**Note to Stakeholders: All draft changes are purely for discussion purposes only.**

**\* Additional Incremental Changes are reflected in gray highlight \***

**\* Previous Incremental Changes are reflected in yellow highlight \***

**6.5.3 Day-Ahead Market Communications**

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

**6.5.3.1.3** Between 5:00 a.m. and 10:00 a.m., the CAISO will provide feedback to Scheduling Coordinators about their validated ETC and TOR quantities, and calculated Default Energy Bids curves.

**6.5.3.1.4** After the close of the DAM bidding at 10:00 a.m., the CAISO will send a message to the Scheduling Coordinators regarding the outcome of the Bid validation.

**6.5.3.1.5** By 1:00 p.m., the CAISO will publish the result of the DAM.

**6.5.3.1.6** After the results of the DAM are published by 1:00 p.m., the CAISO performs the Inter-SC Trade of Energy post-market validation and communicates the results back to the applicable Scheduling Coordinator.

**6.5.3.1.7** The results of the Day-Ahead Market will be published by 1:00 p.m. and will include:

(a) Unit Commitment status for resources committed in the IFM;

(b) Day-Ahead Schedules and prices;

(c) Day-Ahead AS Awards and prices;

(d) RUC Awards and RUC Capacity and resource-specific RUC Prices;

(e) RUC Start-Up Instructions;

(f) Start-Up Instructions resulting from the ELC Process;

(g) Post-market summary of Day-Ahead and Real-Time Energy Schedules, and Ancillary Service Awards;

(h) Day-Ahead final resource Bid mitigation results; and

(i) Day-Ahead finally qualified Load following capacity.

**6.5.3.1.8** All Expected Energy results will be published at one (1) day after the Trading Day and will include post-market Energy accounting results for Settlement calculations.

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

**6.5.5.1.2** Every five (5) minutes for Target T+10, the CAISO will send Dispatch Instructions via the secure communication system.

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

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**7.7.2 Market Participant Responsibilities in System Emergencies.**

(a) **Response to CAISO Dispatch Instructions.** All Market Participants shall respond immediately to CAISO Dispatch Instructions during System Emergencies.

(b) **Responsibilities of UDCs and MSS Operators During a System Emergency**

(1) **Compliance with Directions and Procedures.** In the event of a System Emergency, UDCs and MSS Operators shall comply with all directions from the CAISO concerning the avoidance, management, and alleviation of the System Emergency and shall comply with all procedures concerning System Emergencies set forth in this CAISO Tariff, the Business Practice Manuals, and the Operating Procedures. and shall comply with all procedures concerning System Emergencies set forth in the CAISO Tariff, Business Practice Manuals and Operating Procedures.

(2) **Communications.** During a System Emergency, the CAISO shall communicate with the UDCs and MSS Operators through their respective control centers and in accordance with procedures established in individual UDC and MSS Operating Agreements.

(3) **Notifications of End-Use Customers.** Each UDC and MSS Operator will notify its End-Use Customers connected to the UDC’s or the MSS’s Distribution System of any voluntary curtailments notified to the UDC or to the MSS Operator by the CAISO pursuant to the provisions of the Electrical Emergency Plan.

(c) **Responsibilities of Generating Units, System Units and System Resources During System Emergencies**

(1) **In General.** All Generating Units and System Units that are owned or controlled by a Participating Generator are (without limitation to the CAISO’s other rights under this CAISO Tariff) subject to control by the CAISO during a System Emergency and the CAISO shall have the authority to instruct a Participating Generator to bring its Generating Unit on-line or off-line or to increase or curtail the output of the Generating Unit and to alter scheduled deliveries of Energy and Ancillary Services into or out of the CAISO Controlled Grid, if such an instruction is reasonably necessary to prevent an imminent or threatened System Emergency or to retain Operational Control over the CAISO Controlled Grid during an actual System Emergency.

(2) **Prerequisite for Dispatch Instructions.** The CAISO shall, where reasonably practicable, use Ancillary Services which it has the contractual right to instruct and which are capable of contributing to containing or correcting the actual, imminent, or threatened System Emergency prior to issuing instructions to a Participating Generator under this subsection, except that the CAISO need not take such action if it determines such action is unlikely to be effective.

(3) **Qualifying Facilities.** A Scheduling Coordinator that represents a QF subject to an Existing QF Contract that is not subject to a PGA or Net Scheduled PGA will make reasonable efforts to require such QFs to comply with the CAISO’s instructions during a System Emergency without penalty for failure to do so.

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

**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 RRM 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.

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**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 39.10 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 condition; 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 less Opportunity Costs; or (c) the Default Energy Bid price less Opportunity Costs. Costs for incremental Energy for this type of Exceptional Dispatch are settled in two payments: (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 System Emergency 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 less Opportunity Costs; (c) the Default Energy Bid price less 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 emergency conditions, for a Market Disruption, or to avoid an imminent System Emergency for 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 less Opportunity Cost or (2) the Default Energy Bid Price less Opportunity Costs.

**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 RMR Resource as a result of an Exceptional Dispatch for 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 less Opportunity Costs; (c) the Default Energy Bid price less Opportunity Costs. Costs for incremental Energy for this type of Exceptional Dispatch are settled in two payments: (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 less opportunity cost; (c) the Default Energy Bid price less 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 payments: (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 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 two costs: (1) the resource's Energy Bid Cost less Opportunity Costs; or (2) the Default Energy Bid cost less 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. The Exceptional Dispatch Settlement price for incremental FMM Instructed Imbalance Energy or RTD Instructed Imbalance Energy that is consumed or delivered by an RMR Resource 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 less Opportunity Costs; (c) the Default Energy Bid price less Opportunity Costs. 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. 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 less Opportunity Costs; (c) Default Energy Bid price less 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 described in Sections 11.5.1.1 and 11.5.1.2.

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

**11.5.6.3 [Not Used]**

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**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 Cost, Transition Cost and Minimum Load Cost in any given Settlement Interval. For Multi-Stage Generating Resources, the incremental IFM Start-Up, Minimum Load, and 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 IFM Bid Cost as the algebraic sum of the IFM Start-Up Cost less Opportunity Costs and Major Maintenance Costs, IFM Transition Cost less Opportunity Costs, IFM Minimum Load Cost less Load Opportunity Costs and Major Maintenance Costs, IFM Energy Bid Cost less Opportunity Costs, and IFM AS Bid Cost.

**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 Costs submitted by the Scheduling Coordinator to the CAISO for 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 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, RUC, or RTM Commitment Period from the previous Trading Day.

(c) 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.

(d) 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.

(e) 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.

(f) The Start- Up 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 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 Minimum Load Cost for the applicable Settlement Interval shall be the Minimum Load Cost submitted to the CAISO in the IFM, and as modified pursuant to Section 30.7.10.2, if applicable, 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 the Settlement Interval is in an IFM Self Commitment Period for the Bid Cost Recovery Eligible Resource.

