**9.3.6 Maintenance Outage Planning**

**9.3.6.1 CRR Transmission Maintenance Outage Plan**

By July 1 of each year, each Operator ~~or Scheduling Coordinator~~ shall provide the CAISO with a CRR Transmission Maintenance Outages plan that includes the proposed schedule of any known CRR Transmission Maintenance Outages it plans to take in the following year. The plan shall pertain to the Operator’s transmission facilities that comprise the CAISO Controlled Grid. The Participating TOs shall develop the plan in consultation with the UDCs interconnected with that Participating TO’s system and the plan shall account for each UDC’s planned maintenance requirements. The plan shall include the following information for each transmission facility:

 (a) the identification of the facility and location;

 (b) the nature of the proposed Maintenance Outage;

 (c) the preferred start and finish date for each Maintenance Outage;

(d) where there is a possibility of flexibility, the earliest start date and the latest finish date, along with the actual duration of the Outage once it commences.

Either the CAISO, pursuant to Section 9.3.7, or an Operator ~~or Scheduling Coordinator~~, subject to Section 9.3.6.12, may at any time request a change to an Approved Maintenance Outage. An Operator ~~or Scheduling Coordinator~~ may, as provided in Section 9.3.6.4, schedule with the CAISO a Maintenance Outage on its system, subject to the conditions of Sections 9.3.6.5.1, 9.3.6.9, and 9.3.6.10.

**9.3.6.2 Proposed Schedule of Maintenance Outage**

By October 15 of each year, each Operator or Scheduling Coordinator shall provide the CAISO with a proposed schedule of all known Maintenance Outages it wishes to undertake in the following year. The proposed schedule shall include all of the Operator’s transmission facilities that comprise the CAISO Controlled Grid and Generating Units subject to a Participating Generator Agreement, Net Scheduled PGA, or Pseudo-Tie Participating Generator Agreement (including its Reliability Must-Run Units). In the case of a Participating TO’s transmission facilities, that proposed schedule shall be developed in consultation with the UDCs interconnected with that Participating TO’s system and shall take account of each UDC’s planned maintenance requirements. The nature of the information to be provided and the detailed Maintenance Outage planning procedure shall be established by the CAISO. This information shall include:

The following information is required for each Generating Unit of a Participating Generator:

(a) the Generating Unit name and Location Code;

(b) the MW capacity unavailable;

(c) the scheduled start and finish date for each Outage; and

(d) where there is a possibility of flexibility, the earliest start date and the latest finish date, along with the actual duration of the Outage once it commences.

The following information is required for each transmission facility:

(a) the identification of the facility and location;

(b) the nature of the proposed Maintenance Outage;

(c) the preferred start and finish date for each Maintenance Outage; and

(d) where there is a possibility of flexibility, the earliest start date and the latest finish date, along with the actual duration of the Outage once it commences.

Either the CAISO, pursuant to Section 9.3.7, or an Operator or Scheduling Coordinator, subject to Section 9.3.6.12, may at any time request a change to an Approved Maintenance Outage. An Operator or Scheduling Coordinator may, as provided in Section 9.3.6.4, schedule with the CAISO a Maintenance Outage on its system, subject to the conditions of Sections 9.3.6.5.1, 9.3.6.9, and 9.3.6.10.

**9.3.6.3 Look Ahead Updates**

Each Participating Generator and Participating TO shall notify the CAISO through the CAISO’s outage management system of any known changes to a Generating Unit or System Unit Outage scheduled to occur within the number of days identified in the Business Practice Manuals as the “Look Ahead Period.” A Participating Generator or Participating TO may submit changes to its planned Maintenance Outage schedule at any time. Participating Generators must obtain the approval of the CAISO in accordance with Section 9. Such approval may be withheld only for reasons of System Reliability or security.

**9.3.6.4 Timeframe for Scheduling Generation and Transmission Outages**

**9.3.6.4.1 Resource Maintenance Outages**

(a) The Scheduling Coordinator for a Participating Generator, Participating Intermittent Resource, Generating Unit, System Unit, Physical Scheduling Plant, Proxy Demand Resource, Reliability Demand Response Resource, Non-Generation Resource, Participating Load,or other resource subject to the outage management requirements of Section 9, shall submit a request for a Maintenance Outage or a request to change an Approved Maintenance Outage to the CAISO no less than eight days prior to the start date for the Outage, subject to the provisions of Sections 9.3.6.5.1, 9.3.6.9, and 9.3.6.10. The CAISO timeline for submitting the required advance notice is calculated excluding the day the request is submitted and the day the Outage is scheduled to commence. Submission of a request for a Maintenance Outage or a request to change an Approved Maintenance Outage no less than eight days prior to the start of the Outage does not guarantee that the Reliability Coordinator will complete any separate Outage approval process it may conduct in time for the Outage to commence on the requested date. Additional detail on the relationship between the CAISO Outage approval timeline and the Reliability Coordinator approval timeline is available in the Business Practice Manuals.

