



California ISO  
Your Link to Power

California Independent  
System Operator Corporation

September 8, 2008

The Honorable Kimberly D. Bose  
Secretary  
Federal Energy Regulatory Commission  
888 First Street, N.E.  
Washington, D.C. 20426

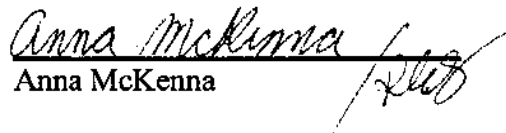
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FEDERAL ENERGY  
REGULATORY COMMISSION

**Re: 2009 CRR Release Process, Docket No. ER08-\_\_\_-000.**

Dear Secretary Bose:

Pursuant to Section 205 of the Federal Power Act ("FPA"), 16 U.S.C. § 824d, and Part 35 of the Federal Energy Regulatory Commission's regulations, 18 C.F.R. § 35 *et seq.*, the California Independent System Operator Corporation ("CAISO") submits an original and five (5) copies of proposed tariff revisions.

Respectfully submitted,

  
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Pursuant to Section 205 of the Federal Power Act (“FPA”), 16 U.S.C. § 824d, and Part 35 of the Federal Energy Regulatory Commission’s (“FERC” or “Commission”) regulations, 18 C.F.R. § 35 *et seq.*, the California Independent System Operator Corporation (“CAISO”)<sup>1</sup> submits an original and five (5) copies of proposed revisions to the CAISO’s currently effective tariff.

## **I. INTRODUCTION**

The instant filing involves three aspects of the allocation and auction of Congestion Revenue Rights (“CRRs”) for calendar year 2009 and is based on an MRTU start-up date that is anticipated to occur in early 2009, but no earlier than February 1, 2009. The proposed tariff revisions are to the currently-effective CAISO Tariff (Appendix BB) which would enable the CAISO to implement the revised 2009 CRR allocation and auction process prior to the start of MRTU. As explained in more detail in Section VI herein, the CAISO requests waiver of the Commission notice requirements and an effective date for the tariff revisions of September 10, 2008.

### The CRR Release Process for 2009

The first two aspects of the filing involve the CRR release process for calendar year 2009. As approved in the Commission’s July 29, 2008 Order in Docket No ER08-1059-000, the CRR release process for 2009 incorporates the application of CRR Year One rules for the first

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<sup>1</sup> Capitalized terms not otherwise defined herein have the meanings set forth in the Master Definitions Supplement, Appendix A to the ISO Tariff, in Part G (Definitions) of Appendix BB to the ISO Tariff, in the Master Definitions Supplement, Appendix A to the MRTU Tariff, and in the instant filing.

quarter of 2009 and CRR Year Two rules for the last three quarters of 2009.<sup>2</sup> The first aspect of the filing merely is to confirm the treatment of CRRs that are allocated and auctioned in the first season of 2009 which is subject to CRR Year One rules.

The second aspect of the filing has to do with the sequence of the allocation tiers in the allocation of CRRs for 2009. Again, due to the application of both CRR Year One and CRR Year Two rules to the release of CRRs in 2009, the CAISO proposes to change the sequence of the allocation tiers for the 2009 allocation process that will occur prior to the start of MRTU.<sup>3</sup> The proposed sequence of the tiers is as follows: (1) the Priority Nomination Tier; (2) Tier 2; (3) Tier LT; and (4) Tier 3.<sup>4</sup> In subsequent years after the start of MRTU, the sequence of allocation tiers will remain as is reflected in MRTU Tariff § 36.8.3.5.

### The CAISO's Ability to Perform the Transfer of CRRs Due to Load Migration

The third aspect of the filing involves the CAISO's efforts to implement the Commission's direction that the CAISO be responsible for performing the transfer of CRRs due to Load Migration from one Load Serving Entity to another according to clearly-specified procedures.<sup>5</sup> The Commission directed the CAISO: "to implement, with regard to load migration and CRRs, a request by stakeholders that the CAISO take on the responsibility of performing the transfers according to clearly-specified procedures."<sup>6</sup> Consistent with the Section 36.8.5.1 of Appendix BB of the CAISO Tariff, the methodology to implement the Load Migration provisions in the CAISO Tariff relies on data for customer transfers that Utility Distribution Companies ("UDCs") provide to the CAISO.<sup>7</sup>

In performing the Load Migration process, the CAISO also has to account for the cumulative Load Migration that takes place between the beginning of the CRR Year One allocation process and the first day that the Day-Ahead Market is operational as a single adjustment.<sup>8</sup> The historical load metric (which is the basis for determining eligibility for CRRs) for the first annual CRR allocation process was based on the time period stretching from April 1,

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<sup>2</sup> See *California Independent System Operator Corporation*, 124 FERC ¶ 61,107 (July 29, 2008) ("July 29 Order") at PP 81, 82 (defining CRR Year One as the second, third and fourth quarters of calendar year 2008 and the first quarter of calendar year 2009; and defining CRR Year Two as the second, third and fourth quarters of calendar year 2009 and the first quarter of calendar year 2010).

<sup>3</sup> See Proposed Tariff § 36.8.3.5.6 (Appendix BB, Part H, § 36.8.3.5.6).

<sup>4</sup> *Id.*

<sup>5</sup> See *California Independent System Operator Corporation*, 120 FERC ¶ 61,023, P 204 (2007) ("July 6 Order") and *California Independent System Operator Corporation*, 124 FERC ¶ 61,095, PP 66, 87 (2008) ("July 28 Order").

<sup>6</sup> *July 28 Order* at P 66.

<sup>7</sup> The CAISO only needs data from the UDCs because they know if an Energy Service Provider is serving Load in their Service Area.

<sup>8</sup> See Proposed revisions to CAISO Tariff § 36.8.5 and § 36.8.5.5 (Appendix BB, Part H, § 36.8.5 and § 36.8.5.5).

2006 to December 31, 2006. Since the start of that time (April 1, 2006) to August 15, 2008 (*i.e.*, the beginning of the 2009 CRR release process and the time to make load migration adjustments) is a period of 28 months. During this period load migrated among various LSEs and that load needs to be appropriately reflected in the CRR release process.

In the past 6 months, the CAISO has worked diligently with a working-group that includes all three UDCs, representatives of energy services providers (“ESPs”), the CPUC and CEC to finalize the methodology for converting customer specific data to information that can be used by the CAISO to reflect Load Migration. Attachment C to this filing contains a timeline and a description of the efforts by the CAISO, the UDCs, ESPs and other Market Participants to develop, test and implement a Load Migration Tool necessary to implement the Commission directive in the *July 6 Order* and the *July 28 Order* to perform the transfer of CRRs due to Load Migration. A run of the Load Migration Tool in August of 2008 revealed a substantial issue that resulted in an erroneous 100% (or more) migration of load for some LSEs. The CAISO analyzed the data and discovered that the issue was related to using a single, long reference period of 28 months for the adjustment to account for Load Migration between the beginning of the CRR Year One allocation process (April 2006) and August 2008.<sup>9</sup> One option to resolve this issue was to have the UDCs submit data with a finer temporal granularity. However, the submission of such data could not be performed without either a substantial delay in the adjustments for Load Migration or use of simplifying assumptions that would compromise the quality of the data and lead to inaccurate results.<sup>10</sup>

The CAISO decided to seek a modification of the currently-effective CAISO Tariff provisions regarding the timing of when Load Migration is performed in the 2009 CRR release process. As discussed in more detail herein, the CAISO proposes to account for all Load Migration *after* the 2009 annual CRR Allocation process is completed. Absent the instant filing (and per the currently-effective CAISO Tariff), an LSE’s Eligibility Quantity for CRRs would be adjusted prior to the 2009 CRR Allocation process to account for Load Migration. Under the instant proposal, accounting for Load Migration will instead take place after the 2009 annual CRR Allocation process and will be implemented by transferring actual CRR holdings (as opposed to adjusting each entity’s CRR Eligible Quantity).

The benefits of the CAISO’s proposed approach are two-fold. First, the CAISO can proceed with the 2009 annual allocation without waiting an uncertain amount of time to resolve data issues relating to the Load Migration Tool. Second, LSEs gain reasonable assurance that they will have CRRs in place before a February 1, 2009 MRTU “Go Live” date.

## **II. BACKGROUND**

### **A. CRRs in the CAISO Tariff**

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<sup>9</sup> Attachment C to this Filing at 6-7 (entry for August 18, 2008).

<sup>10</sup> *Id.* at 7-8 (entries for August 19 and 20, 2008).

Over the last several years, the CAISO has developed through an extensive stakeholder process a structure under MRTU for creating and releasing CRRs, which will replace the Firm Transmission Rights (“FTRs”) that are used under the CAISO’s current market design. Appendix BB to the ISO Tariff includes currently effective language that enables the CAISO to release CRRs, both through the CRR Allocation and the CRR Auction processes, in preparation for operations under MRTU. Corresponding provisions are set forth in Section 36 of the MRTU Tariff, which will go into effect when MRTU is implemented. Market Participants that obtain CRRs may hold them or may, subject to the relevant tariff provisions, transfer them to other Market Participants.

The currently established CRR release process – which was developed through considerable stakeholder input over several years – permits up to 75% of the grid’s transfer capacity as reflected in the network model first to be allocated annually to qualifying LSEs and then auctioned to any credit-worthy Market Participant. Monthly CRRs covering up to 100% of the grid’s capacity, adjusted for anticipated transmission outages and derates, are released twelve times a year through a similar allocation process, followed by an auction for the remaining capacity.

The CAISO filed the initial MRTU tariff language with the Commission in February 2006, specifying how Seasonal CRRs would be allocated annually in three tiers so that Market Participants could receive the results of the latest tier prior to submitting their nominations for the next tier.<sup>11</sup> This feature was meant to maximize the choices available to LSEs participating in the allocation and enable them to prioritize among their possible CRR nominations, as well as to maximize the release of CRRs (subject to simultaneous feasibility).

Another foundational element embedded in the CAISO Tariff with respect to CRRs is the “source verification” process that the CAISO will utilize in CRR Year One to create an initial CRR allocation to LSEs based on their demonstrated prior use of specific supply sources. By demonstrating previous contractual arrangements or generation ownership, LSEs get priority to nominate CRRs that hedge congestion costs from these established supply sources to their load. After the first year in which CRRs are in effect, the CAISO will no longer verify sources for CRRs to serve load within the CAISO Balancing Authority Area, but LSEs will be able to utilize a Priority Nomination Process (“PNP”) for CRRs that had been allocated in the previous year.<sup>12</sup> In a series of orders dating from September 2006 – including the recent *July 28 Order* and *July 29 Order* – FERC has approved these key features of the CRR release process, along with the addition of a Long-Term CRR tier within the annual allocation process that provides a 10-year hedging product.

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<sup>11</sup> Seasonal CRRs have a term of three months and are differentiated by the different time of use periods (on-peak and off-peak) for each day within a season. Seasonal CRRs are made available through the annual CRR Allocation and CRR Auction processes conducted each year prior to the year in which the Seasonal CRR applies. CAISO Tariff § 36.2.6 (Appendix BB, Part H, § 36.2.6).

