California ISO
Your Link to Power

California Independent
System Operator Corporation

Memorandum

To: ISO Board of Governors

From: David Withrow, Lead Market and Product Economist

Anjali Sheffrin, Chief Economist / Director of Market and Product Development

Date: May 13, 2008

Re: ***Decision on Congestion Revenue Rights Enhancements***

This memorandum requires Board action.

EXECUTIVE SUMMARY

In anticipation of the second annual CRR auction, which will occur this summer in advance of implementation of MRTU, CAISO Management is proposing tariff amendments designed to enhance current CRR policies and to address the delay in the MRTU planned start date. The recommended policy enhancements reinforce the value of CRRs for Load Serving Entities, improve the fairness of the CRR release process, and strengthen the CRR credit policy.

Due to the delay in MRTU, the release of "Year One" CRRs does not match the expected first year for MRTU market operations. Following stakeholder input, Management proposes to largely maintain the "Year One" rules for the seasonal CRRs to be effective for the first quarter of 2009 while treating the other three quarters of 2009 which have already established priorities for certain CRRs under the "Year 2" rules. This proposed policy is entirely consistent with the establishment of CRR priorities that was set by previous stakeholder processes and reflected within the current MRTU Tariff.

Management also worked with stakeholders to design additional modifications intended to increase availability of CRRs, expand the exemption of the "30-day Rule" on outage reporting and address CRR eligibility for LSEs that do not have a California Energy Commission (CEC) load forecast. With respect to the former, the Management recommends increasing the granularity of CRRs from 0.1 MW to 0.001. This refinement will benefit small Load Serving Entities in particular because it involves expanded capability to release CRRs from the current 0.1 MW level and will allow more CRR nominations to be awarded, especially for MW nominations under 100 MW. The second CRR-related policy clarifies the exemption to the "30-day Rule" that requires Participating Transmission Owners to report planned outages to the CAISO and consistent with FERC recent orders proposes to include this detail in the CAISO Tariff. Instead of limiting the exemption to outages that occur within a single calendar day, Management proposes to use a 24 hour rule. This will provide Participating Transmission Owners with some flexibility for reporting outages that are 24 hours or less, but occur over two calendar days. The third policy refinement resolves to use historical data to determine eligibility for monthly CRRs that could be allocated to an LSE without a verifiable CEC load forecast for that month.

With respect to credit policy affecting CRRs, Management took the initiative, in light of the default in PJM by an under-secured firm transmission right, to review its CRR credit policies. Although the CAISO's credit policies are more robust than other independent system operators, the CAISO, working with stakeholders, developed several enhancements to further protect against default risk. The first enhancement tightens the credit requirements for Load Serving Entities that transfer allocated CRRs to another Load Serving Entity. This enhancement addresses the risk associated with potential future load migration by requiring additional security to address this possibility. The second enhancement is to use historical LMP data, once 12 months of data are available, as a component to consider when assessing the credit requirements for holding CRRS. The third credit policy enhancement increases the credit requirement for participation in the CRR Auction by requiring Candidate CRR Holders to post the calculated "Credit Margin" in addition to the absolute value of the bids before a market participant is allowed to bid for CRRs at auction. The final enhancement proposal extends the requirements to disclose to the CAISO information about business affiliates to entities that have registered to acquire CRRs, such as a CRR Candidate Holders. The CAISO anticipates implementing and enforcing these policies as soon as possible.

MOTION
Moved, that the ISO Board of Governors approves the policies for Congestion Revenue Rights Policy Enhancements, as outlined in the memorandum dated May 13, 2008, and related attachments; and

Moved, that the ISO Board of Governors approves the policies for Congestion Revenue Rights Related Credit Enhancements, as outlined in the memorandum dated May 13, 2008, and related attachments; and

Moved, that the ISO Board of Governors authorizes Management to make all the necessary and appropriate filings with the Federal Energy Regulatory Commission to implement these policies.

BACKGROUND

This section describes the issues and problems the stakeholder process addressed. Additional background is available in the "*Final Proposal on Congestion Revenue Rights Enhancements*" which is located at: http://www.caiso.com/1b8c/1b8cdf25138a0.html.

I. Ensuring the Value of Allocated CRRs to Load Serving Entities

A. Changes Needed for the Next Annual CRR Allocation

The FERC-approved process for releasing CRRs involves allocating CRRs to Load-Serving Entities (LSEs) based on the amount of load they serve, followed by an auction where credit-worthy entities may bid for any available CRRs. Once a year the CAISO releases seasonal CRRs that are effective for three month durations consistent with calendar quarters; thus, Season 1 CRRs are effective January through March, Season 2 CRRs are effective April through June, and so on.

