CRR Issues Paper

- ***Preliminary Summary of CRR Dry Run Results***
- ***Potential CRR Rule Changes***
- ***Outstanding CRR Process Issues***

February 21, 2007

CRR Issues Paper

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Prepared for Discussion at Stakeholder Meeting on February 27, 2007

1 Background and Purpose of this Issues Paper

Over the last two years the CAISO and stakeholders have established a structure for creating and releasing Congestion Revenue Rights (CRRs), a set of financial instruments of varying terms by which market participants can obtain enhanced certainty over their potential exposure to congestion costs on their Day-Ahead energy schedules under MRTU.

Much of this structure is encapsulated within Section 36 of the filed MRTU tariff that has been conditionally approved by FERC, and has since been significantly amended by an additional compliance filing for Long-Term CRRs. Additional details and business processes are being refined in the CRR Business Process Manual, which has been recently posted in its second iteration and is currently undergoing review by stakeholders. A CRR Dry Run has been conducted to convey greater understanding and familiarity with the rules for releasing CRRs, and the CAISO is now developing a report to FERC on the results of this important simulation of the CRR production process.

Over the next few months the CAISO will be working with stakeholders to finalize this CRR structure so that the CAISO can initiate the processes to release actual CRRs that will become effective upon the start-up of MRTU. It is important to realize these CRR processes must begin well before January, 2008. In fact, the CAISO intends to be ready to begin the formal process for allocating CRRs by the summer of 2007. For this reason, the CAISO is organizing this final push to examine the key remaining issues related to CRRs that are necessary to resolve before beginning the CRR production process.

This Issues Paper is meant to begin the foundation, and solicit stakeholder input, for the review of these key CRR issues. As explained further, some of the issues have been raised within the CRR Dry Run and may potentially develop into specific rule changes that should improve the established structure for CRR allocation and auction. Other significant issues – specifically the business processes for transferring CRRs required by load migration, the methodology for determining the amount of CRRs due to merchant transmission sponsors, and CRR credit requirements -- have remained unresolved, but will be settled within this process over the next several months.

This paper and its attachments begin to explain these issues and review options. Several sections remain incomplete or in draft format and will be expanded at a later time. Section 2 outlines the expedited process for resolving these CRR issues. The remainder of the paper is organized in the following manner:

- **Section 3:** A preliminary summary of the aggregated results of the CRR Dry Run is presented for information and further discussion.
- **Section 4:** Six issues that have been raised by or discussed throughout the Dry Run process are outlined for initial consideration as potential changes to the CRR rules or business processes:
    - Source Nominations at Trading Hubs
    - Set-aside of Import Capacity on each Inter-tie for CRR Auction

- CRR Source Verification Rules
- Modeling of Transmission Outages in the CRR Network Model
- Use of Common Forecasts for Monthly CRR Eligibility and Monthly RA Showings
- Frequency of Monthly Allocation and Auction Process

- **Section 5:** Three significant CRR issues are framed for resolution of policy or business processes:
  - CRR Transfers from Load Migration
  - Methodology for Determining CRRs for Merchant Transmission Upgrades (with accompanying White Paper that has been previously posted)
  - CRR Credit Requirements (with accompanying White Paper)
- **Section 6:** Three implementation features that are significant to the CRR process are briefly explained. These features are the focus of a planned FERC filing in March and are being reviewed within the CAISO's forum for MRTU implementation. These implementation features are included within this Issues Paper for a complete review of CRR-related issues, and because these features will be reviewed and discussed briefly at the February 27 stakeholder meeting:
  - Guidelines for completing a template for "TRTC" Instructions, which define the parameters for transmission rights (ETCs, TORs, CVRs) that receive the "perfect hedge." This template includes a section for estimating the usage of these transmission rights, which will be utilized in the modeling of CRRs and may impact the amount of CRRs that are released.
  - Information Collection and Verification
  - Registration of Candidate CRR Holders
- **Section 7:** Review of the CRR BPM process, where the resolution for many of these CRR-related issues will be memorialized.

2 Proposed Process and Milestones for CRR Issues Resolution

The following table contains each of the CRR activities that need to be completed along with anticipated dates that these projects will be filed with FERC. Many of the items that are being filed in the March timeframe are required in preparation for the first CRR allocation and auction that are planned for July 1. In planning the timeline for filings many details had to be considered including FERC response time, stakeholder involvement and implementation constraints and requirements.

The activities listed in the table below are in the same order and are listed by the same section numbers contating in this paper. In addition, this table lists the key activities in sequential date order.

Sec.	Activity	Filing Date	Comments
3	CRR Dry Run Results	March 30	Intended to be filed after the completion of the dry run and

		stakeholder review.
4 Potential Changes to CRR Rules		
4.1 Source Nominations at Trading Hubs	May 2	Will be part of the rules on which the CRR allocation will be based. Must be approved prior to the allocation.
4.2 Set-aside of Import Capacity on Inter-tie for CRR Auction	May 2	The set-aside rules must be determined prior to the CRR allocation.
4.3 CRR Source Verification Rules	March 30	Change in the historical period in the tariff must be approved prior to the CRR Allocation.
4.4 Modeling of Transmission Outages in the CRR Network	August 3	Should be filed no later than 180 prior to the start of MRTU.
4.5 Use of Common Forecasts for Mo. CRR Eligibility and Mo. RA Showings	August 3	Should be filed no later than 180 prior to the start of MRTU.
4.6 Frequency of Monthly Allocation and Auction Process	August 3	Should be filed no later than 180 prior to the start of MRTU.
5 Outstanding CRR Process Issues		
5.1 CRR Transfers due to Load Migration	August 3	Should be filed no later than 180 prior to the start of MRTU.
5.2 Methodology for Determining CRRs for Merchant Transmission Upgrades	May 2	Methodology must in place by first allocation of long term CRRs, it is anticipated that this will occur soon after the CRR allocation/auction.
5.3 CRR Credit Requirements	May 2	This must be filed in advance to receive approval for the methodology. A creditworthiness check will be required prior to the CRR auction.
6 Filing to FERC on Implementation Features		
6.1 Template for TRTC Instructions	March 9	Template will be filed in March in anticipation of FERC approval in time for stakeholder to complete and return to the CAISO prior to first auction/allocation. This information will be used for market simulation purposes as well as modeling ETC, TOR, CVR for auction/allocation.

6.2 Information Provision, Collection and Verification	March 9	CAISO seeking authority to conduct certain activity in preparation for the CRR allocation and auction.
6.3 Candidate CRR Registration and CRR Entity Agreement	March 9	Registration details and pro-forma agreement will be filed as FERC approval is needed in time for stakeholders to complete for participation in auction/allocation.
7 CRR Business Practice Manual	May 2	Filing with FERC in accordance with the time schedule set BPMs.