<sup>12</sup> LSEs eligible for allocation of CRRs associated with serving load outside the CAISO Balancing Authority Area will be subject to continued annual source verification beyond CRR Year One, and will be able to use the Priority Nomination Process, subject to such source verification, to nominate such CRRs for annual renewal.

**B. The May 30, 2008 Filing in Docket No ER08-1059-000 and the 2009 CRR Release Process**

In spring 2008, the CAISO conducted a stakeholder process to develop new tariff language dealing with the release of CRRs that would be effective in 2009. The most significant results of that stakeholder process were the consensus to:

- 1) treat the first quarter/season of 2009 (January - March) under CRR Year One rules, and treat seasons two, three and four (covering April through December, 2009) under CRR Year 2 rules; and
- 2) update the historical reference period for source verification in the first season of 2009. The new reference period is the first three months of 2007, which is different from the 2006 period required for verifying CRR source nominations in the previous three quarters of CRR Year One.<sup>13</sup>

On May 30, 2008, the CAISO filed a proposal at FERC to incorporate these policies into the MRTU Tariff and its currently-effective CAISO Tariff. The Commission accepted the filing subject to further compliance requirements in the *July 29 Order*.<sup>14</sup> Therefore, CRR Year One is comprised of the second, third and fourth quarters of calendar year 2008 and the first quarter of calendar year 2009. CRR Year Two is comprised of the second, third and fourth quarters of calendar year 2009 and the first quarter of calendar year 2010.

**C. The 2008 CRR Release Process and Unwinding**

In late 2007, the CAISO conducted the initial CRR release process, which included allocating seasonal and Long Term CRRs under the CRR Year One rules and auctioning the remaining seasonal CRRs. Based on the assumption that the MRTU markets would begin in April 2008, seasonal CRRs were released only for the second, third and fourth quarters of 2008. No monthly CRRs have been released; the first monthly CRR release process will commence approximately two months before the established MRTU “Go Live” date.

In early 2008, recognizing that MRTU start-up would be delayed beyond April 2008, the CAISO filed a “CRR Contingency Plan” with the Commission to allow the CAISO to reduce the terms of CRRs that had been allocated and provide refunds for CRRs purchased in the auction and whose terms were covered periods when the LMP markets were not operating. The Commission conditionally accepted this plan on March 31, 2008, and the CAISO has unwound CRRs for the second and third quarters of 2008.<sup>15</sup> On August 6, 2008, the CAISO announced the

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<sup>13</sup> See the CAISO’s August 26, 2008 Whitepaper regarding the “Release of 2009 CRRs and the start-up of the MRTU Markets” (August 26 CRR Whitepaper”) at 4. The *August 26 CRR Whitepaper* can be found at: <http://www.caiso.com/202f/202f897a117b0.pdf>.

<sup>14</sup> See *July 29 Order* at PP 81, 82.

<sup>15</sup> See *California Independent System Operator Corporation*, 122 FERC ¶ 61,296 at P 2 (2008).

schedule for unwinding CRRs for the fourth quarter of 2008. This unwinding is nearly completed and has been conducted in like manner to the previous unwinding.<sup>16</sup>

### **III. THE STAKEHOLDER PROCESS**

On August 5, 2008, the CAISO issued a notice announcing that more time is needed for MRTU market simulation and analysis in order to instill greater confidence in simulation results. On August 8, the CAISO issued a whitepaper to continue an on-going discussion with stakeholders regarding the release of CRRs that would be effective in 2009. The dialogue was intended to review the policy direction and timing for the allocation and auction of CRRs based upon an updated MRTU start date that would likely occur in early 2009. To provide structure and focus for this discussion, the CAISO offered an initial proposal which suggested maintaining CRR allocation and auction under the current schedule and tariff rules, except for adjusting the terms of CRRs in the first quarter to be effective on February 1, 2009. Stakeholders were encouraged to raise questions and articulate any concerns they may have regarding this plan.

The CAISO had a conference call with stakeholders on August 14 and received written comments on August 21. Comments were received from seven parties.<sup>17</sup> The CAISO had another conference call with stakeholders on August 20 which focused on the Load Migration issue, and then issued a revised whitepaper on August 26, 2008, which was followed by another conference call on August 27, 2008. The two most significant changes between the first iteration of the white paper and the revised version were: (i) adoption of the policy proposal (with strong stakeholder consensus) to allocate Season 1 CRRs for the entire three months instead of a two-month term, and (ii) the inclusion of the Load Migration issue referred to above; namely, the proposal to change from adjusting eligibility at the beginning of the annual CRR process to adjusting actual CRR holdings obtained in the annual CRR process. The CAISO received comments from six parties on the revised whitepaper.<sup>18</sup> Draft tariff language was posted on August 29 2008 and comments were received from four parties by September 5, 2008.<sup>19</sup>

### **IV. DISCUSSION**

#### **A. Treatment of CRRs Allocated and Auctioned in the Annual 2009 CRR Release Process**

Based on a targeted MRTU “Go Live” date of February 1, 2009 and the Commission’s *July 29 Order* (approving the treatment of the first quarter of 2009 under CRR Year One rules and approving the treatment of the second, third and fourth quarters of calendar year 2009 under

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<sup>16</sup> This is detailed in the market notice which is located at: <http://www.caiso.com/1f5f/1f5fbb6415690.html>.

<sup>17</sup> Pacific Gas and Electric Company (PG&E”), Southern California Edison Company (“SCE”), San Diego Gas and Electric Company (“SDG&E”), California Department of Water Resources (“DWR”), Citadel Investment Group (“Citadel”), Sacramento Municipal Utility District (“SMUD”), and Silicon Valley Power (“SVP”).

<sup>18</sup> The commenters were: Alliance for Retail Energy Markets (“AReM”), DWR, EPIC Merchant Energy (“EPIC”), PG&E, SCE, and SMUD.

<sup>19</sup> The commenters on the tariff language were: AReM, PG&E, SCE, and SMUD.

CRR Year Two rules), the CAISO hereby confirms the following policies regarding: (i) the allocation of CRRs for 2009, (ii) the auction of Seasonal CRRs for 2009, and (iii) assessing the possibility of whether there will be a need for any further Firm Transmission Right (“FTR”) auctions in 2009.<sup>20</sup>

## **1. The Allocation of CRRs for 2009**

The CAISO will allocate Seasonal CRRs for all four seasons of 2009 including Season 1 CRRs with terms from January through March even though the MRTU markets will not commence before February 1, 2009.<sup>21</sup> This policy is consistent with the Commission’s approval in the *July 29 Order* of the treatment of released CRRs that were not in effect during MRTU market operations (due to the previous delay of the start of MRTU until the Fall of 2008).<sup>22</sup>

This policy also raises a question about the CRR release process for Season 1 in the 2010 CRR release process. The CAISO confirms that CRRs released for Season 1 of 2010 will be allocated under CRR Year 2 rules (which includes the PNP) even though part of the Season 1 CRRs will not have been effective in the prior year due to the fact that the earliest possible start date for MRTU is targeted for February 1, 2009.

With regard to Long Term CRRs that begin in Season 1 of 2009, such Long Term CRRs will be allocated under CRR Year One rules. With regard to Long Term CRRs that begin in Season 1 of 2010, they will be allocated under CRR Year 2 rules even though part of the Season 1 CRRs allocated through the PNP will not have been effective in the prior year.

## **2. The Auction of Seasonal CRRs for 2009**

The CAISO anticipates auctioning Seasonal CRRs with terms that match the months for which the MRTU markets are expected to operate. Since MRTU start-up is targeted for no earlier than February 1, 2009, the CAISO anticipates that the Seasonal CRRs to be auctioned for the first quarter of 2009 will at least be adjusted to have a term of two months. The CAISO notes that the auction for Seasonal CRRs effective in 2009 is currently scheduled for November 2008. If at that time a different “Go Live” date is targeted, the CAISO will adjust the terms of those Seasonal CRRs accordingly.

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<sup>20</sup> The CAISO has made a commitment to stakeholders to revisit these policies within an open stakeholder process should the opening of the MRTU markets extend beyond the first quarter of 2009.

<sup>21</sup> For the months during the first quarter of 2009 during which MRTU will not be in effect, the terms of Season 1 CRRs will be unwound consistent with Section 44.1 of Appendix BB of the CAISO Tariff. In addition, in accord with Section 36.8.3.4.1 of the MRTU Tariff, these Season 1 CRRs will be allocated under CRR Year One rules using data from January through March 2007 as the basis for verification of sources nominated in the first two tiers.

<sup>22</sup> Cf. *July 29 Order* at PP 86, 87.



If the auctioned Seasonal CRRs have terms that begin on the targeted “Go Live” date, but MRTU does not actually begin operating until later months, the CAISO will pro-rate the terms accordingly and unwind the financial settlement of such Seasonal CRRs if they have already been settled. This unwinding process would be exactly the same as the Commission-approved process that the CAISO has followed for unwinding the auctioned CRRs for 2008 as provided in Section 44 of the Appendix BB of the currently-effective CAISO Tariff. In light of the forgoing, the CAISO proposes the following addition to currently-effective CAISO Tariff § 36.13.1:

The CAISO will conduct a CRR Auction corresponding to and subsequent to the completion of each CRR Allocation process, and prior to the start of the period to which the auctioned CRRs will apply. Each CRR Auction will release CRRs having the same seasons, months and time of use specifications as the CRRs released in the corresponding CRR Allocation; provided, however, that if the MRTU Tariff is not expected to be in effect during certain months of the next annual period, the CAISO may adjust the term of the season in which the months fall accordingly.

### **3. Assessing the Need for Further FTR Auctions**

The current CAISO tariff requires the auctioning of FTRs over an annual period and FTRs have been released through March 31, 2009. By November 2008, the CAISO will reassess the expectation for an MRTU start-up for the purposes of evaluating whether there is a need for another FTR auction for the remainder of 2009. The CAISO notes that even if MRTU is expected to start-up during the first quarter of 2009, depending on the exact start date the CAISO will consider the need for FTRs as “insurance” in case of reversion back to the current market design.

### **B. The Sequence of the Allocation Tiers in the Allocation Process for 2009**

As noted previously, due to the application of both CRR Year One and CRR Year Two rules to the release of CRRs to be effective in 2009, the CAISO proposes to change the sequence of the allocation tiers for Seasons 2-4 of 2009.<sup>23</sup> The existing tariff provisions provide that the tier sequence for CRR Year One is: Tier 1, Tier 2, Tier LT, Tier 3, whereas the tier sequence for CRR Year Two and beyond is: Tier 1 (the Priority Nomination Tier), Tier LT, Tier 2, Tier 3. The logic behind these specific sequences of tiers was to perform Tier LT immediately after the running the tier(s) that determine which CRRs are eligible for nomination in Tier LT. Under the CRR Year One rules, LSEs are eligible to make Tier LT nominations from among the CRRs they are awarded in Tiers 1 and 2, whereas under the CRR Year Two rule they are eligible to only nominate LT-CRRs from among the CRRs they are awarded in Tier 1 (the Priority Nomination Tier). The CAISO is not proposing to change this eligibility standard even if the sequence of allocation is changed. In addition, the existing tariff provisions require that CRR Allocation participants be given the results of each tier before the close of nominations for the next tier.

