

September 2, 2014

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. ER14-\_\_\_\_ - 000  
Tariff Amendment to Clarify Congestion Revenue Right  
Settlement Adjustment and  
Request for Waiver of Notice Period**

Dear Secretary Bose:

The California Independent System Operator Corporation (CAISO) respectfully requests that the Commission accept, effective September 2, 2014, an amendment to clarify provisions in section 11.2.4.6 of the CAISO tariff that reduce revenues to congestion revenue right (CRR) holders that are also convergence bidding entities when those entities submit virtual bids at locations that increase the value of CRRs.<sup>1</sup> The proposed clarification will reinforce that the CRR settlement rule specified in section 11.2.4.6 (*i.e.*, CRR settlement rule) includes the nodal megawatt limit constraints the CAISO enforces to achieve an alternating current solution in the day-ahead market pursuant to Section 30.10 of the CAISO tariff.

The intent of the CRR settlement rule that the Commission approved in Docket No. ER10-1559 is to adjust CRR revenues for any constraint that impacts the congestion component of locational marginal prices. Consistent with that intent, the existing language in section 11.2.4.6 already authorizes the CAISO to include nodal megawatt limit constraints in the CRR revenue adjustment calculations because nodal constraints are included in the definition of the term

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<sup>1</sup> The CAISO submits this tariff amendment pursuant to Section 205 of the Federal Power Act, 16 U.S.C. § 824d, and Part 35 of the Commission's regulations, 18 C.F.R. Part 35. Capitalized terms not otherwise defined herein are used in the sense given in the Master Definitions Supplement, appendix A to the CAISO tariff.

“transmission constraints” used in this tariff section. However, recent inquiries suggest that this is not immediately obvious to market participants. Their inquiries may be driven by the fact that market participants’ settlement statements do not currently reflect the “claw back” of the impact of nodal megawatt limit constraints on locational marginal prices because the CAISO did not capture the impact of nodal megawatt constraints when it implemented the CRR settlement rule. Consistent with Commission guidance in comparable circumstances, the CAISO is seeking Commission approval of a tariff clarification rather than simply correcting this data transfer limitation on its own accord.

As explained below, the CAISO believes that failure to correct the CRR settlement rule’s revenue adjustment calculations to include nodal megawatt limit constraints, could materially adversely impact the CAISO’s markets. Specifically, the results of the CRR auction for monthly congestion revenue rights for September 2014 would potentially incentivize certain entities to engage in virtual bidding behavior that would improperly inflate the revenues they will receive for their congestion revenue rights if nodal megawatt limit constraints are not included in the CRR settlement rule’s revenue adjustment calculations. The CAISO requests that the Commission grant a waiver of the 60-day prior notice requirement and accept an effective date of September 2, 2014 for the tariff revisions contained in this filing to reinforce that the CRR settlement rule includes the congestion revenue arising from nodal constraints as of this date.<sup>2</sup>

Although the CAISO is not requesting either a shortened comment period or an expedited order on this filing as contemplated in the Commission’s *Guidance Order on Expedited Tariff Revisions for Regional Transmission Organizations and Independent System Operators*, 111 FERC ¶ 61,009 (2005) (*Guidance Order*), the tariff clarification proposed in this filing meets the criteria in the *Guidance Order*. Therefore, the requested September 2 effective date is consistent with the Commission’s policy, as set forth in the *Guidance Order*, of promptly revising market rules to assure that prices in independent system operator and regional transmission organization markets continue to be just and reasonable.

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<sup>2</sup> The CAISO will evaluate the impact of the absence of nodal megawatt limit constraints on participants’ settlements outcome since February 1, 2011, through its existing Market Issues process described in Attachment G of the CAISO’s Business Practice Manual for Market Operations [http://bpmcm.caiso.com/Pages/BPMDetails.aspx?BPM=Market Operations](http://bpmcm.caiso.com/Pages/BPMDetails.aspx?BPM=Market%20Operations). Upon completing its review the CAISO will take appropriate actions to address issues identified in that review. The CAISO will seek further relief from the Commission if it determines that there is a need to resettle market participant settlement statements to recapture the past amounts.

