



California ISO
Your Link to Power

CRR Issues Paper

Covering Topics to be Filed in July 2007

May 18, 2007

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1 Introduction and Purpose of this Issues Paper

Over the last two years the CAISO and the stakeholders have collaborated to develop a set of rules and processes for creating and releasing Congestion Revenue Rights (CRRs), which are financial instruments of varying terms that enable market participants to manage their exposure to congestion costs in conjunction with the redesigned CAISO markets under MRTU.

Much of the CRR structure is encapsulated within Section 36 of the filed MRTU tariff, which was conditionally approved by FERC in its September 2006 order and has since been amended by the CAISO's January 29, 2007 compliance filing on Long Term CRRs and a more recent May 7 filing on certain aspects of the CRR design. Additional details and business processes related to the design and release of CRRs are contained in the CRR Business Practices Manual. Also, the CAISO recently completed a CRR Dry Run which was conducted to enable participants to work through the rules for releasing CRRs in a simulation mode and to demonstrate the capability of the filed CRR provisions to allocate to Load Serving Entities (LSEs) portfolios of CRRs sufficient to enable them to manage expected congestion costs under MRTU. On March 30 the CAISO filed with FERC a complete report on the CRR Dry Run.

Since February 2007 the CAISO and the stakeholders have been engaged in a continuation of the CRR development process to enable the CAISO to finalize and file at FERC certain details and open issues related to CRRs that are needed for the first production CRR allocation and auction processes to be conducted later this year in preparation for the February 2007 start-up of the MRTU markets. Some of these details and open issues were contained in the CAISO's May 7 filing. Specifically, that filing addressed:

- The treatment of CRR nominations sourced at Trading Hubs in the allocation processes for short-term (one-year Seasonal and Monthly) and Long Term CRRs;
- The process for renewing expiring Long Term CRRs and for converting expiring ETCs and CVRs to CRRs;
- A change of the historical reference period for CRR Year One source verification from the original September 2004 to August 2005 period to calendar year 2006;
- Procedures for the allocation of CRRs to sponsors of Merchant Transmission Projects; and
- Rules and procedures for the allocation of CRRs to LSEs serving load outside the CAISO Control Area, specifically to allow such LSEs to obtain wheel-through CRRs via the allocation process as directed by FERC's April 20 Order on Rehearing.

The next filing the CAISO has scheduled in the area of CRRs will address credit requirements associated with participating in the CRR allocation and auction processes and with holding CRRs. The stakeholder process on this topic is currently nearing completion, and the resulting CAISO proposal will be presented to the CAISO Board of Governors on May 31 and if approved will be filed at FERC shortly thereafter.

Finally, there remains one further set of CRR design details and issues that must be resolved through the stakeholder process, and this is the topic of this Issues Paper. In keeping with the

structure of the stakeholder process the CAISO has followed in most instances over the past year, this initial Issues Paper is intended only as a starting point for stakeholder discussion and does not yet contain specific CAISO proposals. As such this paper's purpose is to define and describe the issues, discuss objectives and principles that will guide the search for the best solution, identify potential solution approaches and begin to assess their pros and cons, review some of the approaches taken by other ISOs where relevant, and describe some next steps the CAISO intends to take in developing its final proposals.

Section 2 of this paper provides an overview of the stakeholder process the CAISO proposes to follow to develop final proposals on the topics discussed in this paper, which will culminate in the submission of those proposals to the CAISO Board of Governors on July 19 and, if they are approved, the filing of those proposals at FERC shortly thereafter.

This paper then discusses the four areas for which proposals will be developed over the next two months and then filed in the latter part of July. These are:

- **Section 3:** Rules and procedures for transferring allocated CRRs to reflect load migration between LSEs;
- **Section 4:** The process to ensure consistency between the LSE load forecasts used for CRR eligibility and those used for establishing Resource Adequacy Requirements;
- **Section 5:** Procedures for modeling transmission outages in the CRR network model to be used for the monthly CRR allocation and auction processes; and
- **Section 6:** A proposal submitted by certain holders of Converted Rights (CVRs) to facilitate their ability to release some of their CVRs prior to expiration and reclaim some of the released source locations as CRRs.

2 Proposed Process and Milestones for CRR Issues Resolution

The CAISO will conduct a conference call on May 29 between 10:00 am and noon to review this Issues Paper and the proposed stakeholder process that is outlined below.

Following that conference call, the CAISO requests initial written comments on any aspect of this paper or the May 29 conference call discussion to be submitted to CRRComments@caiso.com by the close of business on June 4.

A stakeholder meeting will be held at the CAISO between 10:00 am and 4:00 pm on June 14 to review and discuss Straw Proposals on each issue. These Straw Proposals will be posted by June 7, a week prior to the stakeholder meeting.

Additional key dates and requests for stakeholder written input are listed below. Stakeholders should note this process includes opportunity – during the first two weeks of July -- to review and comment upon draft tariff language that reflect the policies that will be resolved by the end of June.

Issues Paper posted on website	May 18
Stakeholder conference call to review Issues Paper	May 29
Written stakeholder comments due to: CRRComments@caiso.com	June 4

CAISO Straw Proposals posts on website	June 7
Stakeholder meeting to review Straw Proposals (at CAISO)	June 14
Written stakeholder comments due to: CRRComments@caiso.com	June 20
CAISO posts Final Proposal	June 25
Conference call to review Final Proposal	June 28
Draft Tariff language posted on website	July 2
Stakeholder comments on draft Tariff language due to: CRRComments@caiso.com	July 9
Stakeholder conference call to review draft Tariff language	July 13
CAISO Board Meeting	July 18-19
CAISO files Tariff language related to Board-approved CRR issues	July 20

3 Rules and Procedures for Transferring CRRs to Reflect Load Migration Between LSEs

3.1 Background

Section 36.8.5.1.1 of the filed MRTU tariff, as revised November 20, 2006, requires a Load Serving Entity (LSE) that loses load through direct access load migration during the annual CRR allocation cycle to transfer a portion of its allocated seasonal CRRs for the remainder of the annual cycle, or the financial equivalent, to the LSE that gained the load. Section 36.8.5.1.1 recognizes that processes must be in place for load migration, and states this would be a requirement on the LSEs. The FERC September 21 MRTU Order directs the CAISO to articulate the mechanics for CRR transfers due to load migration.

The January 29, 2007 Long Term CRR filing establishes that the CAISO will develop the procedures, in consultation with stakeholders, to perform the responsibility of tracking the transfer of Long Term CRRs due to load migration. This is part of the CAISO's compliance with Guideline 6 of FERC's Final Rule on Long-Term Firm Transmission Rights (Order 681), which requires that a Long Term CRR held by an LSE to support a service obligation should be re-assignable to another entity that acquires that service obligation. This reflects the basic principle that CRRs are assigned to load serving entities as custodians for the load they serve.