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<sup>23</sup> See proposed CAISO Tariff § 36.8.3.5.6; Appendix BB, Part H, § 36.8.3.5.6.

Because the 2009 CRR release process will treat Season 1 under the CRR Year One rules and Seasons 2-4 under the CRR Year Two rules, the CAISO considered two options for how to structure the sequence of tiers. Option A would be to follow the existing tariff provisions, which would mean: Tier 1; Tier LT for Seasons 2-4; Tier 2; Tier LT for Season 1; then Tier 3. This approach would require five discrete nomination / Simultaneous Feasibility Test (“SFT”) / allocation rounds. Option B, which the CAISO proposes in this filing, would be to modify the sequence specified in the Tariff for Seasons 2-4 so that the entire process could be performed with four discrete nomination / SFT / allocation rounds, thus: Tier 1, Tier 2, Tier LT, Tier 3. By having one fewer round in the process, Option B will require about two weeks less calendar time to complete.

The CAISO offered the proposed ordering of the tiers with stakeholders in a paper posted on March 25, 2008, and further discussed it in a stakeholder meeting and two subsequent conference calls. A final white paper posted on May 16, 2008 set forth Option B as the sequence that the CAISO would propose in the instant filing.<sup>24</sup> In subsequent years after the start of MRTU, the sequence of allocation tiers will remain as is reflected in MRTU Tariff § 36.8.3.5, *i.e.*, the CRR Year Two sequence will be performed consistent with the original CRR allocation process design.

The CAISO believes that its proposed order of the allocation tiers for the 2009 CRR allocation process is the most logical and the least time-consuming way to allocate CRRs in the unique situation the CAISO faces, *i.e.*, having to conduct a CRR Allocation process that includes both seasons subject to CRR Year One rules and seasons subject to CRR Year Two rules. In proposing this approach, the CAISO reiterates that the original motivation for the sequences specified in the existing tariff provisions was simply to achieve the practical objective of performing the allocation of LT-CRRs immediately after completing the tiers that determine which allocated CRRs are eligible for nomination as LT-CRRs.

The CAISO emphasizes that its proposal would not in any way alter the most important aspects of the allocation rules for LT-CRRs, namely, the determination of which CRRs are eligible for nomination as LT-CRRs. For Season 1, the participants may nominate LT-CRRs from among the CRRs they are awarded in Tiers 1 and 2; whereas for Seasons 2-4 they may nominate LT-CRRs only from among the CRRs they are awarded in Tier 1. In conclusion, the CAISO believes that modifying the sequence to address the unique situation of the 2009 CRR Allocation process will not cause any negative impacts on the market participants, and that the saving of two weeks in the overall calendar for the annual CRR process is a substantial benefit that justifies the CAISO’s proposal. The CAISO notes that it already has delayed the start of the

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<sup>24</sup> See the “May 16, 2008 Final Proposal on Congestion Revenue Rights Enhancements” at 6-7. The White Paper can be found at: <http://www.aiso.com/1fc9/1fc9dfbe2c470.pdf>. Therefore, the change to the sequence of tiers had been presented to stakeholders previously, but the recent stakeholder process was the first time that the CAISO proposed tariff language to accommodate the changes.

CRR annual process by one week to accommodate requests from participants to allow more time for analysis and data gathering.

### **C. Accounting for Load Migration in the 2009 CRR Release Process**

The third aspect of this filing involves the CAISO's efforts to implement the Commission's direction that the CAISO take on the responsibility of performing the transfers of CRRs due to Load Migration according to clearly-specified procedures.<sup>25</sup> In the *July 6 Order*, the Commission directed the CAISO to: "implement[] stakeholders' request that the CAISO take on the responsibility of performing the transfers according to clearly-specified procedures."<sup>26</sup>

In order to fully understand the revisions proposed for this aspect of the filing, it is important to recognize that under the CRR provisions in the currently-effective CAISO Tariff there are at least three distinct parts to account for Load Migration. One part has to do with accounting for Load Migration in the following year's annual CRR allocation. A second part has to do with accounting for Load Migration that occurs in between the Annual CRR allocations (which occurs as part of the monthly process of determining an LSE's eligible quantity for the monthly CRR allocations<sup>27</sup>). The final part involves a one-time adjustment to account for the cumulative Load Migration that takes place between the beginning of the allocation process for CRR Year One allocation process and the first day that the Day-Ahead Market of MRTU is operational.

#### **1. Accounting for Load Migration under the Currently-Effective CAISO Tariff**

Adjustments for Load Migration in the Next Annual CRR Allocation Process. Regarding adjustments in the *next annual CRR allocation*, an LSE who loses or gains net Load through Load Migration in a given year will have its "*Seasonal CRR Eligible Quantities*" for CRRs reduced or increased, respectively, in the next annual CRR Allocation in proportion to the net Load lost or gained through Load Migration.<sup>28</sup> In addition, an LSE that loses or gains Load through Load Migration in a given year will have its eligible quantities in the PNP reduced or increased, respectively, in proportion to the amount of Load lost or gained through Load Migration.<sup>29</sup>

Adjustments for Load Migration in between Annual CRR Allocations. With regard to accounting for Load Migration that occurs *in between the Annual CRR allocations*, the CAISO will make adjustments to the "*current CRR holdings*" to reflect the net amount of Load that

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<sup>25</sup> See *July 6 Order* at P 204.

<sup>26</sup> *Id.* See also *July 28 Order* at P 66. The *July 6 Order* was in response to the CAISO's May 7, 2007 filing that involved revisions related to both short-term CRRs as well as revisions related to Long Term CRRs (implementing the Commission's Long Term Transmission Rights Final Rule).

<sup>27</sup> See, e.g., CAISO Tariff § 36.8.3.6; Appendix BB, Part H, § 36.8.3.6.

<sup>28</sup> See CAISO Tariff § 36.8.5.2 (Appendix BB, Part H, § 36.8.5.2) (emphasis added).

<sup>29</sup> *Id.*

migrated between two LSEs.<sup>30</sup> The CAISO will perform such adjustments by creating and allocating equal and opposite sets of new CRRs for each pair of LSEs affected by Load Migration. The net Load-gaining LSE (of the pair of LSEs) will receive a set of new CRRs that match the CRR Sources and CRR Sinks of all the Seasonal and Long Term CRRs previously allocated to the net Load-losing LSE.<sup>31</sup> The new CRRs allocated to the Load-gaining LSE will be in the same MW quantities that are proportional to the net amount of the net Load that migrated to the Load-gaining LSE within each Load Aggregation Point (“LAP”) in which the LSE serves Load.<sup>32</sup>

The Load-losing LSE (of the pair of LSEs) will receive a set of new Offsetting CRRs that are opposite in direction to each of the new CRRs allocated to the Load-gaining LSE.<sup>33</sup> The new Offsetting CRRs allocated to the Load-losing LSE will match the MW quantity of the new CRRs allocated to the net Load-gaining LSE. After the assignment of Offsetting CRRs, the net Load-losing LSE will still hold the CRRs it held before it was assigned the Offsetting CRRs. However, the Load-losing LSE may not nominate in the PNP either: (i) the Seasonal CRRs corresponding to the new CRRs allocated to the Load-gaining LSE, or (ii) the Offsetting CRRs allocated due to Load Migration.<sup>34</sup> The Load-gaining LSE may nominate its new Seasonal CRRs in the PNP of the next annual CRR Allocation process.<sup>35</sup>

Load Migration between the CRR Year One Allocation process and the Start of MRTU.  
In the CAISO July 20, 2007, filing to comply with the *July 6 Order*, the CAISO proposed that for the CRR Year One allocation process, the CAISO would account for the cumulative Load Migration that takes place between the beginning of the CRR Year One CRR Allocation process and the first day that the Day-Ahead Market is operational as a single adjustment as described in the BPMs.<sup>36</sup> After this adjustment and before the start of MRTU, the CAISO will make monthly adjustments due to Load migration. This provision was accepted in the *July 28 Order*.<sup>37</sup>

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<sup>30</sup> See CAISO Tariff § 36.8.5.3 (Appendix BB, Part H, § 36.8.5.3).

<sup>31</sup> *Id.*

<sup>32</sup> *Id.*

<sup>33</sup> *Id.*

<sup>34</sup> *Id.*

<sup>35</sup> *Id.* An LSE to which the CAISO allocates new CRRs to reflect Load Migration must be either a Candidate CRR Holder or a CRR Holder and meet all requirements applicable to such entities. *Id.*

<sup>36</sup> CAISO Tariff § 36.8.5.5 (Appendix BB, Part H, § 36.8.5.5). See also “Draft Language for the BPM for Congestion Revenue Rights, § 7.2.3 Load Migration & Adjustments to Load Data.” This draft language can be found at: <http://www.caiso.com/2008/2008848556720.pdf>.

<sup>37</sup> See *July 28 Order* at PP 87-90.

## 2. Development of Load Migration Tool

The methodology to implement the Load Migration provisions in the CAISO Tariff relies on data for customer transfers that UDCs provide to the CAISO.<sup>38</sup> It is important to appreciate that the data needed to perform the CAISO's Load Migration obligations are different from the load data used for the CRR allocation process.<sup>39</sup> Among other things, the Load Migration information involves Direct Access Service Request ("DASR") data which concerns the transfer of customers between LSEs. The CAISO has to convert the DASR data into an equivalent amount of Load Migration. In the process of accounting for Load Migration in this second annual allocation process, the CAISO needs to use DASR data from the beginning of the historic load period that was used in the first annual allocation process to the end of the updating period.

The historical load period for the first annual CRR process ("2008 CRRs") was based on the time period stretching from April 1, 2006 to December 31, 2006. The start of that time period (April 2006) to August 2008 (when the annual allocation process is run for 2009 CRRs) is a period of 28 months in which load has migrated and that Load Migration needs to be appropriately reflected in the 2009 CRR release process. Accounting for this Load Migration involves receiving and analyzing Load Migration data from April 1, 2006 to August 15, 2008. As described below, it was in the process of accounting for Load Migration during this 28 month period (for the 2009 CRR release process) that the CAISO encountered the issue that led to the proposed tariff revisions.

In the past 6 months, the CAISO has worked diligently with a working-group of market participants to finalize the methodology for converting customer specific data to information that can be used to reflect Load Migration. Attachment C to this filing contains a Timeline and a description of the efforts of the CAISO, the UDCs, and other market participants undertaken to develop, test and implement a Load Migration Tool necessary to implement the Commission directive in the *July 6 Order* and the *July 28 Order* to perform the transfer of CRRs due to Load Migration. As reflected in Attachment C, the detailed efforts to implement a Load Migration Tool began in February of 2008 and have continued to the present.

Without detailing all the events that came before it, the first time the CAISO was able to run the Load Migration Tool with the data received from the UDCs was August 18, 2008. The results of the run revealed a substantial issue in that there was a 100% migration for a few LSEs. The CAISO analyzed the data and discovered that the issue was related to using a single, long reference period of 28 months for the adjustment to account for Load Migration between the beginning of the CRR Year One allocation process and August 2008. The issue is illustrated by the following example as set forth in Attachment C to this filing. Assume that:

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<sup>38</sup> See CAISO Tariff § 36.8.5.1 (Appendix BB, Part H, § 36.8.5.1).

