

July 2, 2010

The Honorable Kimberly D. Bose  
Secretary  
Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, DC 20426

**Re: California Independent System Operator Corporation  
Docket No. ER10-\_\_\_\_-000  
Amendment to CRR Credit Provisions of the ISO Tariff**

Dear Secretary Bose:

The California Independent System Operator Corporation (“ISO”) submits the first of two amendments to modify the credit policy provisions of the ISO tariff regarding congestion revenue rights (“CRRs”). In this filing, the ISO is also taking the opportunity to clarify certain provisions and delete other outdated tariff language related to credit requirements applicable to the initial CRR auction.<sup>1</sup> Together, the two sets of amendments will eliminate excessive pre-auction credit requirements, reduce barriers to participation in the auctions, and lower the costs of participating in a CRR auction without increasing the financial risk to market participants. The ISO respectfully requests that the tariff revisions contained in this filing be made effective as of September 1, 2010. Within the next few weeks, the ISO will submit a second tariff amendment to the CRR credit policy provisions with a requested effective date of November 1, 2010.<sup>2</sup>

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<sup>1</sup> The ISO submits this filing pursuant to Section 205 of the Federal Power Act, 16 U.S.C. § 824d, Part 35 of the Commission’s regulations, 18 C.F.R. § 35 and in compliance with Order No. 714, *Electronic Tariff Filings*, FERC Stats. & Regs. ¶ 31,276 (2009). The ISO is also sometimes referred to as the CAISO. Capitalized terms not otherwise defined herein have the meanings set forth in Appendix A to the ISO tariff.

<sup>2</sup> The ISO had planned to make a single tariff amendment filing requesting two different effective dates. The e-tariff software, however, does not currently allow for two different effective dates for two versions of the same tariff provision. Consequently, it is necessary to make two separate filings.

## I. Background

Section 12 of the ISO tariff contains provisions that require market participants that transact in the ISO's markets to satisfy creditworthiness standards or to post collateral in order to provide reasonable assurance that the market participants can meet their present and expected future financial obligations. These include financial obligations associated with participation in any ISO auction of CRRs and with the holding of CRRs.<sup>3</sup>

From time to time, the ISO evaluates whether changes should be made to its credit policies, including its credit policy regarding CRRs, in order to better ensure that market participants satisfy creditworthiness standards or post financial security sufficient to cover all of their financial obligations in the ISO's markets in order to avoid potential payment defaults.<sup>4</sup> As a result of these evaluations and stakeholder input, the ISO has made a number of changes to its credit policy in recent years.<sup>5</sup>

The ISO's CRR credit policy is designed to protect the financial interests of market participants against risks associated with CRRs by ensuring that the amount of collateral that CRR auction participants provide is sufficient to cover their financial positions as CRR holders following the auction calculated based on cleared auction prices.<sup>6</sup> At the same time, the ISO recognizes that collateral requirements in excess of the expected CRR holding credit requirements based on cleared auction prices may create unnecessary barriers to entry into the CRR market. The ISO is mindful of the following direction provided by the Commission in the proceeding where the Commission accepted the addition of CRR credit policy requirements to the ISO tariff:

As the Commission explained in its *Credit Policy Statement*, ISOs [Independent System Operators] and RTOs [Regional Transmission Organizations], such as the CAISO, are typically non-profit entities that administer the market on behalf of market

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<sup>3</sup> CRRs can have different terms (e.g., monthly, seasonal, or long term) and can be either positively valued or negatively valued. CRRs are available through a periodic allocation process, through periodic monthly and annual auctions, and through bilateral transactions using ISO's the secondary registration system. See generally ISO tariff, Section 36.

<sup>4</sup> In this tariff amendment filing, the ISO variously uses the terms credit, financial security, and collateral to describe the financial requirements that market participants must satisfy under the ISO's credit policy.

<sup>5</sup> See the ISO's filings to modify its tariff in Docket Nos. ER06-700, ER07-613, ER07-1077, ER08-1059, ER09-589, ER09-1681, and ER10-753 as accepted by the Commission in those proceedings.

