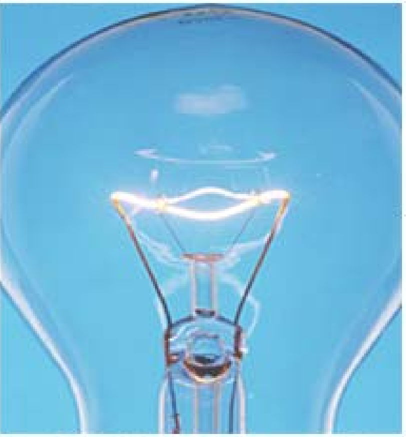
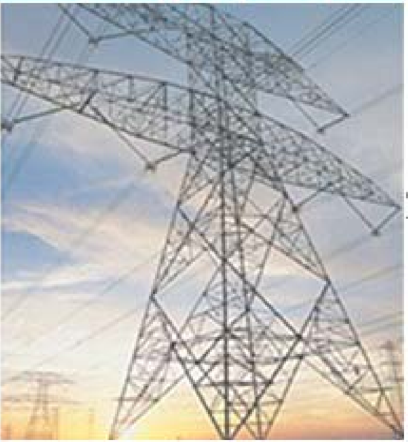




Convergence Bidding Credit Policy

California ISO Straw Proposal
Stakeholder Presentation

September 12, 2007

Overview of Convergence Bidding

- A virtual trading mechanism where financial sales (or purchases) for energy in the Day-Ahead Market are offset by the explicit requirement to buy back (or sell) that energy in the Real-Time Market
- Effective tool for arbitraging the expected differences between Day-Ahead and Real-Time prices
- The balance of this presentation presents a straw proposal for CAISO's credit policy
  - CAISO may refine this proposal based on on-going discussions with the other ISOs
  - Design constraints resulting from the impending rollout of MRTU and the new Settlements and Market Clearing system as well as a planned credit policy cleanup FERC filing may also result in improvements and additional clarity in regards to this proposal

ISO Credit Policy

- A Market Participant, including virtual traders, must maintain an Aggregate Credit Limit (ACL; i.e.; unsecured credit plus posted collateral) that meets or exceeds their Estimated Aggregate Liability (EAL) to the ISO
- The difference between ACL and EAL is considered excess collateral and is the maximum amount available for the Virtual Trade Reservation
- The ISO Tariff permits 100% of ACL to be used; as a practical matter, Finance requests additional collateral when the 90% threshold is reached
- Both the Virtual Trade Reservation and the actual difference between Day-Ahead and Real-Time prices are obligations to the ISO and are included in the EAL calculation

Virtual Bid Reservation

- The Virtual Bid Reservation is a “fixed” component of the EAL and is calculated as follows:

  Daily Virtual Trading MWh Limit

  times

  Reference Price

  times

  Exposure Period

- Changes to the Market Participant-proposed Daily Virtual Trading MWh Limit and/or the Reference Price would result in a new Virtual Bid Reservation amount
- ISO-NE uses an approach that eliminates the need for the Daily Virtual Trading MWh Limit and the Exposure Period which CAISO is currently reviewing

Daily Virtual Trading MWh Limit

- This approach is consistent with NYISO and MISO
  - Market Participant submits proposed Daily Virtual Trading MWh Limit to CAISO
  - CAISO Finance will determine if sufficient credit capacity exists to support the proposed limit
  - If accepted, the proposed limit will be entered into the CAISO systems and the dollar value will be entered into the Virtual Bid Reservation component of the Market Participant's EAL
  - The Virtual Bid Reservation is a "fixed" obligation until
    - A new Daily Virtual Trading MWh Limit is proposed by the MP
    - The Reference Price changes
  - MPs exceeding 100% of their available credit will not be eligible to submit virtual bids

Reference Price

- Reference prices will be set for the weekday and weekend periods at the LAP-level (i.e., six reference prices)
- CAISO proposes using the 95th percentile value (consistent with CRRs) of the price difference between Day-Ahead and Real-Time prices for groups of three month periods in order to reflect price seasonality
- Other ISOs using 50th to 97th percentiles; CAISO considering percentiles in the 75 – 95 percentile range
- The Reference Price will be calculated and updated every three months each year using the energy prices for the same three months of the preceding year
- The Reference Price will not be reset during the three-month period (other ISOs reset in 1, 2 or 12 months)

Exposure Period

- Maximum number of days between the time of a virtual transaction in the Day-Ahead Market and the time the CAISO calculates the exact credit exposure
- Other ISOs use 1-3 days; FERC rejected earlier proposals by two other ISOs of four and six days
- CAISO is proposing three (3) days but this is currently under review
- If a MP submits both a Virtual Demand Bid and Virtual Supply Bid at a specific LAP for the same settlement interval, the absolute value of the greater of the two bids will be used in determining if the trading limit has been exceeded

