Settlement and billing cycles.

11.29.24.5 Update the Final Payments Calendar

If, as a result of an amendment to the CAISO Tariff approved by FERC, the final CAISO Payments Calendar developed in accordance with Section 11.29.24 is rendered inconsistent with the timing set forth in this CAISO Tariff, the CAISO will update the final CAISO Payments Calendar to make it consistent with the CAISO Tariff as approved by FERC on the date that the CAISO Tariff amendment goes into effect. The CAISO will simultaneously send out a Market Notice to Market Participants that the final CAISO Payments Calendar has been revised.

11.30 Auditing

All of the data, information, and estimates the CAISO uses to calculate Settlement amounts shall be subject to the auditing requirements of Section 22.1. The CAISO shall calculate these amounts using the

software referred to in Section 11.29.5.4 except in cases of system breakdown when it shall apply the procedures set out in 11.29.10.1 (Emergency Procedures).

11.31 Under/Over Delivery Charge for Deviations from Intertie Awards

For each FMM interval, the CAISO assesses an Under/Over Delivery Charge to a Scheduling Coordinator with an Intertie transaction if the Intertie resource supporting that transaction has a positive Under/Over Delivery Quantity. The Under/Over Delivery Charge is the product of the Intertie resource's Under/Over Delivery Quantity in that FMM interval and the Under/Over Delivery Price for the resource's corresponding intertie in that FMM interval.

11.31.1 Determining the Under/Over Delivery Quantity

11.31.1.1 Under/Over Delivery Quantity for Hourly Block Schedules

For Self-Schedule Hourly Blocks for Energy and Ancillary Services and Economic Hourly Block Bids for Energy and Ancillary Services, and Economic Hourly Block Bids with Intra-Hour Option for Energy, the Under/Over Delivery Quantity is the absolute value of the difference between the: (1) HASP Block Intertie Schedule or HASP Advisory Schedule, as appropriate; and (2) final quantity of the Energy profile on the Intertie transaction's E-Tag. In the case of an Exceptional Dispatch or other manual Dispatch Instruction, the Under/Over Delivery Quantity is the absolute value of the difference between the: (1) Exceptional Dispatch or manual Dispatch Instruction quantity; and (2) final quantity of the Energy profile on the Intertie transaction's E-Tag.

11.31.1.2 Under/Over Delivery Quantity for Fifteen-Minute Dispatchable Resources

For Intertie transactions not addressed in Section 11.31.1.1, the Under/Over Delivery Quantity is the amount by which the HASP Advisory Schedule exceeds the quantity of the transmission profile of the E-Tag as of forty minutes prior to the Operating Hour. If the transmission profile of the E-Tag as of forty minutes prior to the Operating Hour is greater than or equal to the HASP Advisory Schedule, then there is no Under/Over Delivery Quantity for that Intertie transaction for that FMM interval.

In the case of an Exceptional Dispatch or other manual Dispatch Instruction, the Under/Over Delivery Quantity is the absolute value of the difference between the: (1) Exceptional Dispatch or manual Dispatch Instruction quantity; and (2) final quantity of the Energy profile on the Intertie transaction's E-Tag.

11.31.1.3 Exclusions from the Under/Over Delivery Quantity

The CAISO excludes from the Under/Over Delivery Quantity as calculated under either 11.31.1.1 or 11.31.1.2 any Energy that meets at least one of the following conditions:

(a) Energy that is not delivered because a Balancing Authority or EIM Transmission Service Provider curtailed the delivery for reliability reasons. The reliability-based curtailment must be reflected on the transaction's final E-Tag.

(b) Energy that is either delivered or not delivered as part of a valid ETC Self-Schedule or TOR Self-Schedule.

(c) Energy that is either delivered or not delivered from a Dynamic System Resource.

11.31.2 Determining the Under/Over Delivery Price

If ADS recognizes a Scheduling Coordinator as accepting an award at an Intertie (either because the Scheduling Coordinator actively accepts the award or because the Scheduling Coordinator fails to decline it) and the final quantity of the Energy profile on the Intertie transaction's E-Tag is not equal to the quantity accepted in ADS for any reason other than a reliability-based curtailment covered by Section 11.31.1.3, then the Under/Over Delivery Price is the greater of: (a) 75% of the LMP in the corresponding FMM interval at the intertie where the resource was scheduled; (b) 75% of the highest LMP among the three RTD intervals corresponding to the FMM interval at the intertie where the resource was scheduled; or (c) $15.00.

