



# Briefing on bid cost recovery enhancements initiative

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# Background

- FERC 2006 order on the nodal market design directed the CAISO to implement specific enhancements related to bid cost recovery within three years of implementation.
  - Two-tiered real-time BCR uplift cost allocation
  - Accounting of start-up costs in BCR calculation for resources operating across trade dates
- FERC granted the ISO extension of time in 2012 and 2014.
- This initiative explores the two FERC directives and one additional modification to IFM BCR allocation methodology.

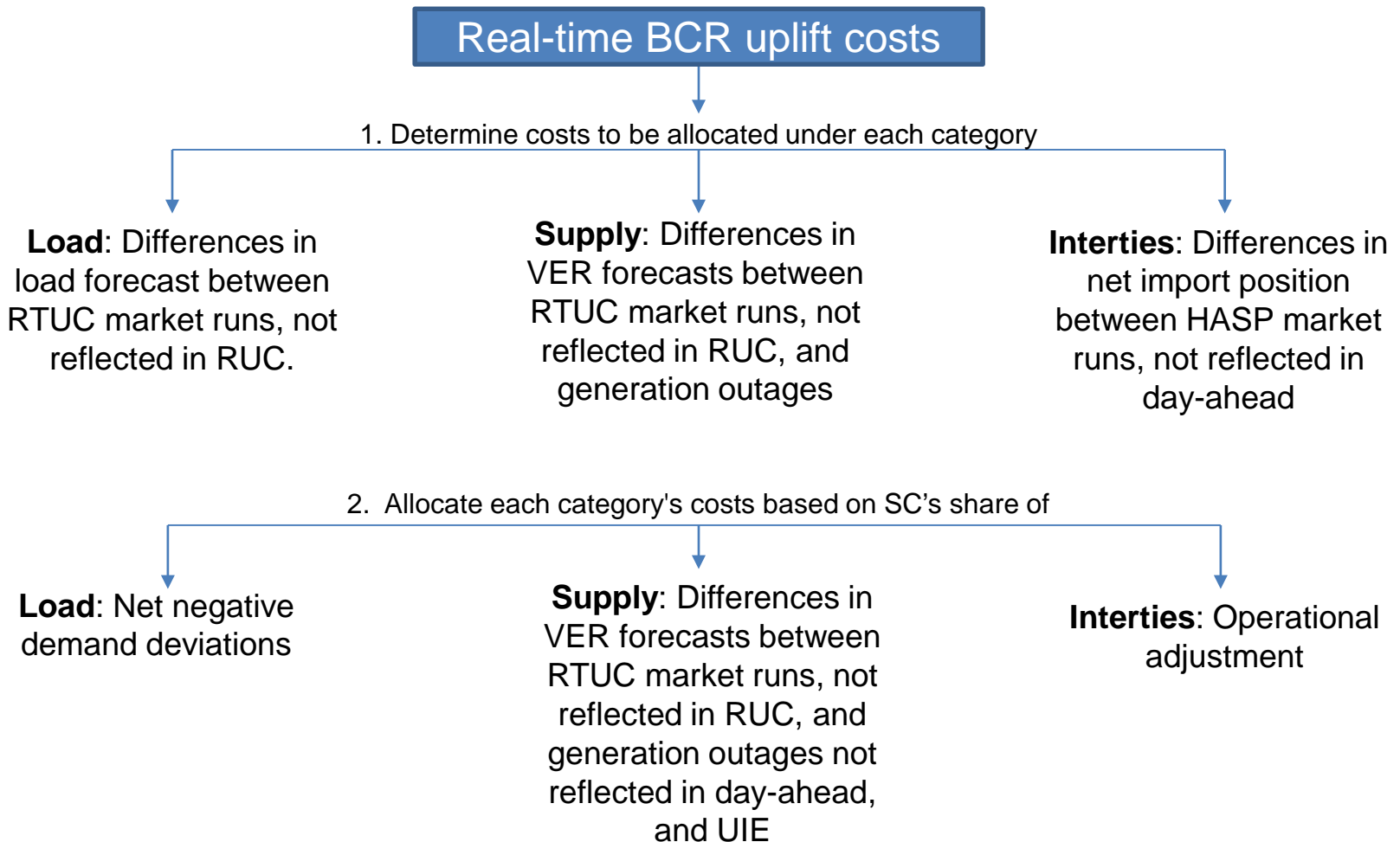
# Real-time BCR uplift cost allocation

- Currently the ISO allocates real-time uplift costs in one tier to measured demand.
  - IFM and RUC both have a two-tiered approach where the first tier allocates to those entities driving BCR costs.
  - Challenging to accurately identify the cause of real-time BCR uplift costs.
- An appropriate allocation method should:
  - Allocate based on cost causation, which would require the ability to identify cost causers.
  - Be rational - benefits should outweigh implementation costs
- Approximately \$50 million per year in real-time BCR uplift costs
  - May be reduced post FRP implementation

