

Comments on CRR Settlements and Modeling in the Extended Day-Ahead Market Presentations - June 12, 2025

Department of Market Monitoring

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Summary

The Department of Market Monitoring (DMM) appreciates the opportunity to comment on the ISO's June 12, 2025 presentations for the planned settlements and modeling of congestion revenue rights (CRRs) in the extended day-ahead market (EDAM).¹

CAISO balancing authority area (BAA) transmission ratepayers do not have rights to congestion rent on non-CAISO constraints, and no such revenue is collected by CAISO. Even though the ISO does not receive that rent, the ISO plans to pay CRR holders for congestion on non-CAISO BAA constraints by charging CAISO measured demand (load plus exports). This is not consistent with the concepts underlying CRRs, nor the CRR 1B deficit offset provision of the ISO tariff, which are based on the principle that payments to CRRs are funded only by congestion rent collected by the ISO from the specific transmission constraints underlying each CRR.

Further, the ISO plans to not model the non-CAISO constraint limits in the CRR allocation or auction even though these constraints will be in the EDAM market model to settle CRRs. This discrepancy 'by design' between the CRR model and the EDAM market model will cause an inconsistency between how CRRs are settled in the auction and how they are paid in EDAM. As noted in the ISO's ongoing initiative on CRR revenue enhancements, modeling inconsistencies between the CRR model and the day-ahead market are one of the three major drivers of CRR auction losses and revenue inadequacy.²

As described in these comments, this designed modeling difference between the CRR and EDAM models creates the potential for non-load serving entities (LSEs) purchasing CRRs in the auction to receive payments funded by measured demand for non-CAISO constraints which are not priced in the auction. Because this modeling difference would be well known and systematic, DMM believes there is potential for this flaw to be exploited by purchasing certain combinations of CRRs in large volumes which could have a very low net cost and risk, but have the potential for very high payouts at the expense of measured demand.

In addition, it is not clear to DMM how the planned settlements presented on the June 12 call do not require a tariff change to implement, or how these changes represent the outcome of the EDAM

¹ *Briefing on CRR Implementation for EDAM*, California ISO, June 12, 2025:

<https://www.caiso.com/documents/presentation-congestion-revenue-rights-settlement-in-extended-day-ahead-market-jun-12-2025.pdf>

CRR Settlement in Extended Day Ahead Market, California ISO, June 12, 2025:

<https://www.caiso.com/documents/presentation-congestion-revenue-rights-modeling-in-extended-day-ahead-market-jun-12-2025.pdf>

² *Congestion Revenue Rights Enhancements Follow-up Meeting*, March 12, 2025, p 13:

<https://stakeholdercenter.caiso.com/InitiativeDocuments/Presentation-Congestion-Revenue-Rights-Enhancements-Mar-12-2025.pdf>

stakeholder process. The ISO just completed a stakeholder process allowing congestion rent to be transferred from CAISO to other BAAs. The purpose of this EDAM congestion allocation initiative was to enable these BAAs to give rent to firm rights holders without charging load in those BAAs. However, the ISO's proposed allocation approach for CRRs is entirely inconsistent with the approach just adopted for EDAM BAAs. Under the proposed approach for CRRs, CRR holders would be paid for congestion rents that are not collected by the ISO and would therefore ultimately be charged to load in the CAISO BAA.

The ISO's proposed approach is also inconsistent with the underlying concepts behind how CRRs are currently settled using the 1B deficit offsets that have been put in place to reduce losses from the auction. Under the current 1B deficit offset provisions of the ISO tariff, CRRs are not settled based on the notional value of congestion, with any difference being taken from the balancing account. Instead, CRRs are paid based on congestion rent actually collected and retained by the CAISO.

For these reasons DMM opposes the ISO's proposed CRR settlement under EDAM. DMM recommends that under EDAM the ISO instead continue to settle CRRs using the same principles underlying CRR settlement rules that have been in effect since 2019. Under this framework, rather than paying full notational value of CRRs, the ISO only pays CRR holders based on the congestion rents actually collected by the ISO from the constraints that contribute to the congestion component of the source and sink of each CRR. The deficit offset provisions implemented in 2019 have prevented over \$520 million dollars in additional losses to transmission ratepayers from CRRs sold in the auction. The ISO's current settlement rules can be easily extended to include all congestion revenues collected (and not collected) under EDAM.