In all other cases, the Under/Over Delivery Price is the greater of: (a) 50% of the LMP in the corresponding FMM interval at the Intertie where the resource was scheduled; (b) 50% of the highest LMP among the three RTD intervals corresponding to the FMM interval at the Intertie where the resource was scheduled; or (c) $10.00.

11.31.3 Allocation of Under/Over Delivery Charges

For any Trading Day on which the CAISO assesses an Under/Over Delivery Charge, each Scheduling Coordinator receives a credit on its Settlement Statement for its share of the total Under/Over Delivery Charges collected for that day. The CAISO distributes the total revenue pro rata based on a Scheduling Coordinator's Measured CAISO Demand on that day as a percent of total Measured CAISO Demand for the CAISO Balancing Authority Area on that day. Both the numerator and denominator of the pro rata calculation exclude demand served by ETCs and TORs.

11.32 Measures to Address Intertie Scheduling Practices

The CAISO will take the following actions regarding Schedules that clear the Day-Ahead Market at the Interties and that are wholly or partially reversed through a FMM Schedule:

(i) The CAISO will charge the Scheduling Coordinator the positive difference between the Day-Ahead Market price and the FMM LMP applicable to any imports that clear the Day-Ahead Market and are reduced through a Bid to the RTM if the Scheduling Coordinator either: (a) fails to submit an E-Tag or E-Tags consistent with the Scheduling Coordinator's Day-Ahead Schedule and WECC scheduling criteria; or (b) withdraws the E-Tag or E-Tags prior to the CAISO's publication of HASP results on the CAISO's secure communication system.

(ii) The CAISO will charge the Scheduling Coordinator the positive difference between the FMM LMP and the Day-Ahead Market LMP applicable to any exports that clear the Day-Ahead Market and are reduced through a Bid to the RTM if the Scheduling Coordinator either: (a) fails to submit an E-Tag or E-Tags consistent with the Scheduling Coordinator's Day-Ahead Schedule and WECC scheduling criteria; or (b) withdraws the E-Tag or E-Tags prior to forty-five (45) minutes before the Trading Hour.

(iii) If a Scheduling Coordinator reduces a Day-Ahead import or export Schedule through a Bid to the RTM and submits Schedules on behalf of, or is, a CRR Holder, then the reduction to the import or export may be treated as a Virtual Award for purposes of adjusting CRR Revenue as further set forth in Section 11.2.4.6.

(iv) For any import Schedule that clears the Day-Ahead Market which a Scheduling Coordinator reduces through a Bid to the RTM, such reduced quantities will be subject to the allocation of Net RTM Bid Cost Uplift as set forth in Section 11.8.6.6.

(v) The provisions of this Section 11.32 will not apply to Schedules that clear the Day-Ahead Market at the Scheduling Points and that a Scheduling Coordinator wholly or partially reverses through a Bid to the RTM to the extent such Schedules are valid and balanced ETC, TOR, or Converted Rights Self-Schedules in the Day-Ahead Market.

11.33 Setting Revenue

The import portion of any Schedule resulting from Bids submitted in violation of Section 30.5.5 will be settled at the lower of the: (a) LMP of the Scheduling Point for the import portion of the Schedule in the market in which the import portion of the Schedule was awarded; or (b) LMP of the Scheduling Point for the export portion of the Schedule in the market in which the export portion of the Schedule was awarded. Such settlement will occur irrespective of whether the import and export were scheduled in the same market or are split between the Day-Ahead Market and the Real-Time Market.

11.34 Invoice Charges for Transferred Frequency Response

The CAISO will invoice charges as specified in this Section 11.34 for all legitimate costs invoiced to the CAISO by a Balancing Authority under a contract for Transferred Frequency Response.

11.34.1 Charge Allocation Basis

Each Scheduling Coordinator's responsibility for the Transferred Frequency Response charges shall be allocated based on the most recent Scheduling Coordinator's NERC/WECC Metered Demand determined under Section 11.20.4.