(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 less Minimum Load Opportunity Cost less Minimum Load Major Maintenance Costs 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 less Minimum Load Opportunity Cost less Minimum Load Major Maintenance Costs 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 CAISO 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 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 or RFM 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 the Settlement Interval is in an IFM Self-Commitment Period for the Bid Cost Recovery Eligible Resource.

**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 less 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.

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

**11.8.3.1 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 Cost, Transition Cost, and Minimum Load Cost, as modified pursuant to Section 30.7.10.2, if applicable, in any given Settlement Interval. For Multi-Stage Generating Resources, the incremental RUC Start-Up, Minimum Load Costs, and 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 less Opportunity Costs less Major Maintenance Costs, RUC Transition Cost less Opportunity Costs, RUC Minimum Load Cost less Opportunity Costs and Major Maintenance Costs.

**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 Cost of the Bid Cost Recovery Eligible Resource submitted to the CAISO 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 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, RUC, or RTM Commitment Period from the previous Trading Day.

(c) 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.

(d) 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.

(e) 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.

(f) 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 Minimum Load Cost for the applicable Settlement Interval shall be the Minimum Load Cost of the Bid Cost Recovery Eligible Resource, as adjusted pursuant to Section 30.7.10.2, if applicable, 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 not committed or Dispatched in the Real-time Market in the applicable Settlement Interval; or (2) 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 Costs 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 Bid Cost for a Bid Cost for an RMR Resource for a Settlement Interval is zero.

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**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 RMT Bid Cost for each RMR Resource, as the algebraic sum of the RTM Start-Up Cost less Opportunity Costs and Major Maintenance Costs, RTM Minimum Load Cost less Opportunity Costs and Major Maintenance Costs, RTM Transition Cost less Opportunity Costs, RTM Energy Bid Cost less Opportunity Costs, and RTM AS Bid Cost.

**11.8.4.1.1 RTM Start-Up Cost**

For each Settlement Interval of the applicable Real-Time Market Commitment Period, the Real-Time Market Start-Up Cost shall consist of the Start-Up Cost of the Bid Cost Recovery Eligible Resource submitted to the CAISO for the Real-Time Market divided by the number of Settlement Intervals in the applicable Real-Time Market Commitment Period. For each Settlement Interval, only the Real-Time Market Start-Up Cost in a CAISO Real-Time Market 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 RTM. The following rules shall be applied in sequence and shall qualify the Real-Time Market Start-Up Cost in a Real-Time Market Commitment Period:

(a) The Real-Time Market Start-Up Cost is zero if there is a Real-Time Market Self-Commitment Period within the Real-Time Market Commitment Period.

(b) The Real-Time Market 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.

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

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

(e) The Real-Time Market Start-Up Cost shall be qualified if an actual Start-Up occurs within that Real-Time Market 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 Real-Time Market 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.

(f) The Real-Time Market Start-Up Cost for a Real-Time Market Commitment Period shall be qualified if an actual Start-Up occurs earlier than the start of the Real-Time Market 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 Real-Time Market Start-Up, otherwise the Start-Up Cost is zero for the Real-Time Market Commitment Period.

(g) For Short-Start Units, the first Start-Up 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 within the CAISO IFM Commitment Period, the Start-Up Costs shall be qualified as Real-Time 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 Cost of the Bid Cost Recovery Eligible Resource submitted to the CAISO for the Real-Time Market, as adjusted pursuant to Section 30.7.10.2, if applicable, 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) for all resources that are not Multi-Stage Generating Resources, that Settlement Interval is included in an IFM or RUC Commitment Period; or (3) 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 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 is not actually in pumping mode in that Settlement Interval; (3) 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 less Opportunity Costs.

**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.

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**11.10.1.4 Voltage Support**

The total payments for each Scheduling Coordinator for Voltage Support in any Settlement Period shall be the sum of any commitment costs, Instructed Imbalance Energy 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 in response. 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 at the price of the FMM LMP or RTD LMP minus the higher of the Energy Bid price less Opportunity Costs or the Default Energy Bid price less Opportunity Costs.

If applicable, Scheduling Coordinators shall also receive any payments under any long-term contracts due for the Settlement Period. RMR Units providing Voltage Support are not eligible for an opportunity cost pursuant to this Section 11.10.1.4.

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**11.10.9.2 Rescission of Payments for Unavailable Ancillary Service Capacity**

Payments 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, 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 payment to be rescinded under Section 8.10.8.2, the CAISO shall reduce the payment 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.

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**11.13 Settlements of RMR Charges and Payments**

**11.13.1 Daily RMR Capacity Payment**

The CAISO will calculate a daily RMR capacity payment for each RMR Resource based on the FERC-accepted RMR Contract for capacity and costs set forth in the applicable RMR Contract using the form of pro form agreement effective as of the 2020 RMR Contract Year.

**11.13.2 Daily Bid Cost Calculation**

For each Trading Day, the CAISO shall calculate IFM Bid Cost Recovery Amount described in Section 11.8.2, RUC Bid Cost Recovery Amount described in Section 11.8.3, and RTM Bid Cost Recovery Amount described in Section 11.8.4 for each RMR Unit while subtracting Major Maintenance Cost and Opportunity Costs, calculated pursuant to the CAISO Tariff and any Opportunity Costs pursuant to Article 6 of the RMR Agreement and Section of the CAISO Tariff 30.4.1.1.6.

**11.13.3 Daily Calculation of Additional Costs**

For each Trading Day, the CAISO will calculate any additional Start-Up, Minimum Load, and Energy Costs associated with an RMR Resource responding to a CAISO-issued Exceptional Dispatch pursuant to Section 34.11.

**11.13.4 Daily RMR Settlement**

Scheduling Coordinators on behalf of RMR Resources are entitled to payments for the Daily Bid Cost Calculation calculated pursuant to Section 11.13.2, plus any costs calculated pursuant to Section 11.13.3. The sum of any daily IFM Market Revenue in excess of IFM Bid Cost plus any daily RUC Market Revenues in excess of RUC Bid Cost plus any RTM Market Revenues in excess RTM Bid Costs will offset the Daily RMR Capacity payment calculated pursuant to Section 11.13.1. In addition, any FMM Exceptional Dispatch Settlement in excess FMM Exceptional Bid Cost less Opportunity Costs plus any RTD Exceptional Dispatch Settlement in excess RTD Exceptional Dispatch Cost less Opportunity Costs will offset the Daily RMR Capacity payment calculated pursuant to Section 11.13.1.

**11.13.5 Daily RMR Coast Allocation**

The CAISO shall allocate each RMR Resource settlement to the relevant Scheduling Coordinators on behalf of Load-Serving Entities within the TAC Areas specified in the RMR Contract. These RMR Costs will be allocated to each Scheduling Coordinator in pro-ration of its Load-Serving Entities’ TAC Area metered Demand to total TAC Area metered Demand.

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### 11.18.6 Submission of Cost Invoices by RMR Owner

Scheduling Coordinators on behalf of RMR Resources eligible for Bid Cost Recovery that incur variable costs during a CAISO Commitment Period that are not recoverable pursuant the CAISO market settlement may submit to the CAISO an invoice in the form specified on the CAISO Website.