(b) The requirement in Section 9.3.6.4.1(a) does not preclude submission of a request for a Forced Outage under Section 9.3.10.3 where immediate corrective action is needed because equipment has failed in service, is in danger of imminent failure, or is urgently needed to protect personnel.

(c) A request for a Maintenance Outage that is submitted seven days or less prior to the start date for the Outage shall be classified as a Forced Outage.

(d) A request to change an Approved Maintenance Outage that is submitted seven days or less prior to the start date for the Outage, if approved, will remain classified as a Maintenance Outage. If the request is not approved, the Scheduling Coordinator for the resource may submit a request for a new Forced Outage for the schedule change.

**9.3.6.4.2 Transmission Maintenance Outages**

An Operator shall submit a request for a Maintenance Outage or a request to change an Approved Maintenance Outage for transmission facilities on its system in advance of the start date for the Outage, as follows:

1. An Operator or Scheduling Coordinator shall, upon thirty (30) days notice in advance of the first day of the month the Outage is proposed to be scheduled (or within the notice period in the Operating Procedures posted on the CAISO Website), schedule with the CAISO a CRR Transmission Maintenance Outage for transmission facilities on its system, subject to the conditions of Sections 9.3.6.5.1, 9.3.6.9, 9.3.6.10, and 36.4.3.

2. An Operator shall submit a request for a Planned Transmission Maintenance Outage or a request to change an Approved Maintenance Outage to the CAISO no less than eight days prior to the start date for the Outage, subject to the provisions of Sections 9.3.6.4.2, 9.3.6.5.1, 9.3.6.9, and 9.3.6.10. The CAISO timeline for submitting the required advance notice is calculated excluding the day the request is submitted and the day the Outage is scheduled to commence. Submission of a request for a Planned Transmission Maintenance Outage or a request to change an Approved Maintenance Outage no less than eight days prior to the start of the Outage does not guarantee that the Reliability Coordinator will complete any separate Outage approval process it may conduct in time for the Outage to commence on the requested date. Additional detail on the relationship between the CAISO Outage approval timeline and the Reliability Coordinator approval timeline is available in the Business Practice Manuals. This requirement does not preclude submission of a request for a forced outage under Section 9.3.10.3 where immediate corrective action is needed because equipment has failed in service, is in danger of imminent failure, or is urgently needed to protect personnel.

3. If an Operator submits a request for a Planned Transmission Maintenance Outage or a request to change an Approved Maintenance Outage seven days or less prior to the start date for the Outage, the CAISO may, at its discretion, reject the request as untimely, or approve the request as an Unplanned Transmission Maintenance Outage provided that the CAISO has adequate time to analyze the request before the Outage begins and the analysis determines that: (i) the Outage is necessary for reliability; (ii) system conditions and the overall Outage schedule provide an opportunity to take the facilities out of service without a detrimental effect on the efficient use and reliable operation of the CAISO Controlled Grid and without disrupting efficient market operations; and (iii) the Outage has not already commenced as a Forced Outage. The CAISO will consider Unplanned Transmission Maintenance Outages in the order the requests are received.

**9.3.6.5 Changes to Maintenance Outages**

A Participating TO may submit changes to its Maintenance Outage information at any time, provided, however, that if the Participating TO cancels an Approved Maintenance Outage after 5:00 a.m. of the day prior to the day upon which the Outage is scheduled to commence and the CAISO determines that the change was not required to preserve System Reliability, the CAISO may disregard the availability of the affected facilities in determining the availability of transmission capacity in the Day-Ahead Market. The CAISO will, however, notify Market Participants and reflect the availability of transmission capacity in the Real-Time Market as promptly as practicable.

**9.3.6.5.1** The CAISO shall evaluate whether the requested Maintenance Outage or change to an Approved Maintenance Outage is likely to have a detrimental effect on the efficient use and reliable operation of the CAISO Controlled Grid or the facilities of a Connected Entity. The CAISO may request additional information or seek clarification from Participating Generators or Participating TOs of the information submitted in relation to a planned Generating Unit and System Unit Outage or a transmission Maintenance Outage. This information may be used to assist the CAISO in prioritizing conflicting requests for Outages.

**9.3.6.6 [NOT USED]**

**9.3.6.6.1 [NOT USED]**

**9.3.6.7 Withdrawal or Modification of Request**

The Operator of a Participating Generator or a Participating TO’s Operator may withdraw a request at any time prior to actual commencement of the Outage. The Operator of a Participating Generator or Participating TO’s Operator may modify a request at any time prior to receipt of any acceptance or rejection notice from the CAISO or pursuant to Sections 9.3.8.1, and 9.3.8.2, but the CAISO shall have the right to reject such modified request for reasons of System Reliability, system security or market impact, because of the complexity of the modifications proposed, or due to insufficient time to assess the impact of such modifications.

