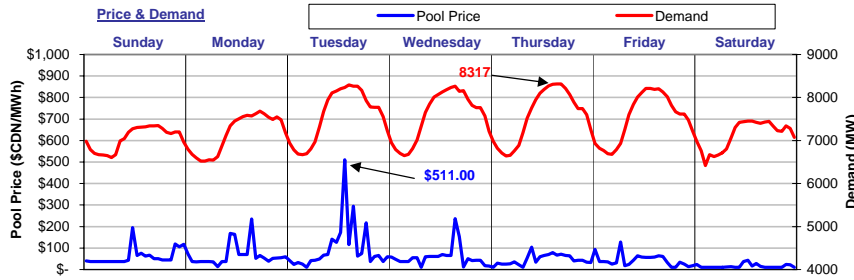


# The Market Monitor

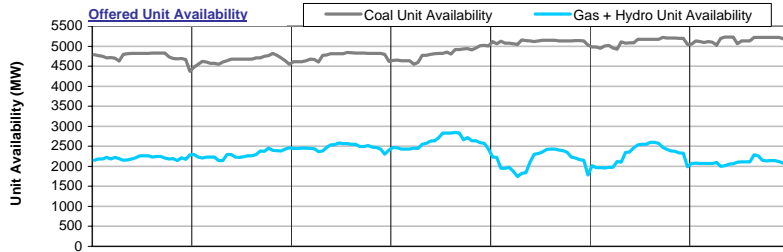
WATCHING THE MARKET : your fact source

Week Ending August 7, 2004

## Weekly Highlights

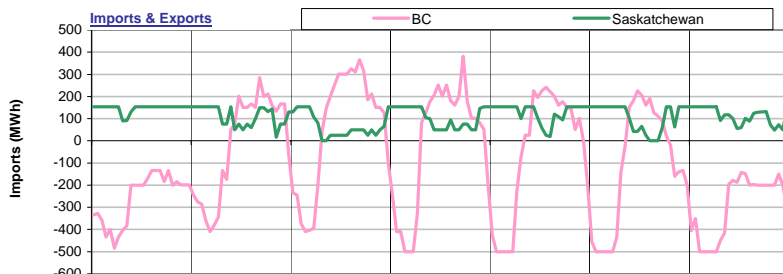


For the week ending August 7, 2004, **Pool Price** averaged \$55.71/MWh and ranged from a minimum of \$11.00/MWh in HE21 on Saturday to a maximum of \$511.00/MWh in HE14 on Tuesday. **Demand** reached a high of 8317 in HE16 on Thursday and a low of 6421 MW in HE03 on Saturday. Average demand for the week was 7373MW. **Pool Price** and **Demand** were positively correlated last week with an R-squared value of 0.15.

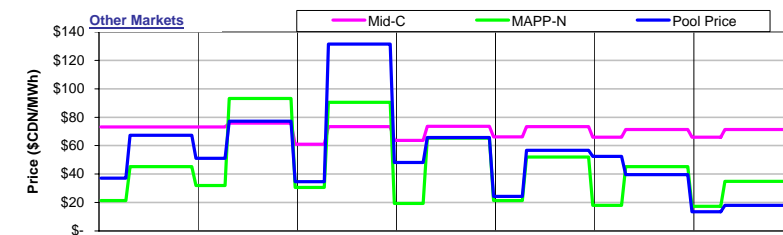


**Coal Unit Availability** averaged 4906 MW last week. This is an equivalent availability of 89% (based on MCR). **Gas and Hydro Unit Availability** averaged 2305MW last week, which is an equivalent of 41% (based on MCR).

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

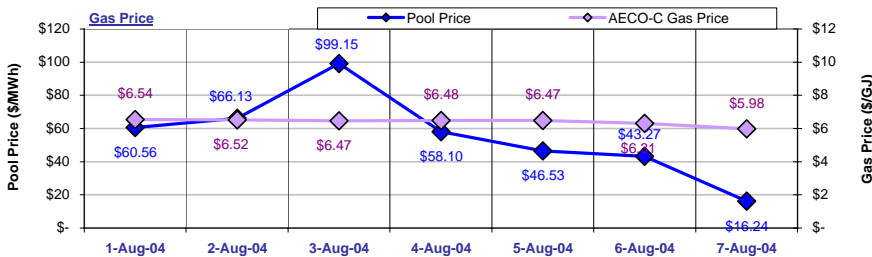


Alberta was a net exporter to **BC** last week with total exports equal to 16,715MWh. Alberta was a net importer from **Saskatchewan** last week with total imports equal to 18,659MWh. Overall, Alberta imported 1,944MWh of electricity last week.