The CAISO's Long Term CRR filing proposes to apply the same requirement to allocated Long Term CRRs, with two modifications:

- First, the option to transfer the financial equivalent of Long Term CRRs rather than the CRRs themselves will be limited to the calendar year in which the load transfers, or to the next calendar year if the annual CRR allocation process for that year's Seasonal CRRs has already been completed. For the years of a Long Term CRR beyond the period just described, the LSE who loses load must transfer the actual CRRs and cannot transfer a financial equivalent. This rule is consistent with a limitation on the registered transfers of bilateral sales of Long Term CRRs unrelated to load shifts. That is, Long Term CRRs cannot be transferred via the Secondary Registration System (SRS) for years beyond the calendar year covered by the most recent annual CRR allocation and auction process.¹ The above limitations do not, of course, prevent a LSE who was allocated Long Term CRRs from achieving the financial equivalent of a sale of its Long Term CRR via a bilateral transaction outside of the CAISO's SRS. The CAISO has no ability to monitor such transactions between parties.

¹ An important limitation on transferability is that the holder of the Long Term CRR cannot transfer or offer for sale any temporal portion of the future years of the Long Term CRR beyond the calendar year for which the most recent annual CRR allocation process has been completed. The same limitation applies to both bilateral transfers of Long Term CRRs via the CAISO's SRS and offers to sell CRRs in the CAISO's annual and monthly CRR auctions. That is, except for transfers to reflect load migration between load serving entities, Long Term CRRs cannot be transferred via the SRS for years beyond the year covered by the most recent annual CRR allocation and auction process. This limitation ensures that Long Term CRRs continue to be held by the LSE to which they were allocated, so that such portions will be available to be transferred in association with load migration consistent with Guideline 6 of the Final Rule.

- The second modification has to do with the enforcement of a Load migration to another LSE. Stakeholders have commented that relying on load serving entities to perform the required calculations and transfers will likely result in disputes and that the CAISO should take on the responsibility of performing the transfers according to clearly-specified procedures. The CAISO believes this suggestion has merit and notes that PJM performs the analogous transfers within its markets. In the Long Term CRR filing made on January 29, 2007, the CAISO committed to take on the role of executing the required transfers for load migration in the CAISO systems, and to develop the details and mechanics of such a proposal with stakeholders.

In light of its commitment to track load migration in the context of CRR holdings, the CAISO recognizes that additional procedures will be required to adequately track the migration of load. This Issues Paper has been prepared to facilitate the CAISO's development of the details and mechanics of this proposal through a stakeholder process. The CAISO intends to develop these details through its development of the Business Practice Manual for CRRs as such provisions will reside in that manual.

The following sections focus on the development of details and mechanics for tracking the transfer of CRRs due to load migration. The CAISO's initial discussions with stakeholders² have led to identifying the following objectives and principles:

1. CRRs belong to the Load (subject to developing the details).
2. A share of the actual CRR value should be transferred.
3. The process should be fair to all LSEs.
4. LSEs receiving CRRs need to qualify as Candidate CRR Holders or already be CRR Holders. This may require some transfers to be financial equivalents instead of actual CRRs.
5. LSE can desire retention of Long Term CRRs that are still needed by their resource portfolios.
6. There should be fair access to recover lost CRRs.
7. The CAISO should be responsible for tracking CRR migration.
8. A percentage of load migration should have an equal percentage of CRR transfer.
9. The process for transfer cannot advantage or disadvantage either the losing or gaining LSE. Financial and actual transfers must be equivalent, and neither LSE should be forced into an undesirable option.
10. The process should be supportive of new investment in generation (at least, not create disincentives).
11. The solution must be practical and workable.

² Section 3 of this Issue Paper was developed through consultation with stakeholder representatives that have previously expressed interest in the topic of CRR transfers due to load migration. The involved parties have been the California Public Utilities Commission (Energy Division), Pacific Gas & Electric, Southern California Edison, San Diego Gas & Electric, Alliance for Retail Markets, and Energy Users Forum. The intent of this consultation has been to ensure that issues and alternatives have been sufficiently developed for presentation to the broader group of stakeholders, but not to resolve issues since this will be the purpose of this overall stakeholder process.

It is recognized that not all objectives and principles have unanimous support among stakeholders. Some objectives and criteria may be difficult to balance, but the criteria for successful solutions follow from meeting the objectives and principles.

3.2 CAISO-Proposed Requirements for CRR Transfers Due To Load Migration

As noted above, Section 36.8.5.1.1 of the filed MRTU tariff requires an LSE that loses load through direct access load migration during the annual CRR Allocation cycle to transfer a proportionate share of its allocated seasonal CRRs for the remainder of the annual cycle, or the financial equivalent, to the LSE that gained the load, and the CAISO proposes to apply the same requirement to allocated Long Term CRRs, with certain modifications.

The option to transfer the financial equivalent of Long Term CRRs rather than the CRRs themselves is available for seasonal CRRs, but will be limited for Long Term CRRs in a manner congruent with the limitations on the ability of LSEs to trade Long Term CRRs bilaterally via the CAISO's SRS. In other words, the available options for financial transfer of seasonal CRRs within the annual CRR cycle include direct payments between LSEs, or charges and credits within the CAISO's settlement system. However, for the years of a Long Term CRR beyond the year for which bilateral SRS transfers are allowed, the actual CRRs must be transferred from the LSE who loses load, and this LSE cannot transfer a financial equivalent.

For example, suppose the year is 2011 and the CAISO has not yet conducted the annual allocation process for 2012. Also, suppose LSE-1 holds Long Term CRRs that are valid through the end of 2018. Then if a share of LSE-1's load migrates to LSE-2 at this time, a share of LSE-1's Long Term CRRs must be transferred for the years 2012 through 2018 to LSE-2. There will be no option for LSE-1 to make a cash payment to LSE-2 as an alternative to the Long Term CRR transfer. If, however, the migration of load occurs after the CAISO has performed the annual allocation process for 2012 and Seasonal CRRs for 2012 have been released, then the rules allowing the financial equivalent for the year 2012 would apply. Thus LSE-1 would be required to transfer a portion of its actual Long Term CRRs for the years 2013 through 2018, and would have the option of either transferring CRRs or paying a financial equivalent for the year 2012.

The second modification has to do with enforcement of the required transfer. In several comments to the filed CRR proposal, parties argued that relying on the LSEs to perform the required calculations and transfers would likely result in disputes, and that therefore the CAISO should take on the responsibility of performing the transfers according to clearly specified and transparent procedures. The CAISO is now identifying the specifics of the needed procedures.

A foundation of the CAISO's proposals has been that ensuring that the correct value of Long Term CRRs is transferred requires that the actual CRRs must be transferred, since the future value of Long Term CRRs is difficult to predict with certainty.

