

Unconstrained Schedule Simulator

The Market Assessment and Compliance Division (MACD) have programmed a simulator that models the unconstrained sequence of the DSO to estimate market results of various scenarios. By using the actual algorithm used in the real time market this simulator is able to simulate results that are very close to the actual market results.

The unconstrained schedule simulator was used to estimate the market results for the month of October, 2005 using various ramp rates in the current myopic algorithm. (MIO prices cannot be simulated with this tool.) These results are shown in Table 4.

Table 4: Results of Unconstrained Schedule Simulations for October, 2005

Ramp Rate	All Hours (\$/MWh)	% Difference from simulated 12X RR results	On peak Hours (\$/MWh)	% Difference from simulated 12X RR results	Off Peak Hours (\$/MWh)	% Difference from simulated 12X RR results
1	86.00	14.53	110.03	9.35	67.86	21.57
3	78.12	4.04	103.54	2.90	58.94	5.59
6	75.97	1.18	101.53	0.90	56.69	1.56
9	75.37	0.37	100.89	0.27	56.10	0.50
12	75.09	-	100.62	-	55.82	-

More recently, prices for the period from November 1, 2005 through April 30, 2006 were also simulated using many different ramp rate multipliers and the results are shown in Table 5.

Table 5: Results of Unconstrained Schedule Simulations for Nov 2005 – Apr 2006

Ramp Rate	All Hours (\$/MWh)	% Difference from simulated 12X RR results	On peak Hours (\$/MWh)	% Difference from simulated 12X RR results	Off Peak Hours (\$/MWh)	% Difference from simulated 12X RR results
1	62.15	11.7	74.17	11.3	52.02	12.3
2	58.30	4.8	69.63	4.4	48.78	5.3
3	57.09	2.6	68.28	2.4	47.66	2.9
4	56.49	1.6	67.64	1.5	47.10	1.7
6	56.01	0.7	67.10	0.6	46.66	0.8
9	55.72	0.2	66.78	0.2	46.40	0.2
12	55.62	-	66.67	-	46.31	-