# Briefing on Convergence Bidding



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### What is convergence or "virtual" bidding?

- Financial bids (not backed by physical energy) to buy or sell in the Day Ahead market.
- If cleared in the Day Ahead market, these "virtual" bids are automatically liquidated at Real Time prices.
  - Bidder receives or pays the difference between the Day Ahead and Real Time prices.
- No impact on reliability or Real Time operations.
- This market enhancement is mandated to be implemented within a year after MRTU startup.



### Why should the CAISO implement virtual bidding?

- Robust virtual bidding:
  - pushes Day Ahead and Real Time prices closer together,
  - which provides strong incentives for accurate scheduling in the Day Ahead market.
- The additional liquidity from virtual bidding can help mitigate the market power of physical suppliers.
- Some market participants can use virtual bidding as a risk management tool to hedge the possibility of generator outage.



#### How should virtual bidding be implemented?

- Stakeholders are divided over the granularity issue:
  - Most Load-serving market participants generally favor virtual bidding only at the zonal level (Load aggregation points), similar to the way that load will schedule and pay under MRTU.
  - Suppliers and marketers generally favor virtual bids at the nodal level, similar to the way that generators will schedule and be paid under MRTU.
- Significant pros and cons under both methods:
  - Dependent on underlying assumptions of MRTU market performance.



## How will the CAISO proceed to resolve outstanding issues?

- CAISO will build scalable software features:
  - Allows nodal and/or zonal-level virtual bidding.
- Policy decision can be deferred until after MRTU starts to allow time to:
  - Gain confidence in the operations of the LMP markets.
  - Assess market outcomes and the stability of the markets.
- CAISO will present final policy proposal in 3<sup>rd</sup> quarter 2008.
- Implementation will comply with FERC's timeline.