3.3 Alternative Requirements for CRR Transfers Due To Load Migration

During the CAISO's consultation with stakeholders who have actively commented in the past on the topic of CRR transfers due to load migration, Pacific Gas and Electric proposed an alternative to the CAISO's proposed pro-rata process for reassignment of CRRs, in which Long Term CRRs would be comprised of two categories: (1) "eligible" Long Term CRRs that would be subject to pro-rata reassignment between LSEs, and (2) "ineligible" Long Term CRRs that would be shown by a verification process to still be required by the original LSE, and whose MW

quantity would be replaced for transfer by annual CRRs. This alternative is presented here for further discussion.³

To the extent load migrates, Long Term CRR entitlements must be reassignable as directed FERC's order on long-term firm transmission rights (Order 681). Some LSEs have suggested that this should not require the automatic loss of the specific Long Term CRRs associated with verifiable and on-going supply arrangements that continue to be required by the existing Long Term CRR holder. These LSEs consider that migrating load will ultimately be served by some mix of supply resources, but not by those resources or supply arrangements that continue to be under the control and use of the existing LSE. The forced transfer of fixed percentage of all Long Term CRRs including those linked to these retained supply resources would both unnecessary from the perspective of the new LSE and potentially harmful to the existing LSE.

This alternative of designating eligible Long Term CRRs subject to reassignment is outlined as follows, as an alternative to the pro-rata re-assignment of Long Term CRRs initially proposed by the CAISO. Load losing LSEs would be able to retain those Long Term CRRs that are still needed but would be required to make up the difference (MWs, not value) with transfer of additional annual CRRs. Long Term CRRs would be comprised of two categories: 'Eligible' Long Term CRRs, and 'Ineligible' Long Term CRRs. Ineligible Long Term CRRs are those Long Term CRRs that are to be still required by the original LSE and verified as such with annual declarations to the CAISO, and would not be subject to reassignment.⁴ To the extent a LSE does not transfer Ineligible Long Term CRRs, a commensurate increase in the amount of annual (seasonal) CRR would be provided.

While many of the existing annual (seasonal) CRRs would also continue to be required for the on-going needs of the load losing LSE, nonetheless, annual (seasonal) CRRs would be re-assigned on a pro rata basis as currently directed in the FERC-conditionally accepted CAISO CRR Tariff and in certain cases adjusted upwards as necessary to reflect Long Term CRR re-allocation restrictions.

In addressing the impacts of the loss of still-needed CRRs, the current CRR rules as approved by FERC state that CRRs received through load migration reallocations would not be eligible for nomination in the Priority Nomination Tier (Tier 1). Load losing and load gaining LSEs as such, will be on equal footing (Tiers 2 and 3) to seek new CRRs to replace as necessary the previously re-assigned CRRs.

Example: LSE A loses 100 MW of load to LSE B. For each relevant seasonal and TOU period, LSE A will provide LSE B the following Long Term CRRs and CRRs.

Assume that LSE A represents 1000MW of load, of which 100 will migrate out. LSE A holds 200 MW of Long Term CRRs (80mw "eligible", 120 MW "ineligible"), and 500 MW of annual CRRs. LSE B represents 0 MW of load, and gains 100 MW through load migration.

³ Some of the stakeholders involved in this preliminary consultation to develop issues and alternatives expressed concern that this process would not produce an equitable allocation of CRRs, and could be anti-competitive. It was acknowledged that this process could result in all of an LSE's original CRRs holdings being designated as "ineligible."

⁴ LSE officer-level declarations would be provided annually. The CAISO would have audit rights.

LSE A's Baseline Re-assignment Factor = migrating load / baseline load

$$= 100 \text{ MW} / 1000 \text{ MW} = 0.10$$

Total Reassignment Required = 0.1 x (Total Long Term CRRs + Total CRRs)

$$= 0.1 \times (200 \text{ MW} + 500 \text{ MW}) = 70 \text{ MW}$$

Long Term CRR Reassignment = Baseline Reassignment Factor

x Eligible Long Term CRRs

$$= 0.1 \times 80 \text{ MW}$$

$$= \mathbf{8 \text{ MW}}$$
 (pro-rata of all Eligible Long Term CRRs)

CRR Adjustment Required = ***0.1 x 120 MW***

$$= 12 \text{ MW}$$
 (additional CRRs to be reassigned)

CRR Reassignment Adjustment = (Baseline Reassignment Factor x CRRs) + CRR

$$= (0.1 \times 500 \text{ MW}) + 12 \text{ MW}$$

$$= \mathbf{62 \text{ MW}}$$
 (pro-rata of all annual (seasonal) CRRs)

Total Reassignment MW = ***8 MW Long Term CRRs + 62 MW annual CRRs = 70***

3.4 Key Issues for Resolution

The CAISO is initially focusing in its stakeholder process to begin developing details of issues and alternative approaches, which then will be brought back to the stakeholder process for development of a resolution if the issues. Most of these implementation details are expected to become part of the Business Practice Manual for CRRs. The CAISO has identified the following discreet elements that will require an in-depth review and development of solutions for implementation:

Functionality - The CAISO must develop a methodology for obtaining load transfer data that indicates specific load transfers (MWs) and effective dates of the transfer. The CAISO must have a clear definition of appropriate systems and processes for receiving load-profile or similar data for transferred loads. This will involve the identification of appropriate data that will be required which could be used to (1) modify historical and forecast load duration curves for calculating LSE load metrics, and (2) calculate required transfers of current allocated CRRs or financial equivalent by LSEs.

Considerations:

- Existing mechanisms for reporting of direct access load migration: e.g., reports to CPUC of Direct Access Service Request (DASR) activity, which track transfers between Electric Service Providers (ESPs) including Utility Distribution Companies (UDCs). Available data include number of customers switched, and load (kWh), by customer class: residential, commercial (< 20 kW), commercial (20 – 500 kW), industrial (>500 kW), and agricultural. The DASR itself transfers limited data about customer load, but is accompanied by a transfer of a 12-month billing history.
- Electronic Data Interchange (EDI) transfers between ESPs of customer account information and metering/billing history, during direct access enrollment, including customer tracking mechanisms such as Universal Node Identifier
- Practices of other ISOs, e.g., acquiring ESP informing ISO of customer transfer, previous ESP confirming transfer to CAISO within 3 days, ISO managing CRR transfer through settlements and CRR allocation systems.⁵
- Granularity of load data sent to CAISO: CRR-eligible quantities, hourly load data from metering/billing history, or other metrics

Definition of CRRs to be Transferred – The MRTU tariff states that a pro rata share of all CRRs that are allocated should be transferred. Some stakeholders, however, have stated that they should not be required to transfer certain CRRs, such as those associated with power plants that they continue to own. While this may be a valid argument, the logistics for implementing this nuance may be complex. For example, a process would need to be created to ensure that the load being transferred receives a proportionate share of the congestion-protection value of allocated CRRs. Stakeholder input for a workable solution, therefore, is required.

Considerations:

- Maintaining the principle that ensuring that the correct value of Long Term CRRs is transferred requires that the actual CRRs must be transferred, since the future value of Long Term CRRs is difficult to predict with certainty.
- Previous LSEs may request new allocation of lost CRRs, subject to Simultaneous Feasibility Test and the schedule of the CRR allocation process.
- Previous LSEs and acquiring LSEs may bilaterally contract for previous LSE to buy back lost CRRs.

⁵ The CAISO's Straw Proposal will contain detail on practices of other ISOs.