11.34.2 Calculation and Assessment

(a) Within five (5) Business Days after receiving an invoice for legitimate Transferred Frequency Response costs, the CAISO shall issue a market notice setting forth the Transferred Frequency Response rate, which shall be calculated using the total charges invoiced to the CAISO divided by the most recent total NERC/WECC Metered Demand determined under Section 11.20.4.

(b) The CAISO shall calculate the Transferred Frequency Response charges allocable to each Scheduling Coordinator by using the Transferred Frequency Response rate determined under Section 11.34.2(a), multiplied by the most recent NERC/WECC Metered Demand for that Scheduling Coordinator determined under Section 11.20.4.

(c) Within 10 Business Days after receiving the invoice for legitimate Transferred Frequency Response costs, the CAISO shall issue an invoice to each Scheduling Coordinator for its allocable share of the costs determined under Section 11.34.2(b).

(d) Scheduling Coordinators shall make timely payment to the CAISO within fifteen (15) Business Days of the date the invoices were issued pursuant to Section 11.34.2(c).

11.34.3 Responsibility to Pay Charges

(a) Each Scheduling Coordinator shall be obligated to pay the CAISO the charges the Scheduling Coordinator is invoiced by the CAISO for Transferred Frequency Response.

(b) The CAISO's calculation of collateral requirements and other credit requirements under the CAISO Tariff shall include an adjustment for the Scheduling Coordinator's allocable share of the charge for transferred Frequency Response, if applicable, except that the Estimated Aggregated Liability calculated for the Scheduling Coordinator shall not include extrapolated amounts for the charge under Section 12.1.3.1.1(d).

11.34.4 Validation

(a) Each Scheduling Coordinator shall have the opportunity to review the terms of the invoice for the charge for Transferred Frequency Response and shall be deemed to have validated that invoice unless it raises a dispute within five (5) Business Days of the date of issuance.

(b) Once validated, an invoice for the charge under this Section shall be binding on the Scheduling Coordinator to which it relates.

11.34.5 Disputes and Corrections

(a) Scheduling Coordinators shall be prohibited from disputing any charge invoiced under this Section, except on grounds that an error in the invoice is due to a mere typographical or other ministerial error by the CAISO.

(b) Any dispute of an invoice on the grounds specified in Section 11.34.5 (a) shall be submitted and processed in accordance with the dispute procedure related to the charges for Transferred Frequency Response set forth in the Business Practice Manual,

(c) If the CAISO determines that an invoice contains a typographical or other ministerial error, and the resolution of the dispute makes correction necessary, the CAISO will issue a corrected invoice within 15 Business Days of the date the initial invoice was issued.

(d) Each Scheduling Coordinator that receives an invoice for a charge under this Section shall pay any net debit and shall be entitled to receive any net credit specified on a corrected invoice. Payment of any net debit shall be due within 10 business days of the

date the corrected invoice was issued.

11.34.6 Payment Default

(a) In the event a Scheduling Coordinator defaults on the payment of all or any portion of the charge invoiced under this Section, the CAISO shall have the right under Section 11.29.13.3 to enforce the financial security provided by the defaulting Scheduling Coordinator, and to take any such other action under Sections 11.29.12 or 11.29.13, as necessary, to obtain payment for the default amount.

(b) To the extent all or any portion of the default amount remains unpaid, the CAISO:

(1) may at its discretion issue an invoice for the unpaid portion of the charge invoiced under this Section; and

(2) if such invoice is issued for a payment default, shall allocate responsibility for the unpaid amount to Scheduling Coordinators using the same allocation basis for the charge as identified in section 11.34.1, but excluding the CAISO Debtor that has not paid the payment default amount, based on the most recent data of the allocation basis for the charge.

(c) Scheduling Coordinators shall make timely payment to the CAISO within 15 Business Days of the date the default invoices were issued pursuant to Section 11.34.6.

11.34.7 Modification to Schedule

Notwithstanding the provisions in Section 11.34, the CAISO may issue a Market Notice informing Scheduling Coordinators that the CAISO will implement a temporary modification to the billing and payment schedule for the charge and setting forth the reasons for such modification, in which case the modified schedule described in that Market Notice shall govern.