

Virtual Bidding Market Test

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VB Test Cases

- Cases 1 to 9 were designed by IT.
- Case 10 designed by MMU
- Approach:
 1. Select two market days as base cases (07/31/2001 and 08/17/2001). There was no VB into these cases.
 2. Run a series of hand-chosen scenarios with VB changes to the bases cases.
 3. Evaluate software functionality and overall performance.
 4. Get insight into potential for gaming on the market.

Summary

- No surprises, no anomolous market resposes were found.
- The NY market is more robust and harder to manipulate with virtual bidding than feared.
- MMU examined the tests in detail, including GT commitments. Results are unremarkable.

VB Market Test Summary

Case	LBMP phys+virtual	Ancillary Services	Uplift*	Total	Virtual bidder profit
2.Verification of test environment	\$18,865,306	\$127,147	\$132,756	\$19,125,209	\$ 99,616
3.Load much higher than forecast	\$20,604,885	\$123,145	\$129,251	\$20,857,281	\$ (267,300)
4.Load much lower than forecast	\$16,930,306	\$141,105	\$154,526	\$17,225,937	\$ -
5.High fraction of generation is virtual	\$13,876,563	\$138,690	\$300,798	\$14,316,051	\$ (935,000)

1.Base Case	\$23,199,040 100%	\$130,756 100%	\$265,885 100%	\$23,595,681 100%	
6.Increase West-East congestion	\$26,698,957 115%	\$143,320 110%	\$310,475 117%	\$27,152,752 115%	\$ (1,463,000)
7.Decrease West-East congestion	\$21,648,817 93%	\$129,696 99%	\$287,567 108%	\$22,066,080 94%	\$ (1,320,000)
8.Pulse VS for two hours	\$22,868,421 99%	\$132,055 101%	\$166,336 63%	\$23,166,812 98%	\$ (408,000)
9.Pulse VL for two hours	\$23,321,140 101%	\$128,809 99%	\$207,955 78%	\$23,657,904 100%	\$ (46,000)
10.Congestion more sensitive than 6	\$24,572,112 106%	\$131,211 100%	\$259,074 97%	\$24,962,397 106%	

*DA uplift is allocated to loads and to virtual supply bidders. When virtual supply causes higher uplift, virtual supply is allocated almost all the extra cost.