**9.3.6.8** Each Participating Generator or Participating TO that has scheduled a Maintenance Outage pursuant to Section 9.3.4 must schedule and receive approval of the Outage from the CAISO prior to initiating the Approved Maintenance Outage. The CAISO will review the Maintenance Outages to determine if any one or a combination of Maintenance Outage requests relating to CAISO Controlled Grid facilities, Generating Units or System Units may cause the CAISO to violate the Applicable Reliability Criteria. This review will take consideration of factors including, but not limited to, the following:

(a) forecast peak Demand conditions;

(b) other Maintenance Outages, previously Approved Maintenance Outages, and anticipated Generating Unit Outages;

(c) potential to cause Congestion;

(d) impacts on the transfer capability of Interconnections; and

(e) impacts on the market.

**9.3.6.9** The CAISO shall acknowledge receipt of each request to confirm or approve a Maintenance Outage for a Generating Unit, System Unit, or Physical Scheduling Plant. Where the CAISO reasonably determines that the requested Maintenance Outage or the requested change to an Approved Maintenance Outage, when evaluated together with existing Approved Maintenance Outages, is not likely to have a detrimental effect on the efficient use and reliable operation of the CAISO Controlled Grid, the CAISO shall authorize the Maintenance Outage or change to the Approved Maintenance Outage, and shall so notify the requesting Operator and other entities who may be directly affected.

**9.3.6.10** Where, in the reasonable opinion of the CAISO, the requested Maintenance Outage or requested change to an Approved Maintenance Outage is likely to have a detrimental effect on the efficient use and reliable operation of the CAISO Controlled Grid, the CAISO may reject the requested Maintenance Outage or requested change to Approved Maintenance Outage. If in the CAISO's determination, any of the Maintenance Outages would cause the CAISO to violate the Applicable Reliability Criteria, the CAISO will notify the relevant Operator, and the Operator will then revise the proposed Maintenance Outage and inform the CAISO of the proposed changes. The CAISO shall, in a rejection notice, identify the CAISO’s reliability, security and market concerns which prompt the rejection and suggest possible remedies or schedule revisions which might mitigate any such concerns. The CAISO may provide each Operator in writing with any suggested amendments to those Maintenance Outage requests rejected by the CAISO. Any such suggested amendments will be considered as a CAISO maintenance request and will be approved in accordance with the process set forth in Section 9.3.7. The determination of the CAISO shall be final and binding on the Operator. If, within fourteen (14) days of having made its determination, the Operator requests the CAISO to provide reasons for its determination, it shall do so as soon as is reasonably practicable. The CAISO will give reasons for informational purposes only and without affecting in any way the finality or validity of the determination.

**9.3.6.11 Failure to Meet Requirements**

Any request to consider maintenance that does not meet the notification requirements contained in Section 9.3.8.2 will be rejected without further consideration, unless Section 9.3.10 applies.

**9.3.6.12 Cancellation of Approved Maintenance Outage**

In the event an Operator of facilities forming part of the CAISO Controlled Grid cancels an Approved Maintenance Outage after 5:00 a.m. of the day prior to the day upon which the Outage is scheduled to commence and the CAISO determines that the change was not required to preserve System Reliability, the CAISO may disregard the availability of the affected facilities in determining the availability of transmission capacity in the Day-Ahead Market, provided, however, that the CAISO will, as promptly as practicable, notify Market Participants and reflect the availability of the affected facilities in determining the availability of transmission capacity in the Real-Time Market.

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

**9.3.8 CAISO Notice Required Re Maintenance Outages**

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

**9.3.8.1 Data Required**

The Scheduling Coordinator for a Generating Unit owned or controlled by a Participating Generator shall submit to the CAISO, pursuant to Sections 9.3.4 and 9.3.5.2.1, its request to confirm the schedule of a planned Maintenance Outage or to change the schedule of a planned Maintenance Outage. Such request must be made to the CAISO by no less than eight days prior to the starting date of the proposed Outage (or as specified on the CAISO Website). Likewise, all Operators or Scheduling Coordinators for transmission facilities shall submit a formal request to confirm or change an Approved Maintenance Outage with respect to any CAISO Controlled Grid facility to the CAISO in accordance with Sections 9.3.6.4.2 and 9.3.8.2. The timeline for submitting the required advance notice is calculated excluding the day the request is submitted and the day the Outage is scheduled to commence.

Such schedule confirmation request shall specify the following:

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

**9.3.8.2 Eight-Day Prior Notification**

Any request by a Participating Generator to confirm or change an Approved Maintenance Outage must be submitted no less than eight days prior to the starting date of the Approved Maintenance Outage (or as posted on the CAISO Website). The timeline for submitting the required advance notice is calculated excluding the day the request is submitted and the day the Outage is scheduled to commence. Any request by an Operator or Scheduling Coordinator of transmission facilities to confirm or change an Approved Maintenance Outage seven (7) days or less in advance of the start date for the Outage is subject to Section 9.3.6.4.2.