<sup>6</sup> CRR Holding requirements are subject to adjustment based on the Historical Expected Value of the CRRs in the CRR holder's portfolio. Historical Expected Values based on the first year of experience in the new market are now available. Accordingly, the ISO will be monitoring CRR values and requesting additional financial security for CRRs with Historical Expected Values greater than the cleared auction bid values.

participants, serving as the clearinghouse to every transaction. Therefore, ISO/RTO members are exposed to the credit risk of other members. If collateral posted by a defaulting party is not sufficient to cover the amount of its default, the remaining credit risk exposure and costs are socialized across ISO/RTO members. In establishing credit policy, the role of an ISO is to balance the competing goals of minimizing risk to non-defaulting market participants (which could take the form of high collateral requirements) with low barriers to entry (low collateral requirements).<sup>7</sup>

Consistent with this guidance, the ISO seeks to ensure that the credit requirements for CRR auctions are sufficient to provide protection to the market but are not unduly burdensome.

In August 2009, the ISO established a stakeholder process to determine whether refinements that balance these goals should be made to the ISO's current CRR credit policy to eliminate unnecessary credit requirements and make other improvements.<sup>8</sup> Through the months-long stakeholder process, the ISO and stakeholders identified and developed the CRR credit policy improvements reflected in the instant tariff amendment.<sup>9</sup> The improvements were either supported or not opposed by all stakeholders that took part in the process.<sup>10</sup> In this regard, the Commission has recognized that stakeholder support is an important factor in its consideration of revisions to the ISO's CRR credit policy. In the same order quoted above, the Commission stated that it "has emphasized the importance of stakeholder input in establishing RTO credit policies, given the impact of default on non-defaulting RTO

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<sup>7</sup> *California Independent System Operator Corp.*, 120 FERC ¶ 61,192, at P 33 (2007) (citing *See Policy Statement on Electric Creditworthiness*, 109 FERC ¶ 61,186, at P 17 (2004)). *See also Southwest Power Pool, Inc.*, 126 FERC 61,153, at P 20 (2009) (accepting credit policy revisions that achieve "an appropriate balance between the goals of allowing [an Independent System Operator] to reduce [its] risk of exposure in the event of default while at the same time ensuring that the credit requirements are not so stringent that they unnecessarily inhibit access to the marketplace").

<sup>8</sup> The ISO also established the stakeholder process to address other issues regarding the ISO's CRR rules, including non-credit policy issues and non-credit business policy issues. Materials prepared by the ISO and stakeholder comments in the stakeholder process are available on the ISO's website at <http://www.aiso.com/2403/24037c20669e0.html>. The instant tariff amendment only addresses CRR credit policy issues.

<sup>9</sup> A listing of the key dates in the stakeholder process and electronic links to documents on the ISO's website regarding the CRR credit policy improvements are provided in Attachment C to the instant filing.

<sup>10</sup> See "Memorandum Regarding Decision on Credit Policies Affecting Congestion Revenue Rights," from Keith Casey, Vice President, Market and Infrastructure Development, to ISO Board of Governors (Mar. 17, 2010), at 4 and Attachment A ("CRR Board Memo"). This memorandum is available as item 10 on the ISO's website at <http://www.aiso.com/275d/275d9bf72ec20.html>.

participants. Since the majority of CAISO stakeholders support the CAISO's proposal, we consider this additional evidence of the degree of risk that CAISO stakeholders are willing to assume in connection with CRRs, and give this factor its appropriate deference."<sup>11</sup>

Based on the general stakeholder support for and substantive merits of the proposed tariff changes, the Commission should accept the revisions contained in this tariff amendment.

## **II. Proposed Tariff Changes**

### **A. Elimination of Unnecessary Pre-Auction Credit Requirements**

The ISO proposes two revisions to Section 12.6.2 of the ISO tariff to eliminate unnecessary credit requirements that a CRR holder or candidate CRR holder must currently satisfy in order to participate in a CRR auction.<sup>12</sup>

#### **1. Reduction of the Minimum Collateral Requirement for the Monthly CRR Auction**

Section 12.6.2 of the ISO tariff currently requires a minimum collateral amount of \$500,000 to participate in the monthly CRR auction. The purpose of the minimum collateral requirement is to establish threshold capital requirements for entities participating in the CRR auctions and to discourage the possible abuse of auction opportunities that would otherwise have minimal pre-auction credit requirements. For example, in the absence of a minimum collateral requirement, a market participant could submit bids for negatively priced CRRs with little risk to itself while creating profitable opportunities for other associated entities. The market participant could then default at the end of the auction to avoid potential financial liabilities associated with the winning CRRs.<sup>13</sup>

In the CRR credit policy stakeholder process, the ISO and stakeholders determined that a lower threshold for the monthly auction was warranted because the auction volumes and associated financial risks are comparatively lower in the monthly CRR auctions than in the yearly auction. In particular, from April to September of 2009, about 60 percent of the monthly CRR auction participants either had payments due to the ISO or holding credit requirements

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<sup>11</sup> *California Independent System Operator Corp.*, 120 FERC ¶ 61,192, at P 36 (citing other RTO credit policy proceedings).

