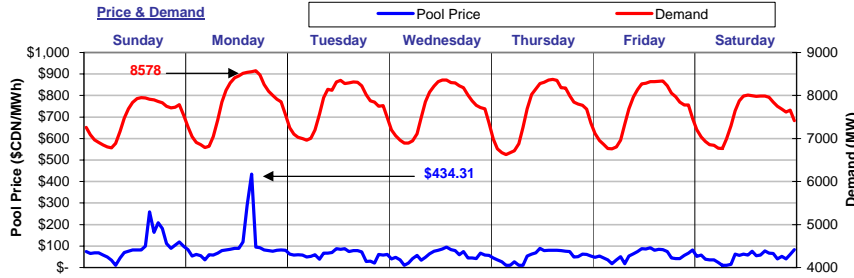


The Market Monitor

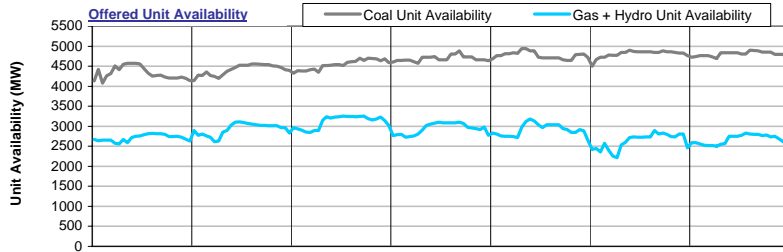
WATCHING THE MARKET : your fact source

Week Ending July 24, 2004

Weekly Highlights

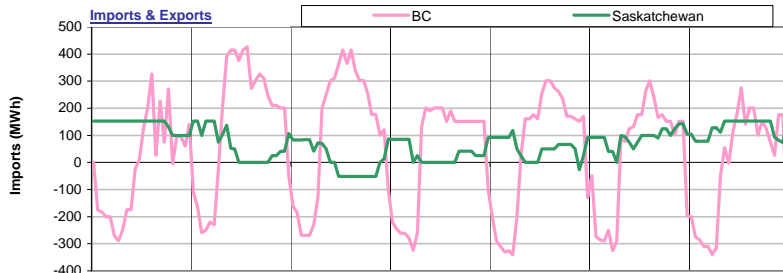


For the week ending July 24, 2004, **Pool Price** averaged \$67.85/MWh and ranged from a minimum of \$10.35/MWh in HE08 on Saturday to a maximum of \$434.31/MWh in HE16 on Monday. **Demand** reached a high of 8578 MW in HE17 on Monday and a low of 6628 MW in HE04 on Thursday. Average demand for the week was 7654MW. **Pool Price** and **Demand** were positively correlated last week with an R-squared value of 0.24.

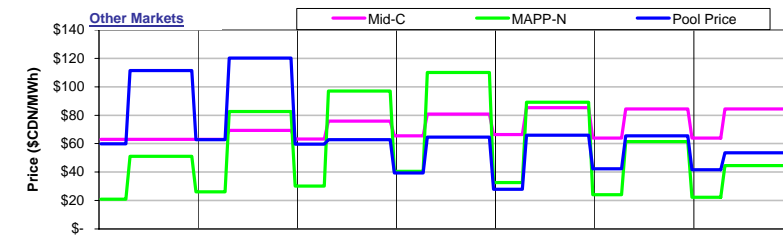


Coal Unit Availability averaged 4622 MW last week. This is an equivalent availability of 84% (based on MCR). **Gas and Hydro Unit Availability** averaged 2844MW last week, which is an equivalent of 51% (based on MCR).

Availability numbers are based on MW offered into the energy merit order.