Comments

The planned settlement of CRRs is inconsistent with concepts behind CRRs and the CRR 1B offsets

The ISO plans to settle CRRs for their full notional value associated with non-CAISO BAA constraints. However, the ISO will not collect the congestion rent from these constraints to make such payments. The ISO will instead charge these additional CRR payments to CAISO measured demand—either through reduction of CRR balancing account funds that should otherwise be refunded to measured demand, or through direct uplift if such funds are insufficient. This is not consistent with the concepts underlying CRRs, nor the CRR 1B offsets, that the payments to CRRs are funded by rent collected on the underlying transmission constraints.

Under the planned settlement, measured demand in CAISO pays CRRs for congestion on non-CAISO constraints

On the recent stakeholder call, the ISO seemed to argue that using the balancing account to fund CRRs for non-CAISO constraints would not be a charge to measured demand unless the overall balancing account was negative. The ISO also stated that with the start of EDAM/DAME, there would be new sources of funds for the balancing account from payment of congestion rent by non-CAISO schedules creating flows on CAISO constraints, and from settlement of imbalance reserves and reliability capacity.

First, DMM notes that the proposed settlement clearly charges CAISO measured demand to fund these additional CRR payments. If measured demand would have received \$100 from the balancing account but only receives \$90 because the ISO used the balancing account to fund payments on non-CAISO

constraints, then measured demand paid \$10. Arguing otherwise is similar to arguing that someone does not pay taxes because their paycheck after deductions is greater than zero.

The fact that there may be ‘surplus’ rent from CAISO constraints is irrelevant to the question of whether measured demand is ultimately being charged for CRR payments made for congestion on non-CAISO constraints that the CAISO does not collect. Moreover, such additional rent is not necessarily an actual surplus. The rent on CAISO constraints paid by flows from non-CAISO schedules, or imbalance reserve and reliability capacity schedules, is generally needed to pay CRRs for congestion prices on CAISO constraints.

Reducing CRR model limits below the level on which the ISO expects to collect congestion does not prevent measured demand from being charged for the extra CRR payments being proposed

The ISO has argued to DMM that their planned modeling of non-CAISO BAA flows in the CRR processes (for all flows, not just flows from open access transmission tariff [OATT] rights) will reduce the amount of CRRs that are awarded. Because some of those flows will be paying congestion rent that will now not be paid to CRRs, this creates payments into the balancing account that can offset the charges to the balancing account for paying CRRs for non-CAISO congestion. This is not a reassuring argument.

- First, there is no useful relation between the amount paid to CRRs for the non-CAISO constraints and the amount of surplus from reducing CRR flows below market flows on CAISO constraints.
- Second, the ISO has not modeled flows from outside the CAISO BAA in the CRR processes before, and it is not clear why one would expect accurate modeling of these flows now.
- Third, the point of modeling flows from non-CAISO BAAs in the CRRs processes is to account for transmission capacity that will not be generating rent. Reducing available capacity in the CRR processes to account for non-CAISO BAA flows that will be generating rent is certainly novel.
- Fourth, a likely result of lowering the available transmission in the CRR processes is reducing the amount of allocated CRRs awarded. Reducing the amount of allocated CRRs that transmission ratepayers (a.k.a. measured demand) can acquire, so that they are not paid for those CRRs, so that ‘surplus’ revenue can be placed in the balancing account to pay for other CRRs for non-CAISO congestion—is still charging measured demand (just not pro rata).

The planned settlements and modeling of CRRs can create obligations for measured demand to make payments without receiving compensation

The ISO has confirmed that it plans to not model the non-CAISO transmission limits in the CRR allocation or auction. Auction participants could receive rights to payments from CAISO measured demand for free. Without limits, there can be no shadow prices and these rights cannot be priced. Obligating measured demand to make payments to CRRs for non-CAISO constraints without even the possibility of being paid in the auction to take on those obligations is not reasonable.

The planned settlements and modeling of CRRs create potential for severe opportunistic behavior

Without enforcing non-CAISO constraints in the CRR allocation and auction, there are no direct limits on the megawatts of CRR flows able to receive rights to payments on non-CAISO congestion prices. This is particularly worrying for the auction, where CRRs are not constrained by forecasted load or to sink at a location where a participant has load. In a corner case where no other constraints within CAISO restrict

CRR flows on a non-CAISO constraint, the total megawatts an auction participant could acquire for free would theoretically be unlimited.

