



California ISO

Market Parameters Enhancement

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Scope of this initiative is twofold

1. Change to the shift factor parameter threshold
2. Procedure to expedite parameter changes

These two items are not interdependent

1. Shift factor threshold

- CAISO's Tariff defines a 2% threshold to be applied to shift factors
- Shift factors measure the effectiveness of a power injection at certain location to power flows on a given constraint
- Shift factors are used in the congestion management process of the energy markets, including resource dispatches and price formation
- Threshold used in the markets to mitigate for ineffective redispatch and handle computational burden

Market issue with using a shift factor threshold

- Injections at locations with a shift factor below 2% will not be considered in congestion management (dispatches and prices)
- Although default load aggregation points (DLAPs) and trading hubs (THs) may have a shift factor below 2%, their MW contributions to flows can still be significant

A DLAP=15,000 MW with a 1.6% shift factor on a given constraint represents a flow contribution of 240MW

Relative to small-capacity constraints, the flow contribution from DLAPs/THs can be too large to disregard, even when their shift factor is below 2%

Market issue with using a shift factor threshold

- Under certain conditions, the use of the shift factor threshold for DLAPs/THs has resulted in inefficient outcomes in the settlements of congestion revenue rights (CRRs)
 - It may result in over-payment of CRRs
 - It may result in under-collection of congestion rents
- The 2020 performance analysis of CRRs*, as well as analysis of Q1 2022, identified the impact of this issue
- It resulted in a \$3 million impact in the first 15 months of the new CRR settlements

* The CRR performance report available at

<http://www.caiso.com/InitiativeDocuments/CongestionRevenueRightsMarketAnalysisReport-May12-2020.pdf>

Proposal for shift factors threshold

- For default load aggregated points and trading hubs, a zero or close to zero threshold will apply
- Current threshold of 2% will continue to apply to any other type of location
- Proposed logic will apply to both day-ahead and real-time markets

2. Procedure to expedite parameter changes

- CAISO's energy market uses a set of parameters to enforce the relative scheduling and relaxation priorities in the market clearing process
- All parameters work in synchronization and require ongoing monitoring of their performance
- Under outlier scenarios, the specific values assigned to certain parameters can result in unintended or inefficient outcomes
- CAISO needs to be able to mitigate for these outcomes expeditiously

In a June 26 compliance filing CAISO proposed to have a process for making expeditious changes to parameter values

- This process would allow CAISO to modify market parameters when necessary to ensure feasible and reliable solutions
- Similar provisions are in place in other ISOs
- Some stakeholders expressed concerns about the use of this process to change the relative scheduling priorities
- CAISO made supplemental filings to indicate the limited scope of the process is not intended to change relative scheduling priorities

CAISO proposes to pursue a parameter change procedure that allows to make expeditious parameter changes

- On March 15, 2022 FERC rejected this proposal because it was outside the scope of the compliance directive
- It also indicated CAISO could submit a Tariff amendment filing
- This procedure will allow a parameter change for up to 90 days, provided CAISO will file such change within 30 days of the modification

Next Steps

- Stakeholders written comments due by May 9, 2022