

# WEEKLY MARKET ANALYSIS



AUSTRALIAN ENERGY  
REGULATOR

23 March – 29 March 2008

## Summary

Weekly average prices reduced compared to the previous week and ranged from \$23/MWh in Queensland to \$42/MWh in Tasmania. These lower prices were consistent with a reduction in demand, primarily in South Australia and Victoria.

In the financial markets, prices were slightly lower in all regions compared to the previous week.

## Spot market prices

Figure 1 sets out the volume weighted average price for this week and this financial year to date across the NEM regions and compares them with price outcomes from the previous week and year to date respectively.

**Figure 1: Volume weighted average spot price by region (\$/MWh)**

	Qld	NSW	Vic	SA	Tas
Ave price for 23 March - 29 March	23	25	28	29	42
Financial year to 29 March	65	45	52	120	55
% change from previous week*	-39%	-50%	-80%	-82%	-28%
% change from year to date**	76%	11%	8%	135%	29%

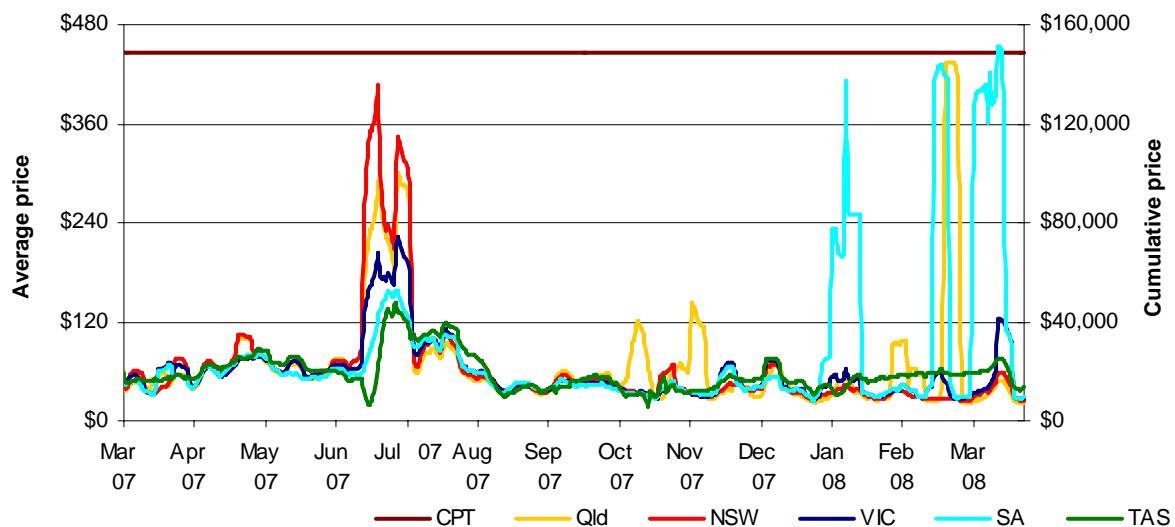
\*The percentage change between last week's average spot price and the average price for the previous week.

\*\*The percentage change between the average spot price for the current financial year to date and the average spot price over the similar period for the previous financial year

The AER provides further information if the spot price exceeds three times the weekly average. There were four spot prices greater than three times the weekly average in Queensland and one in Tasmania. Details of these events are attached in Appendix A. Longer term market trends are attached in Appendix B.

Figure 2 shows the seven day rolling cumulative price for each region together with the CPT (and the equivalent seven day time-weighted average price).

**Figure 2: Seven day rolling cumulative price and CPT**



## Financial market

Figures 3 to 10 show futures contract<sup>1</sup> prices traded on the Sydney Futures Exchange as at close of trade on Monday 31 March. Figure 3 shows the calendar base futures contract prices for this year and the next two years, and the three year average. Also shown are percentage changes compared to a week earlier.

**Figure 3: Base calendar futures contract prices (\$/MWh)**

	QLD		NSW		VIC		SA	
Calendar 2008	49	-2%	41	-4%	45	-1%	79	0%
Calendar 2009	43	-3%	45	-3%	46	-2%	63	-1%
Calendar 2010	48	0%	53	0%	53	0%	50	0%
Three year average	47	-1%	46	-2%	48	-1%	64	0%

Source: d-cyphaTrade www.d-cyphatrade.com.au

Figure 4 shows the \$300 cap contract price for the current quarter and calendar year and the change from the previous week.