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### 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+3B and Invoices and Payment Advices to Scheduling Coordinators or CRR Holders, Black Start Generators and Participating TOs for that Trading Day;

(c) The date on which the CAISO will issue the Recalculation Settlement Statements T+12B; T+55B, T+9M, T+18M, T+33M, and T+36M, and Invoices and Payment Advices to Scheduling Coordinators, CRR Holders, Black Start Generators and Participating TOs 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 Recalculation Settlement Statements T+12B, T+55B, T+9M, T+18M and T+33M.

(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 Reliability Must-Run Charges and RMR compensation, the details are set out in Section 11.13.3 and 41 of the CAISO Tariff.

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.

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**12.7 [Not Used]**

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**31.2 Day-Ahead MPM Process**

After the Market Close of the DAM, and after the CAISO has validated the Bids pursuant to Section 30.7, the CAISO will perform the MPM process, which is a single market run that occurs prior to the IFM Market Clearing run. The Day-Ahead MPM process determines which Bids need to be mitigated using the applicable Default Energy Bids in the IFM. The Day-Ahead MPM process optimizes resources to meet Demand reflected in Demand Bids, including Export Bids and Virtual Demand Bids, and to procure one hundred (100) percent of Ancillary Services requirements based on Supply Bids submitted to the DAM. Virtual Bids and Bids from Demand Response Resources, Participating Load, and Non-Generator Resources are considered in the MPM process, but are not subject to Bid mitigation. Bids from Participating Load resources that are not subject to Bid mitigation will also be considered in the MPM process. Bids from resources comprised of multiple technologies that include Non-Generator Resources will remain to be subject to all applicable market power mitigation under the CAISO Tariff, including Local Market Power Mitigation. The mitigated or unmitigated Bids and RMR Proxy Bids identified in the MPM process for all resources that cleared in the MPM are then passed to the IFM. The CAISO performs the MPM process for the DAM for the twenty-four (24) hours of the targeted Trading Day.

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**31.2.2 [Not Used]**

**31.2.3 Bid Mitigation**

If the non-competitive Congestion component of an LMP calculated in an MPM process is greater than zero (0), then any resource at that Location that is dispatched in that MPM process is subject to Local Market Power Mitigation. Bids on behalf of any such resource, to the extent that they exceed the Competitive LMP at the resource’s Location, will be mitigated to the higher of the resource’s Default Energy Bid, as specified in Section 39, or the Competitive LMP at the resource’s Location. To the extent a Multi-Stage Generating Resource is dispatched in the MPM process and the non-competitive Congestion component of the LMP calculated at the Multi-Stage Generating Resource’s Location is greater than zero, for purposes of mitigation, all the MSG Configurations will be mitigated similarly and the CAISO will evaluate all submitted Energy Bids for all MSG Configurations based on the relevant Default Energy Bids for the applicable MSG Configuration. The CAISO will calculate the Default Energy Bids for Multi-Stage Generating Resources by submitted MSG Configuration. Any market Bids equal to or less than the Competitive LMP will be retained in the IFM.

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**31.3.1.4 Eligibility to Set the Day-Ahead LMP**

All Generating Units, Participating Loads, non-Participating Loads, Proxy Demand Resources, Reliability Demand Response Resources, System Resources, System Units, or Constrained Output Generators subject to the provisions in Section 27.7, with Bids, including Generated Bids, that are unconstrained due to Ramp Rates, MSG Transitions, Forbidden Operating Regions, or other temporal constraints are eligible to set the LMP, provided that (a) the Schedule for the Generating Unit or Resource-Specific System Resource is between its Minimum Operating Limit and the highest MW value in its Economic Bid or Generated Bid, or (b) the Schedule for the Participating Load, non-Participating Load, Proxy Demand Resources, Reliability Demand Response Resources, non-Resource-Specific System Resource, or System Unit is between zero (0) MW and the highest MW value in its Economic Bid or Generated Bid. If (a) a resource’s Schedule is constrained by its Minimum Operating Limit or the highest MW value in its Economic Bid or Generated Bid, (b) the CAISO enforces a resource-specific constraint on the resource due to an Exceptional Dispatch, (c) the resource is constrained by a boundary of a Forbidden Operating Region or is Ramping through a Forbidden Operating Region, or (d) the resource’s full Ramping capability is constraining its inter-hour change in Schedule, the resource cannot be marginal and thus is not eligible to set the LMP. Resources identified as MSS Load following resources are not eligible to set the LMP. A Constrained Output Generator will be eligible to set the hourly LMP if any portion of its Energy is necessary to serve Demand.

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**31.5.1.2 RUC Availability Bids**

Scheduling Coordinators may only submit RUC Availability Bids for capacity (above the Minimum Load as registered in the Master File) for which they are also submitting an Energy Bid (other than a Virtual Bid) to participate in the IFM. Any available Resource Adequacy Capacity, RMR, and CPM Capacity will be optimized at $0/MW in RUC. For Multi-Stage Generating Resources that fail to submit a $0/MW per hour for the Resource Adequacy Capacity, the CAISO will insert the $0/MW per hour for the resource’s Resource Adequacy Capacity at the MSG Configuration level up to the minimum of the Resource Adequacy Capacity or the PMax of the MSG Configuration. Scheduling Coordinators may submit non-zero RUC Availability Bids for the portion of a resource’s capacity that is not Resource Adequacy Capacity or CPM Capacity.

**31.5.1.3 [Not Used]**

**31.5.1.4 Eligibility to Set the RUC Price**

All resources that are eligible for RUC participation as described in Section 31.5.1.1 with RUC Bids that are unconstrained due to Ramp Rates or other temporal constraints, including MSG Transitions, are eligible to set the RUC Price, provided that (a) the RUC Schedule for the Generating Unit or Resource-Specific System Resource is between its Minimum Operating Limit and the highest MW value in its Economic Bid or Generated Bid, or (b) the Schedule for the eligible resource other than a Generating Unit or Resource-Specific System Resource is between zero (0) MW and the highest MW value in its Economic Bid or Generated Bid. If (a) a resource’s Schedule is constrained by its Minimum Operating Limit or the highest MW value in its Economic Bid or Generated Bid, (b) the CAISO enforces a resource-specific constraint on the resource due to an Exceptional Dispatch or (c) the resource’s full Ramping capability is constraining its inter-hour change in Schedule, the resource cannot be marginal and thus is not eligible to set the RUC Price. Resources identified as MSS Load following resources are not eligible to set the RUC Price.

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**31.5.6 Eligibility for Compensation**

All RUC Capacity is eligible for the RUC Availability Payment except for: (i) RMR Capacity; (ii) Resource Adequacy Capacity; and (iii) RUC Capacity that corresponds to the resource’s Minimum Load, which is compensated through the Bid Cost Recovery as described in Section 11.8. Resources not committed in the IFM that are committed in RUC, are eligible for RUC Cost Compensation, which includes Start-Up, Transition Costs, and Minimum Load Cost compensation, and Bid Cost Recovery, subject to the resource actually following its Dispatch Instructions as verified by the CAISO pursuant to procedures set forth in the Business Practice Manuals.