In anticipation of an April 1, 2008 opening of the MRTU markets, the CAISO previously allocated and auctioned CRRs for the last three quarters of 2008.[1] Those CRRs for the second and third quarter of 2008 that were bought at auction and will not become effective have been unwound and the CAISO has returned money with the appropriate interest to the buyers, in accordance with a recent FERC order. CRRs for the October – December 2008 period remain held by market participants and will become effective upon MRTU start-up during that time period.

The current MRTU Tariff also specifies priority in the nomination of CRRs in the CRR allocation process that are sourced at locations at which LSEs that supply their customers directly from the CAISO grid can demonstrate ownership or contracts for energy delivery. The central concept that has been endorsed previously by most stakeholders and FERC is that LSEs with established generating sources for their energy flows should get and be able to maintain priority for their CRR nominations, especially since a key purpose for creating CRRs is to help LSEs protect consumers by minimizing and managing congestion costs.

The CAISO engaged with stakeholders to determine how to maintain this priority for certain CRR nominations within the second annual release process, which will occur prior to MRTU implementation based on the fact that LSEs did not nominate or receive any seasonal CRRs for the first quarter of 2008, and thus never had the opportunity to establish priority. Seasonal CRRs for the second and third quarter of 2008 were nominated by LSEs and, although none of the awarded CRRs for quarters 2 and 3 of 2008 will be effective during MRTU operation, many of these nominations were source-verified for the purpose of establishing priority. In addition, the CAISO engaged with stakeholders concerning whether 2006, or a more recent timeframe, should be used for source verification.

II. Enhancing Access and Fairness of the CRR Release Process

B. Increased Granularity for CRRs

In previous stakeholder processes leading to the CAISO's February 2006 MRTU Tariff filing, it was decided to establish 0.1 MW as the minimum level for the CAISO to track CRRs. The CRR software systems were developed and configured to reflect this decision. Subsequently, the CAISO staff and stakeholders discussed further details related to CRR transfers for load migration and the disaggregation of CRR nominations sourced at Trading Hubs into their constituent PNodes for purposes of CRR allocation. In those discussions it was recognized that these two processes could result in substantial quantities of small denomination CRRs that would be rounded to zero, and that the problem would be more severe the smaller the initial MW denomination. For example, a 10 MW CRR nomination sourced at a Trading Hub would have a larger proportional share rounded to zero as a result of the disaggregation process than would a 100 MW CRR nomination. Although the CAISO could not revise the 0.1 MW CRR granularity threshold in the CRR systems in time to start the CRR Year One release process, the CAISO has been working diligently to increase the granularity of CRR tracking in time for the CRR Year 2 annual release process for 2009, which will start in summer 2008. The CAISO engaged with stakeholders on the degree to which the granularity of CRRs should be increased.

[1] Management previously sought and obtained approval by the ISO Board of Governors of the CRR Contingency Plan in anticipation of the delay of MRTU. The CRR Contingency Plan provided for the unwinding of CRRs allocated and auctioned during such time that MRTU is not in effect, resettlement of the auctioned CRRs and a backstop measure to ensure that Firm Transmission Rights are available while MRTU is not in effect in 2008. *See* Memorandum *Decision on Congestion Revenue Rights Contingency Plan*, date January 28, 2008. The CAISO has since obtained FERC approval of this policy and has resettled the auctioned CRRs that were unwound. *See California Indep. Sys. Operator Corp.*, 122 FERC ¶ 61,296 (2008).

C. Notification of Planned Transmission Outages that Impact CRRs

Management also has discussed and received stakeholder input on a proposed change to the requirement for Participating Transmission Owners to notify the CAISO about planned outages of transmission facilities that impact CRRs at least 30 days prior to the start of the calendar month for which the outage is planned to begin. This rule is intended to provide the CAISO with accurate data on planned outages far enough in advance to allow the CAISO to reflect them in the network model used for releasing Monthly CRRs and thereby minimize impacts to the revenue adequacy of CRRs. This requirement has been part of the CAISO CRR policy from the start and the FERC has previously approved this reporting requirement as already reflected in the CAISO Tariff. This rule was detailed in the Business Practice Manuals and the FERC has recently requested that the criteria for what constitutes an outage that may have significant impact on CRR revenue adequacy be included in the tariff.