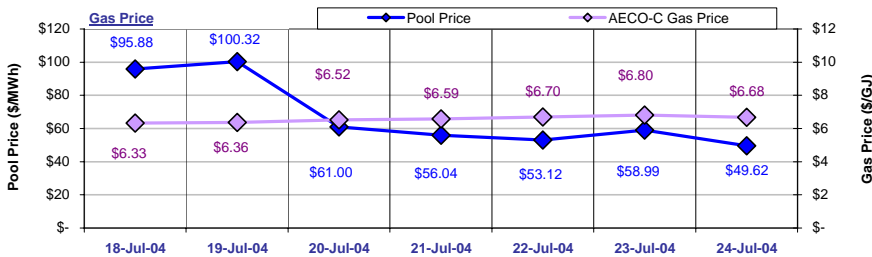


Alberta was a net importer from **BC** last week with total imports equal to 8,240MWh. Alberta was a net importer from **Saskatchewan** last week with total imports equal to 12,409MWh. Overall, Alberta imported 20,649MWh of electricity last week.



Pool Prices were generally lower than prices in **Mid-C** and higher than prices in **MAPP-N** last week. **Mid-C** prices averaged \$80.04/MWh on-peak and \$64.16/MWh off-peak. **MAPP-N** prices averaged \$80.75/MWh on-peak and \$28.13/MWh off-peak.

Prices in \$/MWh at an exchange rate of 1.3095.



The average **AECO-C Gas Price** last week was \$6.57/GJ and ranged from a minimum of \$6.33/GJ to \$6.80/GJ. Prevailing gas prices resulted in market heat rates ranging from a low of 7.43GJ/MWh to a high of 15.76GJ/MWh. The average market heat rate for the week was 10.40GJ/MWh.

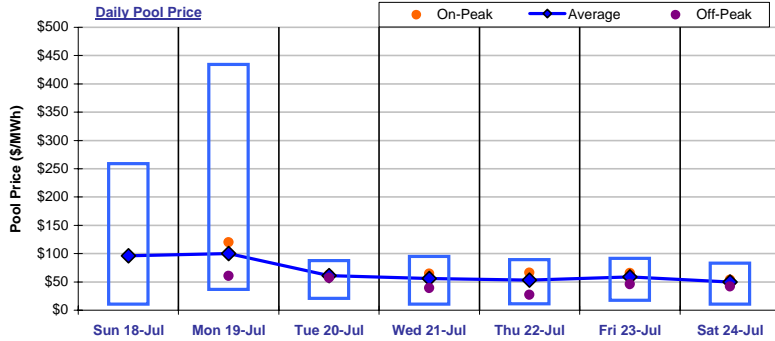


Alberta's Market Surveillance Administrator is in place to monitor the fair, efficient and openly competitive operation of all electricity markets within the province. The Market Monitor is a weekly publication by the MSA intended to educate industry participants and the public on market activities for the previous week. Any questions regarding the material in this publication should be directed to MSA staff. Our contact information is available on the MSA website: www.albertamsa.ca