**34.1.5.3 Hour-Ahead Scheduling Process MPM**

For HASP mitigation, a single mitigated Bid for the entire Trading Hour is calculated using the minimum Bid price of the four mitigated Bid curves at each Bid quantity level.

**34.1.5.4 Real-Time Dispatch MPM**

The RTD MPM process produces results for each five (5) minute interval of a Trading Hour. The determination as to whether a Bid is mitigated is made based on the non-competitive Congestion component of each LMP for each five (5) minute interval, using the methodology set forth in Sections 31.2.2 and 31.2.3 above. The input Bids to the MPM for the first of the three (3) RTD runs corresponding to a particular RTUC interval are the final Bids as mitigated pursuant to Section 34.1.5.2 for the RTD intervals corresponding to the applicable financially binding Fifteen Minute Market run. If a Bid is mitigated in the MPM process for the first five (5) minute interval for an applicable fifteen-minute (15) RTUC interval, the mitigated Bid will be utilized for all the corresponding RTD intervals in that fifteen-minute (15) RTUC interval. If a Bid is not mitigated in the first five (5) minute interval, the CAISO will still mitigate that Bid in subsequent five (5) minute intervals of the applicable RTUC interval if the MPM runs for the subsequent intervals determine that mitigation is needed. For each fifteen-minute (15) RTUC interval, a bid that is mitigated is maintained through the rest of the RTD intervals corresponding to the same RTUC interval as the original mitigated RTD interval. The input Bids to the RTD MPM process for the second of the three (3) RTD intervals corresponding to the RTUC interval will be the final mitigated bids used in the first RTD intervals. The input bids to the RTD MPM mitigation process for the third of the three RTD interval corresponding to the particular RTUC interval will be the final mitigated Bids used in the second RTD interval.

**34.1.5.5 [Not Used]**

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

**34.10 Dispatch of Energy from Ancillary Services**

The CAISO may issue Dispatch Instructions to Participating Generators, Participating Loads, Proxy Demand Resources, (via communication with the Scheduling Coordinators of Demand Response Providers) System Units and System Resources contracted to provide Ancillary Services (either procured through the CAISO Markets, Self-Provided by Scheduling Coordinators, or through Exceptional Dispatch) for the Supply of Energy. During normal operating conditions, the CAISO may Dispatch those Participating Generators, Participating Loads, Proxy Demand Resources, System Units and System Resources that have contracted to provide Spinning and Non-Spinning Reserve, except for those reserves designated as Contingency Only, in conjunction with the normal Dispatch of Energy. Contingency Only reserves are Operating Reserve capacity that have been designated, either by the Scheduling Coordinator or the CAISO, as available to supply Energy in the Real-Time only in the event of the occurrence of an unplanned Outage, a Contingency or an imminent or actual System Emergency. During normal operating conditions, the CAISO may also elect to designate any reserve not previously identified as Contingency Only by Scheduling Coordinator as Contingency Only reserves. In the event of an unplanned Outage, a Contingency or a threatened or actual System Emergency, the CAISO may dispatch Contingency Only reserves. If Contingency Only reserves are dispatched through the RTCD, which as described in Section 34.5.2 only Dispatches in the event of a Contingency, such Dispatch and pricing will be based on the original Energy Bids. If Contingency Only reserves are dispatched in response to a System Emergency that has occurred because the CAISO has run out of Economic Bids when no Contingency event has occurred, the RTED will Dispatch such Contingency Only reserves using maximum Bid prices as provided in Section 39.6.1 as the Energy Bids for such reserves and will set prices accordingly. If a Participating Generator, Participating Load, System Unit or System Resource that is supplying Operating Reserve is dispatched to provide Energy, the CAISO shall replace the Operating Reserve as necessary to maintain NERC and WECC reliability standards, including any requirements of the NRC. If the CAISO uses Operating Reserve to meet Real-Time Energy requirements, and if the CAISO needs Operating Reserves to satisfy NERC and WECC reliability standards, including any requirements of the NRC, the CAISO shall restore the Operating Reserves to the extent necessary to meet NERC and WECC reliability standards, including any requirements of the NRC through either the procurement of additional Operating Reserve in the RTM or the Dispatch of other Energy Bids in SCED to allow the resources that were providing Energy from the Operating Reserve to return to their Dispatch Operating Target. The Energy Bid Curve is not used by the AGC system when Dispatching Energy from Regulation. For Regulation Up capacity, the upper portion of the resource capacity from its Regulation Limit is allocated to Regulation regardless of its Energy Bid Curve. For a resource providing Regulation Up or Operating Reserves the remaining Energy Bid Curve shall be allocated to any RTM AS Awards in the following order from higher to lower capacity where applicable: (a) Spinning Reserve; and (b) Non-Spinning Reserve. For resources providing Regulation Up, the applicable upper Regulation Limit shall be used as the basis of allocation if it is lower than the upper portion of the Energy Bid Curve. The remaining portion of the Energy Bid Curve, if there is any, shall constitute a Bid for RTM Energy. For Regulation Down capacity, the lower portion of the resource capacity from its applicable Regulation Limit is allocated to Regulation regardless of its Energy Bid Curve.

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

**34.11.1 System Reliability Exceptional Dispatches**

The CAISO may issue a manual Exceptional Dispatch for Generating Units, System Units, Participating Loads, Proxy Demand Resources, Reliability Demand Response Resources, Dynamic System Resources, in addition to or instead of resources with a Day-Ahead Schedule dispatched by RTM optimization software during a System Emergency, or to prevent an imminent System Emergency or a situation that threatens System Reliability and cannot be addressed by the RTM optimization and system modeling. To the extent possible, the CAISO shall utilize available and effective Bids from resources before dispatching resources without Bids. To deal with any threats to System Reliability, the CAISO may also issue a manual Exceptional Dispatch in the Real-Time for Non-Dynamic System Resources that have not been or would not be selected by the RTM for Dispatch, but for which the relevant Scheduling Coordinator has received a HASP Block Intertie Schedule.

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

**34.12.2 Decreasing Supply**

The scheduling priorities as defined in the RTM optimization to meet the need for decreasing Supply as reflected from higher to lower priority are as follows:

(a) Non-Participating Load increase;

(b) Reliability Must Run (RMR) Schedule;

(c) Transmission Ownership Right (TOR) Self-Schedule;

(d) Existing Rights (ETC) Self-Schedule;

(e) Regulatory Must-Run and Regulatory Must-Take (RMT) Self-Schedule;

(f) Participating Load increase;

(g) Day-Ahead Supply Schedule; and

(h) Self-Schedule Hourly Block

These dispatch priorities as defined in the RTM optimization may be superseded by operator actions and procedures as necessary to ensure reliable operations.