<sup>12</sup> The ISO will be proposing two additional changes to reduce the credit requirements associated for participating in a CRR auction in a second tariff amendment filing to be made in the next few weeks. The ISO will be requesting a November 1, 2010 effective date so that these changes will be in effect for the next annual auction.

<sup>13</sup> See *California Independent System Operator Corp.*, 120 FERC ¶ 61,192, at P 8 (2007); CRR Board Memo at 3.

that were less than \$100,000 at the end of the monthly CRR auction.<sup>14</sup> For these reasons, the ISO proposes to modify Section 12.6.2 to reduce the minimum collateral requirement for participating in the monthly CRR auction from \$500,000 to \$100,000.<sup>15</sup>

## **2. Elimination of the 90 Percent Limit on the Credit Available for a CRR Auction**

Also, Section 12.6.2 currently states that a CRR auction participant can only use up to 90 percent of its available credit in a CRR auction. If the auction participant's obligations to the ISO exceed the ninety percent limit, the ISO makes a collateral call to the auction participant. The ISO proposes to eliminate the 90 percent limit. With the ISO's proposed removal of the requirement to dedicate a portion of collateral to a CRR auction, it is also no longer necessary to limit the amount of collateral that is available for a CRR auction.

### **B. Revision of Incomplete Tariff Language**

Section 12.6.2 of the ISO tariff currently states that, in order to participate in a CRR auction, a CRR holder or candidate CRR holder must have an aggregate credit limit of the greater of \$500,000 or the sum of the values of the CRR holder's or candidate CRR holder's bids submitted in the relevant CRR auction plus the sum of the credit margins for all of the CRRs for which the candidate CRR holder submits bids in the relevant CRR auction. In addition to making the revisions to this tariff language explained in Section I.A, above, the ISO proposes to revise Section 12.6.2 to state that, in order to participate in a CRR auction, a CRR holder or candidate CRR holder must have an aggregate credit limit that exceeds its estimated aggregate liability by the greater of \$500,000, *etc.* The requirement reflected in the underlined language has been included in the BPM for Credit Management since the time the ISO received Commission approval to put Section 12.6.2 into effect.<sup>16</sup> The BPM clarified the

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<sup>14</sup> CRR Board Memo at 3.

<sup>15</sup> The ISO has no data indicating that the risk of profitable opportunities in the annual CRR auction has decreased. Therefore, it is appropriate to maintain the current minimum collateral requirement of \$500,000 under Section 12.6.2 for participating in the annual CRR auction, and the ISO does not propose any tariff revisions in that regard.

<sup>16</sup> BPM for Credit Management, Section 7.4.2 ("The amount of credit available for the purposes of any CRR Auction is calculated by subtracting the entity's Estimated Aggregate Liability from its Aggregate Credit Limit and then multiplying the resulting amount by ninety (90) percent. The result of this calculation must be the greater of \$500,000 or the sum of the absolute values of all of a CRR Holder's or Candidate CRR Holder's bids for CRRs submitted in the relevant CRR Auction plus the sum of the Credit Margins for all the CRRs for which the Candidate CRR Holder submits bids in the relevant CRR Auction."). See *also id.* at pages 2-3 (explaining that the ISO added Section 7.4.2 to the BPM for Credit Management on March 31, 2009, to reflect changes contained in the credit policy tariff amendment filed by the ISO on January 29, 2009, and approved by the Commission on March 31, 2009). The BPM for Credit

ambiguous language in the current version of Section 12.6.2. The ISO believes that this clarifying language should also have been included in Section 12.6.2, but was not included due to an oversight. The ISO now simply proposes to correct that oversight.