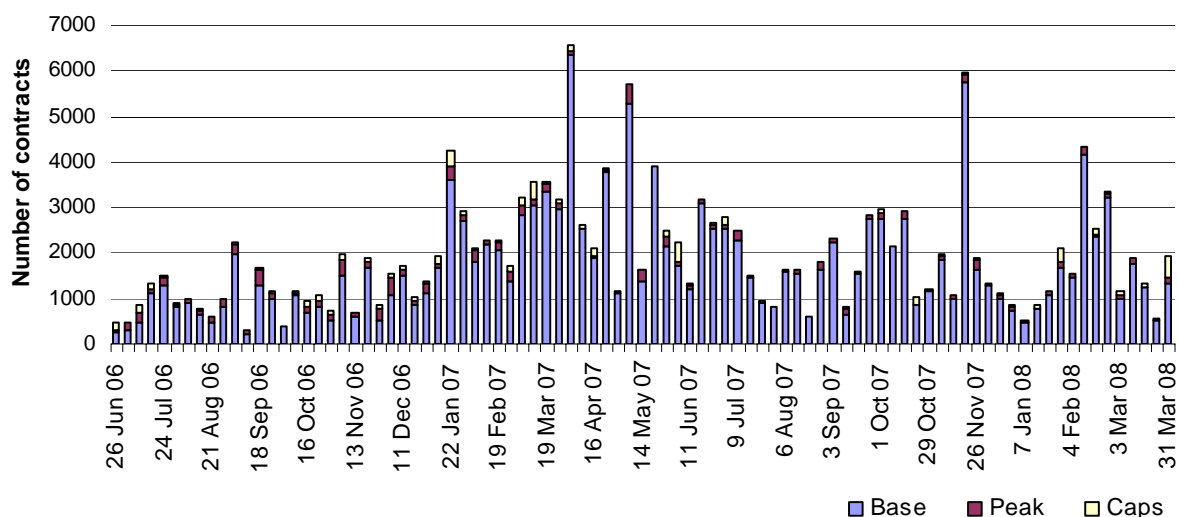
**Figure 4: \$300 cap contract prices (\$/MWh)**

	QLD		NSW		VIC		SA	
Q1 2008 price	38	0%	0	-78%	6	-3%	87	0%
Calendar 2008	16	2%	5	-7%	7	2%	31	0%

Source: d-cyphaTrade www.d-cyphatrade.com.au

Figure 5 shows the weekly trading volumes for base, peak and cap contracts, the date is the end of that week.

**Figure 5: Number of exchange traded contracts per week**

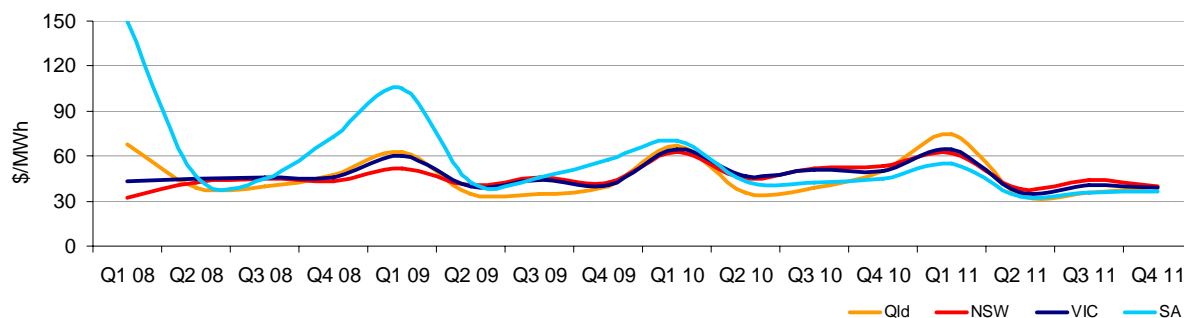


Source: d-cyphaTrade www.d-cyphatrade.com.au

<sup>1</sup> Futures contracts on the SFE are listed by d-cyphaTrade (www.d-cyphatrade.com.au). A futures contract is typically for one MW of electrical energy per hour based on a fixed load profile. A base load profile is defined as the base load period from midnight to midnight Monday to Sunday over the duration of the contract quarter. A peak load profile is defined as the peak-period from 7 am to 10 pm Monday to Friday (excluding Public holidays) over the duration of the contract quarter.