- LSEs' needs for CRRs to different LAPs or from different sources can differ, and CRRs are not always considered "useful" to the acquiring LSE. For example, LSE1 might serve load in only one LAP. If it were to receive a proportional share of LSE2's CRRs through load migration and LSE2 serves load in multiple LAPs, the CRRs that LSE1 receives to loads in the other LAPs might not be considered useful by LSE1. This can be avoided by transferring the load side of CRRs separately for each LAP.
- CAISO is open to considering alternatives that are developed by stakeholders, but support by all affected types of stakeholders should appear feasible to obtain (IOUs, ESPs, and customers), and the resulting process is feasible and fair, as well as just and reasonable.

Transparent Formulae - The processes will also need to involve transparent formulae and business systems for calculation allocated CRRs (seasonal and Long Term) quantities that need to be transferred.

Considerations:

- For transfer of actual CRRs, registration of a CRR transfer in SRS for the remaining duration of a pro-rata share of each seasonal CRR may be sufficient.
- Financial transfer could involve one-time payments between LSEs, or instruction to CAISO settlements to re-direct CRR payments to the acquiring LSE.
- The process should avoid, if possible, having LSE1 transfer CRRs to LSE2, which transfers CRRs to LSE3, which transfers CRRs back to LSE1 (all due to load migration), with a result that LSE1 doesn't get back the same amount of CRRs (e.g., it originally loses 100 MW but ends up regaining only 90 MW).

Financial Equivalent – Creation of a methodology for calculating the financial equivalents will also need to be developed. Suggested approaches could be based on auction prices or from the historical LMPs. One suggestion would be for the LSE that is losing the load to use the financial equivalent, depending on whether it sold some of its CRR rights.

Considerations:

- Financial transfer could involve one-time payments between LSEs, or instruction to CAISO settlements to re-direct CRR payments to the acquiring LSE. A difficulty with one-time payments can be that it would be difficult to determine the future value of CRRs, and estimates of the CRRs' future value could be a subject to disputes by either (or both) the losing or gaining LSEs.

Business Processes – Clear business rule and processes will need to be created for performing the required transfers via the Secondary Registration System (SRS) and the CAISO settlement system. A proposed approach would be for the CAISO to register the CRR transfers, as opposed to the CRR Holder.

Considerations:

- Two general approaches can be explored for how the CAISO receives the data necessary for tracking CRR transfers: (1) LSEs can report transactions (mechanisms would need to be developed to resolve disputes), (2) UDCs can do the reporting, or (3) the CPUC can provide data from its monthly tracking of Direct Access load migration. UDCs do the DASR processing, and submit a monthly summary of activity

to the CPUC. The CAISO's discussion with stakeholders to date has supported either reporting by the UDCs or reporting through the CPUC, and has considered reporting by LSEs to be unnecessarily complicated and subject to disputes.⁶ The alternatives include reporting by the UDCs subject to validation using the CPUC's tracking of Direct Access migration.⁷

- An issue is whether there should be a default mechanism between transferring actual CRRs or financial value, and what happens with transfers of actual CRRs when CRRs are transferred again (i.e., can transfers of actual CRRs and transfers of financial value succeed each other).
- An issue is what happens if a LSE that acquires negatively-valued CRRs refuses to pay the associated collateral requirement, or is not qualified as a CRR holder.
- The frequency of calculating CRR reassignments due to load migration needs to be determined. There could be both advantages and disadvantages to either daily, weekly, or monthly calculations. An issue that affects the first year of MRTU implementation is that the CAISO's CRR system will track CRRs only by increments of 0.1 MW. Daily reassignments of CRRs to or from small LSEs could involve amounts of less than 0.1 MW, which could result in CRRs being lost in rounding error. Thus, monthly tracking might be necessary in the first year, regardless of other considerations.

Eligibility for Nominating Transferred CRRs in the PNP – Stakeholders have proposed allowing LSEs that gain load through load migration and receive associated transfers of CRRs would be able to nominate the transferred CRRs in the next PNP. (This concept is analogous to how the CAISO's proposal for expiring ETCs, which is described in the CAISO's January 29th Long Term CRR filing to FERC.)

Considerations:

- The PNP involves somewhat different issues from other CRR transfer issues, but PNP-related issues may be impacted by the resolution of CRR transfer issues. For example, if a financial equivalent to the transfer of actual Long Term CRRs were developed, there might be no change in the CRRs that are eligible for the PNP from the original allocation of Long Term CRRs.

3.5 Next Steps: Formulation of Straw Proposals for Resolution of Issues

The CAISO's consultation with active stakeholders to date has focused on ideas for formulation of straw proposals as well as identification of issues. Among the conceptual proposals for identifying the necessary data, parties, and process to implement the transfer of CRRs due to load migration are the following.

⁶ There are differing opinions among stakeholders as to whether reporting via the UDCs or the CPUC is preferred.

⁷ Providing access to the confidential data collected by the CPUC would require the development of a confidentiality agreement between the CPUC and the CAISO. In similar situations, the CAISO and CPUC have successfully developed the required agreements.

3.5.1 Data

The three IOUs are the initial custodians of load data that can support calculation of CRR transfers due to load migration within their service areas, or due to a change in service area. Data can be transferred as necessary to the CAISO for the purpose of calculating load migration. If any municipal utility were to elect to provide customers within its service area the choice of provider, or if one party were an aggregator of CRR holdings for multiple LSEs, then that municipal utility or other entity would be responsible for tracking load data with respect to its service area. The CAISO will be considering these alternatives, and others that arise from future stakeholder discussions, during formulation of its straw proposal.

Certain terms would need to be put in place to allow the transfer of confidential customer information from the IOUs to the CAISO, since the IOUs are CPUC-regulated companies. If the IOUs are to track the load of all customers, then the IOUs must be able to recover the costs for such tracking, and to allocate such costs to all customers. It is assumed that the CPUC would require the transfer of such data as being in the public interest, as a distribution function of the IOU.

While the IOUs have the data of all CPUC jurisdictional customers, they do not have customer specific Municipal load data. The treatment of load migration from a Municipality to an ESP or IOU may need to be defined. Since municipal utilities do not currently allow customer choice within their service areas, the only load migration currently relevant to a municipal utility for CRR allocation purposes would be due to a change in its service area (due, for example, to municipalization), or to changes in aggregations of CRR holdings. In the case of a change in service areas between two utilities, the load-losing utility should be required to provide information to the CAISO regarding the amount of load lost to enable a commensurate reallocation of CRRs between the two utilities.

3.5.2 Load Metrics

While CRR eligibility is based upon the load that is exceeded in only 0.5% of all hours for each individual LSE, tracking the large number of variations that this would create, as individual customers migrate between LSEs with different mixes of customers, would be a very substantial data management task. Therefore, individual customer load could be calculated as follows:

1. The CAISO would determine the peak load hour for each season and TOU period (i.e., on-peak and off-peak). This would result in 8 hours per year for which load data would be tracked.
2. The UDCs would calculate a per-customer average load for those eight hours by revenue class. An example follows this discussion of conceptual alternatives. One approach would be for the UDCs to the CAISO, on an annual basis, a table depicting the number of customers and amount of load for each customer class for each season and TOU period for the year, for each LSE in their UDC area. The CAISO would use this data to calculate the amount of CRRs allocated per customer per class.
3. Upon load migration, the LSE would be required to transfer CRRs based upon the LSE's allocated CRRs (adjusted for prior load migration) based upon the data and calculations in 1 and 2 above, as shown in the example.