<sup>39</sup> *Id.*

in 2006 LSE\_A had a total load of 10 MW, and it has had migration of customers from/to other LSEs during the 28 months of tracking. In a first migration event it transferred 8 MW to LSE\_B, in a second migration event it gained 13 MW from LSE\_C, in a third migration event it loses again 10 MW to LSE\_B. Because the 28 month is considered as a single adjustment, the sequence of migration is not explicitly identified; instead, only the net amount is computed. So by the beginning of August 2008, this LSE\_A has migrated  $8+10=18$  MW to LSE\_B; its original load was 10 MW; and its final load is 5. Because a single adjustment is used, the percentage of migration would be either  $18/10$  or  $18/5$ , which [both] are greater than 100 percent.<sup>40</sup>

The CAISO considered three alternatives to overcome the problem: (i) using data that is based on finer temporal granularity obtained on an expedited basis to more accurately capture the sequence of load migration; (ii) manually adjusting the load migration that was 100% or more; or (iii) perform the load migration process after the allocation to have enough time to gather the more granular data and resolve the issue without rushing the process to obtain the additional data needed.<sup>41</sup> Because the source of the problem is related to the sequence and timing of the actual transfer of customers, the application of the Load Migration Tool on the available information at several intervals within the 28 month period (as opposed to applying the Load Migration Tool to the entire time period) will capture more precisely the actual sequence of migration and who is responsible for the load over the applicable time period.

The CAISO concluded that the best solution to the issue is to obtain from the UDCs data that is of finer temporal granularity and which will allow the CAISO to perform an accurate analysis of the Load Migration. However, as discussed below, there are additional factors that the CAISO had to consider with the remaining uncertainty regarding the identified solution and the need to proceed with the current CRR Allocation schedule in order to ensure that CRRs are allocated prior to the end of this calendar year and in time for a start of MRTU by February 1, 2009.

With regard to data issues, the CAISO faces significant uncertainty as to the quality and timing of the additional data it needs in order to implement a solution to obtain the load transfers. Once the CAISO receives the data there is no guarantee that the load transfers will be obtained without further data requirements or refinements. In order to obtain data of finer temporal granularity, the CAISO requires additional data from the UDCs that is based on monthly snapshots in time of the retail level data. The CAISO explained this requirement to the UDCs and the representative of the LSEs participating in the working group. In discussing the extra data requirements with the working group, the UDCs indicated that the additional data that the CAISO identified as required to resolve the issue is collected on an ad-hoc, manual basis and, in order to provide the data in time for the scheduled tier allocation, some simplification of the data

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<sup>40</sup> Attachment C to this Filing at 6-7 (entry for August 18, 2008).

<sup>41</sup> *Id.* at 7-8 (entry for August 19, 2008).

might be required which would result in disregarding customers in certain periods.<sup>42</sup> The CAISO's experience in working with the retail level load data is that there is a need to verify and correct the data once it is delivered and that it is not always evident how the calculations will work once the tool is actually applied. The CAISO anticipates that in order to ensure that a proper solution is obtained, the CAISO and the UDCs will need to take the time necessary over the next two months to ensure that the proper data is received and a proper solution is obtained. The CAISO does not believe that expediting the delivery of the data and thereby compromising the quality of the data is a reasonable option because it would render the results inaccurate. Once the CAISO has all the data available and validated, the CAISO will analyze scenarios with different temporal granularity to determine a workable solution. It is clear, however, that even if the UDCs expedited the delivery of the data, the issue could not be resolved in time to conduct the load migration process as required by the current tariff provisions prior to the allocation of the PNP in the First Tier in the CRR Allocation scheduled for this week.

The CAISO also took into consideration the fact that as specified in its MRTU monthly report filed on September 2, 2009, the CAISO is working towards an MRTU go-live date of early 2009, which at this time is not anticipated to be before February 1, 2009. In order for CRRs to be allocated in time for February 2009, the CAISO must commence its CRR allocation process in September 2008. If the CAISO continued to endeavor to find a solution to the Load Migration issue before the start of the next scheduled CRR Allocation, it would no longer be feasible for the CAISO to comply with the scheduled CRR Allocation, which has been established to ensure that CRRs are available as of February 1, 2009.

Therefore, for all the reasons stated above, the CAISO has determined that it is necessary to obtain additional data that is more temporally granular and to ensure that the Load Migration Tool works as expected over the next two months. Rather than delay the start of the CRR allocation nomination process beyond September 10, 2008 and thereby risk a potential delay in the February 1, 2009 target for MRTU Go Live, the CAISO proposes to postpone the Load Migration adjustment to later in 2008, which allows for the opportunity for the CAISO to work with the UDCs on the issues related to calculation of the load transfers. As further discussed below, this will enable the CAISO to continue with the allocation process and ensure that CRRs are allocated in time for a February 2009 start of MRTU and also fully implement the Load Migration Tool which the CASIO has been working on with Market Participants.

### **3. Proposal to Postpone Accounting for Load Migration Development of Load Migration Tool**

Recognizing the short time frame between the time the CAISO decided to postpone the Load Migration adjustments and the need for a tariff filing to implement its decision, the CAISO held a conference call with all stakeholders to notify them of the its decision. After the issue was discovered on August 18, 2008, stakeholders had two opportunities to file written comments on the proposal to delay the timing of the Load Migration adjustments in the currently effective

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<sup>42</sup> *Id.* at 8 (entry for August 20, 2008).

CAISO Tariff. The first opportunity was in comments filed on August 21, 2008. The second opportunity was in comments filed on August 29, 2008 in response to the CAISO's *August 26 CRR Whitepaper*. PG&E, SCE, and Citadel filed comments on the Load Migration issue.<sup>43</sup>

The CAISO proposes to account for Load Migration *after* the annual 2009 CRR allocation process is completed.<sup>44</sup> Absent the instant filing (and per the currently-effective CAISO Tariff), the eligibility for CRRs would be adjusted to account for Load Migration and the adjustment would occur before the 2009 CRR release process.<sup>45</sup> Under the CAISO's proposal, accounting for Load Migration will be accomplished by adjusting the actual CRR holdings (as opposed to adjusting each entity's CRR Eligible Quantity) and the adjustments will occur after the 2009 annual CRR allocation process is completed. Stated differently, the procedure for the adjustment involves the same computation, except that adjustments to the results of the 2009 CRR allocation process are used (*i.e.*, adjustment to the CRR holdings themselves) to account for Load Migration, as opposed to making adjustments to each LSE's CRR Eligible Quantity for CRRs.

An LSE that gains CRRs through the revised process, the LSE will be able use the acquired CRRs in the PNP in the 2010 CRR release process. Similarly, an LSE that loses CRRs through the revised process will not be able to use the lost CRRs in the PNP in the 2010 CRR release process. In the cases where an entity has is going out of business or has gone out of business and therefore will not be operating as an LSE in the year in which the CRRs will be in effect, before the allocation process the CAISO will manually adjust both the load metric and the PNP values of the load-gaining LSE based on the best data the CAISO has available on the load that moves to the load-gaining LSE, including but not limited to the percentages provided by the load-losing LSE.<sup>46</sup>

Other consequences of changing the timing of when Load Migration is accounted for include the following. Since the CAISO will not be adjusting for Load Migration prior to 2009 CRR release process, the eligibility in the 2009 CRR release process will be determined based on the load values used in the 2008 CRR release process. More specifically, because the CAISO will not be updating the CRR Eligible Quantities or Seasonal CRRs prior to the 2009 CRR release process, the PNP nominations in the 2009 CRR release process will be based on the CRR Eligible Quantities used in, and the Seasonal CRRs that resulted from, the 2008 CRR release process. Similarly, for Long Term CRRs, because the CAISO will not be updating the CRR Eligible Quantities or Seasonal CRRs prior to the 2009 CRR release process, the Long Term

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<sup>43</sup> See August 21, 2008 comments of PG&E at 3 and August 29, 2008 comments of PG&E at 2; August 21, 2008 comments of SCE at 2-3 and August 29, 2008 comments of SCE at 2-3; and August 21, 2008 comments of Citadel at 2.

<sup>44</sup> See, *e.g.*, *August 26 CRR Whitepaper* at 11.

<sup>45</sup> See, *e.g.*, currently-effective CAISO Tariff § 36.8.5: "Load Migration will be reflected in appropriate adjustments to each affected LSE's Seasonal CRR Eligible Quantities and Monthly CRR Eligible Quantities in *subsequent* annual and monthly CRR Allocations, as well as its PNP Eligible Quantities in the *next* annual CRR Allocation." CAISO Tariff § 36.8.5 (Appendix BB, Part H, § 36.8.5) (emphases added).

<sup>46</sup> See proposed CAISO Tariff § 36.8.35.1 (Appendix BB, Part H, § 36.8.3.5.1).



CRR nominations in the 2009 CRR release process will be based on the CRR Eligible Quantities used in, and the Long Term CRRs that resulted from, the 2008 CRR release process.

The CAISO recognizes that certain market participants are concerned that the delay of the load migration calculation adversely alters the currently effective methodology and suggest that the CAISO should resolve the load migration calculation issues before proceeding with the scheduled CRR Allocation.<sup>47</sup> However, this approach could delay MRTU implementation. The CAISO submits that the benefits of ensuring that the CAISO is not prohibited from commencing MRTU as early as February 1, 2009 outweigh the implications of the delayed load migration calculations and adjustment.

The benefits of the CAISO's proposed approach are two-fold. First, the proposal clearly enables the CAISO to proceed with the 2009 annual allocation without having to wait for an uncertain amount of time in order to resolve data issues relating to the Load Migration Tool.<sup>48</sup> This provides LSEs with reasonable assurance that they will have CRRs in place before a February 1, 2009 MRTU "Go Live" date.<sup>49</sup> The CAISO recognizes there are other approaches to resolving the issue but believes the proposed actions are necessary to maintaining the ability for the CAISO to go-live with the MRTU markets in early 2009.

Second, the delay of the calculation does not significantly alter the currently contemplated methodology. In the first instance, it was always contemplated that an adjustment to effectuate a transfer of CRRs would have to be made before MRTU "go-live" because of the time lapse from when last year's CRRs were allocated and when the CAISO goes live with MRTU.<sup>50</sup> The proposal builds on this one time adjustment and would not change the fact that a significant portion of the load migration is accounted for in the adjustment process. More importantly, working jointly with market participants the CAISO will have sufficient time to obtain the data needed, validate the data with UDCs, and resolve the substantial issues related to Load Migration in a manner that does not substantially alter the integrity of the load migration tracking and calculations contemplated in the currently effective CAISO Tariff. Given all the progress already made with the load migration effort, the CAISO expects to fully resolve the pending issue in the upcoming months. This delay in the calculation will ensure that the CAISO has the best estimate of the actual load migration possible through its Load Migration Tool.

