



DA Simulations

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- Desire for PJM to perform some type of analysis
- Stakeholder discussion on MISO analysis as part of their filing
- PJM agreed to perform a similar analysis
 - PJM did this to some extent in a report filed with FERC in February 2014
 - er13-1654

- Looked at profitability and how each virtual transaction type could potentially impact the market
- PJM stated all transaction types can impact the dispatch and commitment of resources on the system and therefore impact uplift
 - No attempt to determine how much

	UTC Gross	UTC Net	INC/DEC Gross	INC/DEC Net
Cleared MWh	452,001,946	452,001,946	108,039,474	108,039,474
Average Daily Profit	\$394,397	\$389,828	\$131,612	-\$63,499
St Dev of Daily Profit	\$1,266,783	\$1,267,456	\$783,490	\$697,462
Average Profit/Cleared MWh	\$0.32	\$0.31	\$0.44	-\$0.21
% of Loss Days	39%	40%	53%	68%

*January 2013 through December 2013

- INCs and DECes

	12/10/13	12/14/13	12/18/13	12/23/13
Base Case Units Committed	634	565	596	532
Units De-committed Without INCs and DECes	39	10	13	9
Units Committed Without INCs and DECes	0	0	0	0
Total Commitment Difference	39	10	13	9

- UTCs

	12/10/13	12/14/13	12/18/13	12/23/13
Base Case Units Committed	634	565	596	532
Units De-committed Without UTCs	10	7	1	1
Units Committed Without UTCs	10	13	10	2
Total Commitment Difference	20	20	11	3

- PJM reran January 20, 2015 as another test case and achieved similar results with regard to unit commitment changes

	w/o INCs/DECs	w/o UTCs
Decommitted Units	10	5
Committed Units	15	5
Committed Hour Change	11	15

- What are we trying to show with this analysis?
 - We know all transactions types can impact commitment, dispatch, production cost and therefore uplift.
 - The order of magnitude will depend on the day.
- What are the key indicators that we think are good quantities to measure?
 - Uplift may increase when we remove INCs but system production cost will likely increase by more.
 - Is this good? Does it mean INCs should be allocated an uplift payment?