

CRR Credit Policy

March 20, 2007 paper (authored by LECG's Scott Harvey) on
"CAISO CRR Credit Requirements" is posted at:
<http://www.caiso.com/1ba7/1ba788da74450.pdf>

Stakeholder Meeting

April 3, 2007



Topics

- **CRR Credit Requirements to participate in the allocation**
- **CRR Credit requirements to participate in the auction (Revised)**
- **CRR Credit requirements for holding CRRs**
- **Non-compliance by CRR holder to post the required credit (New)**
- **Adjustments to the CRR credit coverage**
- **Options to determine the credit requirements of LT-CRRs**
- **Additional credit requirements for LT-CRRs held by external LSEs (Clarification)**
- **Next steps**

CRR Credit Policy

- **Market Participants must have a combination of posted security and unsecured credit to cover their Estimated Aggregate Liability (EAL).**
- **CRR Credit requirement could increase EAL.**
- **CRR Credit requirement will be evaluated at the portfolio level.**
- **If the net valuation of a CRR portfolio is negative, it would increase EAL. If the net is positive it will not reduce EAL.**

CRR Credit Requirements to participate in the allocation

- **Initially, there is no credit requirement to participate in the CRR allocation.**
- **After the CRR allocation and auction processes are complete, holders of allocated CRRs will be subject to the CRR credit requirements.**
- **All CRRs, regardless of how they are obtained, will be subject to the same credit requirements.**

CRR Credit requirements to participate in the auction

- **Initially, there will not be a pre-auction “credit margin” for participation in the CRR auction. After the auction process is completed, CRR holders will be subject to the CRR credit requirement which would include a post auction credit margin.**
- **Positive priced CRRs: Auction bidders must have sufficient credit to cover the bid price of positively priced CRRs.**
The CRR software would determine the maximum possible purchase amount of CRRs that are bid in the auction based on their auction bid.
(For further details, please refer to CRR BPM Attachment C):
<http://www.caiso.com/1b6b/1b6bf0b6614c0.doc>
- **Negatively priced CRRs: Before the buyer is paid to purchase negatively priced CRR, the buyer must have sufficient credit coverage to hold the CRR.**
- **CRRs will be paid for at the conclusion of the auction.**



CRR Credit requirements for holding CRRs

- **CRR Credit Requirement = Expected value + Credit Margin**
- **Expected Value will be based on the auction price.**
- **Credit Margin will be derived from the historical variance in congestion charges in Day Ahead market.**
- **Without historical LMP data, options to determine the CRR credit Margin at MRTU startup include:**
 - 1) **LMP Studies data**
 - 2) **Historical level of Path 15 congestion variation**
 - 3) **Historical CRR data of an eastern ISO**
- **Numerical value of Credit Margin will be recommended following the analysis of the 3 options above.**



Compliance Measures for failure to meet credit requirement for holding CRRs

- **Terminate the CRR agreement**
- **Retain all payments due to the CRRs (both positive and negative valued) and resell seasonal CRRs for their remaining duration in subsequent monthly auctions**
 - Resell procedures and software requirements to be determined.
- **Prohibit participation by the holder in future CAISO CRR auctions**
 - If LSE, exclude from allocation process?

Adjustments to the CRR credit coverage requirement

CRR credit coverage requirement will be adjusted to account for:

- **CRR termination date and updated auction prices**
- **Permanent CRR transfers through
Secondary Trades
Load Migration**
- **Partial CRR transfers through
Secondary Trades (the new owner would be responsible for
credit coverage). However, in case of default by the new
CRR owner, the original owner may be held responsible.**

Long Term CRR Credit Requirement

- CAISO requires credit coverage for the entire term of the CRRs.

Options to determine LT CRR credit requirements:

Option 1: $n * (1 \text{ year CRR expected value}) + n * (1 \text{ year CRR credit margin})$

Option 2: $n * (1 \text{ year CRR expected value}) + \sqrt{n} * (1 \text{ year CRR credit margin})$

Option 3: 1 year CRR credit requirement

*Option 3 not recommended
by CAISO*

(n: remaining years)

Long Term CRR Credit Requirement

Negative Valued CRR Example:

1 year expected value = $-\$500,000$

1 Year Credit Margin = $\$100,000$

1 Year CRR Credit Requirement = $\$500,000 + \$100,000 = \$600,000$

The 10 Year CRR Credit Requirement for this CRR under Options 1,2,3:

Option 1: $n * (1 \text{ year CRR expected value}) + n * (1 \text{ year CRR credit margin})$
 $10 (\$500,000) + 10 (\$100,000) = \$5,000,000 + \$1,000,000 = \$6,000,000$

Option 2: $n * (1 \text{ year CRR expected value}) + \sqrt{n} * (1 \text{ year CRR credit margin})$
 $10 (\$500,000) + \sqrt{10} (100,000) = \$5,000,000 + \$316,228 = \$5,316,228$

Option 3: 1 year CRR credit requirement
 $\$500,000 + \$100,000 = \$600,000$

Long Term CRR Credit Requirement

Positive Valued CRR Example:

1 year expected value = \$50,000

1 Year Credit Margin = \$75,000

1 Year CRR Credit Requirement = \$25,000

The 10 Year CRR Credit Requirement for this CRR under Options 1,2,3:

Option 1: $n * (1 \text{ year CRR expected value}) + n * (1 \text{ year CRR credit margin})$
 $10 (- \$50,000) + 10 (75,000) = 250,000$

Option 2: $n * (1 \text{ year CRR expected value}) + \sqrt{n} * (1 \text{ year CRR credit margin})$
 $10 (- \$50,000) + \sqrt{10} (75,000) = -\$262,829 \text{ offset}$

Option 3: 1 year CRR credit requirement
\$25,000

Additional credit requirements for LT-CRRs held by external LSEs

- **External LSEs are subject to the same credit requirements for holding LT-CRRs as other Market participants.**
- **Additionally, external LSEs will be required to maintain 1 year of credit coverage for their WAC prepayment beyond the current period.**
- **Available Credit = (Financial Security + Unsecured Credit Limit) – EAL**

The 1 year credit coverage for the WAC prepayment will increase EAL. As long as the external LSE's overall Available Credit with the inclusion of WAC prepayment in EAL is positive, they will not need any additional credit coverage.

Next Steps

- **Stakeholder written comments requested by April 6**
- **Future conference call on the numerical value of the CRR credit margin: late April**
- **The CRR credit policy including the numerical value of the CRR credit margin will be presented to the Board for decision in late May**
- **FERC Filing: early June**
- **FERC Order: early August**
- **CRR annual auction: late August**