The following is a list of all key activities, tentative milestones and associated dates, beginning in February 2007 through MRTU start up. This list is a work in progress and may change as this document is updated.

- February
  - 8 – Present March 9 Filing proposed changes (i.e., TRTC Instructions, Candidate CRR Holder Registration, pro forma CRR Entity Agreement, and authority for Information Provision, Collection and Verification) at Participant Readiness Advisory Group (PRAG) meeting
  - 13 – CRR Dry Run Results discussed in Executive Session at the Market Surveillance Committee (MSC)
  - 15 – Posted March 9 Filing proposed changes on CAISO website
  - 20 – MRTU Implementation Meeting - present March 9 Filing proposed changes to Stakeholders
  - 27 – CRR Stakeholder Meeting to review and obtain initial feedback on issues related to CRRs.
- March
  - 6 – Stakeholder Comments due on March 9 Filing materials
  - 7 – Board of Governors Meeting – Review of CRR Dry Run Results, Informational briefing on March 9 Filing
  - 9 – Initial Stakeholder Comments Due on Issue paper (tentative)
  - 9 – Filing of additional detail on TRTC Instructions tariff language, detail of Candidate CRR registration and qualification process, CRR Entity Agreement, authority to conduct CRR related activity in preparation for allocation and auction
  - 15 – Updated Issue paper posted on website (tentative)
  - 22 – Stakeholder Conference Call (tentative)
  - 23 – Stakeholder Comments Due on Issue paper that was posted on 3/15 (tentative)

- 30 – File Dry Run Results, Source Verification rules with FERC

- April
  - 2 – post updated CRR BPM on CAISO website
  - 3 – Stakeholder Meeting (tentative)
  - 6 – Final Stakeholder Comments Due (tentative)
  - 18 – Board of Governors Meeting – Decision on joint CRR Tariff changes
- May
  - 2 – File Source Nominations at Trading Hubs, Set-aside of Import Capacity on Inter-tie for CRR Auction, Methodology for Determining CRRs for Merchant Transmission Upgrades, CRR Credit Requirements, any necessary additional detail from the CRR Business Practice Manual with FERC.
- Future Months
  - July through October – First annual allocation and auction of Seasonal CRRs; including Long-Term CRRs
  - August 3 – File Modeling of Transmission Outages in the CRR Network, Use of Common Forecasts for Monthly CRR Eligibility and Monthly Resource Adequacy showings, Frequency of Monthly Allocation and Auction Process, CRR Transfers due to Load Migration with FERC.
  - November through December – First monthly allocation/auction for February 2008.

3 CRR Dry Run Results

The CRR Dry Run has provided a valuable learning experience for market participants and the CAISO staff, particularly to establish a clear understanding of the details and timing for data exchange so that LSEs can make informed nominations within the tiered process for allocating CRRs and for any entity to bid for CRRs in the annual or monthly auction. The CRR Dry Run was quite successful as a practice exercise that has significantly widened knowledge about the CRR release process. The CAISO expects market simulations throughout 2007 for other major MRTU components to be as successful and useful for the CAISO and market participants.

Recognizing that some limitations are inherent in any simulated process, especially where participants may choose to nominate or bid differently from their expected manner in the actual market process, the results of this CRR Dry Run still provide useful insight for market participants. Specifically, the quantity of CRRs that were nominated, cleared through a simultaneous feasibility test and awarded to participating LSEs should provide helpful information for entities who are seeking to match their CRR holdings closely with their expected Day-Ahead scheduling practices. FERC also has reflected interest in these Dry Run results by requiring the Dry Run results to be filed for informational purposes, "including the CRRs allocated to each market participant and the extent (e.g., percent) to which the allocated CRRs cover the participant's needs and requests."[1]

[1] Paragraph 741 of FERC's September 21, 2006 Order conditionally accepting the MRTU Tariff.

Thus the CAISO is currently developing and intends to submit to FERC on March 30 a report with the complete results of the Dry Run, along with the model inputs for this Dry Run and an explanation of the steps performed by the CAISO throughout this simulation. Some part of this report will include the results by individual entities, and is expected to be filed with FERC on a confidential basis in deference to the strong preference previously expressed by many Dry Run participants. As Dry Run participants know, the CAISO staff has been available for individual meetings to review their results of this Dry Run, as well as a financial analysis comparing each individual entity's congestion charges (based on LMP studies of the current markets) compared to the revenues they would receive under the CRRs awarded in this Dry Run. Such meetings may continue in the coming weeks until the report is filed at FERC.

To the extent possible, the CAISO is seeking public airing of these CRR Dry Run results. CAISO staff plans to brief the CAISO Board of Governors in public session on the results and the development of the Dry Run report to FERC at the scheduled March 7 meeting of the Board.

The purpose of this section within this Issues Paper is to provide a public summary of the Dry Run results *in aggregate* (so to respect the confidentiality of individual entities' CRR nominations and awards.) This preliminary summary and further discussion with stakeholders is meant to facilitate a consensus of reasonable conclusions that can be drawn from this Dry Run, and to inform additional discussion on potential changes in the rules for CRRs. In the following sections this paper lays out an initial set of issues that has arisen from this Dry Run and its results that might, with stakeholder review and discussion, be considered as a reasonable basis for changes to the tariff rules or business processes affecting the CRR release process.

3.1 Summary of Dry Run Process and Parameters

The CRR Dry Run process is quite familiar to participating entities, and the procedures, modeling parameters and data requirements for CRR nominations were documented in the "CRR Revised Dry Run Handbook" that was posted on May 12, 2006 at: http://www.caiso.com/17f4/17f4e73724eb0.pdf

- The Dry Run simulated an annual allocation and auction process for the entire year of 2008, and included a set of four seasonal CRR products (by On-peak and Off-peak), each covering a period of three calendar months. Two monthly processes were conducted for monthly CRRs (by On-peak and Off-peak), simulating April 2008 and August 2008.
- Eighteen LSEs participated in the Dry Run annual and monthly allocation process. Seventeen market participants experienced the annual auction, which included ten of the LSEs who participated in the allocation.
- Twelve entities participated in the monthly auction of which ten also participated in the annual auction.

3.1.1 Key Modeling Assumptions used in the CRR Dry Run

3.1.1.1 Network Model

- The Full DC Network Model used in the CRR Dry run was consistent with the CAISO Summer 2007 peak-load planning model.

