

System Market Power discussion

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Market Surveillance Committee Meeting General Session October 11, 2019

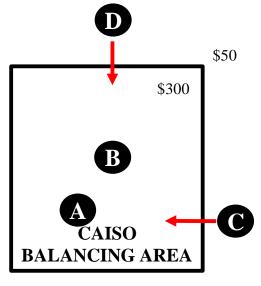
Overview of conceptual design proposal

- Extends general market power mitigation design principles to the CAISO balancing area system level
- Only mitigates bids for resources in constrained and potentially uncompetitive areas
- CAISO is considering phased approach to address implementation timing constraints
 - Phase 1: real-time market CAISO BAA only
 - Phase 2: EIM, commitment cost, day-ahead market
- CAISO also developing intertie bid cost verification for offers above \$1,000



Conceptual design extends general market power mitigation design principles to the CAISO balancing

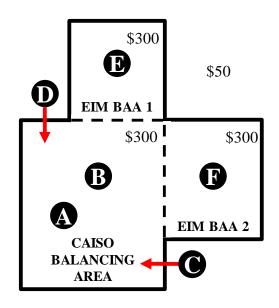
area system level



- Suppliers in constrained areas could exercise market power on demand in the constrained area.
 - Resource A or B could provide relief on intertie scheduling limits
 - Resource C and D cannot provide relief on the constrained intertie scheduling limits
- If an area is constrained and pivotal supplier test in that area fails, mitigate resources in that area
 - If uncompetitive, mitigate supplier A and supplier B



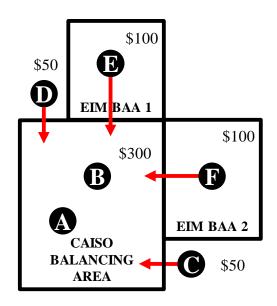
CAISO considers itself import constrained, but energy imbalance market transfer constraints are **not binding**



- The competitiveness test evaluates the aggregate supply and demand in the CAISO balancing area and the converged energy imbalance market balancing areas
- Mitigate the supply offers in the entire constrained footprint (A, B, E, and F)



CAISO considers itself import constrained, but energy imbalance market transfer constraints **are binding**



 Evaluate and potentially mitigate only the resources in the CAISO footprint (A and B) as a constrained area.

Can the CAISO be uncompetitive when import constraints are not binding?

- Could the CAISO simply evaluate offers into its market to determine whether it should mitigate, rather than consider whether the balancing area is import constrained?
- Should the CAISO consider itself import constrained when there is a lack of import bids?

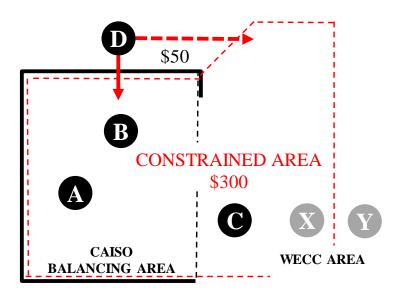


Can the CAISO achieve positive market outcomes by mitigating bids for resources participating in its market?

- The necessary first question is whether we assume the CAISO balancing area is converged with an uncompetitive portion of the western interconnection?
- If we assume it is competitive, the CAISO's conceptual proposal stands, and it would not make sense to mitigate import offers
 - Design does not mitigate supply offers in competitive areas because those suppliers cannot exercise market power
- If we assume it is uncompetitive, any measures the CAISO alone could take are not likely to have positive market outcomes



Potential measures the CAISO could take and likely market outcomes



- Assume the CAISO balancing area is converged with an uncompetitive portion of the western interconnection
- Potential mitigation measures
 - Mitigate internal supply offers
 - 2. Mitigate internal and import supply offers
 - 3. Mitigate internal and import resource adequacy supply offers



Is the western interconnection competitive?

- If the western interconnection is competitive, it is not appropriate for the CAISO to mitigate unless import constrained and the constrained area is found uncompetitive
 - Design does not mitigate import supply offers because those suppliers cannot exercise market power
- If the western interconnection is not competitive, any measures the CAISO alone could apply are not likely to have positive market outcomes
 - Under these circumstances, it would be the purview of the Federal Energy Regulatory Commission to address the uncompetitive west-wide conditions



Only apply system-level market power mitigation to the real-time market

- Avoid instances of unnecessary or inappropriate mitigation which may discourage supply and demand participation in the day-ahead market
- Structural limitations make the real-time market susceptible to suppliers exercising market power at a system-level
 - Consumers pay for an amount of power determined by the CAISO's forecast, rather than by bidding for it
 - There is no mechanism for a non-physical entity to apply competitive pricing pressure on physical suppliers
- These same structural limitations do not exist in the dayahead market