If auction participants can find ways to target non-CAISO constraints with minimal flows over CAISO constraints, or find ways to otherwise counterflow their flows on CAISO constraints, they could acquire large megawatt positions which the ISO would settle fully at the non-CAISO shadow prices (as the plan is to default offsets to zero and pay full notional value for the non-CAISO constraints). Therefore, the planned settlement and modeling opens the potential for severe opportunistic behavior where auction participants can exploit the inherent modeling differences to extract large sums of money from CAISO measured demand.

The planned CRR settlements would require a tariff change

DMM believes the ISO's planned settlement of CRRs under EDAM would require a tariff change. It is not at all clear to DMM how paying CRRs their full notional value, and defaulting deficit offsets to zero, for non-CAISO constraints is consistent with the CAISO tariff or the EDAM stakeholder process. If the ISO believes it is, they should show stakeholders the tariff sections that give them the authority to do so.

This is also not the first iteration of the ISO's planned CRR settlements under EDAM. Just this past May, the ISO planned to settle CRRs differently, as described in prior DMM comments.³ The previous plan, which DMM also thinks was not an appropriate design, was that CRRs would be paid for congestion on all constraints, including non-CAISO constraints, up to the total amount of congestion rent from schedules in the CAISO BAA, even if the CAISO BAA did not collect that congestion rent. Payments for non-CAISO constraints would draw on the balancing account. Rent on CAISO constraints from non-CAISO schedules would not be used to settle CRRs and instead would be placed in the balancing account.

DMM does not understand how both these different settlements can be consistent with the tariff at the same time. Furthermore, the ISO's currently planned settlement cannot reasonably be described as the result of the EDAM stakeholder process when the ISO itself thought the settlement would be significantly different just over a month ago.

The EDAM congestion revenue allocation initiative was undertaken so that EDAM BAAs would not have to charge load

The ISO just completed the EDAM congestion revenue allocation stakeholder process to enable the transfer of rent from CAISO constraints to non-CAISO BAAs so that balanced self-schedules from firm transmission rights holders in these EDAM BAAs can 'fully hedge' their congestion costs. The interim method for transferring congestion rents adopted by the ISO is specifically designed to allow EDAM BAAs to provide a hedge for parallel flow congestion for firm rights holders without having load in those BAAs to pay for this hedge.

Conversely, under the ISO's proposed CRR settlement under EDAM, the cost of paying all CRRs the full notional value on non-CAISO constraints would be paid by CAISO measured demand. Thus, in this

³ *Comments on Extended Day-Ahead Market Congestion Revenue Allocation Draft Final Proposal*, California ISO Department of Market Monitoring, May 6, 2025:
<https://stakeholdercenter.caiso.com/Common/DownloadFile/62c94e90-fc5e-4ea1-b113-5d0064d0ac29>

respect, the ISO's CRR settlement proposal is the precise opposite of the settlement approach just adopted by the ISO in the recent EDAM congestion revenue allocation initiative.

While firm transmission rights holders in non-CAISO EDAM BAAs did not pay for rights on the CAISO grid, they did pay transmission rates to receive those rights on the system of other EDAM BAAs to serve load or schedule physical power flows. However, CRRs receiving this hedge in the CAISO BAA include CRRs purchased in the auction that are in no way analogous to firm transmission rights in EDAM BAAs. Entities purchasing these CRRs do not pay the CAISO's transmission access charge (TAC) rates and in most cases do not use these CRRs to hedge any actual energy schedules. Providing payment of congestion rents from constraints in non-CAISO BAAs to CRRs that are not similar to firm transmission rights is another way in which the proposed CRR settlement is inconsistent with policy developed in the recent EDAM congestion revenue allocation initiative.

Settling CRRs based on rents the CAISO BAA has rights to, and collects, is a better alternative

The EDAM stakeholder process and policy made clear that the CAISO BAA would only collect and retain rent from constraints within CAISO. DMM believes it is only logical that, consistent with the underlying concepts behind CRRs and the CRR 1B market design changes, CRRs could then only be paid for congestion on CAISO constraints, and that rent on CAISO constraints coming from schedules in non-CAISO BAAs would be available to pay CRRs affected by those constraints.

Such a settlement would not place unreasonable and uncompensated payment obligations on measured demand. This settlement would also avoid the potential for severe opportunistic behavior created by the current plan for CRR settlements. DMM does not see how this settlement could be hard to implement since the actual calculations are unchanged from today. The ISO could simply not run the calculations on non-CAISO constraints and not exclude data for non-CAISO BAA schedules⁴ from the calculations on CAISO constraints.

⁴ Other than for balanced self-scheduled firm point-to-point and network integration transmission service (NITS) rights.