**C. Revision of the Tariff Language on the Credit Requirements for Holding a Long Term CRR to Track the Credit Requirements for Holding a Shorter Term CRR**

Section 12.6.3.3 of the ISO tariff sets forth the credit requirement applicable to each holder of a long term CRR (*i.e.*, a CRR with a term of ten years). The ISO intended to apply the same credit requirement to the holders of long term CRRs as applies under the current ISO tariff to holders of shorter term CRRs. Therefore, the ISO proposes to clarify Section 12.6.3.3 to track the language in Section 12.6.3.2 of the ISO regarding the credit requirement for holding a CRR with a term of one year or less.<sup>17</sup> As revised, Section 12.6.3.3 would state that each CRR holder that holds a long term CRR will be subject to a credit requirement equal to the negative of the most recent annual CRR auction price of a CRR with the same CRR source and CRR sink as the long term CRR or the Historical Expected Value of such a CRR, whichever is lower, plus the credit margin calculated for the CRR but with only a one-year term. Consistent with these tariff revisions, the ISO also proposes to revise Section 12.6.3.1(c) of the ISO tariff to add changes in the historical expected values for CRRs as one of the purposes for which the ISO may annually adjust the credit requirements for holding long term CRRs.

**D. Removal of Outdated Tariff Language**

Section 12.6.3.1(a) of the ISO tariff contains requirements applicable to CRR holders and the ISO after completion of the initial CRR auction. Because the initial CRR auction was completed in 2009, the ISO proposes to remove these outdated tariff provisions.

**III. Effective Date**

The ISO requests that the Commission make the ISO's proposed tariff revisions effective as of September 1, 2010.

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Management is available on the ISO's website at  
<https://bpm.caiso.com/bpm/bpm/version/0000000000000001>.

<sup>17</sup> Section 12.6.3.2 states that "[e]ach CRR Holder that holds a CRR with a term of one year or less shall be subject to a credit requirement (\$/MW) equal to the negative of the most recent CRR Auction Price of such CRR or the Historical Expected Value of such CRR, whichever is lower, plus the Credit Margin for such CRR."

#### **IV. Communications**

Communications regarding this filing should be addressed to the following individuals, whose names should be put on the official service list established by the Commission with respect to this submittal:

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#### **V. Service**

The ISO has served copies of this transmittal letter, and all attachments, on the California Public Utilities Commission, the California Energy Commission, and all parties with effective Scheduling Coordinator Service Agreements under the ISO tariff. In addition, the ISO is posting this transmittal letter and all attachments on the ISO website.

#### **VI. Attachments**

The following attachments, in addition to this transmittal letter, support the instant filing:

Attachment A	Revised ISO tariff sheets that incorporate the proposed changes described above
Attachment B	The proposed changes to the ISO tariff shown in black-line format
Attachment C	Listing of key dates in the stakeholder process and electronic links to documents regarding the CRR credit policy improvements

**VII. Conclusion**

For the foregoing reasons, the Commission should accept the proposed tariff changes contained in the instant filing to become effective as of September 1, 2010. Please contact the undersigned if you have any questions regarding this matter.

Respectfully submitted,

**/s/ Nancy Saracino**

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**California Independent System Operator Corporation  
Fifth Replacement FERC Electric Tariff  
(Open Access Transmission Tariff)**

## **12.6.2 Credit Requirements For CRR Auctions**

To establish available credit for participating in any CRR Auction, each CRR Holder or Candidate CRR Holder must have an Unsecured Credit Limit or have provided Financial Security in a form consistent with Section 12.1.2. Each CRR Holder or Candidate CRR Holder may choose to designate a portion of its Unsecured Credit Limit and/or posted Financial Security specifically for the CRR Auction by notifying the CAISO of the CRR Holder's or Candidate CRR Holder's intent. Alternatively, the CRR Holder or Candidate CRR Holder may choose to post additional Financial Security to cover its participation in the CRR Auction, and shall by notify the CAISO of the portion of its total Financial Security to be assigned as its CRR Auction bidding limit. In order to participate in an annual CRR Auction, the CRR Holder or Candidate CRR Holder must have an Aggregate Credit Limit that exceeds its Estimated Aggregate Liability by the greater of \$500,000 or the sum of the maximum credit exposures of all of the CRR Holder's or Candidate CRR Holder's bids for CRRs submitted in the annual CRR Auction plus the sum of the Credit Margins for all the CRRs for which the Candidate CRR Holder submits bids in the relevant CRR Auction. In order to participate in a monthly CRR Auction, the CRR Holder or Candidate CRR Holder must have an Aggregate Credit Limit that exceeds its Estimated Aggregate Liability by the greater of \$100,000 or the sum of the maximum credit exposures of all of the CRR Holder's or Candidate CRR Holder's bids for CRRs submitted in the monthly CRR Auction. A CRR Holder or Candidate CRR Holder that fails to satisfy this requirement shall not be permitted to participate in the relevant CRR Auction, or shall have bids exceeding its available Aggregate Credit Limit for participation in the CRR Auction, in accordance with the above formula, rejected by the CAISO on a last-in, first-out basis.