Wholesale Market

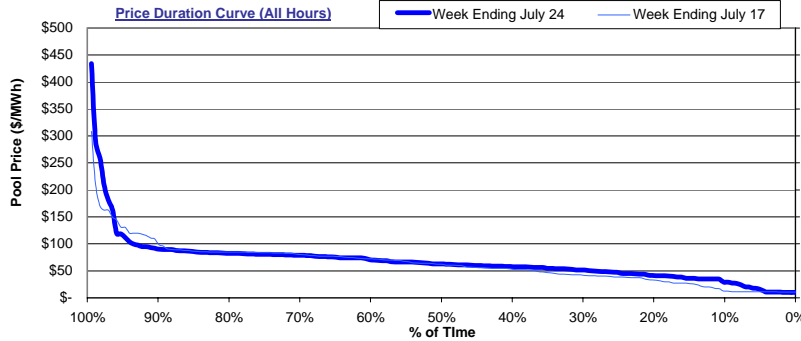
Weekly Market Statistics

	Sunday 18-Jul	Monday 19-Jul	Tuesday 20-Jul	Wednesday 21-Jul	Thursday 22-Jul	Friday 23-Jul	Saturday 24-Jul	Average	Last Week	% Change	YTD
Pool Price											
Average	\$ 95.88	\$ 100.32	\$ 61.00	\$ 56.04	\$ 53.12	\$ 58.99	\$ 49.62	\$ 67.85	\$ 63.69	6.5%	\$ 54.68
On-Peak	NA	\$ 120.15	\$ 62.82	\$ 64.63	\$ 65.97	\$ 65.48	\$ 53.51	\$ 72.09	\$ 77.72	-7.2%	\$ 63.28
Off-Peak	\$ 95.88	\$ 60.64	\$ 57.37	\$ 38.86	\$ 27.43	\$ 46.00	\$ 41.83	\$ 62.19	\$ 44.99	38.2%	\$ 39.65
COV	0.59	0.85	0.30	0.38	0.48	0.38	0.41	0.48	0.56	-12.8%	
Demand											
Average	7,481	7,818	7,756	7,716	7,622	7,682	7,504	7,654	7,495	2.1%	7,369
Minimum	6,782	6,793	6,962	6,893	6,628	6,757	6,766	6,797	6,597	3.0%	6,017
Maximum	7,950	8,578	8,349	8,362	8,378	8,337	8,010	8,281	8,148	1.6%	8,967
Coal Unit Availability											
Average	4,330	4,412	4,540	4,692	4,770	4,809	4,803	4,622	4,646		4,905
Utilization	78%	80%	82%	85%	86%	87%	87%	84%	84%	-0.4%	89%
Gas and Hydro Unit Availability											
Average	2,709	2,928	3,114	2,942	2,913	2,627	2,674	2,844	2,572		2,285
Utilization	57%	61%	65%	62%	61%	55%	56%	50%	45%	4.8%	40%



The Daily Pool Price graph plots the daily range in hourly Pool price (defined by the blue box) along with the daily average and daily on and off-peak prices. The on-peak Pool price for the week was \$72.09/MWh while the off-peak Pool price for the week was \$62.19/MWh.

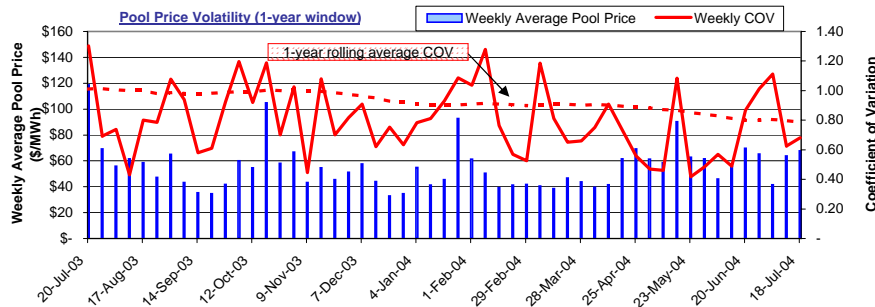
Note: Sundays and most statutory holidays are defined as off-peak.



The price duration curves show the % of time that prices were at or below a certain value during the week.

For the week ending July 24, prices were at or below:

- \$20/MWh 6% of the time
- \$50/MWh 29% of the time
- \$100/MWh 93% of the time
- \$250/MWh 98% of the time
- \$500/MWh 100% of the time



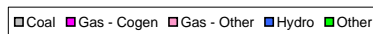
The chart plots average weekly Pool Price and the Coefficient of Variation (COV) of hourly Pool prices for the week. The COV is a standard statistical measure of volatility.

Pool price volatility increased for the week ending July 24 from the previous week.

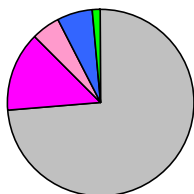
Pool price volatility also moved below the 1-year rolling average COV value.

Market Share Statistics

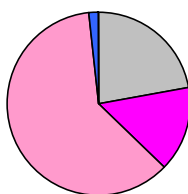
By Fuel Type:



Weekly Generation by Fuel Type



Weekly Price Setting by Fuel Type



By Submitting Customer:

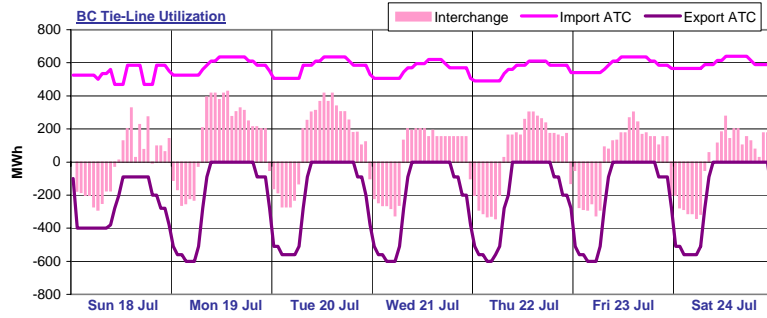
Weekly Price Setting by Submitting Customer



Last week, coal units were responsible for 73.5% of the generation in the province and set price 22.2% of the time. Gas-cogen units accounted for 13.9% of the generation and set price 14.9% of the time last week while other gas units made up 5.0% of generation and set price 61.1% of the time.

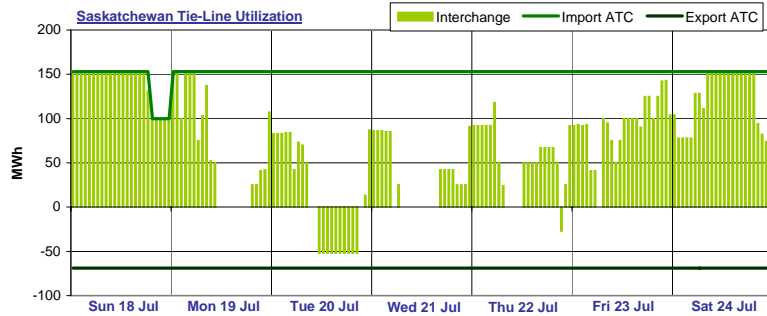
A total of 11 market participants set price last week. One market participants set price more than 20% of the time last week. The top price setter set price 31.8% of the time and the top five price setters set price a total of 68.8% of the time.

Interties



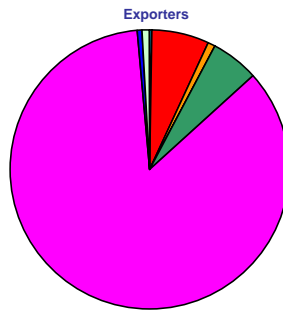
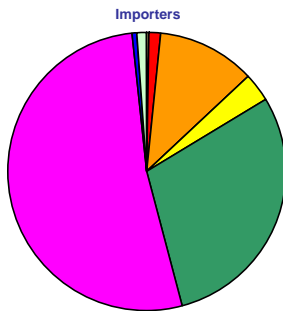
BC import capacity was 21% utilized last week while BC export capacity was 26% utilized. Energy was being imported into Alberta over the BC tie-line 63% of the time and exported out of Alberta over the BC tie-line 36% of the time last week. There was no activity on the BC tie-line 1% of the time last week.

Note: External reserve contract volumes have been subtracted from the BC import ATC as this capacity is not available to import energy into Alberta.



Saskatchewan import capacity was 51% utilized last week while Saskatchewan export capacity was 5% utilized. Energy was being imported into Alberta over the Saskatchewan tie-line 78% of the time and exported out of Alberta over the Saskatchewan tie-line 7% of the time last week. There was no activity on the Saskatchewan tie-line 15% of the time last week.

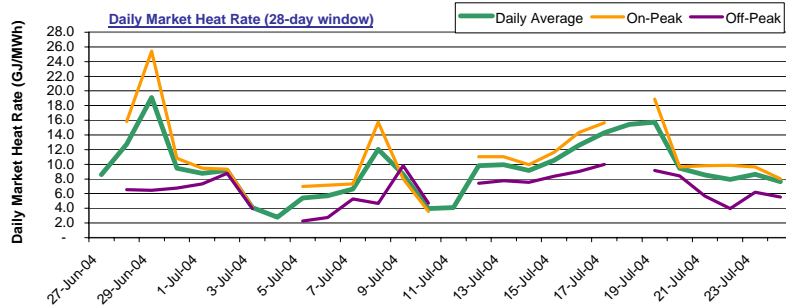
Tie-Line Market Shares



Last week, there were a total of 8 importers. The most active importer had a market share of 52.7% while the second most active importer had a market share of 29.2%. There were a total of 7 exporters last week. The most active exporter had a market share of 85.1% while the next largest exporter had a market share of 6.6%.