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

**36.4 FNM for CRR Allocation and CRR Auction**

The CAISO shall prepare the CRR FNM that it will use in the CRR Allocation and CRR Auction consistent with the following requirements:

**36.4.1 Adjustments to the FNM in Preparing the CRR FNM**

When the CAISO conducts its CRR Allocation and CRR Auction, the CAISO shall use the most up-to-date DC FNM, which is based on the AC FNM used in the Day-Ahead Market.

**36.4.1.1 Seasonal Available CRR Capacity**

The CAISO shall base the Seasonal Available CRR Capacity on the DC FNM, taking into consideration the following, all of which are discussed in the applicable Business Practice Manual:

(i) any long-term scheduled transmission Outages, including planned outages submitted pursuant to Section 9.3.6;

(ii) TTC adjusted for any long-term scheduled derates;

(iii) a downward adjustment due to TOR or ETC as determined by the CAISO; and

(iv) the impact on transmission elements used in the annual CRR Allocation and Auction of:

(a) transmission Outages or derates that are not scheduled at the time the CAISO conducts the Seasonal CRR Allocation or Auction determined through a methodology that calculates the breakeven point for revenue adequacy based on historical Outages and derates; and

(b) known system topology changes, both as further defined in the Business Practice Manuals.

**36.4.1.2 Monthly Available CRR Capacity**

The CAISO shall base the Monthly Available CRR Capacity on the DC FNM, taking into consideration:

(i) any scheduled transmission Outages known at least thirty (30) days in advance of the start of that month as submitted for approval consistent with the criteria specified in Section 36.4.3;

(ii) adjustments to compensate for the expected impact of Outages that are not required to be scheduled thirty (30) days in advance, including unplanned transmission Outages;

(iii) adjustments to restore Outages or derates that were applied for use in calculating Seasonal Available CRR Capacity but are not applicable for the current month;

(iv) any new transmission facilities added to the CAISO Controlled Grid that were not part of the DC FNM used to determine the prior Seasonal Available CRR Capacity and that have already been placed in-service and energized at the time the CAISO starts the applicable monthly process;

(v) TTC adjusted for any scheduled derates or Outages for that month;

(vi) a downward adjustment due to TOR or ETC as determined by the CAISO; and

(vii) adjustments for possible unscheduled flow at the Interties.

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

With the exception of the Tier LT, the CAISO makes available seventy-five percent (75%) of Seasonal Available CRR Capacity for the annual CRR Allocation and CRR Auction processes, and one hundred percent (100%) of Monthly Available CRR Capacity for the monthly CRR Allocation and CRR Auction processes. The CAISO makes available sixty percent (60%) of Seasonal Available CRR Capacity in the Tier LT. Available capacity at Scheduling Points shall be determined in accordance with Section 36.8.4.2 for the purposes of CRR Allocation and CRR Auction of CRRs that have a CRR Source identified at a Scheduling Point. Before commencing with the annual or monthly CRR Allocation and CRR Auction processes, the CAISO may distribute Merchant Transmission CRRs and will model those as fixed injections and withdrawals on the DC FNM to be used in the allocation and auction. These fixed injections and withdrawals are not modified by the Simultaneous Feasibility Test. Similarly, before commencing the annual or monthly CRR Allocation and CRR Auction processes, the CAISO will model any previously allocated Long Term CRRs as fixed injections and withdrawals on the DC FNM to be used in the CRR Allocation and CRR Auction. These fixed injections and withdrawals are not modified by the Simultaneous Feasibility Test, which will ensure no degradation of previously allocated and outstanding Long Term CRRs due to the CRR Allocation and CRR Auction processes. Maintaining the feasibility of allocated Long Term CRRs over the length of their terms also is accomplished through the transmission planning process in Section 24.1.3.

**36.4.2 Simultaneous Feasibility**

The annual and monthly CRR Allocation processes release CRRs to fulfill CRR nominations as fully as possible subject to a Simultaneous Feasibility Test. To the extent that nominations are not simultaneously feasible, the nominations are reduced in accordance with the CRR Allocation optimization formulation until simultaneous feasibility is achieved. The CRR Allocation optimization formulation, detailed in the Business Practice Manuals, utilizes a weighted least squares objective function that applies pro-rated reductions in flows on a binding constraint based on squares of the Power Transfer Distribution Factor of each CRR nomination for the binding constraint. In addition to the adjustments in Section 36.4.1.3, the Simultaneous Feasibility Test for each CRR Allocation considers:

(a) CRRs representing ETCs, Converted Rights and any TOR capacity that was not captured in the adjustments described in Section 36.4, which the CAISO deems necessary to prevent the Congestion Settlement of ETCs, Converted Rights, and TORs from causing revenue inadequacy of allocated and auctioned CRRs;

(b) In the case of the monthly CRR Allocation, the CRRs already released for that month in the annual CRR Allocation and Auction; and,

(c) The CRRs allocated in previous CRR Allocation tiers as described in Sections 36.8.3.1 through 36.8.3.6.