## **12.6.3 Credit Requirements For The Holding Of CRRs**

### **12.6.3.1 Credit Requirements Generally**

- (a) Each CRR Holder, whether it obtains CRRs through a CRR Allocation or a CRR Auction, must maintain an Aggregate Credit Limit in excess of its Estimated Aggregate Liability including the credit requirement of the CRR portfolio determined as described in this Section 12.6.3.

- (b) Each CRR Holder shall be required to ensure that its Aggregate Credit Limit is sufficient to satisfy the credit requirements described in this Section 12.6.3. Except as provided in this paragraph, CRRs are evaluated on a portfolio basis as follows. If a CRR Holder owns more than one CRR, such CRR Holder shall be subject to an overall credit requirement that is equal to the sum of the individual credit requirements applicable to each of the CRRs held by such CRR Holder , which is calculated after the MW associated with any Offsetting CRRs are netted out. If this sum is positive, the amount will be added to the CRR Holder's Estimated Aggregate Liability. However, if the sum is negative, the CRR Holder's Estimated Aggregate Liability shall not be reduced. If a CRR Holder holds one or more CRRs obtained through a CRR Allocation and also holds one or more CRRs obtained through a CRR Auction, the individual credit requirements applicable to any of the CRRs obtained through a CRR Allocation may not be netted against the individual credit requirements applicable to any of the CRRs obtained through a CRR Auction in determining such CRR Holder's Estimated Aggregate Liability.
- (c) The CAISO shall reevaluate the credit requirements for holding CRRs, and shall adjust the credit requirements accordingly, not less than monthly. The CAISO may adjust the credit requirements for holding CRRs with terms of one year or less at the CAISO's discretion to account for changes in the monthly auction prices for CRRs and changes in the Historical Expected Values for CRRs, or more frequently than monthly if necessary if the CAISO finds that actual or anticipated market conditions indicate that CRR credit requirements may be inadequate to cover the financial risk of the CRRs. The CAISO may also adjust the credit requirements for holding Long Term CRRs annually to reflect the changes in auction prices of one-year CRRs in annual auctions and changes in the Historical Expected Values for CRRs, and to reflect updates to Credit Margins based on actual Locational Marginal Price data derived from market

operations. Whenever the CAISO requests additional Financial Security from a Market Participant as a result of a change in CRR value that is not related to an adjustment due to the monthly CRR Auction Price or an adjustment related to Historical Expected Value, the CAISO will provide a written explanation of the reason for that request.

- (d) In cases where the ownership of a CRR is to be transferred through either the Secondary Registration System or through Load Migration, the CAISO shall evaluate and adjust the credit requirements for both the current owner of the CRR and the prospective owner of the CRR as appropriate prior to the transfer. If additional Financial Security is required from either the current or prospective owner, the transfer will not be completed until such Financial Security has been provided to and accepted by the CAISO. CRRs transferred through the Secondary Registration System will be treated like auctioned CRRs for the purpose of calculating the credit requirements for holding the CRRs, regardless of whether the CRRs were originally allocated or purchased at auction or acquired through the Secondary Registration System. CRRs assigned to Load-gaining or Load-losing Load Serving Entities as a result of Load Migration will be treated like allocated CRRs for the purpose of calculating the credit requirements for holding the CRRs.

#### **12.6.3.2 Calculation of the Credit Amount Required to Hold a CRR With a Term of One Year or Less**

Each CRR Holder that holds a CRR with a term of one year or less shall be subject to a credit requirement (\$/MW) equal to the negative of the most recent CRR Auction Price of such CRR or the Historical Expected Value of such CRR, whichever is lower, plus the Credit Margin for such CRR. The CRR Auction Price will be used until twelve (12) months of historical market operations data are available.