- Although the CAISO's overall approach is to work toward including the full WECC in the Market FNM (including CRR FNM), data limitations outside the CAISO prevent the full model from being meaningful initially, the "open loop" model is used initially. The term "open loop" doesn't mean simply radial, though: there are external connections (small external loops) where multiple branches comprise a branch group, and in the New PTO model.
- With the "open loop" model, unrealistic constraints have arisen in recent results in both the CRR Dry Run and the LMP Study. The CAISO is exploring an addition of more external lines to make flows into the CAISO control area more realistic, i.e., a "partial loop" model.
- Additional analysis confirms that it would be premature to add external lines to make a fully "closed loop" model. However, the CAISO is actively participating in the WECC Seams Issues Subcommittee, and working with potential Adjacent Control Areas, to improve the modeling of external areas.

3.1.1.2 Contingencies, Outages and Monitored Facilities

Draft: One hundred and seventeen single line contingencies were included within the allocation and auction process. These contingencies are intended to represent what the CAISO may use in production, pending development of final operating procedures.

For the purpose of the annual CRR allocation and auction, it was assumed that all transmission facilities are in service. For the two monthly auctions that are part of the CRR Dry Run, the CAISO reviewed historical information to determine which transmission facilities, if any, should be assumed to be out of service and removed from the full network model prior to running the monthly allocation and auction process.

Operating Constraints that were used for the CRR system included thermal line and transformer limits and generalized group limits.

Thermal limits of branches include normal and emergency thermal limits for the lines and transformers that comprise the branch. These limits generally do not vary by time of use (e.g., on-peak and off-peak) but by season variations (Summer and Winter). Consequently, the CRR team used a summer and winter constraint set.

The operating constraint limits were appropriately adjusted by taking into consideration the absence of reactive power and loss modeling. The CRR team worked with CAISO operating engineers to determine the appropriate adjustment to the operating constraint limits that were used for the full network model.

As a result, there were approximately 3700 monitored facilities included in each of the annual and monthly allocation tiers and annual and monthly auctions. All major interfaces were monitored as generalized groups**. NOTE: This highlighted section has not been fully reviewed and may be subject to change.**

3.1.1.3 Modeling of Existing Rights and Contracts

Existing rights and contracts were taken into consideration for the CRR Annual and Monthly Allocations. In order to account for Transmission Ownership Rights or TORs which are not subject to congestion charges, the TOR capacity was removed from the system by modeling them as point to point CRR options in tiers 1 – 3 of the annual and tiers 1 -2 of the monthly allocations.

Existing Transmission Contracts or ETCs were modeled as point to point CRR obligations, where the sink is modeled at the actual ETC load location rather than being included as part of a default load aggregation point.

Those entities that currently own Converted Rights (represented as Firm Transmission Rights or FTRs), which include the City of Anaheim, the City of Azusa, the City of Banning, the City of Pasadena, the City of Riverside and the City of Vernon, are not subject to congestion charges in the forward market for the portion of their schedule that is subject to the perfect hedge. These CVRs were represented as point to point CRR obligations.

3.2 (Preliminary) Summary of Dry Run Results

Table 1 shows -- for the combined annual and the two monthly allocations (by Time-of-Use) -- the CRRs that were awarded as a percentage of the CRRs nominated.

Table 1: Total CRR Seasonal plus Monthly Allocation Percentage (Cleared/Nominated)

Seasonal + Monthly (Off/On Peak)	AprilOff	AprilOn	AugustOff	AugustOn
TOTAL	91%	90%	82%	85%

Table 2 shows the seasonal CRRs awarded (by Time-of-Use) in the annual allocation process as a percentage of seasonal CRRs nominated.

Table 2: Seasonal CRR Allocation Percentage (Cleared/Nominated)

Season (Off/On peak)	S1Off	S1On	S2Off	S2On	S3Off	S3On	S4 Off	S4 On
TOTAL	95%	87%	84%	82%	75%	81%	86%	89%

Table 3 shows the monthly CRRs awarded (by Time-of-Use) in the monthly allocation process as a percentage of the monthly CRRs nominated.

Table 3: Monthly CRR Allocation Percentage (Cleared/Nominated)				
Monthly (Off/On Peak)	**AprilOff**	**AprilOn**	**AugustOff**	**AugustOn**
TOTAL	**72%**	**66%**	**54%**	**59%**

Table 4 shows a comparison for five months of the total CRR payments and the total estimated congestion exposure for that month.

- The "CRR Study 2" method considers only those LSEs participating in the CRR dry run who have load. The "CRR Study 2" method assumes that LSEs will schedule the same resources that are in their CRR holdings, but does not necessarily give a picture of the total system congestion because this assumption ignores variation in resource availability.
- The "Schedule" method uses historical market schedules to calculate congestion for all market participants and reflects actual variation in supply scheduling, but may not necessarily provide a good estimation of the congestion faced by LSEs if future resources portfolios differ from historical portfolios.

The data in **Table 4** is preliminary and subject to change.

Table 4

Date	Combined annual and monthly CRR payments (Million $)	Congestion Charges ("CRR Study 2" method)	Congestion Charges ("Schedule" method)	Percentage Congestion rent returned ("CRR Study 2" method)	Percentage Congestion rent returned ("Schedule"method)
Apr-03	$14.4	$12.0	$19.2	120%	75%
Aug-03	$51.6	$36.4	$62.5	142%	83%
Apr-04	$79.3	$58.9	$93.0	135%	85%
Aug-04	$46.3	$34.4	$69.6	135%	66%

4 Potential Changes to CRR Rules

This section provides an overview of six issues that may necessitate changes to CRR rules or business processes.

4.1 Source Nominations at Trading Hubs

Background:

- The definition of a Trading Hub is all generation in a particular zone: NP15, ZP26 or SP15.
- An injection at a Trading Hub is spread out to all gen buses in the zone based on the Trading Hub weights.
- For Tiers 1 and 2 of the Year 1 annual process, sources are limited to 75% of PMax and 75% of contract amounts.
- The transmission capability is reduced to 75% in the annual allocation process.
- For Tier 1 load is limited to 50% of the Seasonal Eligible Quantity (which is 75% of the Load Metric) and for Tier 2 load is taken up to 75% of the Seasonal Eligible Quantity.
- If generation can go up to 75% of PMax and the injections at the Trading Hub add to every generation bus then it is possible to exceed a thermal line limit that is enforced downstream of the generator.

Observations:

One clear observation from the CRR Dry Run is that a significant amount of nominations in Tiers 2 and 3 did not clear the SFT.

Under the existing rules and procedures for allocation of one-year CRRs, the fact that the LSEs can nominate as seasonal CRR sources both Trading Hubs and the individual generator PNodes that comprise those Trading Hubs can lead to two potentially problematic results when transmission constraints associated with specific generator PNodes become binding in the SFT.