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

**36.4.3 Outages that may Affect CRR Revenue; Scheduling Requirements**

**36.4.3.1 Submission Timelines**

Pursuant to Section 9.3.6.4.2, an Operator shall submit all known CRR Transmission Maintenance Outages to the CAISO for approval no less than thirty (30) days in advance of the first day of the month in which the Operator proposes to begin the Outage. Pursuant to Section 9.3.7.1, Operators shall also provide their CRR Transmission Maintenance Outages plan by July 1 of each year, for Outages they plan to take in the following year.

**36.4.3.2 CRR Transmission Maintenance Outage**

CRR Transmission Maintenance Outages are those Outages that may have a significant effect upon CRR revenue adequacy, which are defined as outages that affect transmission facilities on the CAISO Controlled Grid that:

(a) are rated above 200 kV; or

(b) are part of any defined flow limit as described in a CAISO Operating Procedure; or

(c) were out of service in the last three (3) years and for which the CAISO determined a special flow limit was needed for real-time operation.

CRR Transmission Maintenance Outages consist only of outages that: (1) meet the criteria specified above; (2) involve system configuration changes that affect power flow in the CRR DC FNM; and (3) initiated and completed within a twenty-four (24) hour period.

The following types of Outages need not be submitted for approval within this thirty-day time frame and will not be designated as Forced Outages if they otherwise comply with the requirements in Section 9.3.6: (1) Outages previously approved by CAISO that are moved within the same calendar month either by the CAISO or by request of the Participating TO; and (2) Outages associated with CAISO-approved allowable transmission maintenance activities during restricted maintenance operations as covered in CAISO Operating Procedures.

**36.4.3.3 Operating Procedures**

A list of the transmission facilities that satisfy criteria (b) and (c) in Section 36.4.3.2 is provided in the Operating Procedures. The CAISO will review the list annually in collaboration with the Participating TOs or will revise the list as appropriate; provided, however, that the CAISO will ultimately determine the lines that are included in the list.

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

**36.8.4.2.2 Scheduling Points as CRR Sources for LSEs Beyond CRR Year One**

In the annual CRR Allocation processes subsequent to CRR Year One, there will be no special provisions regarding CRR Sources at Scheduling Points in tiers 1 and 2 for LSEs. For tier 3 the CAISO will calculate and set aside for the annual CRR Auction fifty percent (50%) of the import capacity at each Scheduling Point that remains after the tier 1 and tier 2 CRR Allocations and after considering any previously allocated Long Term CRRs that are valid for that month as described in Section 36.4.1.3. In the monthly CRR Allocation processes subsequent to CRR Year One there will be no special provisions regarding CRR Sources at Scheduling Points in tier 1 for LSEs. For tier 2 the CAISO will calculate and set aside for the monthly CRR Auction fifty percent (50%) of the import capacity that remains at each Scheduling Point after accounting for the annual CRR Allocation and CRR Auction results for that month, any previously allocated Long Term CRRs that are valid for that month, and the results of tier 1 of the monthly CRR Allocation.

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

**36.13 CRR Auction**

The CAISO shall conduct CRR Auctions on an annual and monthly basis subsequent to each annual and monthly CRR Allocation process. Candidate CRR Holders may bid to purchase and may acquire CRR Obligations, and may sell CRRs, through the CAISO’s annual and monthly CRR Auctions in accordance with the provisions of this Section 36.13. The CAISO shall settle CRR Auction results as provided in Section 11.2.4.3.

**36.13.1 Scope of the CRR Auctions**

The CAISO will conduct a CRR Auction corresponding to and subsequent to the completion of each CRR Allocation process, and prior to the start of the period to which the auctioned CRRs will apply. Each CRR Auction will release CRRs having the same seasons, months and time of use specifications as the CRRs released in the corresponding CRR Allocation. Each CRR Auction will utilize the same DC FNM that was utilized in the corresponding CRR Allocation. For each CRR Auction, the CRRs allocated in the corresponding CRR Allocation will be modeled as fixed injections and withdrawals on the DC FNM and will not be adjusted by the SFT in the CRR Auction process. Thus the CRR Auction will release only those CRRs that are feasible given the results of the corresponding CRR Allocation. CRRs released in a CRR Auction will be indistinguishable from CRRs released in the corresponding CRR Allocation for purposes of settlement and secondary trading. The following additional provisions apply. First, participants in the CRR Auctions will have more choices regarding CRR Sources and CRR Sinks than are eligible for nomination in the CRR Allocations, as described in Section 36.13.5. Second, to the extent a Market Participant receives CRRs in both a CRR Allocation and the corresponding CRR Auction, the CRRs obtained in the CRR Auction will not be eligible for nomination in the PNP. Third, in CRR Year One the CRR Auction cannot be used by CRR Holders to offer for sale CRRs they acquired in a prior CRR Allocation, CRR Auction or through the Secondary Registration System. In the annual and monthly CRR Auction processes for years following CRR Year One, CRR Holders may offer for sale any CRRs held by such holders, subject to the limitations on sale and transfer of Long Term CRRs specified in Section 36.7.1.2. Merchant Transmission CRRs that are CRR Options may be offered for sale in the annual and monthly CRR Auctions for years following CRR Year One, subject to the same temporal limitations that apply to Long Term CRRs as specified in Section 36.7.1.2.