Figure 6 shows the prices for base contracts for each quarter for the next three years.

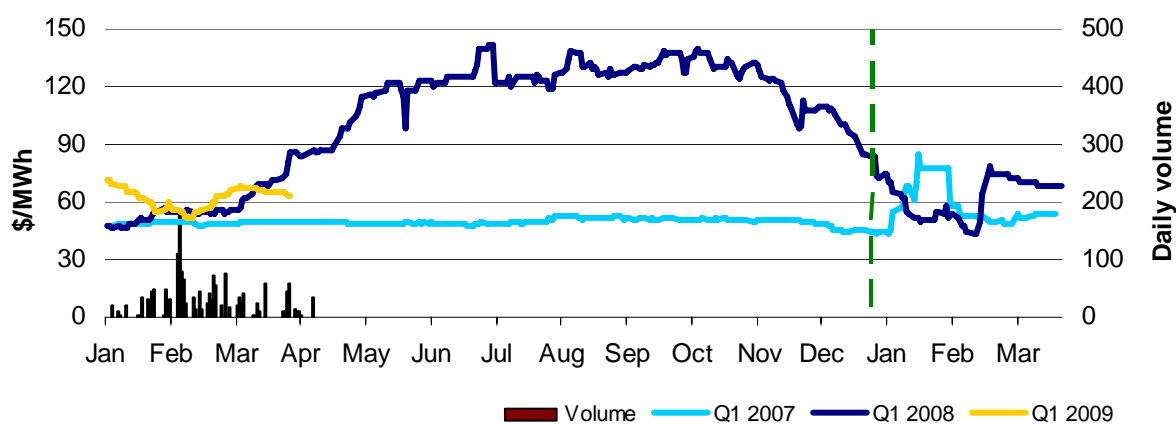
**Figure 6: Quarterly base future prices 2008 - 2011**



Source: d-cyphaTrade [www.d-cyphatrade.com.au](http://www.d-cyphatrade.com.au)

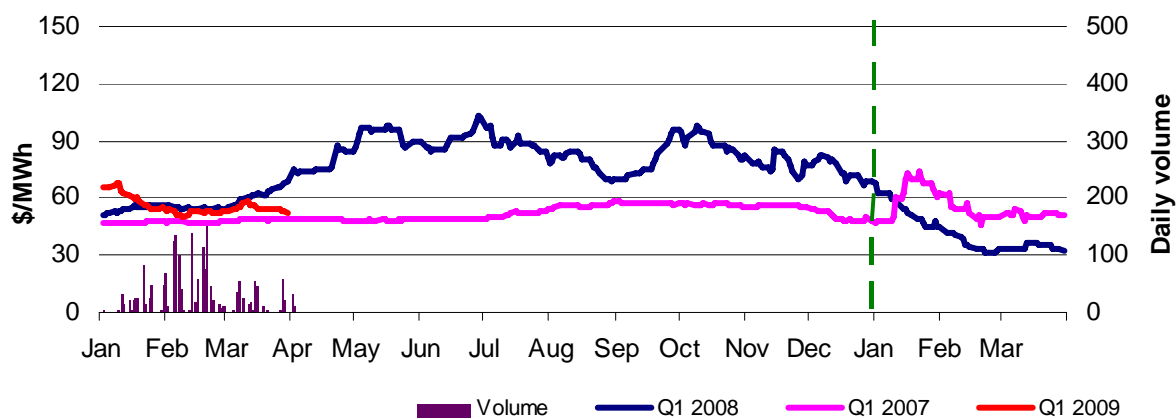
Figure 7-10 compares for each region the closing daily base contract price for the first quarter of 2007, 2008 and 2009. Also shown is the daily volume of Q1 09 base contracts traded. The vertical dashed line signifies the start of the Q1 period.