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<sup>47</sup> PG&E states that: (i) deferral of Load Migration processing will adversely effect LSE CRR hedging results and that the deferral is contrary to CAISO tariff requirements; (ii) the issues should be addressed prior to the beginning of the 2009 CRR Allocation process, and (iii) by forcing PG&E to devote time and manpower to Load Migration issues, PG&E will be disadvantaged in the CRR process. *See* August 21, 2008 comments of PG&E at 3 and August 29, 2008 comments of PG&E at 2. SCE also would like the CAISO to resolve the outstanding issue before the start of the 2009 PNP process. *See* August 29, 2008 comments of SCE at 3. Citadel does not support compromising CRR business processes in order to adhere to the February 01, 2009 MRTU go-live deadline. *See* August 21, 2008 comments of Citadel at 2.

<sup>48</sup> *See August 26 CRR Whitepaper* at 11.

<sup>49</sup> *Id.*

<sup>50</sup> *See* CAISO Tariff § 36.8.5.5 (Appendix BB, Part H, § 36.8.5.5).

The CAISO recognizes that the instant proposal alters the currently effective methodology such that LSEs cannot nominate their PNP CRRs with the load migration transfer accounted for. However, based on the CAISO's current estimates, few LSEs should be subject to such exposure because only 0.08 % of customers have moved, representing only 3.2% of the load that is affected by load migration since April 2006.<sup>51</sup> Moreover, under the instant proposal, LSEs that are affected by load migration will have actually received CRRs to account for the past load migration before "go-live" and therefore will not be exposed to congestion for any load gained. Such LSEs will then be able to take the transferred CRRs into the next PNP for 2010 to better tailor their CRRs for subsequent years. In the CAISO's opinion, the risk of delaying MRTU beyond February 1, 2009 only to ensure that load-gaining LSEs obtain the CRRs needed through the PNP process (as compared to obtaining CRRs under the CAISO's proposal) for only one year given that such a small portion of the market is affected by load migration is not the most reasonable approach to address the current issue CAISO faces in implementing the load migration tool.

The tariff revisions to implement the CAISO's proposal are reflected in revisions to the currently-effective CAISO Tariff. The changes include: (i) revising tariff § 36.8.3.5.1; (ii) adding § 36.8.3.5.6; (iii) revising §§ 36.8.5 and 36.8.5.1; (iv) deleting § 36.8.5.2 (pertaining to adjustments of CRR Eligible Quantities); (v) revising § 36.8.5.3; (vi) deleting § 36.8.5.5 (in lieu of the revision to 36.8.5); and (vii) revising § 36.13.1 pertaining to the CRR auctions.

#### **IV. CONTENTS OF FILING**

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

- Attachment A - Red-lined changes to the Currently Effective Tariff to implement the revisions discussed in this filing
- Attachment B - Clean Currently Effective Tariff sheets incorporating the red-lined changes contained in Attachment A
- Attachment C - Timeline of the Development of the Load Migration Tool

#### **V. EFFECTIVE DATE AND REQUEST FOR WAIVER OF 60-DAY NOTICE**

The CAISO requests that the Commission approve the proposed changes to the currently-effective CAISO Tariff in order to enable the CAISO to release CRRs for 2009 in accordance with implementation of MRTU in early 2009. This process must be conducted in advance of February 1, 2009 -- the current, earliest go-live date planned for the Day-Ahead Market and Real-Time Market under MRTU. Accordingly, the CAISO respectfully requests waiver of the

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<sup>51</sup> The 3.2% figure is a 1271 MW estimate of Load Migration divided by a figure of 40,000 for CAISO load.

notice requirements in 18 C.F.R. § 35.3 (2008) in order to allow the proposed changes to take effect on September 10, 2008.

## **VI. COMMUNICATIONS**

Correspondence and other communications regarding this filing should be directed to:

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## **VII. SERVICE**

The CAISO has served copies of this transmittal letter, and all attachments, on the California Public Utilities Commission, the California Energy Commission, and all entities with effective Scheduling Coordinator Service Agreements under the current CAISO Tariff. In addition, the CAISO is posting this transmittal letter and all attachments on the CAISO Website, and will provide courtesy copies of this filing to all parties in the MRTU proceeding (Docket No. ER06-615).

### VIII. CONCLUSION.

Wherefore, for the reasons expressed herein, the CAISO respectfully requests that the Commission accept the CAISO's filing as proposed and as discussed herein.

Respectfully submitted,



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**Attachment A – Cleansheets**

**ER08-\_\_-000**

**Changes to CRR Provisions Due to MRTU Start Delay and Load Migration Calculation Timing**

**Currently Effective ISO Tariff**

**36.8 CRR Allocation.**

The CAISO allocates CRRs to Load Serving Entities serving Load internal to CAISO Control Area, including MSS Operators as described in Section 36.10 of this Appendix, as well as Qualified OCALSEs. All CRRs allocated under the terms of this Section 36.8 will be CRR Obligations.

**36.8.1 Structure of the CRR Allocation Process.**

The CAISO conducts an annual CRR Allocation: (i) once a year for the entire year for Seasonal CRRs; and (ii) once a year for the ten-year term of Long Term CRRs. The annual CRR Allocation releases Seasonal CRRs and Long Term CRRs for four seasonal periods. The CAISO also conducts monthly CRR Allocations twelve times a year in advance of each month. Within each annual and monthly CRR Allocation process the CAISO performs distinct allocation processes for each on-peak and off-peak time of use specification. The CRR Allocation process for CRR Year One is a distinct process that differs from subsequent CRR Allocations as described in Sections 36.8.3.1 and 36.8.3.2 of this Appendix. Each CRR Allocation procedure is based on nominations to the CAISO by LSEs or Qualified OCALSEs eligible to receive CRRs. A timeline of the CRR Allocation and CRR Auction processes is contained in the BPMs.

of Seasonal CRRs allocated to that LSE in the previous annual CRR Allocation, minus the quantity of previously allocated Long Term CRRs for each season, time of use period and CRR Sink. In addition, an LSE's or Qualified OCALSE's nomination of any particular CRR Source-Sink combination in the PNP may not exceed the MW quantity of CRRs having that CRR Source and CRR Sink that the LSE or Qualified OCALSE was allocated in the previous annual CRR Allocation for the same season and time of use period. An LSE or a Qualified OCALSE may not nominate CRRs sourced at Trading Hubs in the PNP. CRRs whose CRR Sink is a Sub-LAP are not eligible for nomination in the PNP. A CRR whose CRR Sink is a Custom LAP or PNode is eligible for nomination in the PNP. PNP Eligible Quantities are not affected by secondary transfers of CRRs. That is: (i) an LSE or a Qualified OCALSE may nominate in the PNP a CRR it was allocated in the prior annual CRR Allocation even though it transferred that CRR to another party during the year, and (ii) an LSE or a Qualified OCALSE may not nominate in the PNP a CRR that it received through a secondary transfer from another party. CRRs received through a CRR Auction are not eligible for nomination in the PNP. The maximum quantity of CRRs that an LSE or a Qualified OCALSE may nominate in the PNP is fifty percent (50%) of its Adjusted Load Metric, minus any previously allocated Long Term CRRs that are valid for the term of the CRRs being nominated. The CAISO does not guarantee that all CRR nominations in the PNP will be allocated. The CAISO will conduct an SFT to determine whether all CRR nominations in the PNP are simultaneously feasible. If the SFT determines that all priority nominations are not simultaneously feasible, the CAISO will reduce the allocated CRRs until simultaneous feasibility is achieved.

**36.8.3.5.6      Alternate Sequencing for CRR Allocation Prior to Effectiveness of the MRTU Tariff.**

In years subsequent to CRR Year One, the annual CRR Allocation process will be conducted in the sequence described above, except that for the CRR Allocation process just prior to the time the MRTU Tariff becomes effective, the sequence of the tiers will be as follows: (1) the Priority Nomination Tier; (2) Tier 2; (3) Tier LT and (4) Tier 3.



**36.8.5 Load Migration Between LSEs.**

The CAISO shall track Load Migration between LSEs through Load Migration data provided to the CAISO by each UDC, MSS Operator or other entity that provides distribution service to customers. Load Migration will be reflected in the hourly Load data and Load forecasts used by the CAISO to calculate the CRR Load Metrics and Seasonal and Monthly CRR Eligible Quantities for each LSE, in accordance with procedures set forth in the applicable Business Practice Manual. Except for the annual and monthly CRR Allocations conducted just before the MRTU Tariff is in effect, Load Migration will be reflected in appropriate adjustments to each affected LSE's Seasonal and Monthly CRR Eligible Quantities in the annual and monthly CRR Allocations, as well as its PNP Eligible Quantities in the next annual CRR Allocation. LSEs that hold Seasonal CRRs or Long Term CRRs and that lose or gain Load through Load Migration must comply with Section 36.8.5.3 of this Appendix regarding the transfers of current CRR holdings to reflect Load Migration. In the event that an LSE gains or will gain Load that previously belonged to a Load-losing LSE that will not function as an LSE in the applicable year the CRRs to be allocated will be in effect, the CAISO will manually adjust both the Load Metric and the PNP Eligible Quantities of the Load-gaining LSE based on the best information the CAISO has available, not limited to information provided by the Load-losing LSE such as the percentage distribution of its Load that is transferred to the Load-gaining LSEs.

**36.8.5.1 Tracking of Load Migration by CAISO.**

The CAISO will implement all appropriate adjustments due to Load Migration on a monthly basis. In order to enable the CAISO to track Load Migration and determine the appropriate adjustments, each UDC, MSS Operator, and other entity that provides distribution service to customers will provide to the CAISO the following minimum information on each customer that migrates between LSEs: (i) customer identification information, (ii) information to establish the customer's retail customer class, (iii) the original and new LSEs serving the customer, (iv) the effective date of the Load Migration, and (v) the most recent twelve (12) months of billing data for the customer. Each UDC, MSS Operator and other entity that

provides distribution service to customers will also provide to the CAISO the number of customers served by each LSE in each retail customer class as of the start of each month, plus information on the average consumption by customers in each retail customer class. Further details regarding the information to be supplied to the CAISO is set forth in the applicable Business Practice Manual. The CAISO will receive information from each UDC, MSS Operator, and other entity providing distribution service on an ongoing monthly basis, and will perform the calculations for any appropriate adjustments due to Load Migration on a monthly basis. New CRRs will be allocated, in accordance with Section 36.8.5.3 of this Appendix to reflect Load Migration effective by the first of the month and will be made effective on the first day of the first month, following the CAISO's performance of the calculations.