An alternative to establishing a certain amount of load per customer, for each customer class, would be to establish a load factor for each customer class, and measure load migration using

MWh of customer usage rather than simply the number of customers. This would somewhat complicate the calculations to achieve somewhat higher accuracy, but is similar enough to the example provided below that this alternative is not detailed at this time. Concerns have been expressed that there is diversity in the load profiles of individual customers in the large Commercial and Industrial classes that representative data is not sufficient, but feasible alternatives for measuring their CRR impact would need to be further examined. Dividing the Commercial class into additional size ranges has been suggested as a way of increasing accuracy while keeping the calculations to a manageable effort.

Note that the measure of "customer" is based upon an installed service. This means that usage is associated with a location rather than the location's occupant. This is to simplify the process, since tracking customers as they migrate between LSEs and physically relocate could be unnecessarily burdensome.

3.5.3 Other Issues

Distinguishing between load migration and load growth (i.e., new customers for which the installed service did not exist at the time of the original CRR allocation) can be difficult. Although no CRR allocations that have been made to new load, as soon as this new load is included in the LSE's load forecast and CRRs are allocated based on that total load, then one can argue that the CRRs must be transferred if the load migrates.

Tracking the difference between "new-load" vs. "old-load" customers may be more difficult than is justified by the benefit of not having to transfer the CRRs. The example herein does not segregate the load of new customers. As a quick example of these considerations, suppose 10 MW of CRRs were allocated for 10 customers. If one customer migrates, it takes 1 MW of CRRs to its new LSE. Now, suppose the next month, there are 10 new customers, for a total of 20 customers. Now, if one customer migrates, it takes 0.5 MW of CRRs with it. Thus, the example has not distinguished between new and old customers and the principle is retained that if all customers migrated, the load-losing LSE would not lose more CRRs than were allocated.

Another situation to consider is how movement of a customer between revenue classes would be handled. For example, at the time of allocation, the customer would be Commercial but at the time of migration to a new LSE, it is Industrial. The suggestion that has been offered is that load migration should be based upon the characteristics of the customer at the time of the original allocation. Therefore, in this example, the load migration calculation would be based upon the average load for Commercial customers. This issue will be considered further.

An alternative for future consideration could be to track load migration based upon load forecasts rather than historical data. This process would require allocating CRRs based upon the annual Resource Adequacy (RA) load forecast and adjusting CRRs based upon the monthly load migration RA process. Currently, this would not be feasible as the monthly load migration RA process is not sufficiently controlled to ensure that the process only accounts for load migration and that such migration is a zero sum game (i.e. the sum of all load migration among all LSEs is equal to zero positive load migration is offset by negative load migration). This process would require further development, and would require coordination between the CAISO, CPUC, and CEC as well as stakeholders.

3.5.3.1 Example

Step 1: LSE A is allocated the following CRRs.					
This supporting data would reside with the CAISO based on the CRR system.	Allocated Seasonal CRRs				Allocated Long Term CRRs
	Q1	Q2	Q3	Q4	
	10,000	12,000	15,000	11,000	4,000

Step 2: Further, LSE A has the following load for all of its customers.					
This supporting data would be supplied by the UDCs annually.	Load (MW)				
	Q1	Q2	Q3	Q4	
	16,000	18,000	24,000	17,000	

Step 3A: Consider an example of load migration for a customer in the Commercial load class. Assume that at the time of the allocation in steps 1 and 2, LSE A had 1,000 Commercial customers with the following load characteristics.					
This supporting data would be supplied by the UDCs annually.	Load (MW)				
	Q1	Q2	Q3	Q4	
	4,000	5,000	7,000	4,500	

Step 3B: Based on the above data, we can calculate the CRRs allocated to Commercial customers in each season as Total Allocated CRRs * Class load / Total load.					
CRRs attributed to Commercial class, calculated by CAISO	Allocated Seasonal CRRs				Allocated Long Term CRRs
	Q1	Q2	Q3	Q4	
	2,500	3,333.3	4,375	2,911.8	1,166.7

California ISO

Step 3C: The MW in 3B above to arrive at the allocated CRRs per Commercial customer.					
Calculated by the CAISO.	Allocated Seasonal CRRs				Allocated Long Term CRRs
	Q1	Q2	Q3	Q4	
	2.5	3.3	4.4	2.9	1.2

Step 3D: The figures in 3C would then be used to transfer CRRs when load migrates. For example, if 5 Commercial customers were to leave LSE A in May, then the following load migration would occur.					
Calculated by the CAISO.	Allocated Seasonal CRRs				Allocated Long Term CRRs
	Q1	Q2	Q3	Q4	
	-	16.7	21.9	14.6	5.8

Step 4: Now assume that more load migration occurs in a subsequent year. The seasonal quantity would be dictated strictly by the computations performed above with data specific to that year. However, the Long Term CRRs would need to account for prior and current allocations and loads. Therefore, the Long Term CRRs from prior years would be adjusted for current load and incremental Long Term CRRs as follows:					
Data for 1,000 Commercial customers	Original Long Term CRRs (original allocation less prior load migration)	Original Long Term CRRs per current customers	New Long Term CRRs	New Long Term CRRs per current customers	
	1,160.8	1.1	200	0.2	

4 Process to Ensure Consistency of Loads Forecasts for Monthly CRR Eligibility and Monthly Resource Adequacy Requirements

4.1 Overview

In the annual CRR allocation process each LSEs' eligibility for CRRs will be determined based on its prior year's load duration curve for each season and time-of-use period, in accordance with Section 36.8.2.1 of the MRTU Tariff. In contrast, CRR eligibility for the monthly allocation is forward-looking and will be determined based on each LSEs' on-peak and off-peak forecasted load duration curves for the applicable month, in accordance with Section 36.8.2.2.

For the CRR Dry Run, each participating LSE simply submitted its forecasted load duration curves for the months of April and August (the two test months for the Dry Run), and the CAISO then calculated its Monthly CRR Eligible Quantities. Within this stakeholder process, the CAISO seeks to detail how the CAISO will get monthly load forecasts in a timely process twelve times a year that are reasonably accurate and derived in a consistent way.

In particular, the CAISO seeks stakeholder input and evaluation for coordinating LSE load forecasts in the CRR monthly process with forecasts used by state agencies for information and to determine Resource Adequacy (RA) requirements. As suggested by several stakeholders in previous meetings, the concept of relying on the same monthly load forecast for both CRR eligibility and RA obligations should create a balance of incentives for LSEs to submit accurate monthly load forecasts.

4.2 Load Information Collected by the California Energy Commission

The California Energy Commission (CEC) receives LSE load information which is utilized for various purposes, including the determination of RA obligations that require LSEs to procure capacity by order of the California Public Utilities Commission (CPUC).