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**36.13.4 Bids in the CRR Auctions**

Market Participants will submit Bids to purchase CRRs in accordance with the requirements set out in this Section 36.13.4 and as further specified in the applicable Business Practice Manuals. Once submitted to the CAISO, CRR bids may not be cancelled or rescinded by the Market Participant after the CRR Auction is closed. Market Participants may bid to buy Point-to-Point CRRs and bid to sell Point-to-Point CRRs that they previously acquired through CRR Allocation or CRR Auction processes. Each bid to buy or sell a Point-to-Point CRR shall specify:

(a) The associated month or season and time of use period;

(b) The associated CRR Source and CRR Sink;

(c) A monotonically non-increasing (in the case of a bid to buy) or non-decreasing (in the case of a bid to sell) piecewise linear bid curve in quantities (denominated in thousandths of a MW) and prices ($/MW).

Bid prices in all CRR bids may be negative.

**36.13.5 Eligible Sources and Sinks for CRR Auction**

Allowable CRR Sources for CRRs acquired in the CRR Auction will be generator PNodes/APNodes, Scheduling Points and Trading Hubs. Allowable CRR Sinks for CRRs acquired in the CRR Auction will be Scheduling Points, Trading Hubs, LAPs, MSS-LAPs and Sub-LAPs. Eligible Market Participants may only submit CRR bids that have the following CRR Source and Sink combinations: (1) from a generator PNode/APNode to either a LAP, MSS-LAP, Sub-LAP, Trading Hub, or Scheduling Point; or (2) from a Trading Hub to either a LAP, MSS-LAP, Sub-LAP, or Scheduling Point; or (3) from a Scheduling Point to either a LAP, MSS-LAP, Sub-LAP, or Trading Hub.

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

**37.4.2.1 Expected Conduct**

A Market Participant shall not undertake an Outage except as approved by the CAISO in accordance with Section 9.3.2, Section 9.3.9, and Section 9.3.6.7. A Market Participant shall not commence any Outage without obtaining final approval from the CAISO Control Center in accordance with Sections 9.3.9 and 9.3.10.

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**Appendix H**

**CONGESTION REVENUE RIGHTS TRANSITION PERIOD**

Notwithstanding any other provisions of the CAISO Tariff, the following provisions apply to the CAISO’s treatment of CRRs that settle based on congestion that occurs in the Day-Ahead Market in 2018. In all other respects, provisions of the CAISO Tariff not covered by this Appendix H will apply to the CAISO’s treatment of CRRs that settle based on congestion that occurs in the Day-Ahead Market in 2018.

**9.3.6 Maintenance Outage Planning**

Each Operator or Scheduling Coordinator shall, by not later than October 15 each year, provide the CAISO with a proposed schedule of all Maintenance Outages it wishes to undertake in the following year. The proposed schedule shall include all of the Operator’s transmission facilities that comprise the CAISO Controlled Grid and Generating Units subject to a Participating Generator Agreement, Net Scheduled PGA, or Pseudo-Tie Participating Generator Agreement (including its Reliability Must-Run Units). In the case of a Participating TO’s transmission facilities, that proposed schedule shall be developed in consultation with the UDCs interconnected with that Participating TO’s system and shall take account of each UDC’s planned maintenance requirements. The nature of the information to be provided and the detailed Maintenance Outage planning procedure shall be established by the CAISO. This information shall include:

The following information is required for each Generating Unit of a Participating Generator:

(a) the Generating Unit name and Location Code;

(b) the MW capacity unavailable;

(c) the scheduled start and finish date for each Outage; and

(d) where there is a possibility of flexibility, the earliest start date and the latest finish date, along with the actual duration of the Outage once it commences.

The following information is required for each transmission facility:

(a) the identification of the facility and location;

(b) the nature of the proposed Maintenance Outage;

(c) the preferred start and finish date for each Maintenance Outage; and

(d) where there is a possibility of flexibility, the earliest start date and the latest finish date, along with the actual duration of the Outage once it commences.

Either the CAISO, pursuant to Section 9.3.7, or an Operator or Scheduling Coordinator, subject to Section 9.3.6.11, may at any time request a change to an Approved Maintenance Outage. An Operator or Scheduling Coordinator may, as provided in Section 9.3.6.3, schedule with the CAISO a Maintenance Outage on its system, subject to the conditions of Sections 9.3.6.4.1, 9.3.6.8, and 9.3.6.9.

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**36.4 FNM for CRR Allocation and CRR Auction**

When the CAISO conducts its CRR Allocation and CRR Auction, the CAISO shall use the most up-to-date DC FNM, which is based on the AC FNM used in the Day-Ahead Market.

