

August 23, 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 second of two amendments to modify the credit policy provisions of the ISO tariff regarding congestion revenue rights ("CRRs"). Together, the two sets of amendments will eliminate excessive pre-auction credit requirements, reduce barriers to participation in the CRR 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 November 1, 2010.²

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. Part 35, and in compliance with Order No. 714, *Electronic Tariff Filings*, FERC Stats. & Regs. ¶ 31,276 (2009). The ISO is also

meanings set forth in Appendix A of the ISO tariff.

sometimes referred to as the CAISO. Capitalized terms not otherwise defined herein have the

The ISO filed the first of the two tariff amendments to modify the CRR credit policy provisions on July 2, 2010, in Docket No. ER10-1692-000, with a requested effective date of September 1, 2010. As explained in the first tariff amendment, the ISO had planned to make a single tariff amendment filing requesting two different effective dates. The eTariff software does not currently allow for two different effective dates for two versions of the same tariff provision. Consequently, it was necessary to make two separate tariff amendments. Commission action on the first tariff amendment is pending.

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.³

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.⁴ As a result of these evaluations and stakeholder input, the ISO has made a number of changes to its credit policy in recent years.⁵

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. 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:

³ 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.

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.

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.

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.

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 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).⁷

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. Through the months-long stakeholder process, the ISO and stakeholders identified and developed the CRR credit policy improvements reflected in the instant tariff amendment. The improvements were either supported or not opposed by all stakeholders that took part in the process. In

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").

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.caiso.com/2403/24037c20669e0.html. The instant tariff amendment only addresses CRR credit policy issues.

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.

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. This memorandum is available as item 10 on the ISO's website at http://www.caiso.com/275d/275d9bf72ec20.html.

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 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." 11

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

The ISO proposes the revisions to the ISO tariff discussed below to eliminate unnecessary credit requirements that a CRR holder or candidate CRR holder must currently satisfy in order to participate in a CRR auction.

A. Calculation of the Pre-Auction Credit Requirement Based on the Sum of Bid Curve Value and Credit Margin for Positively Valued CRRs

Each participant in a CRR auction must satisfy a pre-auction credit requirement that is sufficient to pay for and hold any CRRs awarded in the auction. That is, the pre-auction credit requirement needs to be able to cover the sum of the maximum credit exposure of all CRR bids submitted by the participant. As set forth in Section 12.6.2 of the ISO tariff, the maximum credit exposure of a CRR bid consists of the sum of two components, the bid curve credit exposure and the credit margin credit exposure. Pursuant to the existing tariff provisions, the bid curve credit exposure is calculated as the maximum value of the bid quantity (MW) multiplied by the bid price corresponding to the bid quantity within the range of the minimum and maximum bid quantities of the bid curve, and the credit margin exposure is calculated by multiplying the credit margin by the maximum bid quantity of the bid curve. Use of the largest possible credit exposure as the pre-auction credit requirement may exceed the amount of collateral required to pay for and hold the CRRs awarded in a CRR auction.

In order to relieve CRR bidders of the obligation to provide this excessive collateral, the ISO proposes to modify Section 12.6.2 so that the ISO will calculate the pre-auction credit requirement of a CRR bid as the maximum credit exposure of the sum of the bid curve value and credit margin. Specifically, the

California Independent System Operator Corp., 120 FERC ¶ 61,192, at P 36 (citing other RTO credit policy proceedings).

maximum credit exposure of a positively valued CRR bid will be the maximum value of the CRR holder's or candidate CRR holder's bid quantity multiplied by the sum of the bid price corresponding to the bid quantity and the credit margin of the CRR within the range of the minimum and maximum bid quantities submitted by the CRR holder or candidate CRR holder. These modifications may reduce the amount of collateral required to participate in a CRR auction for some participants while maintaining sufficient collateral to cover the maximum credit exposure they could incur as a result of the CRR auction cleared bid values.

Table 1 contains an illustrative comparison of the pre-auction credit requirements for a CRR bid under the existing ISO method and the proposed revised ISO method. Table 1 assumes that a bidder submits a bid curve for a positively valued monthly or seasonal CRR that has four sets of bid segments, that the bid prices specified below apply to the sets of bid segments, and that the credit margin for the CRR is \$4/MW over the month or season.