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

**39.7.1.6 Default Energy Bids for RMR Units**

The Scheduling Coordinator for the RMR Unit must rank order its preferences between the Variable Cost Option, the LMP Option, and the Negotiated Rate Option, which shall be the default rank order if no rank order is specified by the Scheduling Coordinator. These preferences will be used to determine the Default Energy Bids for the capacity each RMR Unit. RMR Units are not eligible to receive the ten percent adder under the Variable Cost Option pursuant to Section 39.7.1.1 or the Bid Adder pursuant to Section 39.8.

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

**39.8.1 Bid Adder Eligibility Criteria**

To receive a Bid Adder, a Generating Unit must: (i) have a Mitigation Frequency that is greater than eighty (80) percent in the previous twelve (12) months; and (ii) must not have a contract to be a Resource Adequacy Resource for its entire Net Qualifying Capacity, or be designated under the CPM for its entire Eligible Capacity, or be subject to an obligation to make capacity available under this CAISO Tariff. If a Generating Unit is designated under the CPM for a portion of its Eligible Capacity, the provisions of this section apply only to the portion of the capacity not designated. Scheduling Coordinators for Generating Units seeking to receive Bid Adders must further agree to be subject to the Frequently Mitigated Unit option for a Default Energy Bid. Run hours are those hours during which a Generating Unit has positive metered output. After the first twelve (12) months from the effective date of this Section, the Mitigation Frequency will be based entirely on a Generating Unit being mitigated under the MPM procedures in Sections 31 and 33.

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

**41. Procurement of RMR Resources**

**41.1 Procurement of Reliability Must-Run Resources by the CAISO**

A Reliability Must-Run Contract is a contract entered into by the CAISO with a resource owner that operates a Generating Unit or other resource giving the CAISO the right to call on the Generating Unit or resource to generate Energy, provide Ancillary Services, Black Start, Voltage support or similar services to maintain the reliability of the CAISO Controlled Grid, including meeting system, local, and flexible capacity reliability needs.

**41.2 Designation of Resources as Reliability Must-Run Resources**

The CAISO will, subject to any existing power purchase contracts, have the right at any time based upon CAISO Controlled Grid technical analyses and studies to designate a Generating Unit as a Reliability Must-Run Unit. The CAISO will also have the right at any time based upon CAISO Controlled Grid technical analyses and studies to designate a resource for Reliability Must-Run service that is needed to provide Ancillary Services or other reliability services. A resource so designated shall then be obligated to provide the CAISO with its proposed rates for Reliability Must-Run service for negotiation with the CAISO. A pro forma Reliability Must-Run Contract applicable to resources that receive RMR designations is attached as Appendix G. Such rates shall be authorized by FERC.

**41.2.1 Formal Withdrawal Notice Applicable to Generating Units**

If an owner of a Generating Unit plans to withdraw it from the CAISO markets, it must submit a formal written notice to the CAISO indicating its intent to retire or mothball the unit. The written notice must include a signed affidavit by an executive officer of the entity that owns or controls the company who has the legal authority to bind the company attesting that it intends to take the Generating Unit out of service by retiring or mothballing it. The notice and affidavit will require the unit owner to certify as follows:

[ ] It is retiring the Generating Unit in accordance with the BPM for Generator Management effective \_\_\_\_\_[month], \_\_\_\_\_\_\_\_[day], \_\_\_\_\_[year]. The Generating Unit does not have a resource adequacy contract for  [check one or both] \_\_\_\_\_ the current year and/or \_\_\_\_\_\_the upcoming year, it is uneconomic for the Generating Unit  to remain in service for such year(s), and the decision to retire is definite unless the CAISO procures the Generating Unit, the Generating Unit is sold to an unaffiliated third-party, a third-party contracts with the Generating Unit for resource adequacy purposes, or the Generating Unit obtains some other contract.

[ ] It is retiring the Generating Unit in accordance with the BPM for Generator Management effective \_\_\_\_\_[month], \_\_\_\_\_\_\_\_[day], \_\_\_\_\_[year].  The Generating Unit does not have a resource adequacy contract for [check one or both] \_\_\_\_\_ the current year and/or \_\_\_\_\_\_the upcoming year, it is retiring the Generating Unit for reasons other than it is uneconomic for the unit to remain in service during such year(s).

Owner is retiring the Generating Unit for the following reason(s) (state with specificity the reason for retiring the unit): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The decision to retire the Generating Unit is definite. Note: CAISO may designate the resource for RMR service if needed for reliability.

State with specificity any legal, regulatory, or other reason(s) that might present an obstacle to providing RMR service:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

[ ] It is mothballing the Generating Unit effective \_\_\_\_\_\_\_[month], \_\_\_\_\_\_\_\_\_\_[day], \_\_\_\_\_\_\_\_\_\_ [year]. The Generating Unit  does not have a resource adequacy contract for [check one or both] \_\_\_\_\_ the current year and/or \_\_\_\_\_\_the upcoming year, it is uneconomic for the Generating Unit to remain in service for such year(s), and the decision to retire is definite unless the CAISO procures the Generating Unit, the Generating Unit is sold to an unaffiliated third-party, a third-party contracts with the Generating Unit for resource adequacy purposes or the Generating Unit obtains some other contract.

[ ] It is rescinding its prior notice to retire or mothball the Generating Unit because the CAISO has procured the unit, the Generating Unit was sold to an unaffiliated third-party, a third-party contracted with the Generating Unit for resource adequacy purposes, or the Generating Unit obtained some other contract (this must occur before the effective date of the retirement).

State with specificity the reason for rescinding the retirement notice:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

[ ] It is terminating the Generating Unit’s mothball status because the CAISO procured the Generating Unit, the Generating Unit was sold to an unaffiliated third-party, a third-party contracted with the Generating Unit for resource adequacy purposes, the Generating Unit obtained some other contract, or it is economic for the Generating Unit to return to service.

State with specificity the reason for returning from mothball status:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Failure to provide a complete notice may result in the CAISO requesting submission of a revised notice with deficiencies cured. A form of notice and affidavit will be included in the Business Practice Manual.