**36.8.5.2 [Not Used]**

**36.8.5.3 Adjustments to Current CRR Holdings to Reflect Load Migration.**

For the 2009 CRR allocation, the CAISO will account for the cumulative Load Migration that occurred from April 1, 2006 until the last date for which the CAISO has data available as provided in Section 36.8.5.1 of this Appendix before the MRTU Tariff becomes effective through an adjustment of CRR Holdings as further described in the Business Practice Manuals. Based on the Load transfer percentages calculated based on the data made available through the tracking process in Section 36.8.5.1 and further described in the Business Practice Manual, the CAISO will calculate and perform appropriate adjustments to current CRR holdings for each pair of LSEs affected by Load Migration to reflect the net amount of Load that migrated between those two LSEs during each Load Migration tracking period and for each LAP in which the LSEs serve Load. The CAISO will perform such calculations in accordance with the appropriate Business Practice Manual, and will perform the adjustments by creating and allocating equal and opposite sets of new CRRs for each pair of LSEs affected by Load Migration. The net Load gaining LSE of the pair will receive a set of new CRRs that match the CRR Sources and CRR Sinks of all the Seasonal and Long Term CRRs previously allocated to the net Load losing LSE of the pair, in MW quantities proportional to the net amount of the net Load losing LSE's Load that migrated to the net Load gaining LSE of the pair within each LAP in which the LSEs serve Load. The net Load losing LSE of the pair will receive a set of new Offsetting CRRs. After the assignment of Offsetting CRRs, the net Load losing LSE will still hold the CRRs it held before it was assigned the Offsetting CRRs. The Load gaining LSE may nominate its new Seasonal CRRs in the Priority Nomination Process of the next annual CRR Allocation process. The net Load losing LSE may not nominate in the Priority Nomination Process either: (i) the Seasonal CRRs corresponding to the new CRRs allocated to the Load gaining LSE, or (ii) the Offsetting CRRs allocated due to Load Migration. An LSE to which the CAISO allocates new CRRs to reflect Load Migration must be either a Candidate CRR Holder or a CRR Holder and meet all requirements applicable to such entities.

**36.8.5.4 Load Migration and Compliance with CAISO Credit Requirements.**

To the extent that the credit requirements of an LSE as specified in Section 12 are updated by the allocation of new CRRs to reflect Load Migration, the CAISO will do the following. For new CRRs that result in net charges to the affected LSE over a Settlement period these charges will appear on the LSE's Settlement Statement irrespective whether the LSE has met the updated credit requirement. For new CRRs that result in net payments to the affected LSE over a Settlement period and that LSE has not met the updated credit requirements affected by the allocation of new CRRs to reflect Load Migration, the CAISO shall withhold payment until those updated credit requirements are met. At the end of each Settlement period, if the LSE has not met the updated credit requirements resulting from Load Migration CRR transfers, the CAISO will add any net payments that accrued to the transferred CRRs to the CRR Balancing Account to be included in the end-of-month clearing of the CRR Balancing Account, and those net payments will no longer be recoverable by the LSE. The CAISO may place new allocated CRRs into CRR Auctions if the non-compliance with credit or applicable Financial Security requirements is persistent.

**36.8.5.5 [Not Used]**

**36.13.1 Scope of the CRR Auctions.**

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

**Attachment B – Blacklines**

**ER08-\_\_-000**

**Changes to CRR Provisions Due to MRTU Start Delay and Load Migration Calculation Timing**

**Currently Effective ISO Tariff**

## ISO TARIFF APPENDIX BB

\* \* \*

### PART H. CONGESTION REVENUE RIGHTS

\* \* \*

#### 36.8.1 Structure of the CRR Allocation Process.

The CAISO conducts an annual CRR Allocation: (i) once a year for the entire year for Seasonal CRRs; and (ii) once a year for the ten-year term of Long Term CRRs. The annual CRR Allocation releases Seasonal CRRs and Long Term CRRs for four seasonal periods. The CAISO also conducts monthly CRR Allocations twelve times a year in advance of each month. Within each annual and monthly CRR Allocation process the CAISO performs distinct allocation processes for each on-peak and off-peak time of use specification. The CRR Allocation process for CRR Year One is a distinct process that differs from subsequent CRR Allocations as described in Sections 36.8.3.1 and 36.8.3.2 of this Appendix. Each CRR Allocation procedure is based on nominations to the CAISO by LSEs or Qualified OCALSEs eligible to receive CRRs. ~~The CAISO performs adjustments to the Seasonal and Long Term CRRs allocated to LSEs as necessary to reflect Load Migration between LSEs, as described in Section 36.8.5 of this Appendix.~~ A timeline of the CRR Allocation and CRR Auction processes is contained in the BPMs.

\* \* \*

#### 36.8.3.5.1 Tier 1 – Priority Nomination Process.

Tier 1 of the annual CRR Allocation in years beyond CRR Year One will be a Priority Nomination Process through which CRR Holders may nominate some of the same CRRs that they were allocated in the immediately previous year annual CRR Allocation process. As provided in Section 36.8.3.4.2 of this Appendix, nominations by a Qualified OCALSE in the PNP are subject to source verification. In all annual CRR Allocations after CRR Year One, an LSE or a Qualified OCALSE may make PNP nominations up to the lesser of: (1) two-thirds of its Seasonal CRR Eligible Quantity, minus the quantity of previously allocated Long Term CRRs for each season, time of use period and CRR Sink for that year; or, (2) the total quantity of Seasonal CRRs allocated to that LSE in the previous annual CRR Allocation, minus the quantity of previously allocated Long Term CRRs for each season, time of use period and CRR Sink, ~~and~~

~~minus any reduction for net loss of Load or plus any increase for net gain of Load through retail Load Migration as described in Section 36.8.5.1 of this Appendix.~~ In addition, an LSE's or Qualified OCALSE's nomination of any particular CRR Source-Sink combination in the PNP may not exceed the MW quantity of CRRs having that CRR Source and CRR Sink that the LSE or Qualified OCALSE was allocated in the previous annual CRR Allocation for the same season and time of use period, ~~and in the case of an LSE, adjusted for net Load loss or gain resulting from Load Migration as described in Section 36.8.5.2.2 of this Appendix.~~ An LSE or a Qualified OCALSE may not nominate CRRs sourced at Trading Hubs in the PNP. CRRs whose CRR Sink is a Sub-LAP are not eligible for nomination in the PNP. A CRR whose CRR Sink is a Custom LAP or PNode is eligible for nomination in the PNP. PNP Eligible Quantities are not affected by secondary transfers of CRRs, ~~except as performed by the CAISO to reflect Load Migration as described in Section 36.8.5 of this Appendix.~~ That is, ~~with the exception of transfers to reflect Load Migration:~~ (i) an LSE or a Qualified OCALSE may nominate in the PNP a CRR it was allocated in the prior annual CRR Allocation even though it transferred that CRR to another party during the year, and (ii) an LSE or a Qualified OCALSE may not nominate in the PNP a CRR that it received through a secondary transfer from another party. CRRs received through a CRR Auction are not eligible for nomination in the PNP. ~~CRRs received as Offsetting CRRs to reflect Load Migration are not eligible for nomination in the PNP.~~ The maximum quantity of CRRs that an LSE or a Qualified OCALSE may nominate in the PNP is fifty percent (50%) of its Adjusted Load Metric, minus any previously allocated Long Term CRRs that are valid for the term of the CRRs being nominated. The CAISO does not guarantee that all CRR nominations in the PNP will be allocated. The CAISO will conduct an SFT to determine whether all CRR nominations in the PNP are simultaneously feasible. If the SFT determines that all priority nominations are not simultaneously feasible, the CAISO will reduce the allocated CRRs until simultaneous feasibility is achieved.

\* \* \*

#### **36.8.3.5.6 Alternate Sequencing for CRR Allocation Prior to Effectiveness of the MRTU Tariff.**

In years subsequent to CRR Year One, the annual CRR Allocation process will be conducted in the sequence described above, except that for the CRR Allocation process just prior to the time the MRTU



Tariff becomes effective, the sequence of the tiers will be as follows: (1) the Priority Nomination Tier; (2) Tier 2; (3) Tier LT and (4) Tier 3.

\* \* \*

### **36.8.5 Load Migration Between LSEs.**

The CAISO shall track Load Migration between LSEs through Load Migration data provided to the CAISO by each UDC, MSS Operator or other entity that provides distribution service to customers. Load Migration will be reflected in the hourly Load data and Load forecasts used by the CAISO to calculate the CRR Load Metrics and Seasonal and Monthly CRR Eligible Quantities for each LSE, in accordance with procedures set forth in the applicable Business Practice Manual. Except for the annual and monthly CRR Allocations conducted just before the MRTU Tariff is in effect, Load Migration will be reflected in appropriate adjustments to each affected LSE's Seasonal and Monthly CRR Eligible Quantities in subsequent the annual and monthly CRR Allocations, as well as its PNP Eligible Quantities in the next annual CRR Allocation. LSEs that hold Seasonal CRRs or Long Term CRRs and that lose or gain Load through Load Migration must comply with Section 36.8.5.3 of this Appendix regarding the transfers of current CRR holdings to reflect Load Migration. In the event that an LSE gains or will gain Load that previously belonged to a Load-losing LSE that will not function as an LSE in the applicable year the CRRs to be allocated will be in effect, the CAISO will manually adjust both the Load Metric and the PNP Eligible Quantities of the Load-gaining LSE based on the best information the CAISO has available, not limited to information provided by the Load-losing LSE such as the percentage distribution of its Load that is transferred to the Load-gaining LSEs.

#### **36.8.5.1 Tracking of Load Migration by CAISO.**

The CAISO will implement all appropriate adjustments due to Load Migration on a monthly basis. In order to enable the CAISO to track Load Migration and determine the appropriate adjustments, each UDC, MSS Operator, and other entity that provides distribution service to customers will provide to the CAISO the following minimum information on each customer that migrates between LSEs: (i) customer identification information, (ii) information to establish the customer's retail customer class, (iii) the original and new LSEs serving the customer, (iv) the effective date of the Load Migration, and (v) the most recent

twelve (12) months of billing data for the customer. Each UDC, MSS Operator and other entity that provides distribution service to customers will also provide to the CAISO the number of customers served by each LSE in each retail customer class as of the start of each month, plus information on the average consumption by customers in each retail customer class. Further details regarding the information to be supplied to the CAISO is set forth in the applicable Business Practice Manual. The CAISO will receive information from each UDC, MSS Operator, and other entity providing distribution service on an ongoing ~~monthly~~ daily basis, and will perform the calculations for any appropriate adjustments due to Load Migration on a monthly basis. New CRRs will be allocated, ~~due to Load Migration~~ in accordance with Section 36.8.5.3 of this Appendix to reflect Load Migration effective by the first of the month and will be made effective on the first day of the first month, following the CAISO's performance of the calculations, ~~in which the Load Migration is effective by the first of the month.~~

**36.8.5.2 ~~[Not Used] Adjustments to CRR Eligible Quantities to Reflect Load Migration.~~**

~~An LSE who loses or gains net Load through Load Migration in a given year will have its Seasonal CRR Eligible Quantities in the next annual CRR Allocation reduced or increased, respectively, in proportion to the net Load lost or gained through Load Migration. In addition, an LSE that loses Load through Load Migration in a given year will have its PNP Eligible Quantities reduced in proportion to the amount of Load lost through Load Migration. An LSE that gains Load through Load Migration in a given year will have its PNP Eligible Quantities increased in proportion to the amount of Load gained through Load Migration.~~