<u>Table 1</u> <u>Comparison of Credit Exposures</u>

Bid Curve		Existing ISO Method			Revised ISO Method		
Bid Segment (MW)	Bid Price (\$/MW)	Bid Segment Credit Exposure (\$)	Credit Margin Credit Exposure (\$)	Total Credit Exposure (\$)	Bid Segment Credit Exposure (\$)	Credit Margin Credit Exposure (\$)	Total Credit Exposure (\$)
0-5	15	75	200	275	75	20	95
5-20	13	260	200	460	260	80	340
20-35	7	245	200	445	245	140	385
35-50	3	150	200	350	150	200	350

Table 1 illustrates, for example, that the bid segment credit exposure under the ISO's existing method for the bid segments from 20 MW to 35 MW would be \$245, *i.e.*, the bid price for those bid segments (\$7/MW) multiplied by largest bid segment value to which that bid price corresponds (35 MW). The credit margin credit exposure for all of the bid segments shown in Table 1 – would be \$200, *i.e.*, the credit margin of \$4/MW multiplied by the largest possible bid segment value in the bid curve (50 MW). Adding the bid segment credit exposure of \$245 to the credit margin credit exposure of \$200 equals a total credit exposure of \$445, which is the maximum credit exposure, and therefore the pre-auction credit requirement, for this CRR bid under the ISO's existing method.

Under the ISO's revised method, however, the same bid segment values would be used to calculate the bid segment credit exposure and the credit margin credit exposure. Under the revised method, the bid segment credit exposure would be the same as under the ISO's existing method but the credit margin

credit exposure would be only \$140, *i.e.*, the credit margin of \$4/MW multiplied by the amount of the highest bid segment value in the range from 20 MW to 35 MW (35 MW). Adding the bid segment credit exposure of \$245 and the credit margin credit exposure of \$140 equals a total credit exposure of \$385 for the bid segments from 20 MW to 35 MW under the ISO's proposed method.¹²

In Table 1, the maximum total credit exposure under the ISO's revised method is \$385. It is also the pre-auction credit requirement for this bid. As illustrated in Table 2, the \$385 pre-auction credit requirement is sufficient to cover both the CRR auction payment that is due to the ISO and the CRR holding credit requirement if the bidder wins the auction.

<u>Table 2</u>
<u>Pre-Auction Credit Requirement vs. Holding Credit Requirement</u>

Bid Co Bid Segment (MW)	Bid Price (\$/MW)	Market Clearing Price (\$/MW)	Payment Due to the ISO (\$)	Holding Credit Requirement (\$)	Total Collateral Required (\$)	Pre- Auction Credit Require- ment (\$)	Additional Collateral Needed (\$)
0-5	15	15	75	0	75	385	0
5-20	13	12	240	0	240	385	0
20-35	7	7	245	0	245	385	0
35-50	3	2	100	100	200	385	0

Assuming that the auction market clearing price for the CRR is \$15/MW, this bid will clear 5 MW. In that event, the auction payment due to the ISO will be \$75 and the additional credit requirement for holding the 5 MW CRR will be \$0. 13 The total collateral required at the auction settlement will be \$75, *i.e.*, \$75 plus \$0. The \$385 pre-auction credit requirement will be sufficient to cover the total collateral required at the auction settlement. To take another example, if the auction market clearing price is \$2/MW, the auction payment due to the ISO will be \$100, the credit requirement for holding the CRR will be an additional \$100, and the total collateral required at the auction settlement will be \$200, *i.e.*, \$100 plus \$100. In this case, too, the \$385 pre-auction credit requirement will be

The illustrative numbers contained in Table 1 were also provided in the ISO's "Draft Final Proposal on CRR Credit Policy Enhancements," at 6-7 ("Draft Final Proposal"). The Draft Final Proposal is available on the ISO's website at http://www.caiso.com/245a/245ad04f6f8e0.pdf.

The credit requirement for holding the 5 MW CRR will be \$0 based on a credit requirement for holding a CRR that is equal to the negative of the CRR auction price plus the credit margin for the CRR, and no negative credit requirement to hold the CRR. See Section 12.6.3.2 of the current ISO tariff and the revisions proposed in the tariff amendment in Docket No. ER10-1692-000 to Section 12.6.3.3 of the ISO tariff.

sufficient to cover the total collateral requirement at the auction settlement.¹⁴ Thus, the ISO's proposed revisions to Section 12.6.2 ensure that the amount of collateral required for the CRR auction remains sufficient to cover the maximum credit exposure resulting from the auction participant's CRR bids.