**41.2.2 Processing Retirement/Mothball Notices**

The CAISO will process retirement/mothball notices as follows:

(a) If the Generating Unit is not a Resource Adequacy Resource and is planning to retire or mothball its Generating Unit, the owner may submit its written notice at any time during the year, and the CAISO will inform the owner of the study results after it completes the study in Section 41.3. If the owner of a non-Resource Adequacy Resource desires an earlier determination of need, it can submit its written notice to the CAISO before the 90-day deadline specified in the Participating Generator Agreement for terminating the agreement or removing a resource from the agreement. Under Section 41.3, the CAISO will study whether the Generating Unit is needed for reliability in the current Resource Adequacy Compliance Year or by the end of the upcoming Resource Adequacy Compliance Year. If the CAISO finds that a retiring Generating Unit is needed for reliability in either of these timeframes, the CAISO may designate the Generating Unit as needed for RMR service. . (b) If the Generating Unit is not currently a Resource Adequacy Resource in the upcoming Resource Adequacy Compliance Year and the unit owner is planning to retire or mothball its Generating Unit, the unit owner may submit a notice by the deadline established in the applicable Business Practice Manual, which will be in the first quarter of the current Resource Adequacy Compliance Year. The CAISO will study the Generating Unit and post the results of the reliability study to its website by the deadline established in the applicable Business Practice Manual, which will be by the end of the second quarter of the current Resource Adequacy Compliance Year. The CAISO will allow an opportunity of no less than seven (7) days for stakeholders to review and submit comments on the report and will allow LSEs the opportunity to procure capacity from the needed Generating Unit. For notices submitted pursuant to this section, the CAISO will not commence the RMR procurement process for any Generating Unit the CAISO finds to be needed until September 1. Any RMR designations identified in the CAISO’s reliability study report will be conditional until the deadline for LSEs to submit their annual Resource Adequacy showings to the CAISO passes so LSEs have an opportunity to procure the Generating Unit. Under Section 41.3, the CAISO will study whether the Generating Unit is needed for reliability in the upcoming Resource Adequacy Compliance Year and may study whether the Generating Unit is needed for reliability by the end of the following Resource Adequacy Compliance Year. If the CAISO finds that the Generating Unit is need for reliability in either the upcoming Resource Adequacy Compliance Year or by the end of the following Resource Adequacy Compliance Year, the CAISO may grant the Generating Unit an RMR designation for the upcoming Resource Adequacy Compliance Year. If the CAISO finds a mothballing Generating Unit is needed for reliability in the current year, the CAISO may grant the Generating Unit an RMR designation for the remainder of the current Resource Adequacy Compliance Year.

If the unit owner of a Resource Adequacy Resource provides notice after the deadline specified in the applicable Business Practice Manual, the CAISO will inform the resource of the study results 60 days prior to expiration of the Resource Adequacy contract or 90 days from the date of the notice, whichever is later.

(c) If multiple Generating Units file the requisite notice with the CAISO and can meet the reliability need identified by the CAISO, but the CAISO does not need all of the Generating Units to meet the reliability need, the CAISO will ask each unit owner to submit a proposed annual cost-based RMR price for its Generating Unit plus a total cost for Planned Capital Items pursuant to the rate schedules including in the pro forma RMR Contract. It the Generating Unit that would receive an RMR Contract based on cost-effectiveness criteria faces use limitations such that the unit, in the CAISO’s reasonable discretion, poses the risk of being unavailable to fully meet the reliability need identified by the CAISO, then the CAISO may at its reasonable discretion, and giving due regard for meeting cost-effectiveness considerations, instead grant the designation to another unit that fully meets the reliability need. In exercising this discretion, the CAISO will not unduly discriminative against units with use-limitations. If more than one Generating Unit remain that can meet such criteria, then the CAISO will determine which Generating Unit(s) receives an RMR designation by selecting the Generating Unit(s) with the lowest combined proposed costs for RMR service including Planned Capital Items for the next RMR Contract Year provided that if the total costs of two or more Generating Units are within 10% of each other, then the CAISO will grant the designation in its discretion based on the following criteria: (1) relative effectiveness of the Generating Units in meeting local and/or zonal constraints or other CAISO system needs, including flexible capacity needs; and (2) relative operating characteristics of the Generating Units including dispatch ability, ramp rate, and load following capability. A designated Generating Unit will not be able to propose to FERC – and will not be compensated by the CAISO for any costs higher than – its proposed annual fixed cost revenue requirement, including any Planned Capital Items provided to the CAISO, respectively. The RMR Owner will still be allowed to recover any costs for items not covered in its proposal, as permitted by the RMR Contract.

**41.3 Reliability Studies and Determination of RMR Units Status**

In addition to the Local Capacity Technical Study under 40.3.1, the CAISO may perform additional technical studies, as necessary, to ensure compliance with Reliability Criteria, including system, local, and flexible capacity reliability needs. The CAISO will then determine which resources it requires to continue to be Reliability Must-Run Units, which resources it no longer requires to be Reliability Must-Run Units and which resources it requires to become the subject of a Reliability Must-Run Contract which had not previously been so contracted to the CAISO. When making this determination, the CAISO will be evaluating whether there are any more cost-effective options that are available or may be made available in order to avoid the need for a Reliability Must-Run Contract.

**41.4 [Not Used]**

**41.5 RMR Dispatch**

**41.5.1 Day-Ahead and RTM RMR Dispatch**

Reliability Must Run units will be subject to all of the availability, dispatch, testing, reporting, verification and any other applicable requirements imposed under Section 40.6 or Section 40.10.6, as applicable to specific types of Resource Adequacy Resources identified in Resource Adequacy Plans and Flexible RA Capacity resources identified in Resource Flexible RA Capacity Plans. Reliability Must-Run will meet the Day-Ahead availability requirements specified in in Section 40.6, the Real-Time availability requirements specified in Section 40.6.2, and the Day-Ahead and Real-Time availability requirements specified under Section 40.10.6.1 for the highest Flexible Capacity Category for which the unit qualifies under Section 40.10.3. Also in accordance with those requirements, Reliability Must-Run Units that meet the definition of Short Start Units, will be obligated to meet the availability requirements of Section 40.6.2, Reliability Must-Run Units that meet the definition of Long Star Units will have the rights and obligations specified in Section 40.6.2. If the CAISO has not received an Economic Bid or Self-Schedule for capacity from a Reliability Must-Run Unit, the CAISO will utilize a Generated Bid in accordance with the procedures specified in Section 40.6.8. In addition to Energy Bids, Reliability Must-Run Units will submit Ancillary Service Bids for their capacity to the extent the unit is certified to provide Ancillary Service. RMR units will be treated as Listed Local RA Capacity for purposes of substitution under the tariff.

**41.5.2 RMR Payments**

RMR Units will be paid in accordance with the RMR Contract and Section 11.13.

**41.5.3 Provisions of Ancillary Services and other Reliability Services**

The CAISO may call upon RMR resources for Ancillary Services or any other reliability service that the RMR resource is contracted to provide in any amounts and at any time that the CAISO has determined is necessary.

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

**41.7 Individualized Non-Availability Charges and Availability Incentive Payments**

The provisions of Section 40.9 applicable to resources providing local and/or system Resource Adequacy Capacity and Flexible RA Capacity apply to Reliability Must-Run Units. Reliability Must-Run Units will face a resource-specific Availability Incentive Mechanism Price under Section 40.9.6. The resource-specific price will be the price that the resource is being paid by the CAISO ($/kW-month) under the Reliability Must-Run Contract. Availability Incentive Mechanism payments to Reliability Must-Run Units will be capped at the general Availability Incentive Mechanism rate. Reliability Must-Run Units can provide RA Substitute Capacity based on the same rules applicable to Resource Adequacy Resources under Section 40.9.