## **I. BACKGROUND**

Congestion revenue rights are financial instruments that the CAISO makes available through its CRR allocation and auction processes, which market participants can also trade through secondary market transactions once released by the CAISO. Congestion revenue rights enable CRR holders to manage variability in the congestion cost component of the locational marginal prices for transactions in the CAISO's markets. Congestion revenue rights are acquired primarily, although not solely, for the purpose of offsetting integrated forward market congestion costs reflected in the congestion component of location marginal prices between generation and supply nodes in the CAISO's day-ahead market.

Virtual bidding (sometimes called convergence bidding) is a mechanism whereby convergence bidding entities can submit purely financial bids, called virtual bids, to sell (or buy) energy in the CAISO's day ahead market, with the explicit requirement to buy back (or sell back) that energy in the real time market.

The CAISO developed the virtual bidding feature after the CAISO implemented its locational marginal pricing markets. One of the technical challenges in implementing virtual bidding was the difficulty of achieving an alternating current power flow solution in the day-ahead market application due to over-scheduling in the day-ahead market caused by the addition of virtual bids at locations where there are physical bids. To increase the likelihood of achieving an alternating current solution with convergence bidding, the CAISO included in its software the capability of enforcing megawatt limit constraints on a nodal basis to limit the amount of bids that clear at a particular location or set of locations when an alternating current solution is not otherwise attainable. The nodal constraint application applies to both virtual and physical bids.

During the development of the CAISO's virtual bidding design, the CAISO identified the potential for market participants to submit virtual bids to alter the value of congestion revenue rights held by CRR entities. This could be accomplished by submitting virtual bids in the day-ahead market to congest certain locations, which would increase the congestion component of the location marginal price, and subsequently increase the value of CRRs that are sourced at those locations. While liquidating virtual bids in the real-time market can result in a loss due to differences between day-ahead and real-time system marginal energy prices and losses, this does not eliminate potential incentives for parties to submit such virtual bids in the day-ahead market because the settlement of CRR revenues are based on the congestion costs collected in the day-ahead market resulting in CRR revenue increases in excess of losses associated with the virtual bids. To address potential incentives for such behavior, when the CAISO filed for Commission acceptance of its virtual bidding design, the CAISO included the proposed CRR settlement rule that automatically adjusts the

revenue from congestion revenue rights for any CRR holder that is also convergence bidding entity that engages in virtual bidding behavior that affects the value of the congestion revenue rights it holds. In a 2010 order conditionally accepting the CAISO's virtual bidding design, the Commission found the proposed CRR settlement rule to be a reasonable mechanism to mitigate virtual bidding that would otherwise alter the value of congestion revenue rights, noting that "participants' convergence bidding practices should not enhance the value of any financial products they hold, be it a congestion revenue right or other product."<sup>3</sup>

The CAISO set forth the details of the CRR settlement rule in section 11.2.4.6 of the ISO tariff. That provision states that the CAISO will adjust the revenue from the congestion revenue rights of a CRR holder that is also a convergence bidding entity whenever either of the following creates a significant impact on the value of the congestion revenue rights held by that entity: the CRR holder/convergence bidding entity submits virtual bids; or the CRR holder/convergence bidding entity reduces in the real-time market an import or export awarded in a day-ahead schedule.

Section 11.2.4.6 expressly applies to transmission constraints, which are defined in appendix A of the CAISO tariff as "physical and operational limitations on the transfer of electric power through transmission facilities."<sup>4</sup> However, section 11.2.4.6 does not separately reference nodal megawatt limit constraints, which are not defined in the appendix. Nodal megawatt limit constraints are addressed in section 30.10 of the CAISO tariff, which provides that, if and when it is impracticable to achieve an alternating current power flow solution without the initial enforcement of nodal megawatt limit constraints, the CAISO will apply nodal megawatt limit constraints to Eligible PNodes and Eligible Aggregated PNodes. As noted above, the CAISO enforces nodal megawatt limit constraints to limit the amount of bids that clear at a particular location or set of locations when an alternating current solution is not otherwise attainable. These nodal megawatt limit constraints are an operational limitation on the transfer of electric power through a portion of the transmission grid administered by the CAISO. As such, these constraints fall within the definition of "transmission constraints."

The Commission accepted sections 11.2.4.6 and 30.10 effective February 1, 2011, pursuant to the CAISO tariff amendment to implement virtual bidding in

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<sup>3</sup> *Cal. Indep. Sys. Operator Corp.*, 130 FERC ¶ 61,122, at P 87 (2010); *see also Cal. Indep. Sys. Operator Corp.*, 133 FERC ¶ 61,039, at P 154 (2010).