#### **12.6.3.3 Calculation of the Credit Amount Required to Hold a Long Term CRR**

Each CRR Holder that holds a Long Term CRR shall be subject to a credit requirement (\$/MW) equal to the negative of the most recent annual CRR Auction Price of a CRR with the same CRR Source and CRR Sink as the Long Term CRR or the Historical Expected Value of such a CRR, whichever is lower, plus the Credit Margin calculated for the CRR but with only a one-year term. If there is less than one year remaining in the term of a Long Term CRR, the credit requirement shall be determined pursuant to Section 12.6.3.2.

#### **12.6.3.4 Calculation of Credit Margin**

The Credit Margin (\$/MW) for a CRR is equal to (i) the Expected Congestion Revenue minus (ii) the Fifth Percentile Congestion Revenue of such CRR. Both values will be based on the probability distribution of Congestion revenue of such CRR calculated using historical Locational Marginal Price data, when available, and proxy values, including data taken from Locational Marginal Price studies conducted by the CAISO, until such time as historical Locational Marginal Price data is available, with the details of such calculation published in a Business Practice Manual. The CAISO may reassess its determinations regarding the Credit Margin determination at any time and shall require additional Financial Security if the reassessment results in an increase in a CRR Holder's Estimated Aggregate Liability that is not covered by a CRR Holder's Aggregate Credit Limit (consisting of the CRR Holder's Unsecured Credit Limit and/or Financial Security).

**California Independent System Operator Corporation  
Fifth Replacement FERC Electric Tariff  
(Open Access Transmission Tariff)**

## 12.6.2 Credit Requirements For CRR Auctions

-To establish available credit for participating in any CRR Auction, each CRR Holder or Candidate CRR Holder must have an Unsecured Credit Limit or have provided Financial Security in a form consistent with Section 12.1.2. Each CRR Holder or Candidate CRR Holder may choose to designate a portion of its Unsecured Credit Limit and/or posted Financial Security specifically for the CRR Auction by notifying the CAISO of the CRR Holder's or Candidate CRR Holder's intent. Alternatively, the CRR Holder or Candidate CRR Holder may choose to post additional Financial Security to cover its participation in the CRR Auction, and shall by notify the CAISO of the portion of its total Financial Security to be assigned as its CRR Auction bidding limit. In order to participate in ~~an annual~~ CRR Auction, ~~the~~ CRR Holder or Candidate CRR Holder must have an Aggregate Credit Limit ~~that exceeds its Estimated Aggregate Liability by~~ of the greater of \$500,000 or the sum of the ~~maximum credit exposures~~ absolute values of all of ~~the~~ CRR Holder's or Candidate CRR Holder's bids for ~~CRRs~~ submitted in the ~~annual~~ relevant CRR Auction plus the sum of the Credit Margins for all the CRRs for which the Candidate CRR Holder submits bids in the relevant CRR Auction. ~~In order to participate in~~ ~~The amount of credit available for a monthly CRR Auction,~~ ~~is calculated by subtracting~~ the ~~CRR Holder or Candidate CRR Holder must have an~~ ~~Aggregate Credit Limit that exceeds its entity's~~ Estimated Aggregate Liability ~~by from its Aggregate Credit Limit and then multiplying~~ the ~~greater of \$100,000 or the sum of the maximum credit exposures of all of the CRR Holder's or Candidate CRR Holder's bids for CRRs submitted in the monthly CRR Auction.~~ ~~resulting amount by ninety (90) percent.~~ A CRR Holder or Candidate CRR Holder that fails to satisfy this requirement shall not be permitted to participate in the relevant CRR Auction, or shall have bids exceeding its available Aggregate Credit Limit for participation in the CRR Auction, in accordance with the above formula, rejected by the CAISO on a last-in, first-out basis.