4.2.1 Monthly load forecasts from CPUC-jurisdictional entities

As the CAISO understands it⁸, the CEC collects on an annual and monthly basis significant load data from LSEs that are jurisdictional to the CPUC – namely the state's three largest Investor Owned Utilities (IOUs), various Energy Service Providers (ESPs) and Community Choice Aggregators (CCAs)

For these CPUC-jurisdictional entities:

- LSEs submit their non-coincident peak for all 12 months in April for the following year (April 2007 for year 2008.) The CEC adjusts this data to develop a monthly peak for each LSE that is coincident with the system peak. The CEC conveys this information to each LSE so that these monthly coincidental peaks are used as the starting point for another LSE submission of load forecasts, which occurs on a monthly basis.
- LSEs submit monthly load forecasts twelve times a year; these forecasts are sent to the CEC two months prior to the time period covered by the data. For example, in January

⁸ This summary of CEC data collection efforts is based on informal discussions between the CAISO and CEC staff. Stakeholders are encouraged to help clarify or add to these points.

the LSE would submit forecasted load data for the month of March. LSEs start with the coincident monthly peak forecast (that was developed in the year ahead process described in the previous bullet) and then make adjustments to account for load migration before submitting this monthly forecast to the CEC. Essentially each LSE submits a monthly forecast for a coincident peak; however, the CEC may be able to adjust these forecasts to create a non-coincident peak number for each LSE.

- The three IOUs also submit to the CEC their hourly load forecasts for each hour of the month. These LSEs separate this data by type of access (i.e. bundled and direct access.)

4.2.2 Monthly load forecasts from non-CPUC-jurisdictional entities

The CEC also collects load data from non-CPUC jurisdictional entities, such as municipal electric systems, the California Department of Water Resources and other entities.

- On an annual basis, non-CPUC entities submit their non-coincident peak for each month of the next year.

4.3 Key Issues for Resolution

In developing a proposal to coordinate and develop LSE monthly load forecasts that will determine monthly CRR eligibility, the CAISO suggests focus on the following details:

Timing

- The time period when each LSE submits monthly forecasts to state agencies should allow forecasts that are sufficiently fresh and timely to be integrated with the CAISO's monthly CRR release process.

Data

- CRR eligibility is based upon each LSEs' monthly load duration curves which incorporate a non-coincident peak. To the extent that monthly load forecasts submitted to the CEC incorporate a coincident peak number, some adjustment would need to be performed. A methodology should be developed to derive a monthly load duration curve for each LSE from individual monthly peak numbers, particularly since these load duration curves will determine CRR eligibility in the off-peak time periods. This methodology might consider adjustments to account for the possibility that, for most LSEs, load in the off-peak time period may not increase at the same percentage as load in the peak time period.

Methodology

- The methodology used by each LSE to develop their monthly load forecasts should use common assumptions and be reasonably consistent.

Distinction between CPUC-jurisdictional entities and non-CPUC-jurisdictional entities

- How to account for differences in the frequency and the assumptions used among various entities in developing their monthly load forecasts and submitting them to the CEC.

5 Procedures for Modeling Transmission Outages for the Monthly CRR Allocation and Auction Processes

5.1 Overview

This issue pertains to the details around how transmission outages should be modeled in the monthly CRR release process. The objectives of this policy resolution are to (1) specify which outages comprise the set of “significant outages,” which the CAISO will require Participating Transmission Owners (PTOs) to schedule with the CAISO at least 30 days prior to the start of the month in which the planned outages will be taken, and (2) develop a set of transparent procedures for modeling outages in the full network model that is used to assess the feasibility of allocated and auctioned monthly CRRs.

Modeling transmission outages is important to ensure revenue adequacy, which means that the amount of congestion revenues collected on an hourly basis is sufficient, on average over the month, to meet the payments owed to CRR holders over the terms of their CRRs. One measure of revenue adequacy is whether enough funds exist in the CRR Balancing Account to pay the financial obligations to CRR holders at the end of each month. As explained in the January 30, 2007 Long Term CRR filing to FERC, if the CRR Balancing Account is negative at the end of the month, then there is an uplift charge to measured demand for the month, so that the payouts/charges to holders of CRRs are at full value (except in cases of extraordinary events) – thus fulfilling the intent of “full funding” of CRRs as required by FERC’s Order No. 681.

The funds going into the CRR Balancing Account are (1) revenues from the CRR annual and monthly auctions, plus (2) any hourly surplus or deficit from the hourly settlement of the IFM with respect to the congestion components of energy and CRR settlements (= collected congestion charges + charges for negatively valued CRRs – payouts to positively valued CRRs).

An important objective in the release of CRRs is to release the correct amount of CRRs such that cumulative value of item (2) -- the surplus or deficit from the hourly settlement -- is approximately zero at the end of each month. The methodology by which outages are modeled in the CRR network can greatly impact the magnitude of this surplus or deficit from the hourly settlement. One might imagine a range of approaches, where one side is weighted toward relatively conservative approaches for modeling outages that release fewer CRRs but provide greater assurance of revenue adequacy and thus greater likelihood that a CRR Balancing Account surplus will return the full amount of auction revenue funds to measured demand. The other side would feature approaches that tend toward modeling of only the most significant outages so that more CRRs are released, which then increases the potential for shortfalls in congestion revenues that would reduce the amount of auction revenues returned to measured demand, or in the extreme result in an uplift charge to measured demand.

The next sub-sections propose issues for further discussion within this stakeholder process to resolve how transmission outages will be modeled in the monthly CRR processes. It is important to note also that the CAISO is seeking, with FERC’s encouragement,⁹ the active involvement of the Transmission Maintenance Coordination Committee (TMCC) as part of this stakeholder process. The TMCC is comprised of representatives (from PTOs and other entities) with expertise in maintenance and outage procedures and practices. CAISO staff has already briefed the TMCC on the attributes of CRRs, the release process and the importance of CRR

⁹ See Paragraph 646 of FERC’s April 20, 2007 Order on Clarification and Rehearing on the MRTU Tariff.

revenue adequacy, and the CAISO will be seeking guidance from the TMCC on the resolution of this outage modeling policy. The CAISO also seeks and encourages other interested parties to participate in developing this policy.

5.2 Background on the 30-day advance notification of certain transmission outages

The CAISO will consider all lines to be in service when running the annual CRR allocation and auction, unless a major outage of significant duration is planned and known with a high degree of certainty at the time of the annual CRR release process. The FERC-approved CRR rules establish that 25% of the capacity of the transmission grid is withheld from the annual CRR release process, but then most of this capacity is added back in the twelve monthly processes. Reserving this capacity for the monthly allocation and auction has two important benefits: (1) it allows the CAISO to account for planned transmission outages that are known in advance, or outages that could have significant impacts on CRR revenue adequacy that were not anticipated or reported, and (2) it allows participants to reconcile part of their CRR portfolios with their expected congestion exposure due to energy scheduling on a monthly basis.

