

Who is EDF Energy Services, LLC?

Broad North American Market Participation

- Natural Gas/LNG
- Electricity/Physical/Financial/FTR/Convergence Bids/Demand
- Emissions/Weather
- EMA Customers ~ 35,000MWs Nationally
 - Technology Agnostic ~ natural gas/wind/storage/hydro
- California Load Serving Entity
- EIM Scheduling Coordinator
- Proxy Demand Response



CAISO Bid Mitigation

Currently Very Blunt

- Only 10% "headroom" in Default Energy Bid
- Regardless of Must Offer Obligation
- No test for scarcity/marginal unit
- Risk of non-day-ahead index gas purchases
- Value is arbitrary, not market driven, and not indicative of bad behavior
- Duty of buyers to hedge
- No monopoly payments to suppliers
- http://www.caiso.com/Documents/September21_2006OrderConditionallyAccepting2_9_06MRTUfilinginDocketNos_ER06-615-000andER02-1656-027_etal_.pdf

Docket No. ER06-615-000, et al.

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Improves local market power mitigation: Currently the CAISO's market power mitigation lacks adequate measures to address the potential for generators located in load pockets (areas surrounded by transmission bottlenecks) to exercise market power. MRTU adopts local market power mitigation techniques that identify generators with the potential to exercise local market power, and limits those generators' bids to pre-established default levels. These default energy bids are tailored to contribute to the recovery of the generator's fixed costs, so the generator can afford to continue producing energy. These local market power mitigation rules will help prevent market manipulation and price volatility, while maintaining adequate generation supply and reliability.



CAISO Bid Mitigation

Does it provide desired "market" results?

- Unit's dispatched at Pmin don't reveal locational market price
 - Whether market marginal
 - Reliability function
- Market does not have opportunity to evaluate need
 - Should existing resource remain?
 - Transmission?
 - Demand response?

Resources without any must offer obligation or market power

- No "capacity" compensation
- No guaranteed future award or return
- Elimination of free "at the money heat rate call"



CAISO Bid Flexibility

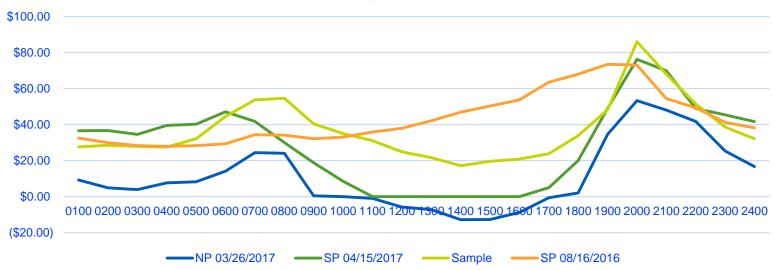
Does it provide desired "market" results?

- CAISO IFM produces hourly LMP
 - Very Short Start Resources
 - Demand Response
 - Storage
 - Interties
- ALL supply resources should have ability to bid to clear forecast dayahead IFM
 - Maintain <u>reasonable</u> market power mitigation
 - Introduce more effective bidding tools
 - Reduce forced self-scheduling
 - External hedges and 3rd party commercial arrangements



CAISO Bid Flexibility





Regardless of season, fuel cost, or absolute/relative price bidding rules should allow for shaping to forecast LMP

- Allow for but not require ~ hourly Start Cost / hourly MLC
 - Still risk in forecast error
 - Economic bid "better" than self-schedule
 - Resource physical GRDT parameters still apply
 - LMPM still in effect