## 12.6.3 Credit Requirements For The Holding Of CRRs

### 12.6.3.1 Credit Requirements Generally

- (a) Each CRR Holder, whether it obtains CRRs through a CRR Allocation or a CRR Auction, must maintain an Aggregate Credit Limit in excess of its Estimated

Aggregate Liability including the credit requirement of the CRR portfolio determined as described in this Section 12.6.3. ~~CRR Holders obtaining CRRs in the initial CRR Allocation will be required to comply with the credit requirements associated with such CRRs as determined by the CAISO after completion of the initial CRR Auction. The CAISO shall issue a Market Notice after completion of the initial CRR Auction to announce that CRR Holders obtaining CRRs in the initial CRR Allocation must comply with such credit requirements.~~

- (b) Each CRR Holder shall be required to ensure that its Aggregate Credit Limit is sufficient to satisfy the credit requirements described in this Section 12.6.3. Except as provided in this paragraph, CRRs are evaluated on a portfolio basis as follows. If a CRR Holder owns more than one CRR, such CRR Holder shall be subject to an overall credit requirement that is equal to the sum of the individual credit requirements applicable to each of the CRRs held by such CRR Holder , which is calculated after the MW associated with any Offsetting CRRs are netted out. If this sum is positive, the amount will be added to the CRR Holder's Estimated Aggregate Liability. However, if the sum is negative, the CRR Holder's Estimated Aggregate Liability shall not be reduced. If a CRR Holder holds one or more CRRs obtained through a CRR Allocation and also holds one or more CRRs obtained through a CRR Auction, the individual credit requirements applicable to any of the CRRs obtained through a CRR Allocation may not be netted against the individual credit requirements applicable to any of the CRRs obtained through a CRR Auction in determining such CRR Holder's Estimated Aggregate Liability.
- (c) The CAISO shall reevaluate the credit requirements for holding CRRs, and shall adjust the credit requirements accordingly, not less than monthly. The CAISO may adjust the credit requirements for holding CRRs with terms of one year or less at the CAISO's discretion to account for changes in the monthly auction prices for CRRs and changes in the Historical Expected Values for CRRs, or

more frequently than monthly if necessary if the CAISO finds that actual or anticipated market conditions indicate that CRR credit requirements may be inadequate to cover the financial risk of the CRRs. The CAISO may also adjust the credit requirements for holding Long Term CRRs annually to reflect the changes in auction prices of one-year CRRs in annual auctions [and changes in the Historical Expected Values for CRRs](#), and to reflect updates to Credit Margins based on actual Locational Marginal Price data derived from market operations. Whenever the CAISO requests additional Financial Security from a Market Participant as a result of a change in CRR value that is not related to an adjustment due to the monthly CRR Auction Price or an adjustment related to Historical Expected Value, the CAISO will provide a written explanation of the reason for that request.

- (d) In cases where the ownership of a CRR is to be transferred through either the Secondary Registration System or through Load Migration, the CAISO shall evaluate and adjust the credit requirements for both the current owner of the CRR and the prospective owner of the CRR as appropriate prior to the transfer. If additional Financial Security is required from either the current or prospective owner, the transfer will not be completed until such Financial Security has been provided to and accepted by the CAISO. CRRs transferred through the Secondary Registration System will be treated like auctioned CRRs for the purpose of calculating the credit requirements for holding the CRRs, regardless of whether the CRRs were originally allocated or purchased at auction or acquired through the Secondary Registration System. CRRs assigned to Load-gaining or Load-losing Load Serving Entities as a result of Load Migration will be treated like allocated CRRs for the purpose of calculating the credit requirements for holding the CRRs.

#### **12.6.3.2 Calculation of the Credit Amount Required to Hold a CRR With a Term of One Year or**

**Less**

Each CRR Holder that holds a CRR with a term of one year or less shall be subject to a credit requirement (\$/MW) equal to the negative of the most recent CRR Auction Price of such CRR or the Historical Expected Value of such CRR, whichever is lower, plus the Credit Margin for such CRR. The CRR Auction Price will be used until twelve (12) months of historical market operations data are available.

#### **12.6.3.3 Calculation of the Credit Amount Required to Hold a Long Term CRR**

Each CRR Holder that holds a Long Term CRR shall be subject to a credit requirement (\$/MW) equal to ~~(i)~~ the negative of the most recent annual CRR Auction Price of a CRR with the same CRR Source and CRR Sink as the Long Term CRR or the Historical Expected Value of such a CRR, whichever is lower ~~but with only a one-year term~~, plus ~~(ii)~~ the Credit Margin calculated for the CRR but with only a one-year term ~~CRR~~. If there is less than one year remaining in the term of a Long Term CRR, the credit requirement shall be determined pursuant to Section 12.6.3.2.