- First, CRR nominations from the generator PNodes associated with binding constraints will always be prorated prior to CRR nominations from Trading Hubs. This is because the proration algorithm reduces the most effective nominations in order to reduce the fewest MW of nominations overall, and CRR nominations from the PNode associated with the constraint are typically more effective than CRR nominations from a Trading Hub.
- Second, once such a constraint becomes binding, which may occur at the outset of Tier 2 or even in Tier 1, no additional Trading Hub CRRs can be allocated unless that nominated CRR has a zero shift factor (or distribution) factor over the binding constraint. In the case at hand, where the binding constraint is associated with a generator PNode that is also contained in the Trading Hub definition, this would mean that no further CRR nominations using the Trading Hub as the source would be feasible.

In analyzing the causes, it was determined generally that in tier 1, with available capacity set to 75% of full system capacity, that a radial line constraint extending from a generator to the rest of

the system becomes binding. This constraint becomes binding due to the combined contribution from the sources that reflect both generators and Trading Hubs.

This binding constraint will remain in tiers 2 and 3 since there is no way to either provide counter flow (Trading Hubs and generators cannot be used as sinks in tiers 1, 2 and 3) nor to increase the limit of the constraint. By definition, the injection of a Trading Hub source is equivalent to a weighted injection at each generating node. Thus, any nomination with a Trading Hub as a source for those Trading Hubs that have a positive contribution to the binding constraint, no additional nomination amount will clear in tiers 2 or 3 since any additional amount of clearing will increase the flow on the constraint over the limit.

The Table below provides results from Tier 2 of the annual allocation process from the CRR Dry-Run for CRRs with the NP15 and SP15 EZGen Trading Hubs as sources. Certain seasons and TOU periods exhibit large decreasing in the amount of Trading Hub related CRRs that cleared. In particular S3, off-peak shows a 0.3% clearing of the trading hub.

(The reader may note that, based on the above explanation, zero amount should clear from a Trading Hub under the binding constraint situation. According to the Dry Run results, small amounts in the range of 7 MW do clear and this is due to the precision upon which CRR results from tier 1 are saved and then used as fixed CRRs going into tier 2. Theoretically, the allocated CRRs should be zero.)

Table: Results from Tier 2 of the annual allocation process from the CRR Dry-Run for CRRs with the NP15 and SP15 EZGen Trading Hubs as sources.

Source	Tier	Season	Tou	Sum Of Nominated MW	Sum Of Allocated MW	Percent Cleared
NP15_EZGTH	T2	S1	Off	758	705	93.01%
NP15_EZGTH	T2	S1	On	225	225	100.00%
NP15_EZGTH	T2	S2	Off	592	401	67.71%
NP15_EZGTH	T2	S2	On	2,465	6	0.23%
NP15_EZGTH	T2	S3	Off	2,389	7	0.30%
NP15_EZGTH	T2	S3	On	2,158	4	0.19%
NP15_EZGTH	T2	S4	Off	1,574	-	0.00%
NP15_EZGTH	T2	S4	On	952	-	0.00%
SP15_EZGTH	T2	S1	Off	340	338	99.56%
SP15_EZGTH	T2	S1	On	664	642	96.82%
SP15_EZGTH	T2	S2	Off	341	291	85.24%
SP15_EZGTH	T2	S2	On	652	71	10.93%
SP15_EZGTH	T2	S3	Off	246	246	100.00%
SP15_EZGTH	T2	S3	On	615	128	20.83%
SP15_EZGTH	T2	S4	Off	281	280	99.47%
SP15_EZGTH	T2	S4	On	701	701	100.00%

In general,

1. Trading Hubs have smaller shift factors on constraints, hence, if there is transmission capacity available, CRR nominations from Trading Hubs would have the advantage to clear since the objective function favors to clear the nominations with lower shift factors on the overloaded constraints.

2. Trading Hubs are subject to system wide constraints, consequently, any single binding constraint with positive contribution from Trading Hubs will prevent any Trading Hub CRR nominations to clear.

Options for Initial Consideration

To initiate discussion on viable options to mitigate the impacts that have been observed, the CAISO offers two initial approaches:

Alternative 1: Modify the rules associated with available transmission capacity so that capacity is reserved for Tier 2.

Currently, 75% of the full available capacity is released in the annual process. This capacity is not changed from tier 1 through the auction. If the capacity release was staggered in line with the tiers, somewhat consistent with the upper bound changes, a taking of all the capacity early in the process and preventing the use of the TH in subsequent later tiers may be prevented.

Alternative 2: Limit the MW amounts for CRR nominations in tier 1.

This approach could limit the gen sources and scheduling point (SP) sources to 50% in Tier 1 and then in Tier 2 it is set back to its original value. Given that the transmission capacity will be left at 75%, the limitation on the amount of gen source and SP source usage will reduce the chance of the previously observed thermal line constraint becoming binding in Tier 1. Thus, market participants would have greater flexibility to "spread out" their Tier 1 gen sources, which will also help in alleviating constraint due to high source nomination levels in certain parts of the system.

4.2 Set-aside of Import Capacity on each Inter-tie for CRR Auction

FERC's MRTU September 21 Order requires that the CAISO further evaluate whether our proposal to set aside 50 percent of the intertie capacity needs to be modified and if necessary to make a compliance filing. In our November 20, 2006 compliance filing, the CAISO reiterated its commitment to further evaluate its set-aside proposal based on the results of the CRR Dry Run and that it would place this issue on the agenda for further discussion. (*See* http://www.caiso.com/18b5/18b5b82957db0.html)

On November 20, 2006, the CAISO also filed for informational purposes some initial Dry Run data, which only addressed the results at the interties for the annual CRR Dry Run allocation. The CAISO will discuss with stakeholders at the February 27 meeting, the CRR Dry Run results as they pertain to the set aside quantities for the annual and monthly CRR Auction.

4.2.1 Summary of Set-aside Proposal as Filed February 9, 2006

The "set-aside" proposal as filed in the February 9, 2006 MRTU filing is in Section 36.8.4.1. In tiers 1 and 2 of the first year, LSEs may nominate CRRs sourced at Scheduling Points to the extent that the LSE can demonstrate for the historical verification period the LSE owned or was party to a contract with a System Resource, and that it or the counter-party to the contract had procured appropriate transmission from the applicable transmission provider outside the CAISO Control areas to the applicable Scheduling Point. In addition, LSEs may nominate additional

Scheduling Point capacity without such verification, but only for a share of any remaining capacity at each Scheduling Point, after calculating the "set aside" for the auction.