**36.8.5.3 Adjustments to Current CRR Holdings to Reflect Load Migration.**

For the 2009 CRR allocation, the CAISO will account for the cumulative Load Migration that occurred from April 1, 2006 until the last date for which the CAISO has data available as provided in Section 36.8.5.1 of this Appendix before the MRTU Tariff becomes effective through an adjustment of CRR Holdings as further described in the Business Practice Manuals. Based on the Load transfer percentages calculated based on the data made available through the tracking process in Section 36.8.5.1 and further described in the Business Practice Manual~~Because in between CRR Allocations each LSE can both lose Load and gain Load between itself and multiple other LSEs,~~ the CAISO will calculate and perform appropriate adjustments to current CRR holdings for each pair of LSEs affected by Load Migration to reflect the net amount of Load that migrated between those two LSEs during each Load Migration

tracking period and for each LAP in which the LSEs serve Load. The CAISO will perform such calculations in accordance with the appropriate Business Practice Manual, and will perform the adjustments by creating and allocating equal and opposite sets of new CRRs for each pair of LSEs affected by Load Migration. The net Load gaining LSE of the pair will receive a set of new CRRs that match the CRR Sources and CRR Sinks of all the Seasonal and Long Term CRRs previously allocated to the net Load losing LSE of the pair, in MW quantities proportional to the net amount of the net Load losing LSE's Load that migrated to the net Load gaining LSE of the pair within each LAP in which the LSEs serve Load. The net Load losing LSE of the pair will receive a set of new Offsetting CRRs. After the assignment of Offsetting CRRs, the net Load losing LSE will still hold the CRRs it held before it was assigned the Offsetting CRRs. The Load gaining LSE may nominate its new Seasonal CRRs in the Priority Nomination Process of the next annual CRR Allocation process. The net Load losing LSE may not nominate in the Priority Nomination Process either: (i) the Seasonal CRRs corresponding to the new CRRs allocated to the Load gaining LSE, or (ii) the Offsetting CRRs allocated due to Load Migration. An LSE to which the CAISO allocates new CRRs to reflect Load Migration must be either a Candidate CRR Holder or a CRR Holder and meet all requirements applicable to such entities.

\* \* \*

#### **36.8.5.5**      **[Not Used] ~~Load Migration Adjustment for CRR Year One.~~**

~~For the CRR Year One CRR Allocation process, the CAISO will account for the cumulative Load Migration that takes place between the beginning of the CRR Year One CRR Allocation process and the first date that the Day Ahead Market is operational as a single adjustment as described in the Business Practice Manuals.~~

\* \* \*

#### **36.13.1**      **Scope of the CRR Auctions.**

The CAISO will conduct a CRR Auction corresponding to and subsequent to the completion of each CRR Allocation process, and prior to the start of the period to which the auctioned CRRs will apply. Each CRR Auction will release CRRs having the same seasons, months and time of use specifications as the CRRs released in the corresponding CRR Allocation; provided, however, that if the MRTU Tariff is not expected

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

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**Attachment C – Timeline of the Development of the Load Migration Tool**

**ER08-\_\_\_\_-000**

### Development of Load Migration Tool

Date	CAISO, UDC, and Stakeholder Activity
May 18, 2007	CRR Issues Paper ( <a href="http://www.caiso.com/1be2/1be2dd2449840.pdf">www.caiso.com/1be2/1be2dd2449840.pdf</a> ) posted on CAISO website.
July 6, 2007	FERC orders CAISO to be responsible for performing the transfers of CRRs due to Load Migration.
October 30, 2007	A meeting was held with a working group to discuss implementation issues.
February 2008	CRR team started working on the implementation of the load migration project.
February 20, 2008	CAISO staff requested each of the three UDCs to provide sample data of the customer information to be processed to compute load migration. The request asked only for sample data that did not contain any real customer information, but had the structure and format necessary to accurately resemble the real data that would be submitted in production. No UDC provided sample data.
February 21, 2008	CAISO stated its concern of a delayed implementation if UDCs' data was not provided as required by CAISO Tariff.
March 2008	Development of Load Migration Tool ("LMT") begins. Because CAISO was not provided with sample data so far, CAISO staff searched data related to customer transfers by other means. The only information available on public domain was an SCE document describing the implementation of the Direct Access Request Service ("DASR"). This document contains the generic description of DASR records for SCE as of December 2000, and was used by CAISO as a preliminary reference. The document is available at: <a href="http://www.sce.com/NR/rdonlyres/7B464EB9-D547-4925-8BC7-989BE366097F/0/DASRBusinessProcessv2andEDITransactionSet814Version4010ImplementationGuide.pdf">http://www.sce.com/NR/rdonlyres/7B464EB9-D547-4925-8BC7-989BE366097F/0/DASRBusinessProcessv2andEDITransactionSet814Version4010ImplementationGuide.pdf</a>
March 19, 2008	UDCs confirmed that if the confidentiality issues were resolved so that the UDCs could release the data to CAISO, then the UDCs would agree to move ahead with the implementation of the original CAISO design (on which CAISO computes both the load migration and the CRR transfers).
March 21, 2008	CAISO released an implementation paper on the load migration project to the working group by email.
March 31, 2008	A conference call was held to discuss several design issues raised by stakeholders (as opposed to implementation issues).
April 2, 2008	Written comments on the proposal due from stakeholders.
April 9, 2008	CAISO staff provided written responses to stakeholder comments.
April – May 2008	Multiple conference calls and comments submitted among working group over key aspects of the original design and several alternative designs for computing load migration: (i) keep the original CAISO design with some adjustments to account for participants' feedback; (ii) use a proposal from SCE; or (iii) use a proposal from PG&E.

May 6, 2008	Working group met to analyze all three alternatives and define what should be the approach to attain the best results with an appropriate tradeoff between accuracy and tractability. The working group reached an agreement on the approach to compute load migration including: (i) the formula to compute the percentage of load migration based on the number of customers, (ii) the computation of load migration in August 2008 to adjust the PNP values and another one-time adjustment for transferring the CRRs prior to going live, and (iii) the use of the KW/customer rates to compute both the load migration and the net load of each LSE. However, other implementation issues were still not resolved, such as i) the treatment of large customers, ii) inclusion of new customers, and iii) the use of the time reference to compute load migration.
May 7, 2008	The CAISO CRR team again requested sample data from the UDCs in order to more properly define the data requirements. No sample data was provided.
May 8, 2008	CAISO staff provided the UDCs with a more detailed explanation of the modified approach to compute load migration. Additionally, efforts to resolve the confidentiality concerns continued.
May 13, 2008	The CRR team provided a description of the expected data requirements for the load migration process to the CAISO legal team.
May 19, 2008	<p>CAISO held a conference call with the working group to finalize the methodology to compute load migration. The issue of how to compute load migration and net load from large customers could not be resolved. CAISO discussed with the UDCs their goal of definitively specifying the data requirements prior to resolving the confidentiality issue and they agreed that there was no need to make the former contingent on the latter. CAISO provided a draft of the data requirements to the working group.</p> <p>The UDCs agreed to provide to CAISO the size distribution of large customers in their territories so that CAISO could explore the tier structure to classify them. The CRR team provided to the MRTU staff a description of the IT project. The purpose was to register the load migration project as a functional gap so that resources could be allocated to the project to develop the IT solution in a timely manner.</p>
May 21, 2008	The CRR team started to code the load migration module which uses the UDCs' data to compute the amount of load migration. SDG&E provided to CAISO its distribution of large customers and CAISO was able to analyze the data and determine some classification scenarios for large customers.
May 29, 2008	PG&E provided the large customer information requested by CAISO.
May 30, 2008	CAISO signed a Non-Disclosure Agreement for SCE and sent it to SCE.
June 2, 2008	SCE sent CAISO the information of its large customers for CAISO's analysis.
June 5, 2008	CAISO conducted a series of statistical analyses to determine the appropriate set of tiers for the large customers. The results of this analysis were provided to the working group along with updated data requirements.
June 6, 2008	CAISO held a conference during which the working group could not reach an agreement of what tiers should be used to classify large customers. The UDCs were opposed to the development of too many classes, as this would put a great

	burden on UDCs to gather the data. The conclusion was to have CAISO explore some extra scenarios suggested by UDCs and provide the extra analysis to the working group. CAISO completed the scenarios and sent them to the working group.
June 9, 2008	CAISO sent an updated methodology to the working group for comment.
June 10, 2008	CAISO sent a letter to the UDCs listing all the data requirements needed to run the load migration process. CAISO described the production timeline, in which load migration had to start on August 18. In order to ensure a timely completion of the process to compute load migration, CAISO requested that each of the three UDCs provide a formal sample of data by June 17, so that the data could be used as a definite reference for the design of the CAISO process. Also, CAISO requested the submission of the final data in two deliveries. The first delivery was due by July 15, and the second delivery was due by August 15, 2008.
June 11, 2008	Comments on updated methodology. Working group agreed to use the tiers originally proposed by CAISO to classify large customers.
June 13, 2008	Participants of the working group challenged two of the resolutions attained by CAISO regarding (i) the way load migration would be computed for large customers, and (ii) the inclusion of scheduled transactions within the monthly process. The resolution of both issues had been defined since the original design.
June 16, 2008	PG&E expressed concern about the CAISO proposed timeline to receive data, given that the confidentiality issue had not yet been resolved.
June 17, 2008	SDG&E submitted sample data for the Direct Access Service Request (“DASR”) records and billing data.
June 18, 2008	The CAISO staff held a conference call with the IT side of UDCs to discuss the data requirements and worked out all the technical details of the gathering, transferring and manipulating of the data, so that it could be transferred to the CAISO.
June 19-20, 2008	In a conference call on June 20, CAISO discussed new proposal to change the treatment for large customers with the working group; however, no agreement could be reached by the working group on how to treat scheduled transactions.
June 20, 2008	The CAISO CRR team expressed its concern to the UDC’s the delay in finalizing the required motion to CPUC for the release of the retail level data. UDCs filed motion with the CPUC on June 20.
June 24, 2008	UDCs provided sample data. The CRR team analyzed the samples and interacted with UDCs to understand the structure of the data. The CRR team requested a description of the formats and also asked for clarifications on several issues related to the meaning of the data.
June 25, 2008	In order to resolve the open issue on the treatment of scheduled transactions, the CAISO staff requested to all three UDCs to describe how they processed their records and what timeline they followed. SDG&E provided comments.
June 30, 2008	CAISO requested that the UDCs confirm that they would be following the format suggested by CAISO to classify data in four different files. CAISO requested that the UDCs submit samples of two specific files so that CAISO could have a final format and structure. The UDCs confirmed that they would be following the