The Seasonal Available CRR Capacity shall be based on the DC FNM, taking into consideration the following, all of which are discussed in the applicable Business Practice Manual: (i) any long-term scheduled transmission Outages; (ii) TTC adjusted for any long-term scheduled derates; (iii) a downward adjustment due to TOR or ETC as determined by the CAISO; and (iv) the impact on transmission elements used in the annual CRR Allocation and Auction of

(a) transmission Outages or derates that are not scheduled at the time the CAISO conducts the Seasonal CRR Allocation or Auction determined through a methodology that calculates the breakeven point for revenue adequacy based on historical Outages and derates, and

(b) known system topology changes, both as further defined in the Business Practice Manuals.

The Monthly Available CRR Capacity shall be based on the DC FNM, taking into consideration: (i) any scheduled transmission Outages known at least thirty (30) days in advance of the start of that month as submitted for approval consistent with the criteria specified in Section 36.4.3; (ii) adjustments to compensate for the expected impact of Outages that are not required to be scheduled thirty (30) days in advance, including unplanned transmission Outages; (iii) adjustments to restore Outages or derates that were applied for use in calculating Seasonal Available CRR Capacity but are not applicable for the current month; (iv) any new transmission facilities added to the CAISO Controlled Grid that were not part of the DC FNM used to determine the prior Seasonal Available CRR Capacity and that have already been placed in-service and energized at the time the CAISO starts the applicable monthly process; (v) TTC adjusted for any scheduled derates or Outages for that month; (vi) a downward adjustment due to TOR or ETC as determined by the CAISO; and (vii) adjustments for possible unscheduled flow at the Interties.

For the first monthly CRR Allocation and CRR Auction for CRR Year One, to account for any planned or unplanned Outages that may occur for the first month of CRR Year One, the CAISO will derate all flow limits, including Transmission Interface limits and normal thermal limits, based on statistical factors determined as provided in the Business Practice Manuals.

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

With the exception of the Tier LT, the CAISO makes available seventy-five percent (75%) of Seasonal Available CRR Capacity for the annual CRR Allocation and CRR Auction processes, and one hundred percent (100%) of Monthly Available CRR Capacity for the monthly CRR Allocation and CRR Auction processes. The CAISO makes available sixty percent (60%) of Seasonal Available CRR Capacity in the Tier LT. Available capacity at Scheduling Points shall be determined in accordance with Section 36.8.4.2 for the purposes of CRR Allocation and CRR Auction of CRRs that have a CRR Source identified at a Scheduling Point. Before commencing with the annual or monthly CRR Allocation and CRR Auction processes, the CAISO may distribute Merchant Transmission CRRs and will model those as fixed injections and withdrawals on the DC FNM to be used in the allocation and auction. These fixed injections and withdrawals are not modified by the Simultaneous Feasibility Test. Similarly, before commencing the annual or monthly CRR Allocation and CRR Auction processes, the CAISO will model any previously allocated Long Term CRRs as fixed injections and withdrawals on the DC FNM to be used in the CRR Allocation and CRR Auction. These fixed injections and withdrawals are not modified by the Simultaneous Feasibility Test, which will ensure no degradation of previously allocated and outstanding Long Term CRRs due to the CRR Allocation and CRR Auction processes. Maintaining the feasibility of allocated Long Term CRRs over the length of their terms also is accomplished through the transmission planning process in Section 24.1.3.

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**36.4.3 Outages that may Affect CRR Revenue; Scheduling Requirements**

As provided in Section 9.3.6.4.2, Outages that may have a significant effect upon CRR revenue adequacy must be submitted for approval no less than thirty (30) days in advance of the first day of the month in which the Outage is proposed to begin. Outages that may have a significant effect upon CRR revenue adequacy are defined in terms of the type of facility and the planned duration of the Outage. Outages of the types of transmission facilities described below that extend beyond a twenty-four (24) hour period must be submitted for CAISO approval consistent with this 30-day advance submittal requirement. The types of transmission facilities on the CAISO Controlled Grid to which this 30-day advance submittal and approval requirement applies consist of transmission facilities that:

(a) are rated above 200 kV; or

(b) are part of any defined flow limit as described in a CAISO Operating Procedure; or

(c) were out of service in the last three (3) years and for which the CAISO determined a special flow limit was needed for real-time operation.

A list of the transmission facilities that satisfy criteria (b) and (c) above is provided in the Operating Procedures. The list will be initially created in collaboration with the respective Participating TOs and will be reviewed by the CAISO in collaboration with the Participating TOs on an annual basis and revised as appropriate; provided, however, that the CAISO will ultimately determine the lines that are included in the list. The list will be reviewed by the CAISO on an annual basis and revised as appropriate. The following types of Outages need not be submitted for approval within this thirty-day time frame and will not be designated as Forced Outages if they otherwise comply with the requirements in Section 9.3.6: (1) Outages previously approved by CAISO that are moved within the same calendar month either by the CAISO or by request of the Participating TO; and (2) Outages associated with CAISO-approved allowable transmission maintenance activities during restricted maintenance operations as covered in CAISO Operating Procedures.