**41.8 Allocating Resource Adequacy Credits for RMR Designations**

The CAISO will provide Resource Adequacy credits (local, system, and flexible, whichever applicable) to the Scheduling Coordinators of LSEs that serve load in the TAC Area(s) in which the need for the Reliability Must-Run Contract arose equal to the LSE’s pro rata share of the RMR Contract capacity, which shall be based upon each LSE’s annual peak demand forecast calculated under Section 40.2.2.3 for the calendar year in which the RMR agreement will be in effect and broken down on a monthly basis compared to the corresponding total forecasted peak demand in the TAC Area(s).

**41.9 Allocation of Reliability Must-Run Contract Costs**

The CAISO will allocate Reliability Must-Run costs not recovered through market revenues to the Scheduling Coordinators for LSEs that serve load in the TAC Area(s) in which the need for the Reliability Must-Run Contract arose based upon the percentage of actual load of each LSE in the TAC Area(s) to the total load in the TAC Area(s) as recorded in the CAISO settlement system for the actual days of any settlement month period for which the Reliability Must-Run Contract was in effect.

**41.9.1 [Not Used]**

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

**43A.2 Capacity Procurement Mechanism Designation**

The CAISO shall have the authority to designate Eligible Capacity to provide CPM Capacity services under the CPM to address the following circumstances, as discussed in greater detail in Section 43A:

1. Insufficient Local Capacity Area Resources in an annual or monthly Resource Adequacy Plan;

2. Collective deficiency in Local Capacity Area Resources;

3. Insufficient Resource Adequacy Resources in an LSE’s annual or monthly Resource Adequacy Plan;

4. A CPM Significant Event;

5. A reliability or operational need for an Exceptional Dispatch CPM; and

6. A cumulative deficiency in the total Flexible RA Capacity included in the annual or monthly Flexible RA Capacity Plans, or in a Flexible Capacity Category in the monthly Flexible RA Capacity Plans.

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

**43A.2.6 [Not Used]**

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

**43A.3.7 [Not Used]**

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

**43A.4 Selection of Eligible Capacity Under the CPM through Competitive Solicitation Processes (CSP) and General Eligibility Rules**

In accordance with Good Utility Practice, the CAISO shall designate and compensate Eligible Capacity as CPM Capacity based on the results of either the Annual CSP, the Monthly CSP, or the Intra-monthly CSP.

The CAISO shall designate CPM Capacity through the Annual CSP to meet designations triggered under sections 43A.2.1.1, 43A.2.2, or 43A.2.3 (if the failure is to demonstrate sufficient Resource Adequacy capacity in an annual Resource Adequacy Plan), and 43A.2.7(a) (if the failure is to demonstrate sufficient Flexible Resource Adequacy capacity in an annual Flexible Resource Adequacy Plan).

The CAISO shall designate CPM Capacity through the Monthly CSP to meet designations triggered under sections 43A.2.1.2, 43A.2.3 (if the failure is to demonstrate sufficient Resource Adequacy capacity in a monthly Resource Adequacy Plan), or 43A.2.7(b) (if the failure is to demonstrate sufficient Flexible Resource Adequacy capacity in a monthly Flexible Resource Adequacy Plan).

The CAISO shall designate CPM Capacity through the Intra-monthly CSP to meet designations triggered under sections 43A.2.4 or 43A.2.5.

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

**43A.4.1.1.1 Exceeding CPM Soft Offer Cap through a Resource-Specific Cost Filing with FERC**

A Scheduling Coordinator for a resource may offer a price in excess of the CPM Soft Offer Cap. The resource owner whose capacity is offered in excess of the CPM Soft Offer Cap must justify in a filing to FERC a price above the CPM Soft Offer Cap, which shall be determined in accordance with the following methodology: (fixed operation & maintenance costs, plus ad valorem taxes, plus administrative & general costs, plus 20 percent (20%) of the foregoing amount), provided such costs will be converted to a fixed $kW-year amount. For a resource whose sales are under FERC jurisdiction that is providing CPM Capacity to be compensated at a rate higher than the CPM Soft Offer Cap, the resource owner must make a limited resource-specific filing before FERC to determine the just and reasonable capacity price for the resource as calculated under this formula. The resource owner must serve its filing on the CAISO within five business days of submitting its filing to FERC.

If the sales from the resource are not under the jurisdiction of FERC, the resource owner shall make a non-jurisdictional filing with FERC to determine the just and reasonable capacity price for the going forward costs for the resource as calculated in accordance with the following methodology: (fixed operation & maintenance costs, plus ad valorem taxes, plus administrative & general costs, plus 20 percent (20%) of the foregoing amount), provided such costs will be converted to a fixed $/kW-year amount. The resource owner must serve its filing on the CAISO within five business days of submitting its filing to FERC.

A resource owner may make a cost justification filing at FERC either before it offers a resource into the competitive solicitation process or after having capacity designated as CPM Capacity. If the resource owner has not made the cost justification filing before the capacity was designated as CPM Capacity, then the resource owner must make its cost justification filing with FERC within 30 days of the CPM designation. If the resource owner fails to make such cost justification filing within 30 days, then the CAISO shall deem the effective CPM Capacity price for the resource to be the CPM Soft Offer Cap. The resource owner may not propose – and shall not be compensated based upon – an offer price higher than the price submitted in its bid to the CAISO for the designated capacity.

A FERC-approved resource-specific CPM Capacity price shall remain in effect for the remainder of the calendar year in which it is approved and for the subsequent two calendar years, unless superseded by a subsequent FERC-approved CPM Capacity price during that period. Although a FERC-approved resource-specific CPM Capacity price will be denoted in units of $/kW-year, that $/kW-year figure will be divided by 12 so that compensation will be in terms of $/kW-month.

A resource that has obtained the appropriate FERC authorization in response to the cost justification filing described in this Section 43A.4.1.1.1 for a rate higher than the CPM Soft Offer Cap is not precluded from submitting a bid into the competitive solicitation process that is below the FERC-authorized rate and, if selected pursuant to such a bid, will be compensated based on that lower bid.

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

**43A.5.4 Individualized Non-Availability Charges and Availability Incentive Payments**

The provisions of Section 40.9 applicable to Resource Adequacy Resources apply to CPM Capacity. Capacity accepting a designation as CPM Capacity will face a resource-specific Availability Incentive Mechanism Price under section 40.9.6. The resource-specific price will be the higher of: (a) the price that the resource was paid by the CAISO ($/kW-month) as a result of receiving the designation; and (b) the RA Availability Incentive Mechanism rate. Availability Incentive Mechanism payments to a resource designated under the CPM will be capped at the general Availability Incentive Mechanism rate.

For a resource requesting a resource-specific CPM Capacity price pursuant to Section 43A.4.1.1.1, the CAISO shall use that resource-specific CPM capacity price for calculating the Availability Incentive Mechanism only if that resource-specific CPM capacity price has been approved in time for inclusion on the Recalculation Settlement Statement T+55B. Otherwise, for resources that have sought a resource-specific CPM Capacity price pursuant to Section 43A.4.1.1.1, the CAISO shall use the CPM Soft Offer Cap price for calculating the Availability Incentive Mechanism price.