	format proposed by CAISO. CAISO also requested the UDCs to provide the contact information of the staff that would be in charge of uploading the UDCs data into CAISO secure site.
July 1, 2008	On July 1, the CRR team was finalizing the methodology and code of the load migration tool. For this reason, it provided to the working group a summary of the main steps to compute load migration, as agreed upon by the working group throughout all previous discussions. PG&E pointed that one step was not correct and recalled the original step. CAISO stated that the original step was changed upon disagreement from UDCs as the original step represented a heavy burden on UDCs. However, CAISO recognized the superiority of using the original approach and if the UDCs were fine, then CAISO would prefer to have the original computation in place. By July 7, all parties agreed and the approach was modified. As a down side, CAISO had then to gather data from 2007 to use it as the basis to compute the set of hours that would be provided to the UDCs.
July 6, 2008	User accounts were created and sent to the UDCs staff, together with documentation on how to set up their connection to CAISO secure site. CAISO provided to the working group the time-of-use definition for 2007. This would be used by UDCs to classify the hours of 2007 within the computation of the KW/customer rates.
July 7, 2008	SCE stated that they would submit the data as requested by CAISO, but it would not provide the field that would allow CAISO to identify the transaction. CAISO requested that they follow the data requirements as originally discussed and accepted.
Early July	The CRR team determined that there would be some challenges in determining that the set of hours that would be provided to each UDC as this information was not readily available at the required granularity. In addition, there was no other set of data available in the CAISO to validate against.
July 9, 2008	CAISO completed the computation of the set of hours and provided them to each UDC. This information was needed by UDCs to compute the KW/customer rates.  PG&E notified CAISO that they had validated the data provided by CAISO for the set of hours against PG&E data, and mismatches were found. With the information provided by PG&E, CAISO analyzed further the data coming from metering, and found duplicate records. For this reason, CAISO reached the other two UDCs and requested that they validate the set of N hours provided by CAISO with their own data. SCE and SDGE did not provide any answer as to whether this had occurred. During the first weeks of July, CAISO provided support to the UDCs on the way they should compute the KW/customer rates. SDG&E requested advice from CAISO on the treatment of conflicts with the customer classification. CAISO staff provided a resolution on July 10.
July 11, 2008	SCE contacted the CRR team regarding a major issue with classifying customers. SCE requested approval by CAISO to disregard all customers of certain class (lighting and traffic lights accounts), as these customers could not be classified into any existing customer class. CAISO requested a written description of this issue.
July 13, 2008	CAISO IT team advised the UDCs on the data transfer limitations and gave them

	advice on how to appropriately organize and upload data to CAISO site.
July 14, 2008	SCE notified CAISO that it was not feasible to deliver the requested data for billing information as requested, and instead, it would only provide aggregated information.
July 15, 2008	CPUC issued an order in response to the motion filed by the UDCs requesting permission to transfer the DASR data and requiring a protective order.
July 16, 2008	SDG&E raised with CAISO staff the same customer classification issue raised by SCE on July 11. CAISO staff provided UDCs a new set of N hours. Because the UDCs were already computing the KW/customer rates based on the original set of hours, CAISO and UDCs agreed that the revised KW/customer rates could be delivered by the second deadline of August 15.
July 17, 2008	CAISO staff presented the customer (traffic and lighting accounts) classification issue to the working group. Discussions over the next several days failed to establish a consensus.
July 18, 2008	CAISO released a market notice to let stakeholders know about the posting of the final version of the methodology to compute load migration. In order for all stakeholders to have an opportunity to comment on the approach, CAISO posted the draft language, requested written comments and set a conference call with all stakeholders for July 25.
July 23, 2008	CAISO staff with access to confidential UDC data signed a Non-Disclosure Certificate.
July 24, 2008	<p>After analyzing the comments from SCE and PG&amp;E concerning the treatment of scheduled transactions, CAISO released to the working group a resolution on this issue on July 24. The resolution was to keep the original design of processing any transaction, either complete or scheduled. However, it was also emphasized that this resolution had no impact on the first process to be run in August 2008 because for this process only completed transactions would be considered.</p> <p>SCE submitted load migration data which was not formatted correctly requiring CAISO to make adjustments to its process in order to process the data.</p> <p>CAISO provided to each UDC signed CAISO staff non-disclosure certificates.</p>
July 25, 2008	<p>SDG&amp;E let CAISO know that there would be a disclaimer in each of the files submitted to CAISO.</p> <p>CAISO staff held a conference call with all the stakeholders to discuss the language describing the process to compute load migration; in general terms, there were no concerns about the final approach. There were, however, suggestions for re-phrasing some language and have some further explanations. CAISO reminded to stakeholders to provide written comments. In the same conference call it was also agreed how accounts for lighting and traffic lights that did not have a specific customer class would be treated. The resolution was to create a new customer class for lighting accounts and to include traffic lights into the class of small</p>

	commercial. All parties were aware that this addition would alter the data already computed by UDCs. It was also agreed to include this last change in the subsequent submission of August 15. CAISO staff also released an updated version of the data requirements.
July 28, 2008	CAISO asked SDG&E and PG&E for confirmation of when they would be sending the data that was due by July 15. Both UDCs replied that they were working on that, without a definite date. SDG&E provided the final format structure of its files. PG&E requested a further revision of the data previously provided by CAISO for the set of peak hours used in the computation of the KW/customer class. Based on the information provided by PG&E, CAISO was able to identify another issue with the metering data previously used. The set of peak hours was regenerated.
July 30, 2008	CAISO provided to each UDC the new set of peak hours to compute the KW/customer rates for the August 15 submission.  CAISO let SCE know about the format issues of their files. On the same day, SDG&E also submitted the data. There were so many issues regarding format and structures of the data that CAISO system could not process it and the information could not be used at all. On the same day, CAISO let SDG&E know about all the issues.
July 31, 2008	SDG&E submitted reformatted data which CAISO staff was able to read. The data files, however, contained conflicting data and CAISO staff requested clarification from SDG&E.
August 1, 2008	PG&E submitted partial data that had formatting errors. CAISO and PG&E coordinated to clean the data, through August 1 and 2. During the next week CAISO continued checking the UDCs data, and found further issues. With the then available data, CAISO was not able to run the load migration process as fundamental data elements were incomplete or incorrect.
August 3, 2008	The load migration tool was successfully connected to the database containing the UDCs' data. With this step the overall load migration process was complete on the CAISO's side.
August 7, 2008	The load migration tool was finalized including structured testing, documentation and business requirements.
August 8, 2008	CAISO officially started the production cycle of the second annual allocation process.
August 14, 2008	SCE submitted its load migration data which again contained formatting problems preventing full processing into the LMT.
August 15, 2008	SDG&E submitted its load migration data.
August 16, 2008	PG&E submitted partial load migration data. SCE resubmitted load migration data to CAISO.
August 17, 2008	CAISO notified PG&E that its submission was incomplete.
August 18, 2008	SDG&E resubmitted its data, and provided explanations to issues pointed out by CAISO. However, CAISO found that one issue related to a very significant

	<p>customer transfer was not correct (in one file there was a transfer reported for one large customer, but in the current number of customers, that customer was not counted). In the afternoon, SDG&amp;E resubmitted the data but unfortunately the issued was not yet resolved; CAISO requested a resubmission. PG&amp;E uploaded its data again, but its billing data was missing.</p> <p>With the data obtained so far, CAISO had for the first time all the data in place to perform the preliminary runs of the load migration tool. The same day the first module of the tool was run, a substantial issue was found. The results of the first module of the tool showed migration over 100% for a few LSEs. This outcome was due to how migration was being computed, rather than an actual transfer. The CRR team analyzed the results further and found that the issue was related to the use of a single reference time. As the first process accounts for load migration that has happened in the last 28 months, the logic to compute load migration was not able to capture the sequence of migration during this long period. The computation methodology was using just a single reference time, namely August 1 2008 and this use of a single reference period was determined to be the probable source of the error.</p> <p>The percentage of load migration is computed as the amount of load migration divided by the total current load that the load-losing LSE has. Load migration is based on the customer transfers, and total load is based on the total number of current customers the LSE has. Because during the last 28 months the load profile of some LSEs changed significantly, the amount of load migration was greater than the existing amount of load, which led to have migration over 100%. To illustrate this, let us consider that in 2006 LSE_A had a total load of 10 MW, and it has had migration of customers from/to other LSEs during the 28 months of tracking. In a first migration event it transferred 8 MW to LSE_B, in a second migration event it gained 13 MW from LSE_C, in a third migration event it loses again 10 MW to LSE_B. Because the 28 month is considered as a single adjustment, the sequence of migration is not explicitly identified; instead, only the net amount is computed. So by the beginning of August 2008, this LSE_A has migrated <math>8+10=18</math> MW to LSE_B; its original load was 10 MW; and its final load is 5. Because a single adjustment is used, the percentage of migration would be either <math>18/10</math> or <math>18/5</math>, which are greater than 100 percent. This happens because through the 27 months of migration, this LSE_A varied greatly its load profile; it indeed lost load that originally it did not have. In contrast, if migration were computed, say, in three steps (one per event). The following outcome would result. LSE_A has 10 MW and loses 8 MW to LSE_B, then <math>8/10=80</math> percent of its load (and hence of its CRRs) are migrated to LSE_B. Second process; LSE_A gains 13 MW from LSE_C, now its current load is 15 MW (it also gains CRRs from LSE_C). Third process; LSE_B loses 10 MW; its percentage of migration would be <math>10/15=66</math> percent; then 66 percent of its load migrates (and hence 66% of its CRRs migrate as well). By using finer temporal granularity, the problem of having migration over 100 percent is resolved, as the sequence of migration is more accurately captured.</p>
August 19, 2008	The CAISO CRR team held an internal meeting with the policy and legal team to discuss the situation and seek for alternatives. Three alternatives were discussed:

	<p>(i) use a finer temporal granularity to capture more accurately the sequence of migration; (ii) manually adjust the cases with migration over 100%; or (iii) do the load migration process after the allocation to have enough time to gather the more granular data and resolve the issue. The conclusion was to try to use finer granularity to overcome the problem and follow the original schedule; however, this would require more data from UDCs as they would have to provide customer count numbers for more than one reference period, most likely for each calendar quarter.</p>
August 20, 2008	<p>CAISO set a conference call with UDCs and the representative of the LSEs. In the same call invitation, CAISO explained the issue found with the current data and explained a potential solution. During the conference call, CAISO staff explained the issue and requested extra data so that it could use finer temporal granularity. The UDCs agreed to provide the extra data by Friday, August 22. With this data, CAISO would be able to run several scenarios to see what granularity could overcome the issue. However, UDCs pointed out that the gathering of data was being done in a manual fashion as the load migration project was not yet a fully implemented production process. Because of this and the tight deadline, some simplification of the data might be required.</p> <p>In the afternoon, CAISO was informed that further simplifications would be needed so that the data submission could occur on time, and that this further simplification was a bridge too far. CAISO stated that the quality of the data could not be compromised to that extent because it would render the data and the results inaccurate. Given all the issues with the data and the tight timeline to get results from migration, it was not feasible to move forward with the original direction; therefore, alternatives were explored with the policy and legal team. Given the uncertainty regarding how long it would take to have all the necessary data in place, verify the data was correct, and find a workable solution to the substantial issues found, CAISO determined that it was not doable to implement the load migration process within the current schedule. In particular it was the uncertainty concerning resolution that motivated the change in strategy.</p>
August 21, 2008	<p>CAISO staff informally notified each UDC that CAISO was exploring other alternatives.</p>
August 22, 2008	<p>CAISO held a conference call with all stakeholders and notified them that CAISO had decided to file with FERC to change the timing of the load migration process so that it occurred after the allocation round. CAISO also held a conference call with the UDCs to emphasize the need for the subsequent data submission to be as accurate as possible with no simplifications.</p>