

Decision on Treatment of Proxy Demand in Local Market Power Mitigation Procedures

Eric Hildebrandt, Ph.D. Director, Department of Market Monitoring

Board of Governors Meeting General Session February 10-11, 2010

Proxy demand resource bids may undermine current local market power mitigation process.

- Mitigating proxy demand resource bids would be problematic.
 - Market bids should reflect cost of curtailing load to end use customers.
 - There is no objective basis for setting an appropriate default energy bid for these resources.
 - Mitigating bids based on default energy bid is likely to be economically inefficient and deter participation.
- Including proxy demand resource bids in mitigation runs can also displace generation units in this process.
 - Problem can be efficiently solved by excluding proxy demand resource bids from pre-market bid mitigation process.



Proxy demand resource bids may displace bids from lower cost generation in current process.

Resource	Bid Quantity (MW)	Initial Bid Price (\$/MW)	Default Energy Bid (Cost + 10%)	Final Market Bid
Generation Unit 1	100	\$ 100	\$ 50	\$ 50
Proxy Demand Resource	10	\$ 900		\$ 900
Generation Unit 2	10	\$ 950	\$100	\$ 950
Generation Unit 3	50	\$1,000	\$200	\$1,000

- If 110 MW from these resources are projected to be needed for relief of an uncompetitive constraint, only 100 MW bid from Unit 1 would be mitigated.
- In the actual market run, the proxy demand resource would be dispatched (10 MW) and set LMP at \$900.
- Generation Unit 2 would not be mitigated or dispatched, despite having 10 MW with default energy bid of only \$100.



Excluding proxy demand resource bids from pre-market mitigation process avoids this scenario.

Resource	Bid Quantity (MW)	Initial Bid Price (\$/MW)	Default Energy Bid (Cost + 10%)	Final Market Bid
Generation Unit1	100	\$ 100	\$ 50	\$ 50
Generation Unit 2	10	\$ 950	\$100	\$ 100
Proxy Demand Resource	10	\$ 900		\$ 900
Generation Unit 3	50	\$1,000	\$200	\$1,000

- 110 MW from Unit 1 and Unit 2 is mitigated to provide 110 MW required under projected demand/supply conditions.
- Proxy demand resource bids are still used in final market run.
- If actual market demand or system conditions require additional capacity, proxy demand resource bids still compete with unmitigated bids from unit 3 and would be dispatched.



Stakeholders generally supportive of proposed modification.

- PG&E and SCE strongly support proposal as best short term option.
- Support alternative bid mitigation approach suggested by DMM in convergence bidding process as better longer term option.
 - ISO determined this approach could not be implemented in conjunction with convergence bidding in 2011.
 - ISO committed to consider this option for implementation in 2012.



Only one participant opposes the proposed modification.

- Energy Connect opposes proposal on grounds it will:
 - Reduce revenues earned by proxy demand resources in constrained areas.
 - Deter development of needed demand response.
- DMM response in stakeholder process:
 - Proposal maintains proper marginal price signals, while mitigating local market power.
 - High priced proxy demand resources may also rely on other revenue sources (resource adequacy and ancillary services).
 - Any special incentives to promote demand response should be targeted at proxy demand resources and not distort overall market dispatch and prices.



Management requests approval of the proposal.

- Implementation achievable by May 2010.
- Eliminates problem effectively and efficiently.
- Allows lower priced proxy demand response to compete in non-competitive areas based on marginal cost of available generation.
- Higher priced proxy demand response can still compete directly against unmitigated bid prices of generation that may be dispatched under extraordinary conditions.