<sup>4</sup> Section 6.5.10.1.1 also clarifies that the definition of transmission constraints includes contingencies and nomograms.

the ISO markets.<sup>5</sup> The CAISO believes that the existing tariff language for section 11.2.4.6 approved by the Commission authorizes the CAISO to include nodal megawatt limit constraints in the determination of whether CRR revenue should be adjusted. The CAISO intended the reference to transmission constraints in section 11.2.4.6 to capture any constraint that impacts the congestion component of the applicable locational marginal price, including nodal megawatt limit constraints. This is consistent with the stated goal of section 11.2.4.6 to adjust the revenue from the congestion revenue rights of a CRR holder that is also a convergence bidding entity whenever certain actions create a significant impact on the value of the congestion revenue rights held by that entity. When enforced and binding, nodal megawatt limit constraints determine the congestion component of locational marginal prices. Moreover, this application of section 11.2.4.6 is consistent with the Commission's recognition that the overall intent of the settlement rule implemented in this section is that "convergence bidding practices should not enhance the value of any financial products, be it a congestion revenue right or any other product."<sup>6</sup>

The CAISO has recently evaluated the extent to which nodal megawatt limit constraints have been included in the actual CRR resettlement rule's revenue adjustment calculations undertaken in accordance with section 11.2.4.6. The CAISO discovered that while it intended the CRR settlement rule to include the congestion impact of nodal megawatt limit constraints, the implementation of the CRR settlement rule did not capture those amounts. This issue has been present since the rule became effective on February 1, 2011.

The CAISO is still assessing the impact of the absence of the congestion related to nodal constraints from the CRR settlement rule for the period from February 2011 through August 2014. Based on its preliminary assessment, for the last 12 months the impact of not applying the resettlement rule to the modal megawatt limit constraints has been about \$200,000, compared to the total CRR payment over this period of approximately \$90 million. The impact is minimal because of the infrequency with which the CAISO makes use of such nodal megawatt limit constraints to achieve an alternating current solution. The CAISO has also determined, that but for the nodal megawatt limit constraints, the CRR settlement rule has captured the impact on congestion of all other transmission

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<sup>5</sup> *Cal. Indep. Sys. Operator Corp.*, 133 FERC ¶ 61,039, at PP 19-21, 153-59, 202-03, *order on reh'g and compliance filing*, 134 FERC ¶ 61,070, at PP 106-08, 111 (2011). In 2014, the Commission accepted revisions to section 11.2.4.6 filed by the ISO and found that the revisions did not change the methodology for adjusting the revenue from congestion revenue rights. *Cal. Indep. Sys. Operator Corp.*, 146 FERC ¶ 61,204, at P 100 (2014).

<sup>6</sup> *Cal. Indep. Sys. Operator Corp.*, 130 FERC ¶ 61,122, at P 87; *Cal. Indep. Sys. Operator Corp.*, 133 FERC ¶ 61,039, at P 154.

constraints, as that term is defined in the CAISO tariff, enforced in the integrated forward market. The nodal megawatt limit constraints are a very small portion of the total constraints affected, and as a result the past impact should not be significant. Also, this situation has not further exacerbated because of the limited positions taken and cleared in prior CRR auctions that would benefit from such behavior.

In recent months and most significantly in September 2014, there has been a steady increase in the volume of the cleared CRRs in the monthly CRR auction that could potentially increase the CRR payments referenced above if CRR holders engage in virtual bidding behaviors that inflate these revenues. In recent months such CRR volumes have increased from 10,000 MW up to 38,000 MW.

During August, the CAISO received several inquiries from market participants requesting confirmation of whether or not the nodal megawatt limit constraints are included in the congestion impact on locational marginal prices considered by the CRR settlement rule. While initially these requests were puzzling given the tariff provisions specified above, upon further investigation, the CAISO now believes that the confusion may have been caused due to the fact that market participant settlement statements have not been capturing these impacts.

To avoid any further confusion, the CAISO issued a market notice on August 29, 2014, notifying all market participants that nodal megawatt limit constraints are included in the CRR settlement rule. A copy of this market notice is provided as Attachment C to this filing.