B. Elimination of the Bid Curve Value in the Pre-Auction Credit Requirement and Retention of Auction Proceeds to Meet Holding Credit Requirements for Negatively Valued CRRs

Section 12.6.2 of the ISO tariff currently requires each bidder for negatively valued CRRs to post an amount of pre-auction collateral that is sufficient to meet the holding credit requirements of the CRRs before the bids to be accepted in the auction. In effect, the bidder for negatively valued CRRs is required to post collateral to cover both the bid curve credit exposure and the credit margin exposure for those CRRs. The ISO and stakeholders have determined that this requirement results in excessive collateral requirement for negatively valued CRRs. For example, under the existing ISO method, the auction winner of a CRR with a value of negative \$100,000 is required to post \$100,000 in collateral to cover the bid curve credit exposure and is also required to post an additional amount (e.g., \$50,000) to cover the credit margin exposure before the market participant is paid the \$100,000 winning bid shortly after.

The ISO proposes to make two modifications to Section 12.6.2 in order to eliminate this excessive credit exposure but at the same time continue to ensure that the ISO retains sufficient collateral to cover cleared auction bid values for negatively valued CRRs. First, the ISO proposes to revise Section 12.6.2 to eliminate the requirement for market participants to provide collateral to cover the bid curve credit exposure for negatively valued CRRs. Thus, the maximum credit exposure of a negatively valued CRR bid will be the maximum bid quantity submitted by the CRR holder or candidate CRR holder multiplied by the credit margin of the CRR. Second, the ISO proposes to revise Section 12.6.2 to state that the ISO will retain the auction proceeds for the negatively valued CRRs and will apply the auction proceeds towards meeting the credit requirements for the holding of CRRs. ¹⁵

Table 3 contains an illustrative comparison of credit exposures under the existing ISO method and the revised ISO method. Table 3 assumes that a bidder submits a bid curve for a negatively valued monthly or seasonal CRR that has the same four sets of bid segments shown in Table 1, that the same bid

The illustrative numbers contained in Table 2 were also provided in the Draft Final Proposal, at 7-8.

Once the auction proceeds are applied towards meeting the CRR holding requirements, a market participant may request return of any excess collateral or if an alternative form of collateral is provided in accordance with existing credit policies reflected in Section 12.

prices set forth in Table 1 apply with negative values to the sets of bid segments, and that the credit margin for the CRR is \$4/MW over the month or season.

<u>Table 3</u> Comparison of Credit Exposures

Bid Curve		Existing ISO Method			Revised ISO Method		
Bid Segment (MW)	Bid Price (\$/MW)	Bid Segment Credit Exposure (\$)	Credit Margin Credit Exposure (\$)	Total Credit Exposure (\$)	Bid Segment Credit Exposure (\$)	Credit Margin Credit Exposure (\$)	Total Credit Exposure (\$)
0-5	-3	15	200	215	0	20	20
5-20	-7	140	200	340	0	80	80
20-35	-13	455	200	655	0	140	140
35-50	-15	750	200	950	0	200	200

Table 3 illustrates, for example, that the bid segment credit exposure under the ISO's existing method for the bid segments from 35 MW to 50 MW would be \$750, *i.e.*, the absolute value of the bid price for those bid segments (\$15/MW) multiplied by the largest bid segment value to which that bid price corresponds (50 MW). The credit margin credit exposure for all bid segments would be \$200, *i.e.*, the credit margin of \$4/MW multiplied by the largest possible bid segment value in the bid curve (50 MW). Adding the bid segment credit exposure of \$750 and the credit margin credit exposure of \$200 equals a total credit exposure of \$950, which is the maximum credit exposure, and therefore the pre-auction credit requirement, for this CRR bid under the ISO's existing method.