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**36.8.4.2.2 Scheduling Points as CRR Sources for LSEs Beyond CRR Year One**

In the annual CRR Allocation processes subsequent to CRR Year One, there will be no special provisions regarding CRR Sources at Scheduling Points in tiers 1 and 2 for LSEs. For tier 3 the CAISO will calculate and set aside for the annual CRR Auction fifty percent (50%) of the import capacity at each Scheduling Point that remains after the tier 1 and tier 2 CRR Allocations and after considering any previously allocated Long Term CRRs that are valid for that month as described in Section 36.4.1. In the monthly CRR Allocation processes subsequent to CRR Year One there will be no special provisions regarding CRR Sources at Scheduling Points in tier 1 for LSEs. For tier 2 the CAISO will calculate and set aside for the monthly CRR Auction fifty percent (50%) of the import capacity that remains at each Scheduling Point after accounting for the annual CRR Allocation and CRR Auction results for that month, any previously allocated Long Term CRRs that are valid for that month, and the results of tier 1 of the monthly CRR Allocation.

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**36.13 CRR Auction**

The CAISO shall conduct CRR Auctions on an annual and monthly basis subsequent to each annual and monthly CRR Allocation process. Candidate CRR Holders may bid to purchase and may acquire CRR Obligations, and may sell CRRs, through the CAISO’s annual and monthly CRR Auctions in accordance with the provisions of this Section 36.13. CRR Auction results shall be settled as provided in Section 11.2.4.3.

**36.13.1 Scope of the CRR Auctions**

The CAISO will conduct a CRR Auction corresponding to and subsequent to the completion of each CRR Allocation process, and prior to the start of the period to which the auctioned CRRs will apply. Each CRR Auction will release CRRs having the same seasons, months and time of use specifications as the CRRs released in the corresponding CRR Allocation. Each CRR Auction will utilize the same DC FNM that was utilized in the corresponding CRR Allocation. For each CRR Auction, the CRRs allocated in the corresponding CRR Allocation will be modeled as fixed injections and withdrawals on the DC FNM and will not be adjusted by the SFT in the CRR Auction process. Thus the CRR Auction will release only those CRRs that are feasible given the results of the corresponding CRR Allocation. CRRs released in a CRR Auction will be indistinguishable from CRRs released in the corresponding CRR Allocation for purposes of settlement and secondary trading. The following additional provisions apply. First, participants in the CRR Auctions will have more choices regarding CRR Sources and CRR Sinks than are eligible for nomination in the CRR Allocations, as described in Section 36.13.5. Second, to the extent a Market Participant receives CRRs in both a CRR Allocation and the corresponding CRR Auction, the CRRs obtained in the CRR Auction will not be eligible for nomination in the PNP. Third, in CRR Year One the CRR Auction cannot be used by CRR Holders to offer for sale CRRs they acquired in a prior CRR Allocation, CRR Auction or through the Secondary Registration System. In the annual and monthly CRR Auction processes for years following CRR Year One, CRR Holders may offer for sale any CRRs held by such holders, subject to the limitations on sale and transfer of Long Term CRRs specified in Section 36.7.1.2. Merchant Transmission CRRs that are CRR Options may be offered for sale in the annual and monthly CRR Auctions for years following CRR Year One, subject to the same temporal limitations that apply to Long Term CRRs as specified in Section 36.7.1.2. As further described in Section 36.13.4, sales of CRRs in the CRR Auctions are accomplished through the submission of a CRR bid to procure a counterflow CRR of the CRR to be liquidated.

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**36.13.4 Bids in the CRR Auctions**

Bids to purchase CRRs shall be submitted in accordance with the requirements set out in this Section 36.13.4 and as further specified in the applicable Business Practice Manuals. Once submitted to the CAISO, CRR bids may not be cancelled or rescinded by the Market Participant after the CRR Auction is closed. Market Participants may bid for Point-to-Point CRRs. Each bid for a Point-to-Point CRR shall specify:

(a) The associated month or season and time of use period;

(b) The associated CRR Source and CRR Sink;

(c) A monotonically non-increasing piecewise linear bid curve in quantities (denominated in thousandths of a MW) and prices ($/MW).

Bid prices in all CRR bids may be negative. Sales of CRRs in the CRR Auctions are accomplished through the submission of a CRR bid to procure a counterflow CRR of the CRR to be liquidated. If such bids for sale of CRRs are cleared through the CRR Auction, the entitlements rights of the CRR Holder that sold the CRR in this manner are effectively liquidated.

**36.13.5 Eligible Sources and Sinks for CRR Auction**

Allowable CRR Sources for CRRs acquired/sold in the CRR Auction will be PNodes, Scheduling Points, Trading Hubs, LAPs, MSS-LAPs and Sub-LAPs. Allowable CRR Sinks for CRRs acquired/sold in the CRR Auction will be PNodes, Scheduling Points, Trading Hubs, LAPs, MSS-LAPs and Sub-LAPs.