## **II. PROPOSED AMENDMENT**

As noted above, the CAISO believes that the previously approved tariff language in section 11.2.4.6 authorizes the CAISO to include nodal megawatt limit constraints in determining whether to adjust CRR revenue. The CAISO is making this filing to reinforce the application of the nodal constraints in the CRR settlement rule in light of the fact that the current implementation of the CRR settlement rule lacks the nodal constraints. The Commission has previously accepted expedited tariff filings to revise and clarify potentially ambiguous tariff provisions in order to avoid significant and adverse market impacts.<sup>7</sup>

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<sup>7</sup> For example, in 2011, the Commission accepted revised settlement provisions filed by the CAISO on an expedited basis in order to prevent observed exploitation of the CAISO's existing bid cost recovery tariff rules, which were causing an unexpected market outcome. *Cal. Indep. Sys. Operator Corp.*, 135 FERC ¶ 61,110, *clarified*, 137 FERC ¶ 61,180 (2011).

The CAISO proposes to revise section 11.2.4.6 to reinforce that nodal megawatt limit constraints are included in the calculations for adjusting CRR revenues. Specifically, the ISO proposes to revise section 11.2.4.6(a) to state that the CRR settlement rule's revenue adjustment calculations will include nodal megawatt limit constraints that the ISO applies to Eligible PNodes in the integrated forward market pursuant to section 30.10. This change is consistent with the Commission's determination that convergence bidding practices should not enhance the value of any financial products such as congestion revenue rights.

The CASIO's proposed tariff revisions in this filing are only intended to apply to the period from September 2, 2014, forward. The CAISO is still evaluating the settlement impact during the period from February 2011 to date when the CAISO's data transfers did not account for nodal megawatt constraints in the CRR revenue adjustment calculations. If the CAISO determines that further action is required for this period, the CAISO will inform the Commission and all market participants and undertake the appropriate steps.<sup>8</sup>

### III. EFFECTIVE DATE AND REQUEST FOR WAIVER

The CAISO requests that the Commission waive its notice requirements for the proposed amendment, accept it for filing, and permit it to become effective on September 2, 2014.<sup>9</sup> Good cause exists for granting this waiver. As explained above, parties have made numerous inquiries regarding the application of the CRR settlement rule to nodal constraints and the results of the CRR auction for monthly congestion revenue rights for September 2014 could increase CRR payments if CRR holders engage in convergence bidding behaviors that inflate the revenues.

The Commission has recognized that certain rules and tariff flaws may require prompt revision to assure that prices in wholesale markets continue to be just and reasonable.<sup>10</sup> In the *Guidance Order*, the Commission stated that a

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<sup>8</sup> The Commission has held that, "The general authority ISOs have under the filed rate doctrine allows automatic resettlements to address data input errors, or software malfunctions," but has directed the CAISO to seek authority from the Commission for resettlements "when the resettlement involves a reinterpretation of how to apply its tariff and the reinterpreted methodology is different from the one outlined in CAISO's business practice manual." *Cal. Indep. Sys. Operator Corp.*, 137 FERC ¶ 61,180 at PP 23-24; *see also Cal. Indep. Sys. Operator Corp.*, 143 FERC ¶ 61,211 (2013)(granting a petition for declaratory order seeking approval for the resettlement of bid cost recovery payments).

<sup>9</sup> Specifically, pursuant to Section 35.11 of the Commission's regulations (18 C.F.R. § 35.11), the ISO requests waiver of Section 35.3 of the Commission's regulations (18 C.F.R. § 35.3) in order to permit this effective date.

<sup>10</sup> *Guidance Order* at P 1.

request by a regional transmission organization or independent system operator for expedited treatment of a tariff revision should clearly demonstrate that a rule change is required due to a flaw, why action is necessary in the market, and that the proposed tariff revision will correct the flaw.<sup>11</sup> The tariff revision qualifies for the use of expedited tariff revision procedures if the flaw that meets the following criteria:

- (1) it materially adversely impacts the market (due to the unanticipated workings of the tariff or unanticipated actions by market participants);
- (2) it requires prompt action to prospectively revise the tariff to remove the ability to cause such material adverse impacts; and
- (3) it is susceptible to a clear-cut revision or interim tariff revision or market rule.<sup>12</sup>

The proposed amendment meets these criteria. First, the results of the monthly CRR auction for September 2014 indicate that certain CRR holders/convergence bidding entities will have the ability to capitalize on the absence of nodal megawatt limit constraints from the CRR settlement rule's revenue adjustment calculations and substantially inflate the revenues they will receive from the congestion revenue rights. These actions by market participants were unanticipated. The CAISO has not identified any similar risks since section 11.2.4.6 went into effect in 2011.