## Real-time BCR uplift cost allocation – two tiered

- Commitment costs comprise majority of real-time BCR
  - Identify reasons for unit commitment and allocate accordingly
- Real-time unit commitments occur due to differences between two consecutive RT unit commitment runs (RTUC) that was not reflected in the day-ahead markets.
  - Load forecasts
  - Outages
  - VER forecasts
  - Changes in net import position
- Categorize costs into load, supply, and interties and allocate each category costs to SCs
  - Daily allocation
  - Similar to uncertainty movement cost allocation under FRP

# Real-time BCR uplift cost allocation – two tiered



\*Any remaining BCR costs will be allocated under tier 2, using current RT allocation methodology

## Real-time BCR uplift costs allocation – status quo

- Implementation costs may exceed potential benefits, but difficult to assess as benefits, in part, will depend on changed behavior.
- FRP could be considered a “pseudo” tier 1 allocation for RT BCR uplift costs for resources held out of merit for ramping.
- FRP could reduce costs allocated through real-time BCR.
- Load may continue to pay costs under two-tiered approach
  - Allocated majority of BCR uplift costs under two-tiered approach.
  - Supply bids may increase to reflect risk of uplift cost, increasing cost to load.
- ISO also considering maintaining status quo.

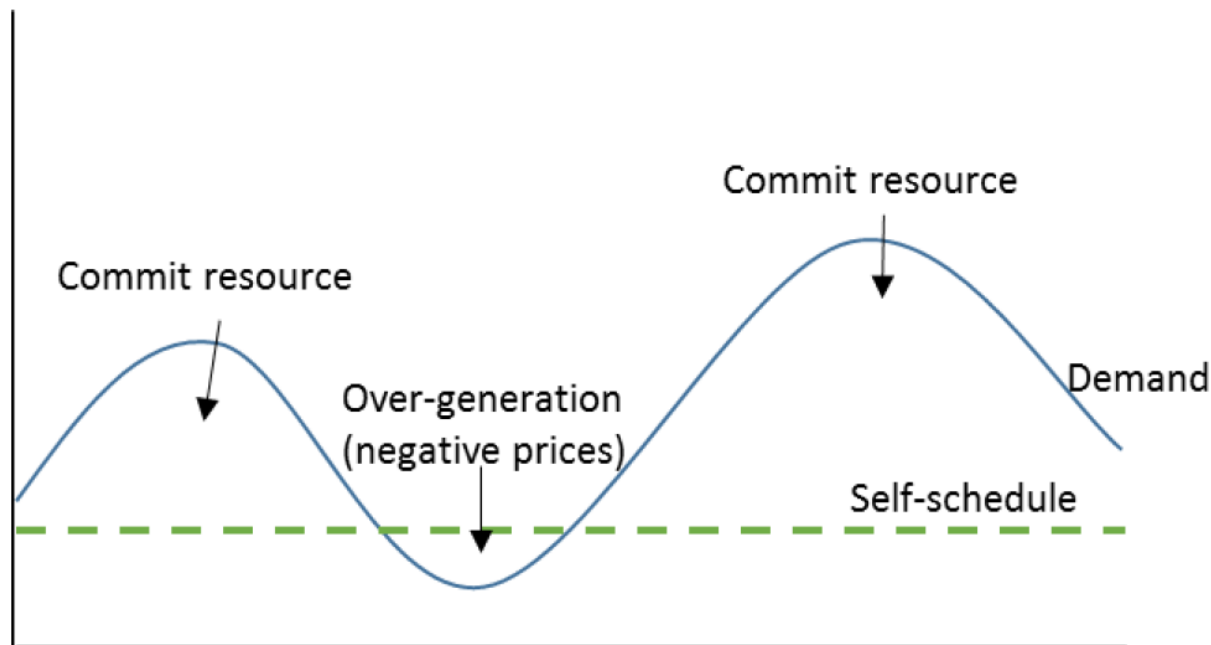
# Accounting of start-up costs in BCR calculation

- BCR payments for resources accounts for costs and revenues incurred on a given trade date by market.
- Start-up costs are included in BCR calculation on the trade date for which the resource started.
  - Surplus revenues on the second day not used to offset start-up costs incurred on the first trade day when resource operates across trade days.
- ISO proposal is to ration the start-up costs to each hour of a commitment period, such that a portion of start-up costs will be included in the second day's BCR calculation.
- Given minimal potential benefit, maintain status quo.
  - Only 4% of total IFM and RT BCR payments between May 2014 and April 2016



# IFM BCR uplift allocation modification

- ISO proposing to modify tier 1 allocation for IFM BCR uplift costs by removing the adjustment for self scheduled generation and imports.
- Self schedules may actually contribute to BCR costs.



- Current adjustment for self schedules provides a disincentive for economic bidding.