Currently the criteria for what constitutes an outage that may have significant impact on revenue adequacy permits outages to such facilities that are planned to be initiated and completed within a single calendar day are exempt from the 30-day requirement. Several Participating Transmission Owners suggested the CAISO modify the provision so that outages to such facilities that are planned to be initiated and completed within a 24-hour period, rather than a single calendar day, are exempt from the 30-day requirement. The CAISO also engaged with stakeholders concerning whether additional exemptions should be recognized.

D. Eligibility for Monthly CRRs for LSEs without CEC Load Forecasts

The first monthly CRRs will be allocated in late summer and will be effective upon MRTU start-up. The MRTU Tariff requires LSEs that are eligible for allocation of Monthly CRRs to provide monthly load forecast data to the CAISO as the basis for determining the maximum quantity each such LSE may be allocated. The CAISO reviewed with stakeholders how the eligibility for monthly CRR allocation will be determined in the absence of a CEC forecast data.

III. <u>Enhancing the CRR Credit Policy</u>

E. Tighten Credit Requirements for Allocated CRRs to Address Risk Associated with Load Migration

The MRTU tariff provides that when load migrates from one LSE to another, the CAISO will create and allocate new CRRs to the load-gaining LSE and will assign counter-flow (negatively valued) CRRs to the load-losing LSE to offset the CRRs to be transferred with load. If the LSE has already sold CRRs, or has purchased counter-flow CRRs, the LSE may not be creditworthy to take on the obligation for the counter-flow CRRs. Both the CAISO and stakeholders discussed ways to mitigate this risk by enhancing credit requirements on LSEs that hold allocated CRRs.

F. Use of Historical Price Data as a Component to Determine Credit Requirements for CRR Holders

Under the current MRTU Tariff, the requirement for holding a CRR with a term less than one year is based on its auction price plus the calculated Credit Margin. The auction value should reflect the market value of CRRs. It may not, however, if few participants bid in an auction. When the value of the CRRs in the auction is overvalued compared to actual historical LMP data, the auction price may not reflect the true credit risk for certain CRRs. The CAISO examined with stakeholders alternative ways of utilizing historical price data to determine the appropriate credit requirement for holding short-term CRRs once that information becomes available.

G. Increased Credit Requirement for Bidders in CRRs Auctions

This stakeholder process reviewed whether and how to impose additional credit requirement before an entity participates in an auction to ensure that winning bidders are able to meet the CRR Holding requirements.

H. Extend Affiliate Disclosure for Entities Applying to Acquire CRRs

The CAISO recently became aware of a gap in disclosure requirements for entities who may be seeking to acquire CRRs, and this gap could impact credit risk and is proposing to close that gap.

POSITIONS OF THE PARTIES

The CAISO staff conducted one day-long stakeholder meeting and two conference calls to review these issues and explain various proposals. Stakeholders reviewed an *Issue Paper* describing all of these issues and options for resolution, a *Straw Proposal* and a *draft Final Proposal* on each item. Stakeholders submitted two rounds of written comments. The most recent comments are summarized in Attachment A.

CRR Year Two Modifications

The CAISO considered two modifications to the Year Two CRR process. Most stakeholders agreed with the proposed resolution for using "Year One" rules for part of the next annual CRR allocation, although some preferred the first quarter of 2008 as the historical period for verifying CRR sources because grid usage and congestion charges in 2009 would most closely match that historical period. The CAISO considered this option but chose 2007 in order to avoid creating incentives to enter into contractual arrangements in order to use those contracts as the basis for source-verified 2009 Quarter 1 CRR allocation. Management's proposal to use the first quarter of 2007 avoids this possibility, and is a more recent time period than the 2006 period used for CRR source verification in the first annual allocation process.

Modification to Criteria for Reporting Outages under 30-Day Reporting Requirement

Some Participating Transmission Owners are concerned that no exemptions will be permitted to the rule requiring 30-day notification of outages that impact CRRs, at least for the first year of MRTU operations. The reason is that the CAISO has adopted a conservative approach for modeling outages that seeks to minimize the possibilities that not enough congestion revenue will be collected to make all CRR holders whole. This requires the CAISO to avoid exemptions to the notification requirement for planned outages because, in the absence of actual LMP market experience, the CAISO does not have an empirical basis to judge if certain outages have no impact on CRRs. The CAISO has committed to assessing the effectiveness of both the 30-day requirements and its approach to modeling outages in the Monthly CRR process as actual experience with the LMP markets is gained.