The "set-aside" process for the annual auction is as follows: 1) starting with the total capacity at each Scheduling Point that was available in the DC Full Network Model for the annual CRR Allocation and Auction process, the CAISO will calculate any remaining amounts at each Scheduling Point after having subtracted the capacity accounted for by those Scheduling Point CRRs submitted by LSEs for verification as described above; 2) of any such remaining amounts, the CAISO will then "set aside" 50 percent at each Scheduling Point for the annual CRR Auction; and 3) the CAISO will then allow LSEs to nominate pro rata shares of the other 50 percent that was not set aside in proportion to their Seasonal CRR Eligible Quantities.

The set aside for the monthly auction is as follows: 1) following the verification process, the CAISO will calculate and set aside 50 percent of the import capacity that remains at each Scheduling Point after accounting for the verified Scheduling Point CRR Source submissions to the monthly process and the annual CRR Allocation and Auction results for that month; and 2) the CAISO will then allow LSEs to nominate monthly CRRs with CRR Sources at each Scheduling Point in quantities up to their pro rata shares of the other 50 percent in proportion to their Monthly CRR Eligible Quantities.

In years subsequent to CRR Year One, in Tier 3, the CAISO will calculate and set aside for the annual CRR Auction 50 percent of the import capacity at each Scheduling Point that remains after Tier 1 and Tier 2 allocations. Note that there is no verification requirement in tier 1 and 2 for years subsequent to CRR Year One. In tier 2 of the monthly CRR allocation the CAISO will set aside 50 percent of import capacity that remains at each Scheduling Point after accounting for the annual CRR allocation and auction results in tier 1 for that month.

4.2.2 Next Steps

The CAISO will discuss with stakeholders at the February 27 meeting, the CRR Dry Run results that will provide more insights on the sufficiency of the set-aside.

4.3 CRR Source Verification Rules

This issue deals with finalizing the rules regarding which CRR Sources qualify for LSE nomination in Tiers 1-2 Seasonal and Tier 1 Monthly processes for Year 1, based on calendar 2006 historical reference year.

(In the LT-CRR compliance filing, 2006 is the updated time period for which the CAISO has committed to using for source verification.)

Key Issues to consider:

- Should the CAISO retain provisional Dry Run rules whereby contracts as short as 1 day can count, with MW prorated to reflect average MW over CRR Term?
- Should the CAISO utilize RA capacity showings or LT procurement plans, in addition to historical period energy contracts?
- Should the CAISO eliminate the requirement to nominate verified sources in Tier 1 of the Monthly process? This is suggested because there is no corresponding Monthly PNP in Year 2.

4.4 Modeling of Transmission Outages in the CRR Network Model

This issue was discussed throughout the Dry Run and basically revolves around how outages should be modeled in annual and monthly process.

The CAISO seeks to develop a set of transparent procedures for modeling outages in the DC network model for CRR release, possibly including:

- Annual process – major planned outages known well in advance, modeled in particular season(s)
- Monthly process – significant planned outages reported under the 30-day rule ahead of each month
- Monthly process – statistically-derived margin on available network capacity to account for unplanned outages.

CAISO staff has engaged in initial discussions with the Transmission Maintenance Coordination Committee (TMCC), a chartered committee of experts in maintenance standards and procedures, regarding the following issues:

- How do other ISOs do this?
- What constitutes a "significant" outage?
- What is a reasonable criteria for what constitutes "significant" impact on CRR revenue adequacy.[2]
- What percentage reduction in network capacity for the monthly CRR process might represent a reasonable margin to reflect impact on unplanned transmission outages and derates?
- How should planned outages with short lead times be considered in CRR process?
- How should unplanned outages be considered in monthly process?

4.5 Use of Common Forecasts for Monthly CRR Eligibility and Monthly RA Showings

In preparing for the Dry Run, stakeholders suggested that, for purposes of consistency and recognition of the balance of incentives between understating load for RA purposes and overstating load for CRR eligibility, the two uses of a monthly forecast should use the same forecasts.

To date no process has been developed to memorialize this use of a common monthly load forecast.

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[2] On November 20, 2006, the CAISO filed in its compliance filing language that specifies (1) that advance scheduling is only required for those transmission outages that have a "significant" impact on CRR revenue adequacy; and (2) modifies the advance notice requirements from 45 days to 30 days in advance of the first day of the month when the outage is scheduled. Also, the CAISO filed changes that stipulate that for transmission outages that would *not* have a significant impact on CRR revenue adequacy, the current 72-hour advance notice would be maintained.

The CAISO notes that further review of this issue should include determining whether resolution of this issue requires tariff language and a FERC filing, or just clarifying language within the CRR BPM, or something else.

4.6 Frequency of Monthly Allocation and Auction Process

Because each monthly process takes a lot of time and work both by the CAISO and market participants, there are proposals to reduce the frequency by (1) doing the process 6 times per year, and do 2 months at a time, or (2) do the process 8 times per year and release "half-season" CRRs rather than monthly CRRs.

The CAISO invites comments or suggestions on the pros and cons of each alternative, as well as retaining the current 12 monthly processes.

5 Outstanding CRR Process Issues

This section provides an overview of three significant CRR-related issues that need more detailed business processes to be defined in the near future.

5.1 CRR transfers due to Load Migration

The FERC September 21 MRTU Order directs the CAISO to articulate the mechanics for CRR transfers due to load migration. The MRTU Tariff[3] also addresses this issue, and recognizes that processes must be in place for load migration, and states this would be a conceptual requirement on the LSEs. 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. Subsequently, in the LT-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 the context of developing the FPA Section 205 filing on CRRs to be submitted at the start of the second quarter of 2007.

As part of the stakeholder process for the Long Term CRR filing, stakeholders have proposed forming a focused working group to develop the details and processes for managing load migration, as it relates to CRR transfers. The CAISO proposes further discussion for such a working group process. The following discreet elements will require an in-depth review and development of solutions for implementation:

- **Functionability** - 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.

[3] Section 36.8.5.1.1 of the filed MRTU tariff

- **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.
- **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.
- **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.
- **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.
- **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 LT-CRR filing to FERC.)

5.2 Methodology for Determining CRRs for Merchant Transmission Upgrades

5.2.1 Statement of the Issue

Currently the costs for building new upgrades or additions to the CAISO Controlled Grid, either by the PTOs or by merchant transmission entities, are recovered by either (1) rolling into PTO access charges, (2) receipt of FTRs, or (3) reimbursement over a period of time for the full amount of investment.

After MRTU implementation, the CAISO intends to make available CRRs to developers of new transmission facilities that have not elected for alternative methods for recovery of their upfront network upgrade costs. The issues under consideration here involve the principles for allocation of CRRs to entities who build new or upgrade existing ISO grid facilities and the CAISO's methodology for determining the amount and spatial configuration of CRRs to be allocated to these entities, including those entities who have already constructed new facilities and seek to convert their FTRs to CRRs.