Note: Market shares are based on the combined activity on both interties.

Market Heat Rates



Over the past 28 days, the daily Market Heat Rate averaged 9.3 GJ/MWh and ranged from a low of 2.8 GJ/MWh to a high of 19.1 GJ/MWh.

The daily On-Peak Market Heat Rate for the last 28 days averaged 11.0 GJ/MWh while the daily Off-Peak Market Heat Rate averaged 6.6 GJ/MWh.

Sparksreads

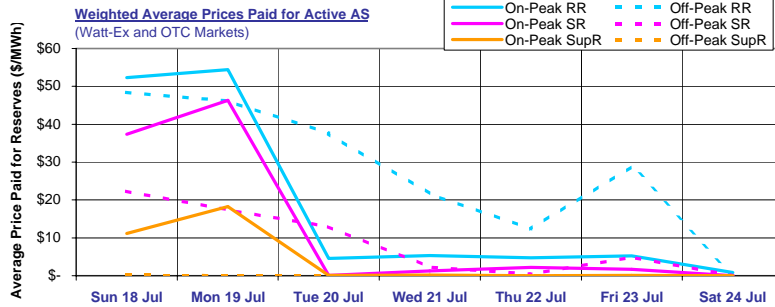
Date	AECO-C Gas Price (\$/GJ)	Daily Average			On-Peak			Off-Peak		
		Pool Price (\$/MWh)	Sparksread (\$/MWh) HR=7.5	Sparksread (\$/MWh) HR=10.0	Pool Price (\$/MWh)	Sparksread (\$/MWh) HR=7.5	Sparksread (\$/MWh) HR=10.0	Pool Price (\$/MWh)	Sparksread (\$/MWh) HR=7.5	Sparksread (\$/MWh) HR=10.0
Sun 18 Jul	\$ 6.33	\$ 97.82	50.31	34.48	NA	NA	NA	\$ 97.82	50.31	34.48
Mon 19 Jul	\$ 6.36	\$ 100.21	52.48	36.58	\$ 120.15	72.43	56.52	\$ 58.40	10.67	(5.24)
Tue 20 Jul	\$ 6.52	\$ 61.76	12.86	(3.43)	\$ 62.82	13.92	(2.38)	\$ 54.78	5.88	(10.42)
Wed 21 Jul	\$ 6.59	\$ 56.25	6.86	(9.61)	\$ 64.63	15.23	(1.23)	\$ 37.29	(12.10)	(28.57)
Thu 22 Jul	\$ 6.70	\$ 53.28	3.03	(13.72)	\$ 65.97	15.72	(1.03)	\$ 26.65	(23.60)	(40.35)
Fri 23 Jul	\$ 6.80	\$ 58.76	7.75	(9.26)	\$ 65.48	14.47	(2.53)	\$ 42.15	(8.86)	(25.87)
Sat 24 Jul	\$ 6.68	\$ 50.92	0.81	(15.89)	\$ 53.51	3.40	(13.30)	\$ 36.95	(13.16)	(29.86)

Daily average sparksreads last week were all positive for a heat rate of 7.5 GJ/MWh and mostly negative for a heat rate of 10.0 GJ/MWh.

On-peak sparksreads last week were all positive for a heat rate of 7.5 GJ/MWh and mostly negative for a heat rate of 10.0 GJ/MWh.

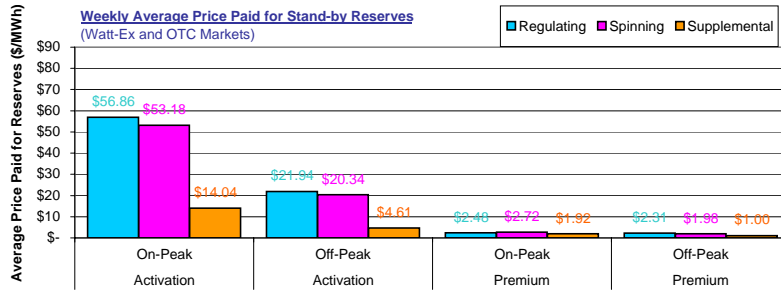
Off-peak sparksreads last week were mostly negative for a heat rate of 7.5 GJ/MWh and mostly negative for a heat rate of 10.0 GJ/MWh.