**Figure 7: Queensland Q1 2007, 2008 and 2009**



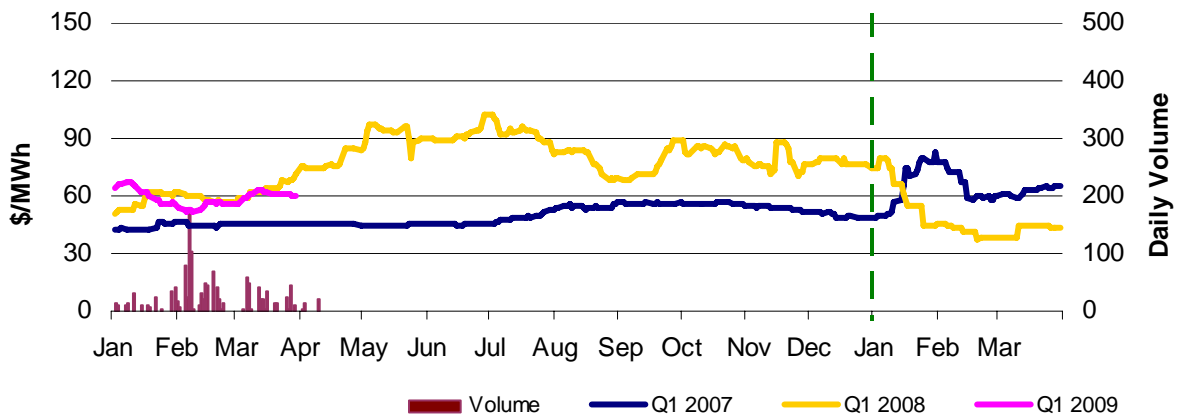
Source: d-cyphaTrade [www.d-cyphatrade.com.au](http://www.d-cyphatrade.com.au)

**Figure 8: New South Wales Q1 2007, 2008 and 2009**



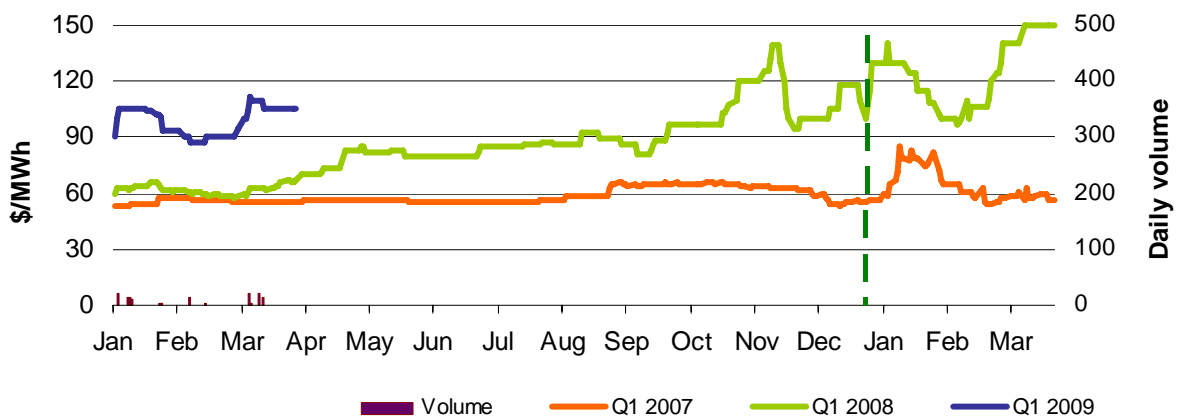
Source: d-cyphaTrade [www.d-cyphatrade.com.au](http://www.d-cyphatrade.com.au)

**Figure 9: Victoria Q1 2007, 2008 and 2009**



Source: d-cyphaTrade www.d-cyphatrade.com.au

**Figure 10: South Australia Q1 2007, 2008 and 2009**



Source: d-cyphaTrade www.d-cyphatrade.com.au

**Spot market forecasting variations**

The AER is required by the National Electricity Rules to determine whether there is a significant variation between the forecast spot price published by NEMMCO and the actual spot price and state why the AER considers that the significant price variation occurred. It is not unusual for there to be significant variations as demand forecasts vary and as participants react to changing market conditions. For the week, there were 87 trading intervals where actual prices significantly varied from forecasts. Reasons for these variances are summarised in Figure 11.