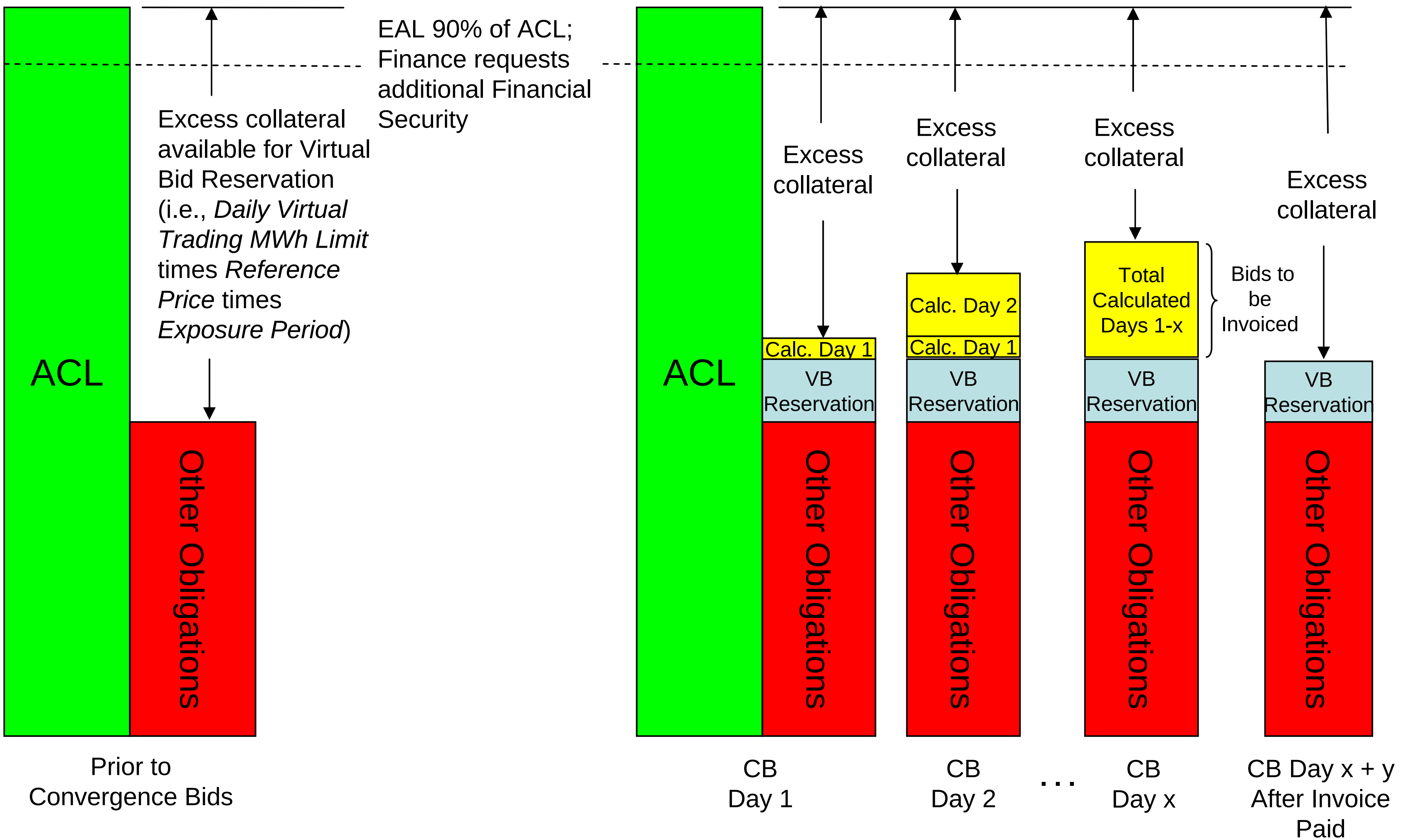
California ISO
Your Link to Power

Convergence Bidding Impact on EAL

- CB EAL Components
  - Virtual Bid Reservation
  - Estimated
  - Invoiced

- Value/How Set
  - The value of Virtual Demand Bids or Virtual Supply Bids in an Exposure Period of a limited number of days
  - Calculated differences between Day-Ahead and Real-Time prices
    - value known after Real-Time
    - subject to true-up if prices corrected as part of price validation/correction processes
  - Currently anticipated to be the same as other market charges
    - Note: Because price is known after Real-Time, settling and invoicing could be handled on an accelerated basis

Convergence Bidding Impact on EAL



Compliance Measures

- All Market Participants, including MPs submitting virtual bids, must comply with the CAISO credit requirements set forth in Section 12 of the CAISO Tariff
- Nonpayment of virtual transactions, like any other market obligation, by a CAISO debtor will result in a corresponding reduction in payments to CAISO creditors
- The full range of enforcement mechanisms identified in the CAISO Tariff, including rejection of virtual trades and/or limiting other CAISO market activity, could result from a payment default

Next Steps

- Continue assessing the key learnings from our visits with the other ISOs
- Factor in stakeholder feedback from this presentation
- Continue to assess viability of alternative designs and schedules with the MRTU and SaMC teams
- Publish a whitepaper for stakeholder review and comment