#### **12.6.3.4 Calculation of Credit Margin**

The Credit Margin (\$/MW) for a CRR is equal to (i) the Expected Congestion Revenue minus (ii) the Fifth Percentile Congestion Revenue of such CRR. Both values will be based on the probability distribution of Congestion revenue of such CRR calculated using historical Locational Marginal Price data, when available, and proxy values, including data taken from Locational Marginal Price studies conducted by the CAISO, until such time as historical Locational Marginal Price data is available, with the details of such calculation published in a Business Practice Manual. The CAISO may reassess its determinations regarding the Credit Margin determination at any time and shall require additional Financial Security if the reassessment results in an increase in a CRR Holder's Estimated Aggregate Liability that is not covered by a CRR Holder's Aggregate Credit Limit (consisting of the CRR Holder's Unsecured Credit Limit and/or Financial Security).

**Attachment C**

**Key Dates in CRR Credit Policy Stakeholder Process**

**Key Dates in Stakeholder Process Regarding Revisions to  
Congestion Revenue Right (CRR) Credit Policy**

The written materials from 2009 referenced below are available on the ISO’s website at <http://www.caiso.com/2403/24037c20669e0.html>. The written materials from 2010 referenced below are available on the ISO’s website at <http://www.caiso.com/docs/2003/04/21/2003042117001924814.html>, except for the ISO Governing Board materials referenced below, which are available on the ISO’s website at <http://www.caiso.com/275d/275d9bf72ec20.html>.

<b>Date</b>	<b>Event/Due Date</b>
August 14, 2009	ISO issues paper entitled “Near-term Enhancements to Congestion Revenue Rights” for discussion on August 21, 2009, conference call
August 21, 2009	ISO hosts stakeholder conference call that includes ISO presentation entitled “CRR Enhancements” and discussion of CRR credit policy issues
August 28, 2009	Due date for written stakeholder comments on matters discussed on August 21, 2009, conference call
September 1, 2009	ISO issues paper entitled “Straw Proposal on CRR-Related Credit Issues” for discussion at September 8, 2009, meeting
September 8, 2009	ISO hosts stakeholder meeting that includes ISO presentation entitled “CRR Enhancements” and discussion on CRR credit policy issues
September 15, 2009	Due date for written stakeholder comments on matters discussed at September 8, 2009, meeting
September 25, 2009	ISO issues paper entitled “Update to Straw Proposal on CRR-Related Credit Issues” for discussion on October 5, 2009, conference call
October 5, 2009	ISO hosts stakeholder conference call that includes ISO presentation entitled “Update to Straw Proposal – CRR Credit Policy Enhancements” and discussion of CRR credit policy issues
October 12, 2009	Due date for written stakeholder comments on matters discussed on October 5, 2009, conference call
November 2, 2009	ISO issues paper entitled “Draft Final Proposal on CRR Credit Policy Enhancements” for discussion on November 16, 2009, conference call
November 16, 2009	ISO hosts stakeholder conference call that includes discussion of CRR credit policy issues
November 23, 2009	Due date for written stakeholder comments on matters discussed on November 16, 2009, conference call
March 5, 2010	ISO issues documents entitled “Current and Proposed Methods of CRR Auction Impact on EAL” for discussion on March 10, 2010, conference call

<b>Date</b>	<b>Event/Due Date</b>
March 10, 2010	ISO hosts stakeholder conference call that includes discussion of CRR credit policy issues
March 17, 2010	Keith Casey, Vice President, Market and Infrastructure Development issues memorandum to ISO Board of Governors regarding "Decision on Credit Policies Affecting Congestion Revenue Rights"
March 25, 2010	Following review of proposed revisions to CRR credit policy by ISO Board of Governors, Board authorizes ISO to make all filings necessary to implement revisions to CRR credit policy
May 3, 2010	ISO issues for stakeholder review draft ISO tariff language to implement revisions to CRR credit policy
May 12, 2010	Due date for written stakeholder comments regarding draft ISO tariff language issued on May 3, 2010
May 20, 2010	Based on input provided in written stakeholder comments, ISO issues for stakeholder review a revised draft of ISO tariff language to implement revisions to CRR credit policy
May 21, 2010	ISO hosts stakeholder conference call to discuss revised draft ISO tariff language issued on May 20, 2010
July 1, 2010	ISO files tariff amendment to revise CRR credit policy