



## Stakeholder Comments Template

### **Congestion Revenue Rights (CRR) Modeling and Settlement in the Extended Day-Ahead Market (EDAM) Stakeholder Meeting (June 12, 2025)**

This template has been created for submission of stakeholder comments on Congestion Revenue Rights (CRR) Modeling and Settlement in the Extended Day-Ahead Market (EDAM) Stakeholder Meeting, which took place on June 12, 2025. The meeting presentations have been posted to the miscellaneous stakeholder meetings [webpage](#) and the Congestion Revenue Rights [page](#). The meeting recording will also be posted in both these locations.

Upon completion of this template, please submit it to [ISOStakeholderAffairs@caiso.com](mailto:ISOStakeholderAffairs@caiso.com). Submissions are requested by close of business on **July 3, 2025**.

Submitted by	Organization	Date Submitted
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**Please provide your organization's comments on the following issues and questions.**

- 1. Please provide your feedback on CRR modeling considerations supporting EDAM launch as described in the "Briefing on CRR Implementation for EDAM" presentation.**

DC Energy sincerely appreciates the CAISO holding the June 12, 2025 special workshop on CRR modeling and settlements in EDAM and providing this opportunity to submit stakeholder comments. The workshop was an important preliminary step to implementing practical modeling and settlements enhancements that will improve both the current CAISO CRR market and the soon to be implemented EDAM market.

#### 2026 CRR Model

DC Energy agrees with the CAISO that there is insufficient time to update the CRR model used in the 2026 annual CRR process, which starts this month, to include the implementation of EDAM in the initial PACE and PACW Balancing Areas. DC Energy further agrees that, if EDAM is implemented on schedule in May 2026, the CRR model used in the May 2026 monthly CRR process should include updated tie locations and account for expected parallel flows in the CISO BAA due to flows in PACE and PACW, at a minimum.

This potential change in the CRR models used in the annual compared to the monthly processes could, however, result in inconsistencies and infeasibilities when the CAISO clears its monthly auctions. For example, as Kallie Wells of WPTF suggested during the June 12<sup>th</sup> workshop, if more capacity is modeled on a constraint in the annual CRR model than is modeled on the same constraint in the monthly CRR model, then an infeasibility may occur when attempting to clear the monthly auction. In theory, counterflow CRR offers could balance out the capacity discrepancy in the monthly model, but the CAISO's current set of biddable CRR paths limits market participants' ability to offer counterflow.

The CAISO should update its 2026 monthly CRR models to account for the implementation of EDAM, but it should be prepared to detect and respond to inconsistencies and infeasibilities that could arise. In general, the CAISO should consider the timing of its annual and monthly CRR processes when setting the implementation schedule for future EDAM BAA integrations and endeavor to ensure consistent approaches to modeling are used in annual and later monthly CRR processes.

#### Comprehensive Parallel Flow Modeling

The CAISO's effort to comprehensively model unscheduled parallel flows and include them in its future CRR models should be informed by, and conducted in concert with, the analysis of existing, disaggregated market data recommended by both the Market Surveillance Committee ("MSC") and by Dr. Susan Pope as the Market Expert for the Western Energy Market Governing Body. Both advise that the CAISO should analyze existing disaggregated hourly market data to identify when and on which constraints unscheduled parallel flows have occurred in the CAISO IFM. Both also emphasized the value of transparency for both the results of this analysis and the underlying disaggregated hourly data used in order to identify unscheduled parallel flow impacts. Similarly, the CAISO should be transparent regarding the modeling assumptions used to complete this analysis and to build future CRR models. The CAISO should publish the capacity on each network element that is modeled as consumed by unscheduled parallel flow and thus excluded from the model used for CRR allocations and auctions.

The CAISO should prioritize and expedite the effort to comprehensively model unscheduled parallel flows, along with the analysis of existing market data recommended by the MSC and Dr. Pope, because doing this work now will ease the integration of further BAAs into EDAM in the future. Updating models in piecemeal fashion as new BAAs join EDAM should be minimized to the extent possible, in order to avoid the potential discrepancies and infeasibilities mentioned above that may occur when different models are used in annual and monthly CRR processes.

Furthermore, a substantial portion of unscheduled parallel flows on the CAISO system appear to originate with flows scheduled on transmission systems that are not actively pursuing integration with EDAM. The sooner these unscheduled parallel flows are identified via disaggregated analysis, the sooner the CAISO can begin to develop measures to mitigate the effects of such flows. Modeling these non-EDAM unscheduled parallel flows is essential to reducing current levels of congestion revenue inadequacy in the CAISO and a prerequisite to further mitigation. For example, a comprehensive model of unscheduled parallel flows and an understanding of when parallel flows occur and on which constrained network elements, could provide a foundation for resolving seams

issues with non-EDAM BAAs, such as the allocation of Firm Flow Entitlements or charges for parallel flows.

The effort to comprehensively model unscheduled parallel flows, along with the analysis of existing market data to identify where and when parallel flows have occurred, should also inform efforts already underway in the CRR Enhancement Working Group (“CRREWG”) stakeholder initiative. For example, the CRREWG has identified unscheduled parallel flows as a source of CRR underfunding, but the CAISO has not provided detailed data necessary to better understand and mitigate the issue. Also, the CRREWG has raised the possibility of eliminating or reducing the current Global Derate Factor, which reduces the capacity available for CRR allocations on all constraints in all hours, if the constraints and hours in which unscheduled parallel flows tend to occur could be identified and modeled appropriately.