The ISO's tariff language in its November 20, 2006 compliance filing¹⁰ to FERC specifies a requirement upon PTOs to notify the CAISO about any transmission outages that have a "significant effect" on CRR revenue adequacy 30 days in advance of the first day of the month when the outage is scheduled. This 30-day advance notification permits the modeling of these types of outages in the CRR model used in the next monthly process.¹¹ One of the objectives of the present effort is to specify which facility outages will comprise this "significant effect" category.

This initiative also seeks to focus on information related to typical outages that are not known in advance, yet have a potentially significant impact on CRR revenue adequacy. The procedures for modeling such outages may include a methodology for a percentage reduction in network capacity available in the monthly process which represents a reasonable statistical margin to reflect the impact of unplanned transmission outages and derates.

For the CRR Dry Run, the CAISO used a rather simple approach to considering transmission outages for the monthly process in the CRR Dry Run. For purposes of creating the CRR network model for the monthly CRR Dry Run processes CAISO staff reviewed all outage data that was available for the April and August 2006 time period (since April and August were the two months depicted in the study). Considering in hind-sight what a CRR operator would have known from looking at planned outage data 30 days in advance of the month in which the CRRs would be allocated (i.e., as required by the Tariff), CAISO staff concluded that there was insufficient data to determine which lines to derate in the CRR model. This was mainly due to the fact that the 30-day notification rule did not exist at the time the data was collected and thus the data for that time period lacked clarity as to outage details. So, in order to account for

¹⁰ Section 9.3.6.3.2 of the MRTU Tariff, as revised in the CAISO's November 20, 2006 compliance filing.

¹¹ In Paragraph 646 of the April 20, 2007 Order on Clarification and Rehearing on the MRTU Tariff, FERC states that "we find the CAISO's proposed timeframes for 'significant' transmission outages will provide both the CAISO and interested market participants with the information needed to prepare models for the monthly CRR allocation and auction ..."

monthly outages for purposes of the Dry Run, the CRR Team derated transmission lines by a global percentage based on kV level.

Thus, for the Dry Run the final capacity of all 500 kV lines in the full network model was reduced by four percent and all 230 kV lines were derated by one percent. These percentages were determined through the contingency analysis that is described generally in section 5.3.1.

5.3 Definition and specification of “significant” planned transmission outages.

The ISO seeks to develop a methodology for defining the facilities whose outages would likely have significant impacts on market congestion revenues and CRR revenue adequacy, and therefore would require that PTOs report to the CAISO planned outages on such facilities at least 30 days prior to the start of the month in which the outage is scheduled to be performed.

In addition to discussion with stakeholders on this matter, the CAISO will be pursuing further written suggestions or discussion from the TMCC and other interested parties regarding the development of this methodology.

5.3.1 Possible ideas for determining “significant” transmission outages that require 30-day notification

One relatively simple idea would be to designate facilities above a certain voltage level – for example, 200 kV and above – that would be assumed to have significant impact on congestion revenues and therefore should fall under the 30-day outage reporting requirement. One consideration is the need to make the outage request process for “significant” facilities as transparent and consistent as possible, so that transmission maintenance personnel are able to plan outage requests and comply with the 30-day requirement. Thus facilities comprising this category should be a stable set to avoid situations where the PTO requests a line outage two weeks before the start of an outage based its exclusion from the significant category, but the CAISO later determines that the outage had a significant impact on congestion revenues. A variation on the above could be to include all 500 kV lines and all interties, plus recognized WECC paths (such as South of Songs).

A related matter to be addressed is how to model outages that are planned for facilities in the “significant” category but are only planned to occur for a portion of the month. This question suggests a need for some quantitative assessment of the impact of such outages. One approach would be to conduct a contingency analysis to determine what percentage of capacity the 230 and 500 kV lines should be derated. This analysis was performed during the CRR Dry Run to arrive at the conclusion to derate (only for the Dry Run) all 230 kV lines by one percent and all 500 kV lines by four percent. This analysis could be performed in the following steps:

1. Conduct a simultaneous feasibility test to allocate CRRs to LSEs using a full network model with all lines in service.
2. Conduct a contingency analysis, essentially removing all transmission lines one-by-one, and determine the percentage increase in flow on all 230 and 500 kV lines. This increase in flow would reflect changes in shift factors resulting from topology changes caused by removal of transmission lines in the full network model during the analysis.
3. Determine the average increase in flow over the 230 and the 500 kV lines that resulted during the contingency analysis. This average percentage increase in flow would be

presumed to represent the necessary reduction in CRR allocation capacity required during the CRR allocation process to maintain feasibility when the transmission lines were later taken out of the full network model one-by-one during the contingency analysis.

4. The average percentage would be determined for 230 kV lines and for all 500 kV lines.

The above approach relies, in part, on the idea that reducing the capacity of transmission lines would maintain a feasible set of CRRs in the event any one of the 230 or 500 kV lines were taken out of service and thus ensure a revenue-adequate condition. However, it should be recognized that, even though overloads may occur in transmission lines in the Day Ahead market due to transmission outages rendering previously allocated CRRs infeasible, it does not necessarily mean that such infeasibility will result in a revenue inadequate condition over the life of the CRR. It simply means it could cause a revenue inadequate condition.

A more detailed methodology might look beyond the concept of physical feasibility of CRRs and try to estimate the amount of revenue inadequacy in the energy market when individual transmission outages occur. Such a study could involve the following steps:

1. Conduct an annual and monthly CRR allocation consistent with the way they will be carried out during production and determine the awarded quantity of annual and monthly CRRs.
2. Utilizing a full network model essentially identical to the model used to allocate CRRs in step 1 above, conduct a Day Ahead IFM simulation utilizing a representative set of generation and demand bids during a peak period. Using the resulting LMPs, calculate both the total amount of congestion revenues collected by the CAISO and the total net settlement with all allocated CRRs.
3. Conduct an analysis where 230 and 500 kV transmission lines are taken out of service one-by-one and the IFM simulation is conducted. Note that during the simulation operating constraints will be de-rated to reflect the outage. After each simulation, use the generated LMPs to determine the congestion rents collected and the revenue paid out to CRR holders based upon the allocated CRRs in step 1.
4. Repeat step 3 above for a certain period of hours to assess the level of revenue adequacy associated with each line outage over the specified number of hours (i.e., the extent to which congestion rents collected offset or exceed payments to CRR holders).
5. From the results above, determine the set of transmission lines that cause revenue inadequacy when out of service in the IFM but were left in service in the CRR process.

5.3.2 Modeling of outages in other ISOs

As a point of information, the following table summarizes the practices of other ISOs to account for the impact of transmission outages upon financial transmission rights:

MISO	ISO New England	New York ISO	PJM
For the annual process, lines taken out of the model for the full season if, in one or more months of the season, a line outage is expected to last seven or more days and one of the days includes the 15 th of the month. For the monthly process, lines taken out of the model if the outage is expected to last seven or more days and one of the days includes the 15 th of the month.	For 345 kV lines, will take lines of importance out of FNM for outages equal or greater than three days. Will derate constraint limits for outages less than three days.	If a line is scheduled to be out for more than half the term of the upcoming TCC auction, it is a candidate to be removed from the full network model. The NYISO then asks the transmission owner whether it should be taken out or remain in the model.	For the annual auction, lines taken out of model if an outage of two or more months is expected. For monthly auction, take lines out if outage is equal or greater than five days, unless the line is critical to revenue adequacy. If so, the line is taken out of the model regardless of the duration of the outage.