Under the ISO's proposed method, the maximum credit exposure for the bid would be reduced as the bid segment credit exposure for negatively valued CRRs would be eliminated. As explained in Section II.A.1, above, the ISO proposes to revise the formula for calculating the credit margin credit exposure. Under the revised formula, the credit margin credit exposure for the bid segments from 35 MW to 50 MW would be only \$200 (*i.e.*, the credit margin of \$4/MW multiplied by the amount of the highest bid segment value in the range from 35 MW to 50 MW (50 MW)). Adding the bid segment credit exposure of \$0 to the credit margin credit exposure of \$200 equals a total credit exposure of \$200 for the bid segments from 35 MW to 50 MW under the ISO's proposed method. ¹⁶

In Table 3, the maximum total credit exposure under the ISO's revised method is \$200. It is also the pre-auction credit requirement for this bid. As illustrated in Table 4, the \$200 pre-auction credit requirement, together with the

The illustrative numbers contained in Table 3 were also provided in the Draft Final Proposal, at 8-9.

auction proceeds, is sufficient to cover the CRR holding credit requirement based on cleared auction bid values if the bidder wins the auction. Further, under the ISO's revised method, the value the bidder won in the auction (market clearing price multiplied by the cleared MW value) will not be paid to the bidder. Instead, the revenues will be used to meet the credit requirement for holding the winning CRR.

<u>Table 4</u>
Pre-Auction Credit Requirement vs. Holding Credit Requirement

Bid Cı	Bid Curve		Auction	Holding	Total	Pre-	Additional
Bid	Bid	Clearing	Winning	Credit	Collateral	Auction	Collateral
Segment (MW)	Price (\$/MW)	Price (\$/MW)	Value (\$)	Requirement (\$)	Required (\$)	Credit Require- ment (\$)	Needed (\$)
0-5	-3	-4	20	40	20	200	0
5-20	-7	-9	180	260	80	200	0
20-35	-13	-13	455	595	140	200	0
35-50	-15	-20	1000	1200	200	200	0

If the auction market clearing price for the CRR is -\$4/MW, the bidder will clear 5 MW. The winning value (*i.e.*, the CRR auction revenue for this bidder) that the ISO will hold is \$20 (*i.e.*, \$4/MW multiplied by 5 MW). The credit requirement for holding this 5 MW CRR will be \$40 (*i.e.*, the \$20 auction winning value plus the \$20 credit margin credit exposure set forth in Table 3). The total collateral required at the auction settlement will be \$20 (*i.e.*, \$40 minus \$20), which will be covered by the \$200 pre-auction credit requirement. The \$180 in remaining collateral will be returned to the bidder.

If the auction price is -\$20/MW, the winning value for the bidder is \$1000. In that event, the credit requirement for holding this 50 MW winning CRR is \$1200. The total collateral required at the auction settlement is \$200, which will come from the \$200 pre-auction credit requirement. This is the only situation in Table 4 in which the pre-auction credit requirement will be fully used, in conjunction with the CRR revenues that will be withheld, to meet the holding credit requirement. In each of the cases shown in Table 4, the CRR revenue that the bidder would have been paid, plus the \$200 of posted collateral for the credit margin, will be fully sufficient to cover the holding credit requirement based on cleared auction bid values.¹⁷

Finally, the ISO is making a conforming change to ISO tariff Section 11.2.4.3 to indicate that auction revenues for negatively valued CRRs will be held and applied to meet CRR credit holding requirements.

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The illustrative numbers contained in Table 4 were also provided in the Draft Final Proposal, at 9.

C. Elimination of the Requirement to Dedicate Collateral in a CRR Auction

Section 12.6.2 of the ISO tariff currently requires a CRR auction participant to dedicate a sufficient amount of its available collateral in the CRR auction to cover its aggregate bids in the auction. This collateral is unavailable for other market activity until the winning CRR auction bids are published, which takes approximately two weeks.

On or about November 1 and in advance of the annual and monthly CRR auctions that occur, the ISO plans to implement a new credit tracking system that eliminates the need for a CRR auction participant to dedicate collateral in the CRR auction to cover its aggregate bids for CRRs. Therefore, the ISO proposes to delete that requirement from Section 12.6.2. Dedicating collateral at the time the CRR auction participant submits a bid is a more efficient use of the auction participant's collateral.

III. Effective Date

The ISO requests that the Commission make the ISO's proposed tariff revisions effective as of November 1, 2010, so that the tariff changes described above will be in effect for the next annual CRR auction.

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, all parties with effective Scheduling Coordinator Service Agreements under the ISO tariff, and all parties in Docket No. ER10-1692-000. 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 November 1, 2010. Please contact the undersigned if you have any questions regarding this matter.

