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CAISO CRR Auction Efficiency Initiative Track 1B: Review of Market Designs for Partial Funding of CRRs

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Among the congestion market funding designs, CAISO and NYISO do not allocated revenue inadequacy to holders of congestion rights

Review of Various Congestion Market Funding Designs

- **The CAISO CRR product is paid the full difference between the congestion components of LMP, regardless of whether there are sufficient congestion rents to cover payments**
  - To accomplish this revenue inadequacy ("shortfall") is allocated to Load Serving Entities (LSEs) on a pro-rata share basis
  - Congestion surplus is also allocated to LSEs

- **New York ISO Transmission Congestion Contracts (TCCs) receive full target payouts in the same way as the CAISO CRR product, although TCC shortfall and surplus is assigned differently**
  - Congestion funding shortfall and surplus is allocated to Transmission Owners (TOs) responsible for the outages or returns to service
  - Residual amounts are allocated to TOs in proportion to the value of all outstanding transmission rights

ERCOT, MISO, PJM, and SPP congestion markets are not fully funded and instead shortfall is allocated to holders of the congestion right

Review of Various Congestion Market Funding Designs

- **PJM, MISO, and SPP do not fully fund their congestion market products**
  - Revenue inadequacy costs are allocated to congestion right holders at an aggregated level through various allocation strategies based on a pro-rata share of CRR settlement
  - Balancing accounts are used to 'balance' day-ahead congestion rent shortfall and surplus
    - MISO and PJM utilize a 'rolling' balancing account where previous month congestion rent surplus is used to fund any future month shortfall. Any remaining surplus is closed-out annually and assigned to FTR holders since they bore the risk of underfunding
    - SPP utilizes a 'rolling' balancing accounts with an annual close-out as well, but any surplus is assigned to LSEs

- **ERCOT utilizes a two-pass system to allocate CRR shortfall**
  - Pass 1: owners of certain CRRs that contribute to an oversold constraint can have their payment derated
  - Pass 2: the rolling balancing account funds are applied to fund any shortfall remaining after CRR deration and hedge value true-up processes are applied. If the balancing account is exhausted, then any residual shortfall is assigned to pro-rata shares of positive value CRR settlement.
  - The market is designed such that pass 2 shortfall is rarely assigned to CRR holders

DC Energy’s recommendation for CRR funding preserves the full value of the hedge and promotes CRR market efficiency

DC Energy’s Recommendation

- **Continue to fully fund all CRRs**
  - Partial funding designs can ‘haircut’ CRR payments, which leads to ‘dirty’ hedges
    - The CRR hedge is broken during the very event that it was acquired to protect against
  - Facilitates efficient trading and forward contracting
  - Full CRR payment helps promote CRR net payment parity: The risk premiums associated with the uncertain haircut would lead to less CRR auction revenue
  - Recognizes that today transmission customers ultimately pay for CRR underfunding through lower CRR revenues (CRR prices fall due to underfunding expectations)
  - Would likely reduce transmission customers’ costs by removing the effects of CRR funding uncertainty from CRR prices

- **Adopt the NYISO policy of allocating CRR shortfall and surplus due to transmission outages to responsible transmission owners and any residual amounts to transmission owners on a pro-rata share basis**
  - Consistent with cost-causation and incentivizes practices that minimize shortfall and cost-shifting
  - Recognizes that FTR holders do not cause under-funding
  - More advanced scheduling of planned outages improves CAISO’s ability to coordinate outages