Second, section 11.2.4.6 must be promptly clarified to prevent market participants from inappropriately concluding that nodal megawatt limit constraints are excluded from the CRR resettlement rule's revenue adjustment calculations. If the section is not promptly clarified, the potential adverse market impacts could be substantial and the CAISO may face challenges in its attempts to enforce the CRR settlement rule.

Finally, the clarification of section 11.2.4.6 proposed in this filing will make it expressly clear that nodal megawatt limit constraints are included in the CRR settlement rule's revenue adjustment calculations performed pursuant to that section.

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<sup>11</sup> Guidance Order at P 2.

<sup>12</sup> *Id.* See also *Cal. Indep. Sys. Operator Corp.*, 135 FERC ¶ 61,110, at PP 24, 26 (2011) (granting expedited treatment and waiver of prior notice requirement pursuant to Guidance Order to accept tariff revisions modifying bid cost recovery settlement rule); *ISO New England Inc.*, 111 FERC ¶ 61,184, at PP 1, 10 (2005) (granting expedited treatment and waiver of prior notice requirement pursuant to Guidance Order to accept tariff revisions ending use of market-based reference levels for units that run out-of-merit more than 50 percent of the time).



Although the September 2 effective date is critical for all the reasons discussed above, the CAISO notes that this is essentially a settlement issue. As such, the CAISO is not requesting either a shortened comment period or an expedited Commission order on this filing.

#### **IV. COMMUNICATIONS**

The CAISO requests that all correspondence, pleadings, and other communications concerning this filing be served upon the following:

Roger E. Collanton  
General Counsel  
Anna McKenna  
Assistant General Counsel  
Sidney M. Davies  
Assistant General Counsel  
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#### **V. SERVICE**

The Guidance Order requires that the Independent System Operator or Regional Transmission Organization post the filing on its website and send an e-mail notification to each market participant. The CAISO has served this filing upon the California Public Utilities Commission, the California Energy Commission, all parties with effective Scheduling Coordinator Service Agreements under the CAISO tariff. In addition, the CAISO has posted the filing on the ISO's website and provided e-mail notice all parties with effective Scheduling Coordinator Service Agreements under the ISO tariff.

#### **VI. ATTACHMENTS**

The following documents, in addition to this transmittal letter, support this filing:

- |              |   |
|--------------|---|
| Attachment A | Revised CAISO tariff sheets that incorporate the proposed changes described above |
| Attachment B | The proposed changes to the CAISO tariff shown in black-line format               |

Attachment C August 29, 2014, Market Notice

## VII. CONCLUSION

For all the foregoing reasons, the Commission should accept the proposed amendment to become effective as of September 2, 2014 in order to assure that prices in the CAISO markets continue to be just and reasonable. Please feel free to contact the undersigned if you have any questions concerning this matter.

Respectfully submitted,

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Anna McKenna  
Assistant General Counsel  
Sidney M. Davies  
Assistant General Counsel  
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Counsel for the California Independent System Operator Corporation

**Attachment A – Clean Tariff Sheets**

**Tariff Amendment to Clarify Congestion Revenue Right Settlement Adjustment**

**California Independent System Operator Corporation**

#### **11.2.4.6 Adjustment of CRR Revenue Related to Virtual Awards**

In accordance with this Section 11.2.4.6, the CAISO will adjust the revenue from the CRRs of a CRR Holder that is also a Convergence Bidding Entity whenever either of the following creates a significant impact on the value of the CRRs held by that entity: the CRR Holder/Convergence Bidding Entity submits Virtual Bids; or the CRR Holder/Convergence Bidding Entity reduces in the RTM an import or export awarded in a Day-Ahead Schedule. As set forth in Section 11.32, the CAISO will also adjust the revenue from the CRRs of a CRR Holder (regardless of whether the CRR Holder is also a Convergence Bidding Entity) where the Scheduling Coordinator representing that CRR Holder reduces in the RTM an import or export awarded in a Day-Ahead Schedule.