5.2.2 Background

The topic of allocating incremental transmission rights to merchant transmission sponsors is not new to the CAISO and its stakeholders, and this issue did not originate with the LT-FTR Order[4].

Today's CAISO tariff provides for the award of Firm Transmission Rights (FTRs) to sponsors of merchant transmission projects that add transfer capacity on paths that are managed for congestion under today's zonal market design. The February 9 filing of the MRTU Tariff extends today's provisions in a manner consistent with the new MRTU markets based on Locational Marginal Pricing (LMP) by allowing merchant transmission sponsors to receive the incremental CRRs that the project makes feasible. According to the MRTU Tariff, the quantity and source-sink pattern of CRRs allocated to merchant transmission developers would be commensurate with the transfer capacity that the project adds to the CAISO grid.

FERC's September 21 MRTU Order required the CAISO to file additional details regarding the methodology for allocating CRRs to merchant transmission sponsors. Because this requirement was stated in both the LT-FTR Final Rule and the MRTU Order, the CAISO's October 23, 2006 "Request for Clarification and Rehearing" asked that FERC permit the filing of tariff language related to these additional merchant transmission details on a time frame consistent with the requirements of the LT-FTR Final Rule.

In the Long Term CRR filing, the CAISO included the general concepts to meet the requirements of Order 681 and committed to work with stakeholders to finalize the details during the first quarter of 2007.

5.2.3 CAISO's Merchant Transmission CRR Proposal Under MRTU

Even prior to issuance of the Order No. 681, the CAISO began a stakeholder process in preparation for its MRTU filing to develop consensus for determining the amount of CRRs to be allocated for merchant transmission. In its MRTU filing, the CAISO proposed to provide CRRs to the sponsors of merchant transmission projects. The merchant sponsor could choose between regulated recovery of its investment cost through CAISO access charges, or an allocation of CRRs. If it chose the first, there would be no allocation of CRRs. If it chose the CRRs, then the CAISO would offer the sponsor's choice of CRR Options or CRR Obligations, in a quantity and geographic source and sink pattern that is commensurate with the transfer capacity the sponsor's project adds to the CAISO grid, as determined based on engineering studies.

After the MRTU filing, the CAISO continued the dialogue on this matter with stakeholders with the intention of developing the Business Practice Manual that would specify the procedures to be used for determining the CRRs for which the merchant sponsor would be eligible.

Further details and principles were outlined. First, the CRRs allocated to the merchant sponsor would be good for the life of the transmission facility or thirty years, which is in line with the duration of similar financial rights allocated to developers of transmission infrastructure by PJM. Second, the merchant transmission sponsor's entitlement for CRR Options or Obligations would

[4] A requirement of the LT-FTR Final Rule states that the CAISO must specify, before it begins releasing LT-CRRs, the methodology for determining the quantity and geographic sources and sinks for incremental CRRs to be allocated to a party who pays for the construction of a transmission upgrade (also referred to as a sponsor of "merchant transmission").

begin when their transmission projects were energized and operational control turned over to the ISO.

Once operational, the merchant transmission facilities would be modeled in the FNM used for subsequent CRR Allocations and Auctions, and the CRRs given to the merchant sponsor modeled on the FNM as fixed CRRs to maintain revenue adequacy of the CRRs subsequently released to other parties. In some cases, particularly if the merchant project was powered in the middle of a CRR cycle, the CAISO might require the merchant sponsor to accept counterflow CRRs to maintain the feasibility and the financial value of previously awarded CRRs for the life of the merchant transmission facilities.

The CAISO produced a whitepaper, and initiated a stakeholder process on this topic in mid-2005. Links to the white paper, appendix, and comments submitted by the stakeholders are at the following link: http://www.caiso.com/docs/2004/01/29/2004012910343827511.html

The 2005 CAISO proposal included a list of underlying principles for allocating CRRs to merchant transmission owners, consistent with what was in the MRTU filing. This proposal stated that the CAISO would allocate CRRs to the party responsible for the increased transmission capacity for the amount no greater than the increase in capacity, as approved by the CAISO. Under this model, the owner of the new transmission capacity would receive a CRR allocation only if the merchant transmission owner does not recover the investment cost under a FERC regulated and approved rate of return through an Access Charge or through direct payment from a Participating Transmission Owner (PTO).

5.2.4 New Stakeholder Process

The CAISO has re-posted the 2005 whitepaper as a starting point for review and discussion in this new stakeholder engagement.

(This paper is located at: http://www.caiso.com/1b8c/1b8cdc8c6bf0.pdf)

In particular, the CAISO is seeking input on the following important market design questions:

1. **Impact on Existing Capacity:** How should the CAISO determine the appropriate way to reserve ratepayers rights to CRRs that utilitize existing transmission capacity? How and to what extent the process for determining incremental CRR awards should protect the rights of ratepayers to obtain *any combination of* CRRs that are feasible on the existing transmission grid. How does the CAISO evaluate what CRRs parties are going to want to request in the future at the time incremental CRRs are being awarded?

2. **Low Hanging Fruit**: How should the CAISO treat transmission that has been built in excess of current needs in order to facilitate future expansion, but that may not currently be useful? While this excess may not currently be accessible as CRRs, it might be used if a merchant investor completes a relatively inexpensive "weak link".

3. **O&M Costs:** Should the investor in merchant transmission be required to pay a share of the O&M costs to maintain the current capability of the transmission system in cases in which the feasibility of their incremental CRRs rests on the existing transmission network?

4. **Allocation of Future Loop Flow Costs** How should the future costs of loop flow that degrade the quantity of CRRs available on the existing system be allocated? Should the

full cost of this fall on the ratepayers, through a decrease in the CRRs available for allocation and auction, or should a share also fall on the merchant transmission investor, through a proportionate decrease in his/her incremental CRRs?

5. **Counterflow:** What steps will be taken if the CAISO finds that relatively few incremental CRRs are available for what appears to be a very useful transmission upgrade? Should the investor be permitted to hold counterflow CRRs to essentially "buy through" congestion with a low expected value in order to obtain a larger number of incremental CRRs over more valuable paths? Should the CAISO be tasked with developing a more complicated process for determining incremental CRRs in order to address this issue?

6. **Source and Sink Combinations** How many different source and sink combinations will be awarded as CRRs for a single merchant investment? A single investment may make many different CRRs feasible, because it has an impact on transmission capacity in a number of different contingencies.

7. **Queue for Transmission and Generation** What are the policy issues that may arise due to differences between the queuing procedures used to determine incremental CRRs for merchant transmission and the queuing procedures used to determine responsibility for the costs of transmission enhancements required for interconnection?