Respectfully submitted,

_/s/ Sidney M. Davies

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Attachment A – Clean Sheets
Credit Enhancements Policy Tariff Amendment
California Independent System Operator Corporation
Fifth Replacement FERC Electric Tariff
August 23, 2010

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11.2.4.3 Payments and Charges for Monthly and Annual Auctions

The CAISO shall charge CRR Holders for the Market Clearing Price for CRRs obtained through the clearing of the CRR Auction as described in Section 36.13.6. To the extent the CRR Holder purchases a CRR through a CRR Auction that has a negative value, the CAISO will retain the CRR Auction proceeds and apply them to credit requirements of the applicable CRR Holder, in accordance with Section 12.6.3 of the CAISO Tariff. The CAISO shall net all revenue received and payments made through this process. CRR Auction net revenue amounts for on-peak and off-peak usage from each CRR auction shall be separated. CRR Auction revenues for each season coming from the annual auction are first allocated uniformly across the three months comprising each season based on time of use. These on-peak and off-peak monthly amounts from the seasonal auctions are then added to the corresponding monthly on-peak and off-peak amounts from CRR Monthly auction for the same month to form the monthly net CRR Auction on-peak and off-peak revenues, respectively. Furthermore, these monthly net CRR auction revenues shall then be converted into daily values and added to the Daily CRR Balancing Accounts. In particular, the Daily CRRBA contribution will be the sum of (1) the monthly net CRR Auction on-peak amount multiplied by the ratio of daily on-peak hours to monthly off-peak hours.

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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. 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. 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.

The maximum credit exposure of a positively valued CRR bid is the maximum value of the CRR Holder's or Candidate CRR Holder's bid quantity (MW) multiplied by the sum of the bid price corresponding to the bid quantity and the Credit Margin of the CRR within the range of the minimum and maximum bid quantities submitted by the CRR Holder or Candidate CRR Holder. The maximum credit exposure of a negatively valued CRR bid is the maximum bid quantity (MW) submitted by the CRR Holder or Candidate CRR Holder multiplied by the Credit Margin of the CRR. 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. The CAISO will retain the CRR Auction proceeds for negatively valued CRRs and will apply them to credit requirements of the applicable CRR Holder.

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Attachment B – Blacklines
Credit Enhancements Policy Tariff Amendment
California Independent System Operator Corporation
Fifth Replacement FERC Electric Tariff
August 23, 2010

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11.2.4.3 Payments and Charges for Monthly and Annual Auctions

The CAISO shall charge CRR Holders for the Market Clearing Price for CRRs obtained through the clearing of the CRR Auction as described in Section 36.13.6. To the extent the CRR Holder purchases a CRR through a CRR Auction that has a negative value, the CAISO will retain shall pay the CRR Auction proceeds and apply them to credit requirements of Holder for taking the applicable CRR Holder, in accordance with Section 12.6.3 of the CAISO Tariff. - The CAISO shall net all revenue received and payments made through this process. CRR Auction net revenue amounts for on-peak and off-peak usage from each CRR auction shall be separated. CRR Auction revenues for each season coming from the annual auction are first allocated uniformly across the three months comprising each season based on time of use. These on-peak and off-peak monthly amounts from the seasonal auctions are then added to the corresponding monthly on-peak and off-peak amounts from CRR Monthly auction for the same month to form the monthly net CRR Auction on-peak and off-peak revenues, respectively. Furthermore, these monthly net CRR auction revenues shall then be converted into daily values and added to the Daily CRR Balancing Accounts. In particular, the Daily CRRBA contribution will be the sum of (1) the monthly net CRR Auction on-peak amount multiplied by the ratio of daily on-peak hours to monthly on-peak hours, and (2) the monthly net CRR Auction off-peak amount multiplied by the ratio of daily off-peak hours to monthly off-peak hours.

* * *

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. The maximum credit exposure of a positively valued CRR bid is the maximum value of the CRR Holder's or Candidate CRR Holder's bid quantity (MW) multiplied by the sum of the bid price corresponding to the bid quantity and the Credit Margin of the CRR within the range of the minimum and maximum bid quantities submitted by the CRR Holder or Candidate CRR Holder. The maximum credit exposure of a negatively valued CRR bid is the maximum bid quantity (MW) submitted by the CRR Holder or Candidate CRR Holder multiplied by the Credit Margin of the CRR. 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. The CAISO will retain the CRR Auction proceeds for negatively valued CRRs and will apply them to credit requirements of the applicable CRR Holder.

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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.

Date	Event/Due Date
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
14 1 5 6010	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

Date	Event/Due Date
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 first tariff amendment to revise CRR credit policy
August 23, 2010	ISO files second tariff amendment to revise CRR credit
	policy