**43A.6 Reports**

The CAISO shall publish the following reports and notices.

**43A.6.1 CPM Designation Market Notice**

The CAISO shall issue a Market Notice within two (2) Business Days of a CPM designation under Sections 43A.2.1 through 43A.2.7. CPM designations as a result of Exceptional Dispatches shall be subject to the reporting requirement set forth in Section 34.9.4. The Market Notice shall include a preliminary description of what caused the CPM designation, the name of the resource(s) procured, the preliminary expected duration of the CPM designation, the initial designation period, and an indication that a designation report is being prepared in accordance with Section 43A.6.2. For Exceptional Dispatch CPM designations, the market notice shall additionally indicate whether the designation was made to address an Exceptional Dispatch CPM System Reliability Need or an Exceptional Dispatch CPM Non-System Reliability Need, specify the quantity of the Exceptional Dispatch CPM capacity that was procured and the Exceptional Dispatch CPM Term, and identify the engineering assessment the CAISO used to determine the quantity of capacity needed from the resource to address the reliability issue.

**43A.6.2 Designation of a Resource Under the CPM**

The CAISO shall post a designation report to the CAISO Website and provide a Market Notice of the availability of the report within the earlier of thirty (30) days of procuring a resource under Sections 43A.2.1 through 43A.2.7 or ten (10) days after the end of the month; provided that where the CAISO makes a designation under Sections 43A.2.1.1, 43A.2.1.2, 43A.2.2.2, 43A.2.3, 43A.2.4, or 43A.2.7 that takes effect on the first day of the succeeding month, the CAISO will post the designation report by the earlier of 30 days after the CAISO selects the resource it will be designating or the tenth day of the month in which the designation takes effect. The designation report shall include the following information:

(1) A description of the reason for the designation (LSE procurement shortfall, Local Capacity Area Resource effectiveness deficiency, or CPM Significant Event), and an explanation of why it was necessary for the CAISO to utilize the CPM authority);

(2) The following information would be reported for all backstop designations:

(a) the resource name;

(b) the amount of CPM Capacity or Flexible Capacity CPM designated (MW),

(c) an explanation of why that amount of CPM Capacity or Flexible Capacity CPM was designated,

(d) the date CPM Capacity was designated,

(e) the duration of the designation; and

(f) the accepted offer price of the resource, or if the resource has a request pending with FERC to exceed the CPM Soft Offer Cap, then the CPM Soft Offer Cap along with a notation that the resource has a pending request with FERC to be compensated above the CPM Soft Offer Cap.

(3) If the reason for the designation is a CPM Significant Event, the CAISO will also include:

(a) a discussion of the event or events that have occurred, why the CAISO has procured CPM Capacity, and how much has been procured;

(b) an assessment of the expected duration of the CPM Significant Event;

(c) the duration of the initial designation (thirty (30) days); and

(d) a statement as to whether the initial designation has been extended (such that the backstop procurement is now for more than thirty (30) days), and, if it has been extended, the length of the extension.

(4) If the reason for the designation is Exceptional Dispatch CPM Capacity, the CAISO will also include additional information about the CAISO’s determination of the quantity and term of the designation, which supplements the information included in the market notice issued pursuant to Section 43A.6.1.

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**43A.8.7 [Not Used]**

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**43A.9 Crediting of CPM Capacity**

The CAISO shall credit CPM designations to the resource adequacy obligations of Scheduling Coordinators for Load Serving Entities as follows:

(a) To the extent the cost of CPM designation under Section 43A.2.1.1 is allocated to a Scheduling Coordinator on behalf of a LSE under Section 43A.8.1, the CAISO shall provide the Scheduling Coordinator on behalf of the LSE, for the term of the designation, credit towards (1) the LSE’s Local Capacity Area Resource obligation under Section 40.3.2 in an amount equal to the LSE’s pro rata share of the CPM Capacity designated under Section 43A.2.1.1 and (2) the LSE’s Demand and Reserve Margin requirements determined under Section 40 in an amount equal to the LSE’s pro rata share of the CPM Capacity designated under Section 43A.2.1.1.

(b) To the extent the cost of CAISO designation under Section 43A.2.2 is allocated to a Scheduling Coordinator on behalf of a LSE under Section 43A.8.3, the CAISO shall provide the Scheduling Coordinator on behalf of the LSE, for the term of the designation, credit towards the LSE’s Demand and Reserve Margin requirements determined under Section 40 in an amount equal to the LSE’s pro rata share of the CPM Capacity designated under Section 43A.2.2.

(c) To the extent the cost of CPM designation under Section 43A.2.3 is allocated to a Scheduling Coordinator on behalf of a LSE under Section 43A.8.4, and the designation is for greater than one month under Section 43A.3.4, the CAISO shall provide the Scheduling Coordinator on behalf of the LSE, for the term of the designation, credit towards the LSE’s Demand and Reserve Margin requirements determined under Section 40 in an amount equal to the LSE’s pro rata share of the CPM Capacity designated under Section 43A.2.3.

(d) The credit provided in this Section shall be used for determining the need for the additional designation of CPM Capacity under Section 43A.2 and for allocation of CPM costs under Section 43A.8.

(e) For each Scheduling Coordinator that is provided credit pursuant to this Section, the CAISO shall provide information, including the quantity of capacity procured in MW, necessary to allow the CPUC, other Local Regulatory Authority, or federal agency with jurisdiction over the LSE on whose behalf the credit was provided to determine whether the LSE should receive credit toward its resource adequacy requirements adopted by such agencies or authorities.

(f) To the extent the cost of Flexible Capacity CPM designation under Section 43A.2.7 is allocated to a Scheduling Coordinator for an LSE under Section 43A.8.8, and the designation is for greater than one month under Section 43A.3.8, the CAISO shall provide the Scheduling Coordinator on behalf of the LSE, for the term of the designation, credit towards the LSE’s Flexible Capacity requirements determined under Section 40 in an amount equal to the LSE’s pro rata share of the Flexible Capacity CPM designated under Section 43A.2.7.

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**Appendix A**

**Master Definitions Supplement**

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**- RMR Resource**

A resource operating pursuant an RMR Contract.

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**- Excess Cost Payments**

The payments made by the CAISO for costs associated with Exceptional Dispatches for 1) emergency conditions, to avoid Market Disruption and avoid an imminent System Emergency as provided in Section 11.5.6.1.1; 2) transmission-related modeling limitations as provided in Section 11.5.6.2.3; and 3) emergency Energy as provided in Section 11.5.8.1.1.

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**- Manual RMR Dispatch**

An RMR Dispatch Notice issued by the CAISO for a reliability service available pursuant to an RMR contract.

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**- Reliability Must-Run Charge (RMR Charge)**

The sum payable by the CAISO pursuant to Section 41 for the costs, net of all applicable credits, incurred under the Reliability Must-Run Contract.

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