**Figure 11: Reasons for variations between forecast and actual prices**

	Availability	Demand	Network	Combination
Price is higher than forecast	28%	10%	0%	14%
Price is lower than forecast	0%	45%	0%	3%

**Demand and bidding patterns**

The AER reviews demand, network limitations and generator bidding as part of our market monitoring to better understand the drivers behind price variations. Figure 12 shows changes to the offer price and available capacity of generation in each region for the on-peak periods only<sup>2</sup>. For example, in Queensland 268 MW more was offered at prices less than \$20/MWh this week compared to the previous week. Also included is the change in average demand during peak periods for comparison.

<sup>2</sup> Peak periods is defined as between trading intervals ending 7.30 am and 10 pm on weekdays, which aligns with the SFE contract definition.

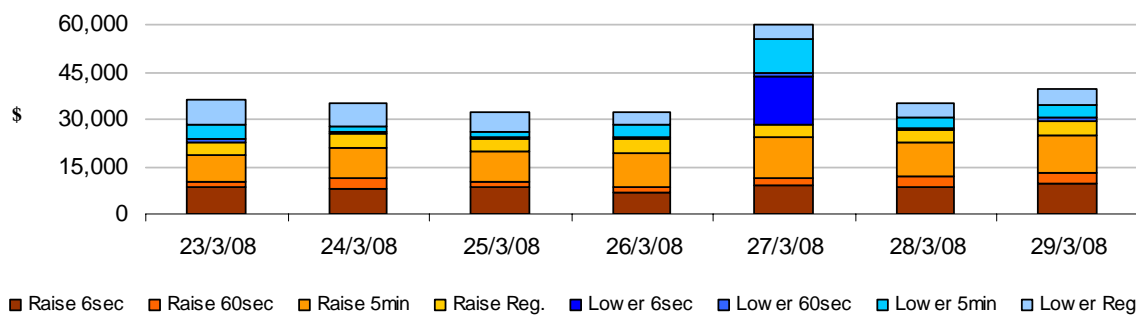
**Figure 12: Changes in available generation compared to the previous week during peak times**

\$/MWh	<20	Between 20 and 50	Total availability	Change in average demand
Queensland	268	-206	167	53
New South Wales	496	-96	602	-567
Victoria	-267	-131	-316	-712
South Australia	-240	115	-368	-293
Tasmania	-25	-30	-57	22
Snowy	27	-82	-298	-16
Total	260	-430	-269	-1,514

### Ancillary services market

The total cost of ancillary services on the mainland for the week was \$206 000 or 0.2 per cent of turnover in the energy market. The total cost of ancillary services in Tasmania for the week was \$64 000 or 0.8 per cent of the turnover in the Tasmanian energy market. Figure 13 shows the daily breakdown of cost for each frequency control ancillary service.

**Figure 13: Daily frequency control ancillary service cost**



23 March – 29 March 2008

**Queensland:** There were four occasions where the spot price in Queensland was greater than three times the Queensland weekly average price of \$23/MWh.

## Wednesday, 26 March

<b>2:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	76.51	31.92	43.51
Demand (MW)	7330	7478	7421
Available capacity (MW)	9928	9992	10 140
<b>2:30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	164.42	31.92	43.51
Demand (MW)	7356	7472	7423
Available capacity (MW)	10 023	10 063	10 160
<b>3:00 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	96.72	54.41	48.00
Demand (MW)	7354	7517	7446
Available capacity (MW)	10 039	10 097	10 160
<b>3:30 pm</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	90.82	31.44	38.61
Demand (MW)	7328	7236	7402
Available capacity (MW)	9985	10 089	10 160

Conditions at the time saw demand and available capacity close to that forecast four and 12 hours ahead.

Network outages in New South Wales were restricting flows from New South Wales into Queensland across both interconnectors. Flows across Terranora were forced into New South Wales at around 100 MW. Flows across QNI were limited to around 50 MW into Queensland. The limits were, however, close to forecast.

Rebids by CS Energy reduced 510 MW of capacity offered at prices of less than \$75/MWh compared to four hours ahead. This included an 80 MW reduction to the availability of Kogan Creek at 1.01 pm and shifting 430 MW<sup>3</sup> of capacity at Callide B and Swanbank from prices below \$75/MWh to above \$220/MWh at 1.19 pm. The reasons given were “Kogan SCC ash level normalizing” and “Change in market conditions”.