5.4 Procedure to reflect the estimated effect of unplanned transmission outages and derates for possible use in CRR modeling.

Any planned transmission outages that are not reported may not necessarily meet the criteria for “significant,” yet would still be subject to the 72 hours in advance reporting requirement that exists currently and will remain under the MRTU Tariff. While these types of outages may not individually impact CRR revenue adequacy, a series of small planned outages at the same time may significantly reduce the collection of congestion revenues such that CRRs may be revenue inadequate on a monthly basis. In addition, the transmission system occasionally experiences forced outages or derates that also have impacts upon hourly congestion revenues.

The CAISO could develop, based on historical study, a statistical percentage that represents this collection of outages and its impact on CRR congestion revenues. Such a statistical percentage could be applied in the network model for the monthly CRR process. One way to make this approach more precise could be to determine different percentages for each major PTO service area, based on the different classes of facilities in each area that are included in the CAISO Controlled Grid.

5.5 Modeling procedure for the initial monthly process

The initial monthly CRR release process will be conducted without the benefit of knowledge of the “significant effect” outages reported 30 days in advance of the associated month. This is because, for the initial monthly process – which will allocate and auction CRRs that will be effective for February, 2008 – the CAISO has targeted October as the general timeframe during

which adjustments will be made to the CRR model to account for outages.¹² Actual nominations for the first monthly allocation tier will commence on November 7. The first monthly auction should be completed by December 18, 2007.

The reason why this initial release process is scheduled to begin several months before actual MRTU implementation date is to allow market participants and the CAISO ample time to go through the allocation and auction process, conduct and process any secondary trades and prepare for other operational features of the MRTU “Go Live” date.

After this initial monthly release, the monthly process will occur regularly during the month before the time period when the released CRRs are effective, and the 30-day ahead outage notifications will be available to be considered in developing the monthly CRR model.

The CAISO notes this initial monthly process for CRRs effective in February 2008 may not incorporate all the significant planned transmission outages that are reported 30 days in advance (by January 1). While some transmission outages may be anticipated if they are planned further than 30 days in advance, the CAISO will likely have less information on which to base outages in the CRR model which may impact revenue adequacy.

Thus, this paper raises the possible need for special modeling assumptions for the first monthly process only. One alternative is to reduce capacity on the monthly CRR model by a fixed percentage to account for outages that are likely to have significant impact on CRRs.

¹² See the “CRR ‘Go-Live’ Road Map Document” located at:
<http://www.caiso.com/1bcc/1bccf1dccb30.pdf>

6 Provisions for Early Release of Transmission Encumbrances Associated with Converted Rights (CVR)

6.1 Background

The CAISO's filed MRTU Tariff states that the quantity of an LSE's eligibility for CRR allocation shall be based on its Adjusted Load Metric, which is calculated from the LSE's historical hourly load less the share of its load that is covered under TORs, ETCs or Converted Rights (CVRs) and thereby insulated from CAISO congestion charges.¹³ This formulation of the Adjusted Load Metric is designed to operationalize the principle that unavoidable exposure of load to CAISO congestion charges under the MRTU market design is a fundamental requirement for eligibility for CRR allocation.

In the case of CVRs, certain LSEs chose to turn over certain of their transmission facilities and existing contractual transmission rights to CAISO operational control and become Participating Transmission Owners (PTOs) in exchange for, among other things, Firm Transmission Rights across the interties associated with the converted facilities and contractual rights up until the end of the "TAC Transition Period" which formally ends on December 31, 2010. It is to these entities (and any other similarly situated parties who might convert their transmission facilities or contractual transmission rights to CAISO operational control prior to the start-up of the MRTU markets) that the CVR provisions of the MRTU Tariff apply. Under the filed CVR provisions the holders of the CVRs will receive "perfect hedge" settlement treatment and priority protection against non-economic adjustment to self-schedules comparable to the treatment given to ETC rights holders, but only for the Day Ahead Market. With regard to CRR allocation, the Adjusted Load Metric for each LSE that holds CVRs will reflect only the amount of load that is not under CVR perfect hedge protection. When the TAC Transition Periods ends at the end of 2010 this treatment of CVRs will expire.

6.2 Proposal by CVR Holders

Certain CVR holders have suggested that they may wish to relinquish some or all of their CVR coverage prior to the end of 2010 and thereby increase the amount of their load that is exposed to CAISO congestion charges and hence increase their eligibility for CRR allocation. The CAISO believes that the CAISO Tariff does not preclude such choices by CVR holders, as long as the decisions are made in a time frame compatible with the annual CRR release processes.

These CVR holders have also suggested certain additional provisions as follows:¹⁴

1. Parties that release their existing CVRs before the end of 2010 may nominate CRRs with sources that are different to the sources associated with the released CVRs.
2. In CRR Year 1 any CRRs that are awarded to CVR parties (in tiers 1 and 2) may be nominated in Tier LT in accordance with the same rules followed by all LSEs.

¹³ See Section 36.8.2.1 of the MRTU Tariff. The stated provision is contained in both the February 2006 filed version and the most recent revisions filed on May 7, 2007.

¹⁴ The proposal described in this section was presented to CAISO staff by Bob Tang of the City of Azusa. The five points listed are taken from a summary of the proposal drafted by the CAISO staff and edited by Mr. Tang.

3. In CRR Year 2 and beyond, the CVR parties may nominate CRRs in the Priority Nomination Tier (PNT) in accordance with the same rules for renewing CRRs followed by all LSEs.
4. In addition, for CRR Year 2 the CVR parties may choose to substitute the CRRs awarded in the previous year MW for MW and instead nominate in the PNT CRRs that have the same source points as their previous CVRs that had been released in CRR Year 1. Thus parties may change their CVRs into CRRs with different source points in CRR Year 1, and then “reclaim” these rights as if they were expiring CVRs which could then be nominated as CRRs in the PNT, utilizing the same source points as the previously released CVRs. CVR parties would not have the flexibility to nominate CRRs that have different sources other than their “reclaimed” CVRs. The CRR nominations submitted by the CVR parties would be subject to an SFT in all tiers, just like other LSEs’ CRR nominations.

Released and later reclaimed CVR would not need to be reclaimed in the immediately following year’s PNT, but should be reclaimed if at all no later than the earlier of (a) end of 2010, or (b) the term of CVR, e.g., CVRs released in 2008 CRR year should be reclaimed no later than in 2009, 2010 CRR year.

5. In CRR Year 2 and beyond, any CRRs that are awarded in the PNT may be nominated for Tier LT in accordance with the rules followed by all LSEs.

6.3 CAISO Position

At the present time the CAISO has not yet formulated a position on this stakeholder proposal and seeks the comments of other stakeholders.