

CAISO Proposal: Methodology for Determining CRRs for Merchant Transmission Upgrades April 6, 2007

This proposed policy statement would provide the foundation of the CAISO's tariff amendment detailing how CRRs would be allocated to merchant transmission sponsors.

This proposed statement is meant to provide a summary of the CAISO's proposal so that stakeholders may offer additional feedback to help the CAISO staff finalize its recommendation to the CAISO Board of Governors. Written comments from stakeholders may be submitted as late as Tuesday, April 10 to CRRComments@caiso.com.

"Merchant Transmission Sponsor" (MT Sponsor)

An entity will be eligible for Merchant CRRs only if such entity has not elected to recover costs of its investment on that specific transmission upgrade through the CAISO's transmission access charges or other regulated return on its investment.

"Merchant CRRs"

- The duration of the Merchant CRRs will be for 30 years or the pre-specified intended life of the facility, whichever is less.
- An MT Sponsor may elect Merchant CRRs as either option CRRs or obligation CRRs or a combination of both.
- The quantity and source-sink pattern of Merchant CRRs allocated to the MT Sponsor will be commensurate with the transfer capacity that the project adds to the CAISO Controlled Grid, as determined by the process and methodology proposed here.
- The MT Sponsor's entitlement to Merchant CRRs will begin when the transmission project (the "MT upgrade") has been energized and operational control has been turned over to the CAISO.

Process and Methodology for Determining Merchant CRRs

The CAISO proposes to follow a two-step process that compares the CRRs that are feasible on the network model before the MT upgrade with the incremental CRRs that are feasible after the MT upgrade.

- **Step 1 determines the CRRs that the MT sponsor would NOT be eligible to be awarded as a result of its upgrade.** The CAISO would begin with a Full Network Model that does not include the MT upgrade, but includes all adjustments for Transmission Ownership Rights (TORs), and any MT upgrades for which Merchant CRRs were previously allocated. The CAISO would apply to this model all encumbrances on the system including previously released short-term

and Long Term CRRs, Existing Transmission Contracts [ETCs] and Converted Rights [CVRs], which would be modeled as “Fixed CRRs.” These “Fixed CRRs” should be feasible for this CRR model.

The MT sponsor would be allowed to submit -- at one time -- up to five Merchant CRR nominations specifying the source, sink and number of megawatts of incremental CRRs that it would like to receive for its upgrade. The CAISO would add the nominated Merchant CRRs to the set of Fixed CRRs already modeled on the FNM but, in doing so, would replace the nominated MW quantity of each nominated Merchant CRR with a large, positive quantity. These quantities, for each source/sink Merchant CRR nomination, will be large enough to cause infeasibility when these CRRs are applied to the CRR model.

The CAISO would next perform an optimization subject to a simultaneous feasibility test to determine the quantity of each nominated Merchant CRR that is feasible on the transmission grid (FNM) prior to including the MT upgrade in the FNM. Since the Merchant CRR nominations are the only control variables in this optimization/SFT process, the nominated CRRs will be reduced to obtain feasibility. These cleared CRRs will be termed “Capacity CRRs” and will be modeled as additional fixed CRRs on the FNM that does not include the MT upgrade.

Step 1A determines the need for the MT Sponsor to hold counterflow CRRs due to impacts of the project on previous encumbrances. One further test is needed before determining the allocation of CRRs to the MT Sponsor. The CAISO will test the simultaneous feasibility of all the fixed CRRs identified above on the FNM with the MT upgrade included. This test is to ensure that the addition of the MT upgrade does not negatively impact any of these other encumbrances. For most of the fixed CRRs identified above there should be no problem because the transmission planning process will have ensured that the MT upgrade does not degrade transfer capability of the grid. It is possible, however, that some of the auctioned CRRs – which may represent speculative financial positions unrelated to actual power flows on the grid – could be adversely affected by the MT upgrade, and this impact would not have been detected in the transmission planning process. In such cases the MT Sponsor will be required to hold – just for the remainder of the current CRR year – a minimal set of counterflow CRRs that maintain the feasibility of the fixed CRRs in the FNM that includes the MT Upgrade. The CAISO may allow the MT Sponsor to offer specific counterflow CRRs to hold to mitigate the identified infeasibility, but the CAISO would then test to ensure that these are effective and to reduce them to a minimal set. When this process is complete, these counterflow CRRs would also be included as additional fixed CRRs before going to Step 2.

- **Step 2 would determine the incremental amount of CRRs that the MT sponsor can be allocated as Merchant CRRs.** The CAISO would add the MT upgrade to the CRR FNM, and then apply to that CRR model the various “Fixed CRRs” identified above, including previously released short-term and Long Term CRRs, ETC, CVR and any previously allocated Merchant CRRs, plus the “Capacity CRRs” and any counterflow CRRs that were required as a result of Step 1A. With this set-up the CAISO would apply the Merchant CRR nominations (the original source-sink pairs and MW quantities nominated by the MT Sponsor) and would award to the MT Sponsor as many of these as clear the SFT. The CAISO will also ensure that the MT CRRs are feasible absent all “Fixed CRRs.” The optimization performed in steps 1 and 2 uses the same objective function used in the allocation processes, i.e., maximize MW allocated. In the case of the MT process, all MT related nominations will have the same priority weight in the optimization process.

Existing Capacity that is Not Currently Used by CRRs

Under the proposed methodology, the reservation of Capacity CRRs in Step 1A of the proposed two-step allocation process for Merchant CRRs will ensure that any CRRs that the MT sponsor nominates that are feasible on the transmission grid prior to the MT upgrade will not be awarded to the MT sponsor as Merchant CRRs. The process for reserving Capacity CRRs is applied only to the Merchant CRRs that the MT sponsor explicitly nominates, however, which means that it does not necessarily reserve all CRRs that might be feasible but were not allocated or auctioned for the existing transmission system. Thus the allocation of Merchant CRRs may rest on transmission capacity that is not used by prior encumbrances (i.e., ETC, CVR, LT CRRs, auctioned seasonal and monthly CRRs, allocated seasonal and monthly CRRs) that exist at the time, but that could have been used had parties submitted different CRR nominations and bids into the CAISO CRR release processes. An important point is that any such “fallow” transmission capacity that is utilized by the Merchant CRRs could have been obtained by any qualified participant in the last annual or monthly CRR auction, but no market participant chose to buy at any price.

Existing Capacity that is Not Currently Useful (i.e., “low-hanging fruit”)

The CAISO expects that the transmission planning process will identify potential upgrades that greatly expand transmission capacity for the benefit of all participants. In addition, if a MT sponsor supplements the CAISO’s transmission plan by the expansion of capacity, the MT sponsor would be eligible for Merchant CRRs on such capacity.