At 1.58 pm Stanwell Corporation rebid 140 MW of capacity at Gladstone from prices below \$55/MWh to above \$9000/MWh. The reason given was “Portfolio optimisation::change MW distrib”.

There was no other significant rebidding.

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<sup>3</sup> Initial offers included 555 MW of capacity at CS Energy priced above \$9000/MWh between 11.30 am and 4 pm. This capacity was shifted into lower prices at 9.11 am, shortly after rebids that reduced the availability of Kogan Creek by 400 MW. The rebid reason given was “Portfolio optimisation”.

**Tasmania:** There was one occasion where the spot price in Tasmania was greater than three times the Tasmania weekly average price of \$42/MWh.

**Saturday, 29 March**

<b>8:00 am</b>	<b>Actual</b>	<b>4 hr forecast</b>	<b>12 hr forecast</b>
Price (\$/MWh)	131.76	55.30	55.24
Demand (MW)	1274	1202	1145
Available capacity (MW)	2106	2092	2092

Conditions at the time saw demand 70 MW higher than forecast four hours ahead and 130 MW higher than forecast 12 hours ahead. Available capacity was close to forecast.

As the demand increased over the morning and generation dispatch in Tasmania increased, trade offs between the FCAS and energy market offers led to the five-minute dispatch price increasing to \$285/MWh at 7.30 am and 7.35 am. Rebids by Hydro Tasmania in response increased the availability of FCAS and as a result the price decreased.

## Appendix B: Detailed NEM Price and Demand Trends



**Table 1: Financial year to date spot market volume weighted average price**

Financial year	QLD	NSW	SNOWY	VIC	SA	TAS
2007-08 (\$/MWh) YTD	65	45	32	52	120	55
2006-07 (\$/MWh) YTD	37	41	27	48	51	43
Change (YTD)	76%	11%	15%	8%	135%	29%
2006-07 (\$/MWh)	57	67	38	61	59	51

**Table 2: NEM turnover**

Financial year	NEM Turnover* (\$, billion)	Energy (TWh)
2007-08 YTD	\$8.8	155
2006-07	\$12.7	206
2005-06	\$7.9	201
Change (2005-06 to 2006-07)	61%	2.7%

\* estimated value

**Table 3: Recent monthly and quarterly spot market volume weighted average price and turnover**

Volume weighted average (\$/MWh)	QLD	NSW	SNOWY	VIC	SA	TAS	Turnover (\$, billion)
Nov-07	58	38	29	46	47	45	0.77
Dec-07	41	43	32	50	54	52	0.78
Jan-08	52	36	28	45	186	48	0.94
Feb-08	161	28	24	41	207	58	1.30
Mar-08	32	38	29	67	340	57	1.09
Q4 2006	23	27	22	29	40	37	1.40
Q4 2007	56	41	30	44	46	44	2.35
Change	142%	51%	37%	52%	15%	20%	

**Table 4: ASX energy futures contract prices (compared with settled price for Q1 2007) at 2 April**

	QLD		NSW		VIC		SA	
	Base	Peak	Base	Peak	Base	Peak	Base	Peak
Q1 2008								
Price on 18 Mar (\$/MW)	71	105	36	45	45	60	150	250
Price on 02 Apr (\$/MW)	68	98	32	43	44	66	150	320
% increase since 1 March 07	24%	0%	-41%	-55%	-22%	-34%	163%	216%
Traded in the last week (MW)	0	0	0	0	0	0	0	0
Traded since 1 March 07	3664	397	5751	382	3958	657	749	142
Settled price for Q1 07 (\$/MW)	53	85	51	74	65	109	56	88

**Table 5: Changes to availability of low priced generation capacity offered to the market**

Comparison:	QLD	NSW	SNOWY	VIC	SA	TAS	NEM
January 08 with January 07							
MW Priced <\$20	-8	-409	22	-83	84	13	-381
MW Priced \$20 to \$50	79	989	-260	116	-178	1	747
February 08 with February 07							
MW Priced <\$20	-243	-732	4	-221	-44	-94	-1331
MW Priced \$20 to \$50	318	1,387	282	-38	0	-66	1883
March 08 with March 07							
MW Priced <\$20	114	-130	19	-44	52	-22	-11
MW Priced \$20 to \$50	14	1,081	462	-101	-55	28	1429