Credit Policy Enhancements Relating to CRRs

Stakeholders participating in this process support Management's proposal for the important enhancements to the existing CRR credit policy, although some participants are concerned that these strengthened policies will not be in place at the time of MRTU start-up. Stakeholders, along with the CAISO, recognize the need to continue stakeholder engagement on additional credit policy enhancements.

Stakeholders generally recognize that the CAISO's credit policy with respect to CRRs is in many ways more sophisticated than other ISOs and RTOs. Still, in the wake of the multimillion dollar default that occurred in PJM with respect to negatively valued firm transmission rights, the CAISO recognized that this occurrence provided an additional opportunity to scrutinize its credit policies in advance of actual MRTU operations and to see if additional enhancements are warranted. This effort has resulted in the proposed changes discussed herein and a commitment to engage in additional stakeholder discussions.

Even though they support the CRR credit policy enhancements, several stakeholders have expressed concerns. One concern relates to the CAISO's inability to commit to implement these enhancements due to the software development cycle. To address this concern, Management will be exploring manual processes to ensure implementation as soon as possible. Second, stakeholders have expressed concern that no alternative to auction prices will be available for the first 12 months while historical market data will be collected. Some have suggested that LMP study data be used during this period. Due to uncertainties about how closely the LMP study data will represent actual market outcomes, Management does not believe that it is appropriate to use LMP study data for estimating the value of CRRs and that it is better to rely on the auction price for the first 12 months. To address this concern, the CAISO will be monitoring the value of CRRs based on actual LMP prices. In addition, the CAISO, working with stakeholders, will develop triggers for determining when to make additional collateral calls based on actual LMP data. At the same time, the CAISO, working with stakeholders, will develop a methodology for assessing additional credit requirements in the event of extraordinary circumstances, such as unplanned outages, that could dramatically affect CRR values. Finally, the CAISO will also work with stakeholders to develop additional tools, such as blanket corporate guaranties to cover all Affiliates.

MANAGEMENT RECOMMENDATION

Management proposes the following CRR policy enhancements:

Ensuring the Value of Allocated CRRs to Load Serving Entities

A. Changes Needed for he Next Annual CRR Allocation

- Use "Season 1 2007"as the historical reference period for source verification for "Season 1 2009" CRRs rather than 2006. This modification should allow a better alignment between CRRs that are allocated and contractual entitlements of LSEs.

- Treat Season 2 and 3 under the "Year 2" rules because the previously nominated CRR sources for those two seasons were already verified. Requiring the LSEs to renominate would pose an unnecessary administrative burden.

Enhancing the Access to and Fairness of the CRR Release Process

B. Increased Granularity for CRRs

- Increase the granularity form 1 MW to 0.001 MW level for tracking CRRs. This change will create significantly more CRRs that can be awarded from small nominations.

C. Notification of Planned Transmission Outages that Impact CRRs

- Clarify the "30-day Rule" that requires notification of transmission outages that impact CRRs so that outages initiated and completed within a 24-hour period (in place of the current same day requirement) are exempt.

- Eliminate other exemptions to this Rule for the first year of MRTU operation so the CAISO can conservatively model outages while beginning to assess actual market outcomes as the new markets unfold.

D. Eligibility for Monthly CRRs for LSEs Without CEC Load Forecasts

- Base monthly CRR eligibility on the historical load of the same month for the previous five years when necessary for such special circumstance.

Strengthening the CRR Credit Policy

E. Tighten Credit Requirements for Allocated CRRs

- Disallow netting for purposes of determining credit requirements between allocated CRRs and CRRs bought at auction or via secondary market. This will prevent a party from cashing out its allocated CRRs and eliminating on-going credit requirements.

- Require LSEs selling allocated CRRs to maintain credit coverage to cover counter-flow CRRs that can offset the CRRs being sold at the time of the sale.

F. Use Actual Prices to Determine the Collateral Needed for Entities to Hold CRRs

- Use historical expected value after 12 months of MRTU market operations in addition to auction prices to determine the credit holding requirements. When the historical expected value is more negative than the auction price, the CAISO will use the historical expected value.

G. New Credit Requirement Before Bidding for CRRs at Auction

- Require auction participants to post the Credit Margin, which is currently part of the credit requirements for holding CRRs, for all their bids as an additional prerequisite for bidding in a CRR auction

H. Require Affiliate Disclosure for Entities Applying to Acquire CRRs

- Extend the existing Affiliate disclosure requirement to Candidate CRR Holders, not just CRR Holders and extend disclosure obligation to all Affiliates, not just Market Participants.