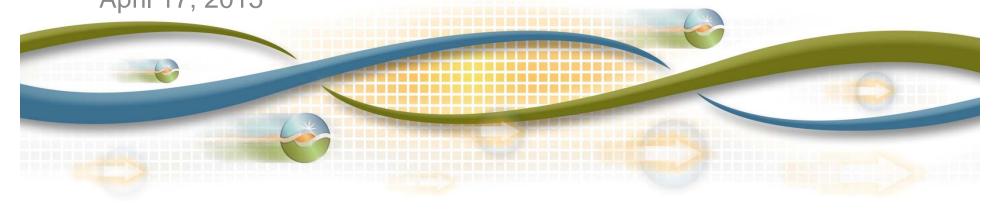


# Discussion on bid cost recovery and variable energy resource settlements

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## Existing ISO policy for default energy bids (DEB) for variable energy resources

- Review of the DEB arose while considering the persistent deviation metric, which is settled on DEB, bid, or LMP.
- DEB is also used in local market power mitigation and potentially in future when considering opportunity costs for provision of reactive power.
- Clarify existing policy:
  - All resources should provide information to calculate DEB
  - Default is variable cost option (if resource selected LMP-based option, variable cost will be used until the LMPs are established)

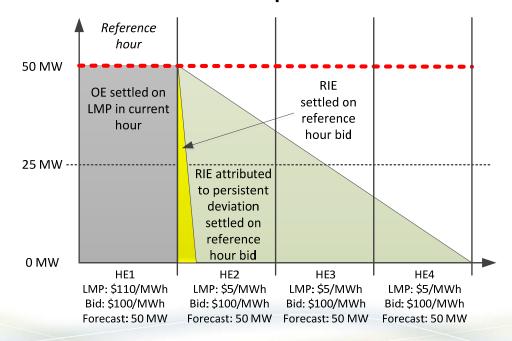


### Questions for MSC consideration

- Should the DEB for resources receiving energy compensation outside of the ISO market (e.g., production tax credits, renewable energy credits) be negative?
- If so, how should the ISO calculate such costs?
- What are the best practices in the other ISOs?
- Would this approach conflict with the LMP-based cost option?

### Existing ISO policy for applying the persistent deviation metric

- Clarify existing policy:
  - Metric should continue to be applied to all resources, including variable energy resources
  - Persistent deviation example:





#### Questions for MSC consideration

- Should the persistent deviation metric apply to VERs, even if they self-schedule?
- Are there more effective alternatives to the persistent deviation metric that the ISO should explore, especially with regard to VERs?
- What are the best practices in the other ISOs?

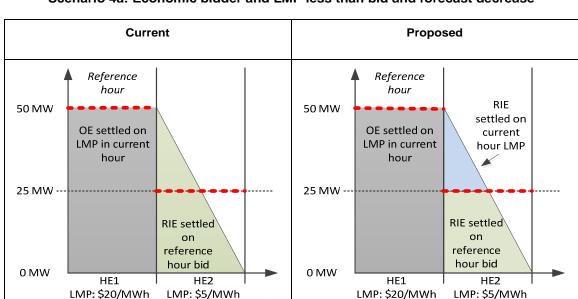
# Proposed ISO policy for settlement of residual imbalance energy for economically bidding VERs

- Economically bidding VERs may be ramping due to a forecast change, not a change in LMP. Settlement will be on the reference hour bid, which is often negative.
- Instead, settle ramping due to a forecast on the LMP.

Bid: \$10/MWh

Forecast: 50 MW Forecast: 25 MW

Bid: \$10/MWh



Bid: \$10/MWh

Forecast: 50 MW Forecast: 25 MW

Bid: \$10/MWh

Scenario 4a: Economic bidder and LMP less than bid and forecast decrease

### Questions for MSC consideration

- Are there any issues the MSC can identify with the proposed approach?
- Are there alternatives the ISO should consider?