- (a) For purposes of this Section 11.2.4.6 and the definition of Flow Impact, any reduction by a Scheduling Coordinator submitting Schedules on behalf of an entity that is a CRR Holder to an import or export Schedule in the RTM will be treated as a Virtual Award. For each CRR Holder subject to this Section 11.2.4.6, for each hour, and for each Transmission Constraint binding in the IFM or FMM the CAISO will calculate the Flow Impact of the Virtual Awards awarded to the Scheduling Coordinator that represents the CRR Holder, excluding Virtual Awards at LAPs and generation Trading Hubs. For the purposes of calculating the CRR adjustments as specified in this Section 11.2.4.6.4, the CAISO will include nodal MW constraints that the CAISO applies to Eligible PNodes in the IFM pursuant to Section 30.10.
- (b) The CAISO will determine the peak and off-peak hours of the day in which Congestion on the Transmission Constraint was significantly impacted by the Virtual Awards awarded to the Scheduling Coordinator that represents the CRR Holder. Congestion on the Transmission Constraint will be deemed to have been significantly impacted by the Virtual Awards awarded to the Scheduling Coordinator that represents

the CRR Holder if the Flow Impact passes two criteria. First, the Flow Impact must be in the direction to increase the value of the CRR Holder's CRR portfolio. Second, the Flow Impact must exceed the threshold percentage of the flow limit for the Transmission Constraint. The threshold percentage is ten (10) percent of the flow limit for each Transmission Constraint.

- (c) For each peak or off-peak hour that passes both criteria in Section 11.2.4.6(b), the CAISO will compare the Transmission Constraint's impact on the Day-Ahead Market value of the CRR Holder's CRR portfolio with the Transmission Constraint's impact on the FMM value of the CRR Holder's CRR portfolio, as applicable.
- (d) The CAISO will adjust the peak or off-peak period revenue from the CRR Holder's CRRs in the event that, over the peak or off-peak period of a day, the Transmission Constraint's contribution to the Day-Ahead Market value of the CRR Holder's CRR portfolio exceeds the Transmission Constraint's contribution to the FMM value of the CRR Holder's CRR portfolio, as applicable. The amount of the peak period adjustment will be the amount by which the Transmission Constraint's contribution to the Day-Ahead Market value of the CRR Holder's CRR portfolio exceeds the Transmission Constraint's contribution to the FMM value of the CRR Holder's CRR portfolio for the peak-period hours that passed both criteria in Section 11.2.4.6(b), as applicable. The amount of the off-peak period adjustment will be the amount by which the Transmission Constraint's contribution to the Day-Ahead Market value of the CRR Holder's CRR portfolio exceeds the Transmission Constraint's contribution to the FMM value of the CRR Holder's CRR portfolio for the off-peak period hours that passed both criteria in Section 11.2.4.6(b), as applicable.

All adjustments of CRR revenue calculated pursuant to this Section 11.2.4.6 will be added to the CRR Balancing Account.

**Attachment B – Marked Tariff Sheets**

**Tariff Amendment to Clarify Congestion Revenue Right Settlement Adjustment**

**California Independent System Operator Corporation**

#### 11.2.4.6 Adjustment of CRR Revenue Related to Virtual Awards

In accordance with this Section 11.2.4.6, the CAISO will adjust the revenue from the CRRs of a CRR Holder that is also a Convergence Bidding Entity whenever either of the following creates a significant impact on the value of the CRRs held by that entity: the CRR Holder/Convergence Bidding Entity submits Virtual Bids; or the CRR Holder/Convergence Bidding Entity reduces in the RTM an import or export awarded in a Day-Ahead Schedule. As set forth in Section 11.32, the CAISO will also adjust the revenue from the CRRs of a CRR Holder (regardless of whether the CRR Holder is also a Convergence Bidding Entity) where the Scheduling Coordinator representing that CRR Holder reduces in the RTM an import or export awarded in a Day-Ahead Schedule.