The CAISO plans to engage stakeholders on these questions in the upcoming weeks to finalize the business rules for allocation of merchant transmission CRRs.

5.3 CRR Credit Requirements

The CAISO's overall existing credit policy will not change under MRTU, but with the introduction of obligation CRRs, the CAISO will incorporate the projected revenue streams as well as financial obligations of holding CRRs in the assessment of credit requirements upon market participants. If the holder of negative valued CRR defaults and does not pay their CRR obligation charges assessed in the Day-Ahead market, a financial risk could be created for the rest of the CAISO Market Participants.

To minimize the risk of payment default by the holders of negative valued CRRs, additional Financial Security will be required. The objective is to create a balance between protecting Market Participants from potential payment default without excessively limiting their participation in the CRR market.

To develop the analytical framework for this issue, the CAISO has asked Scott Harvey of LECG to develop an initial "CAISO CRR Credit Requirements" paper which is posted at: http://www.caiso.com/1b8c/1b8cdb4c74ab0.pdf

6 Filing to FERC on Implementation Features

These implementation features are included within this Issues Paper for a complete review of CRR-related issues, and because these features will be reviewed and discussed briefly at the February 27 stakeholder meeting. These features are not open policy issues and therefore do not require policy resolution.

In order to allocate and auction the CRRs, the CAISO must obtain specific information on Existing Transmission Contracts (ETCs), Converted Rights (CVRs) (contract rights brought to

the CAISO when new entities became Participating Transmission Owners) and Transmission Ownership Rights (TORs) (facilities in the CAISO Control Area not under the CAISO's control). The CAISO must also obtain and verify certain necessary information from entities that intend to participate in the allocation and must also register and qualify entities that intend to participate in either the CRR Allocation or CRR Auction or that intend to obtain CRRs through the Secondary Registration System (*i.e.*, Candidate CRR Holders).

In support of this effort, the CAISO will be supplementing its MRTU Tariff with additional implementation detail consistent with previously approved and filed CRR policy. The CAISO would have filed this detail with its original MRTU filing on February 9, 2006, but was not able to do so at that time because it had not yet fully developed the implementation details. At that time the CAISO did, however, file for authority to collect and verify the required source and sink information and to register and qualify Candidate CRR Holders.

The CAISO intends to file with FERC the necessary changes to its MRTU Tariff on March 9. In that same filing, the CAISO will also request for authority to conduct the information collection and verification, and for registration and qualification of Candidate CRR Holders.

The proposed tariff changes were posted on February 15 and discussed at the February 20 Market Implementation Workshop. In addition, the CAISO is receiving written comments until March 6 and will be discussing these changes again at the February 27 CRR issues meeting.

The CAISO posted proposed tariff language on February 15 which can be found at: http://www.caiso.com/1b86/1b86b55320610.doc.

6.1 Template for "TRTC" Instructions

As approved by the FERC the CAISO will be honoring ETCs, TORs, CVR under the MRTU. The CAISO will be honoring such rights by affording ETC, TOR and CVR Self-Schedules: 1) a schedule priority over other self-schedules in the event that uneconomic adjustments are required; and 2) the "perfect hedge," which consists of the complete reversal of any charges associated with the marginal cost of congestion component of LMPs under MRTU.

In order to receive such preferred treatment under MRTU, ETC, TOR and CVR[5] Self-Schedules must be validated and balanced according to operating instructions to be provided by transmission owners of the facilities that are affected by such rights (*i.e.*, Participating Transmission Owners, Non-Participating Transmission Owners and New Participating Transmission Owners). These operating instructions are provided as TRTC Instructions, which consist of detailed descriptions of transmission service requirements under these rights.

The CAISO will model these rights in its allocation and auction of CRRs based on the TRTC Instructions and the forecasted usage of such rights. A high-level summary of the content of the TRTC Instructions are filed in Section 16.4.5 and 17.1.4 of the MRTU Tariff.

The "perfect hedge" treatment for such rights means that the CAISO will not be collecting congestion revenue from valid and balanced ETC, TOR and CVR Self-Schedules. Payments

[5] Note that CVR Self-Schedules are only afforded the scheduling priority in the Day-Ahead Market and not in the Real-Time Market.

made to entities that hold CRR are funded by the congestion revenues collected through the LMPs charged to entities that use the transmission grid. Pursuant to Section 36.4 of the MRTU Tariff, it is incumbent upon the CAISO to properly model and evaluate these rights in its allocation and auctioning of CRRs to prevent ETCs, TORs, and CVRs from causing revenue inadequacy. Therefore, in its distribution of CRRs the CAISO must account of the prospective use of such rights in its markets to ensure that the CAISO distributes CRRs such that there is revenue adequacy risk is minimized. The CAISO will, therefore, be accounting for such rights in its simultaneous feasibility tests conducted in the allocation or auction of such rights.

Since these provisions were initially filed in the MRTU Tariff, the CAISO has further developed additional detail that are contained in the Business Practice Manual for Market Operations and in the guideline documents and template through which these instructions will be collected. The CAISO will be supplementing its tariff provisions with additional detail it believes it should have included in its initial filing. This includes the following additional detail:

a) a requirement that parties provide physical sources and sinks for validation of ETC, TOR and CVR Self-Schedules as scheduling priority is provided only to physical sources and sinks, as well as clarification that custom Load Aggregation Points are physical sinks;

b) a requirement that parties specify which Scheduling Coordinator will be entitled to the "perfect hedge" settlement given that different Scheduling Coordinators may submit ETC, TOR or CVR Self-Schedules at the applicable sources and sinks for such schedules; and

c) a requirement that parties specify the source/sink resource maximum capacity (MW) that can be scheduled.

In addition, the CAISO will be requesting that parties provide the CAISO with forecasted usage of such rights for the annual and monthly period that CRRs will be in effect. This forecasted usage will be considered by the CAISO in its modeling of ETCs, TORs and CVRs.

The TRTC Instructions and forecasted usage information will be collected from the relevant parties this spring in preparation for the first annual and monthly CRR Allocation and Auction to commence later this summer. The CAISO will be working with Participating Transmission Owners, Non-Participating Transmission Owners and New Participating Transmission Owners to complete the TRTC Instructions.

Recognizing that parties will be required to better understand nodal modeling and the way such rights will be honored under MRTU, the CAISO has adopted a business process to work with the relevant transmission owners to assist them in the completion of the TRTC Instructions. This is necessary because parties do not have experience in dealing with the nodal model and the CAISO will be required to assist them in identifying the appropriate locations as identified in the Full Network Model as they relate to rights under their contracts and ownership.