Ancillary Services Market



Average on-peak prices paid for active ancillary services last week were \$18.72/MWh, \$12.82/MWh and \$4.25/MWh respectively for active regulating, spinning and supplemental reserves.

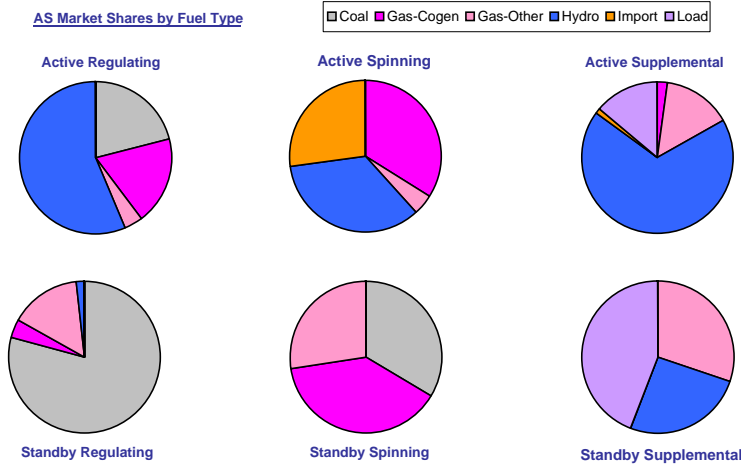
Active average off-peak prices were somewhat higher and averaged \$28.07/MWh, \$8.69/MWh and \$0.04/MWh for active regulating, spinning and supplemental reserves respectively.



Weekly average activation prices for stand-by reserves ranged from \$4.61/MWh for off-peak supplemental reserves to \$56.86/MWh for on-peak regulating reserves.

Weekly average premium prices ranged from \$1.00/MWh for off-peak supplemental reserves up to \$2.72/MWh for on-peak spinning reserves.

AS Market Shares by Fuel Type



Last week hydro units had the largest market share in the active regulating reserve market with 56.4%. In the active spinning reserve market, hydro units had the leading market share with 34.2% while in the active supplemental reserve market, hydro units dominated with a 68.2% market share.

Coal units dominated the standby regulating reserve market with a 79.1% market share. Leading market share in the standby spinning market was held by gas-cogen units with a 38.8% market share. In the standby supplemental reserve market, load units had the leading market share with 44.3%.

Glossary

HE	Hour Ending
On-Peak Hours	In Alberta: HE08 through HE23, Monday through Saturday (prevailing Mountain time) In Mid-C: HE07 through HE22, Monday through Saturday (prevailing Pacific time) In MAPP-N: HE08 through HE23, Monday through Sunday (prevailing Central time)
Off-Peak Hours	In Alberta: HE01 through HE07 + HE24 (of the same day), Monday through Saturday + HE01 through HE24 Sundays + holidays (prevailing Mountain time) In Mid-C: HE24 (of the previous day) through HE07 (of the day in question), Monday through Saturday + HE01 through HE24 Sundays + holidays (prevailing Pacific time) In MAPP-N: HE24 (of the previous day) through HE07 (of the day in question), Monday through Sunday (prevailing Central time)
COV	Coefficient of Variation The standard deviation of a series of numbers divided by the mean of the same series of numbers. Used as a measure of volatility.
ATC	Available Transfer Capacity A measure of the maximum energy flow possible in one direction across an intertie.
Market Heat Rate	The prevailing Pool price divided by the prevailing gas price.
Sparks spread	Sparks spreads give an indication of the revenue available to cover costs after fuel costs have been paid. A positive spread indicates it is more economical to buy gas and generate electricity while a negative spread indicates it is more economical to buy electricity from the grid.