- (a) For purposes of this Section 11.2.4.6 and the definition of Flow Impact, any reduction by a Scheduling Coordinator submitting Schedules on behalf of an entity that is a CRR Holder to an import or export Schedule in the RTM will be treated as a Virtual Award. For each CRR Holder subject to this Section 11.2.4.6, for each hour, and for each Transmission Constraint binding in the IFM or FMM the CAISO will calculate the Flow Impact of the Virtual Awards awarded to the Scheduling Coordinator that represents the CRR Holder, excluding Virtual Awards at LAPs and generation Trading Hubs. [For the purposes of calculating the CRR adjustments as specified in this Section 11.2.4.6.4, the CAISO will include nodal MW constraints that the CAISO applies to Eligible PNodes in the IFM pursuant to Section 30.10.](#)
- (b) The CAISO will determine the peak and off-peak hours of the day in which Congestion on the Transmission Constraint was significantly impacted by the Virtual Awards awarded to the Scheduling Coordinator that represents the CRR Holder. Congestion on the Transmission Constraint will be deemed to have been significantly impacted by the Virtual Awards awarded to the Scheduling Coordinator that represents



the CRR Holder if the Flow Impact passes two criteria. First, the Flow Impact must be in the direction to increase the value of the CRR Holder's CRR portfolio. Second, the Flow Impact must exceed the threshold percentage of the flow limit for the Transmission Constraint. The threshold percentage is ten (10) percent of the flow limit for each Transmission Constraint.

- (c) For each peak or off-peak hour that passes both criteria in Section 11.2.4.6(b), the CAISO will compare the Transmission Constraint's impact on the Day-Ahead Market value of the CRR Holder's CRR portfolio with the Transmission Constraint's impact on the FMM value of the CRR Holder's CRR portfolio, as applicable.
- (d) The CAISO will adjust the peak or off-peak period revenue from the CRR Holder's CRRs in the event that, over the peak or off-peak period of a day, the Transmission Constraint's contribution to the Day-Ahead Market value of the CRR Holder's CRR portfolio exceeds the Transmission Constraint's contribution to the FMM value of the CRR Holder's CRR portfolio, as applicable. The amount of the peak period adjustment will be the amount by which the Transmission Constraint's contribution to the Day-Ahead Market value of the CRR Holder's CRR portfolio exceeds the Transmission Constraint's contribution to the FMM value of the CRR Holder's CRR portfolio for the peak-period hours that passed both criteria in Section 11.2.4.6(b), as applicable. The amount of the off-peak period adjustment will be the amount by which the Transmission Constraint's contribution to the Day-Ahead Market value of the CRR Holder's CRR portfolio exceeds the Transmission Constraint's contribution to the FMM value of the CRR Holder's CRR portfolio for the off-peak period hours that passed both criteria in Section 11.2.4.6(b), as applicable.

All adjustments of CRR revenue calculated pursuant to this Section 11.2.4.6 will be added to the CRR Balancing Account.

**Attachment C – August 29, 2014 Market Notice**

**Tariff Amendment to Clarify Congestion Revenue Right Settlement Adjustment**

**California Independent System Operator Corporation**

**Garcia, Sarah**

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**From:** California ISO Communications <marketnotices@caisocommunications.com>  
**Sent:** Friday, August 29, 2014 4:39 PM  
**To:** Atkins, Sean  
**Subject:** Application of CRR Settlement Rule to Nodal Constraints

## Market Notice

August 29, 2014



### Categories

Legal/ Regulatory  
Market Rules and Market Design

### Requested Client Action

Information Only

## Application of CRR Settlement Rule to Nodal Constraints

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### Summary

In response to market participant inquiries, the California ISO confirms that the congestion revenue rights (CRR) resettlement rule specified in Section 11.2.4.6 of the ISO tariff applies to nodal megawatt limit constraints enforced pursuant to section 30.10. The ISO will be taking necessary steps to conform settlement statements to reflect this requirement.

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### Main Text

Market participants have requested confirmation that the congestion revenue rights (CRR) resettlement rule defined in Section 11.2.4.6 of the ISO tariff includes the impact to locational marginal prices from nodal MW limit constraints enforced pursuant to section 30.10. In response, the California ISO confirms the CRR settlement rule applies to nodal megawatt limit constraints enforced pursuant to section 30.10 of the ISO tariff. The ISO will be taking necessary steps to conform settlement statements to reflect this requirement, consistent with the ISO tariff authority.

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### For More Information Contact

Guillermo Bautista Alderete at [GBAlderete@caiso.com](mailto:GBAlderete@caiso.com)

*For the benefit of our customers, we:*

*Attract, develop and retain a highly skilled workforce &#x2013; Operate the grid reliably and efficiently &#x2013; Provide fair and open transmission access*

*Promote environmental stewardship &#x2013; Facilitate effective markets and promote infrastructure development &#x2013; Provide timely and accurate information*

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