Also, the CRREWG is considering reforms to the available Times of Use (“TOUs”) for CRRs (currently Peak and Off-Peak) to better reflect current and future congestion patterns over the course of the day, which are increasingly driven by solar and battery resources. The analysis of disaggregated market data is particularly important to this effort because it would identify the hours in which unscheduled parallel flows tend to occur and on what path. For example, it appears that unscheduled parallel flows may be particularly pronounced during peak solar hours when congestion occurs from South to North. If the CAISO adopts a peak solar TOU for CRRs, it would have its own model, just as Peak and Off-Peak CRRs currently have their respective models, which could be used to accurately reflect associated parallel flows. Otherwise, the CAISO will have to apply overly restrictive or permissive modeling assumptions when the hours covered by a CRR do not correspond with congestion and parallel flow patterns.

Furthermore, DC Energy agrees that the CRREWG should take up each of the issues listed at the end of the June 12, 2025 presentation on modeling. The CRREWG problem statement creation process, however, should not slow efforts to model integrating BAs now or comprehensively model unscheduled parallel flows or the analysis of existing market data necessary to identify where and when parallel flows have occurred.

**2. Please provide your feedback on the settlement of CRRs (CRR1B) in EDAM as described in the “CRR Settlement in the Extended Day Ahead Market” presentation.**

DC Energy appreciates the CAISO’s focus on ensuring that EDAM integration does not become a source of further CRR underfunding and supports the CAISO’s proposal to use the Congestion Balancing Account to fund EDAM BAA constraints. To further ensure that EDAM does not become a source of further CRR underfunding, the CAISO should develop a solution that entirely eliminates the incentive for OATT right holders to self-schedule.

As described by the MSC and Dr. Pope, under certain circumstances, the currently proposed EDAM congestion revenue allocation creates an incentive for owners of more expensive resources with long-term firm or monthly OATT rights to submit balanced self-schedules in order to receive a congestion revenue allocation to offset the congestion costs of serving their loads that stem from congestion on transmission constraints located in the CISO BA. Inefficient self-schedules would disrupt economic dispatch in the BAA where they are scheduled and create further congestion revenue inadequacy in the CAISO.

In addition, as Dr. Pope has explained, when power scheduled pursuant to long-term or monthly firm OATT rights in an EDAM BAA provides counterflow, and thus relieves congestion, on constraints in the CAISO, congestion revenue that would otherwise be allocated to CRR holders will be allocated to the EDAM BAA.<sup>1</sup> Meanwhile, any power scheduled pursuant to long-term or monthly firm OATT rights in an EDAM BAA that contributes to prevailing flow, and thus adds to congestion, on constraints in the CAISO will not pay for its contribution to congestion. Thus counterflows are compensated with no corresponding charge to prevailing flows. This dynamic could lead to further congestion revenue inadequacy in the CAISO, particularly if offsetting transactions are used to intentionally create and relieve congestion in order to capture congestion rent.

To eliminate the incentive to self-schedule or bid resources in a manner that is not efficient for the market, EDAM must move away from physical transmission rights because they have an inherent “use it or lose it” aspect that ties them to bidding and scheduling behavior. EDAM should move to a system of financial transmission rights where congestion revenue allocation and the ability to hedge congestion costs are not tied to physical bids and schedules. A combination of firm flow entitlements on seams with non-EDAM BAAs and auctioned, centrally clearing, EDAM-wide CRRs with source and sink locations across and among all EDAM BAAs, similar to interstate RTOs, is the best way to address the self-scheduling issue now facing EDAM.

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<sup>1</sup> [\*WEM-Governing-Body-Market-Expert-Opinion-on-Extended-Day-Ahead-Market-Congestion-Revenue-Allocation-Jun-18-2025.pdf\*](#) .

### Near-Term Enhancement

In the meantime, when EDAM is first implemented, long-term firm OATT rights holders in EDAM will be eligible to receive congestion revenue from constraints that bind in other EDAM BAAs, including the CAISO, due to parallel flows. Meanwhile, CRR holders in the CAISO will not be eligible to receive congestion revenue on constraints that bind in other EDAM BAAs due to parallel flows. The CAISO has acknowledged the asymmetry arising from this disparate treatment of CRRs and has pledged to make a near-term enhancement to treat CRR holders equally with long-term firm OATT rights holders.<sup>2</sup> DC Energy suspects that parallel flows on the CAISO system will be more significant than parallel flows in other EDAM BAAs, but nonetheless, the CAISO should make this near-term enhancement as soon as practicable to eliminate undue discrimination in the allocation of congestion revenue.

### **3. Please provide any additional feedback regarding the Congestion Revenue Rights (CRR) Modeling and Settlement in the Extended Day-Ahead Market (EDAM) stakeholder workshop discussion on June 12, 2025.**

In addition to the existing market data and modeling assumption transparency described above, the CAISO should endeavor to expedite the development and release of simulated data estimating the effects EDAM implementation will have on Day-Ahead congestion in the CAISO. At present, there are no estimates to guide market participant expectations regarding the potential changes to congestion patterns after the EDAM market goes live. Specifically, CAISO should publish information on binding transmission constraints and their frequency across the EDAM footprint, as well as the impact these constraints have on congestion prices. The CAISO's planned market simulations should be expedited in order to ensure that simulated data and congestion impact estimates are available before the 2026 Annual CRR Auction in November 2025.

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<sup>2</sup> Final Proposal: Tariff Amendment – EDAM Congestion Allocation, California Independent System Operator, at 27 (Jun. 6, 2025).