In addition to proposed tariff language specified above, the CAISO has posted guidelines to assist parties in completing the TRTC Instructions. These can be found at: http://www.caiso.com/1b86/1b86b5e327cb0.doc

6.2 Information Provision, Collection and Verification

6.2.1 Market Participant Status

The CAISO will be amending the current tariff to enable Candidate CRR Holders that are fully registered and qualified under MRTU to be Market Participants so that such entities have access to information they need on the Full Network Model for participation in the first annual and monthly CRR Allocation and Auction.

6.2.2 Load Eligibility for Participation in CRR Allocation

A Candidate CRR Holder's eligibility in the annual or monthly CRR allocation will be based on the entities' load metric which is based on the entity's load duration curve that is exceeded only 0.5 percent of the time in the relevant season or month based on the entity's historical load data (for the annual process) and load forecast data (for the monthly process). Therefore, the CAISO will be required to obtain and verify load duration curves from all Candidate CRR Holders that intend to participate in the CRR Allocation to be held this summer.

Because the tariff provisions that allow the CAISO to conduct such activity will not be in effect until the start of MRTU, in its March 9 filing with FERC, the CAISO will be requesting authority to conduct such activity based on the rules as conditionally approved by FERC in its September 21, 2006 MRTU order.

6.2.3 Source Verification

In the first annual CRR Allocation process, load serving entities will be required to demonstrate and the CAISO will verify that such entities hold rights to actual physical sources either through ownership or by contract for nomination of such sources in the allocation process. As filed in its current MRTU Tariff, the CAISO was intending to use the fiscal year 2004-2005 for verification that such rights were held by parties.

Most recently, through the stakeholder process on Long Term CRRs, stakeholders have requested and CAISO management has agreed to move the historical year to 2006. In addition, the CAISO will be considering any potential changes to the source verification rules in light of lessons learnt from the latest CRR Dry Run. The CAISO will be making a filing later this spring for any necessary changes to the tariff and will also be requesting that FERC authorize the CAISO to conduct its collection and verification of sources during the pre-allocation and auction period later this spring.[6]

6.3 Registration of Candidate CRR Holders and CRR Entity Agreement

Consistent with Section 36.5 of the MRTU Tariff as conditionally approved by FERC in its September 21 Order, only entities that are registered and fully qualified as Candidate CRR Holders or CRR Holders may obtain CRRs through the CAISO CRR Allocation, CRR Auction or Secondary Registration System. Candidate CRR Holders are entities that have been fully registered and qualified to obtain CRRs either through the CRR Allocation, CRR Auction or Secondary Registration System. CRR Holders are entities that have been qualified as

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[6] These changes to the tariff are scheduled to be made with FERC in a March 30, 2007 filing. At this time, the CAISO does not believe that any of these changes will be material deviations from the policy already approved by the ISO Board of Governors.

Candidate CRR Holders by the CAISO and have since obtained CRRs either through the CRR Allocation, CRR Auction or Secondary Registration System.

In order to qualify and be registered as a Candidate CRR Holder with the CAISO, parties must fulfill creditworthiness and training requirements. Even entities that are already registered with the CAISO as Scheduling Coordinators must meet these additional requirements and therefore, even such entities must go through the Candidate CRR Holder registration and qualification process. The CAISO will, however, seek to find synergies with existing registration information for such entities and will eliminate redundancies in the application of a Scheduling Coordinator seeking to also become a Candidate CRR Holder as appropriate.

Once such parties and the CAISO have completed the registration and qualification process, in order to qualify as a Candidate CRR Holder, such parties must execute a CRR Entity Agreement. The CRR Entity Agreement is a pro forma agreement that requires the Candidate CRR Holders or CRR Holders to comply with all the requirements of the tariff that apply to such entities. This is a necessary agreement for CAISO because the parties that will be participating obtaining CRRs are not necessarily Scheduling Coordinators and, even if they are Scheduling Coordinators, new provisions of the tariff will apply to any Candidate CRR Holder or CRR Holder.

In addition to the tariff language above, the CAISO posted the draft pro forma CRR Entity Agreement which can be found at: http://www.caiso.com/1b86/1b86b68f29d50.doc

7 CRR Business Practice Manual

The CAISO posted revised draft BPMs to its website on January 19, 2007 for stakeholder review and comment. The CRR BPM was also posted at that time. The revised draft BPMs can be found on the CAISO website on the MRTU Business Practice Manuals (BPM) page at: http://www.caiso.com/17ba/17baa8bc1ce20.html.

While stakeholders are requested to focus their comments on revisions they consider necessary to the MRTU Tariff to support the BPMs, comments on the substance of the provisions of the BPMs will also be accepted. Comments should be submitted no later than March 2, 2007 to: BPMcomments@caiso.com.

As requested in the CAISO's motion for extension of time filed by the CAISO on January 11, 2007, http://www.caiso.com/1b63/1b63c9d31e360.pdf, the date of January 19, 2007 will not constitute the completion of the BPM stakeholder process for purposes of Paragraph 1370 of FERC's September 21, 2006 MRTU Order. Instead, the CAISO intends to review stakeholder comments and focus on reconciling the BPMs with the provisions of the MRTU Tariff and to develop and post a further revised set of reconciled BPMs on April 2, 2007.

The CAISO will post draft tariff language for instances where the CAISO agrees that additional tariff authority is required to support more detailed information in the BPM for stakeholder review and comment. The April 2, 2007 posting will then constitute the completion of the BPM stakeholder process triggering the CAISO's compliance filing in accordance with Paragraph 1370 of the September 21 MRTU Order. The CAISO intends to file with FERC any additional proposed MRTU Tariff language required to support the BPMs on May 2, 2007, allowing FERC to schedule a technical conference as prescribed by Paragraph 1370 in the June-July 2007 timeframe. While the stakeholder process will be declared complete for purposes of initiating this FERC technical conference process, the CAISO will continue to consider any stakeholder input received regarding potential improvements to the BPMs.

The CAISO is endeavoring to supplement the CRR BPM by April 2 to include certain of the details that the CAISO intends to house in the CRR BPM. For example, the details on merchant transmission rights, what constitutes outages that have a significant impact on revenue adequacy, load migration, etc.

BPM Stakeholder Process Timeline:

January 19: Post Revised BPMs
January 20-March 2: Stakeholder Review and Comment Period
April 2: Post Reconciled BPMs and draft MRTU Tariff Language
April 2-April 13: Stakeholder Review and Comment period
Week of April 16: Conference Call on proposed MRTU Tariff Language
May 2: File additional proposed MRTU Tariff language to support BPMs.
June/July: Proposed Timeframe for FERC Technical Conference