**Pool Prices** were generally lower than prices in **Mid-C** and higher than prices in **MAPP-N** last week. **Mid-C** prices averaged \$73.17/MWh on-peak and \$67.04/MWh off-peak. **MAPP-N** prices averaged \$63.52/MWh on-peak and \$22.82/MWh off-peak.

Prices in \$/MWh at an exchange rate of 1.3314.

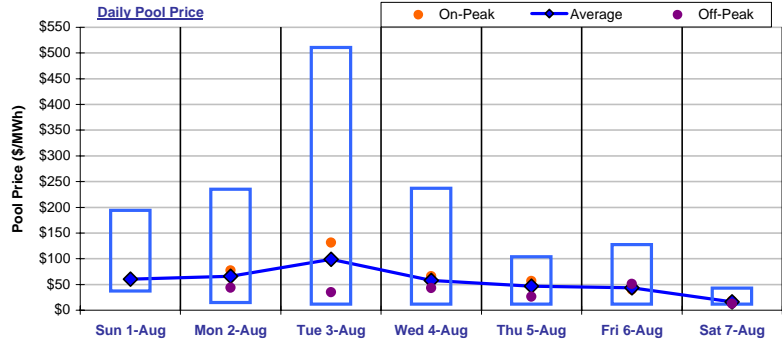


The average **AECO-C Gas Price** last week was \$6.40/GJ and ranged from a minimum of \$5.98/GJ to \$6.54/GJ. Prevailing gas prices resulted in market heat rates ranging from a low of 2.71GJ/MWh to a high of 15.33GJ/MWh. The average market heat rate for the week was 8.64GJ/MWh.

# Wholesale Market

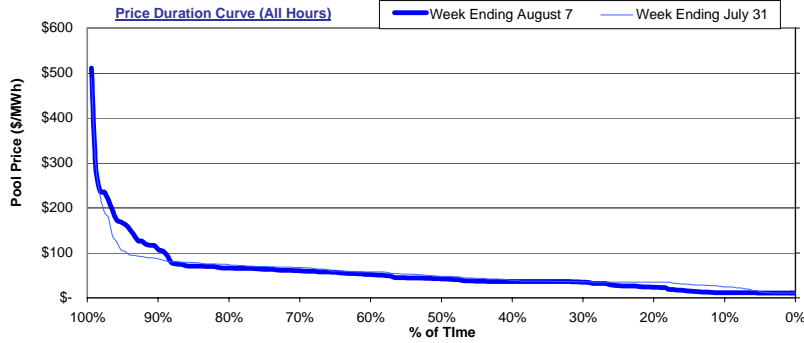
## Weekly Market Statistics

	Sunday 1-Aug	Monday 2-Aug	Tuesday 3-Aug	Wednesday 4-Aug	Thursday 5-Aug	Friday 6-Aug	Saturday 7-Aug	Average	Last Week	% Change	YTD
<b>Pool Price</b>											
Average	\$ 60.56	\$ 66.13	\$ 99.15	\$ 58.10	\$ 46.53	\$ 43.27	\$ 16.24	\$ 55.71	\$ 57.48	-3.1%	\$ 54.79
On-Peak	NA	\$ 77.31	\$ 131.39	\$ 65.79	\$ 56.66	\$ 39.52	\$ 18.05	\$ 64.79	\$ 63.35	2.3%	\$ 63.33
Off-Peak	\$ 60.56	\$ 43.77	\$ 34.68	\$ 42.72	\$ 26.26	\$ 50.79	\$ 12.63	\$ 43.61	\$ 49.66	-12.2%	\$ 39.94
COV	0.63	0.77	1.12	0.81	0.50	0.63	0.55	0.72	0.55	31.3%	
<b>Demand</b>											
Average	7,049	7,167	7,592	7,571	7,579	7,533	7,122	7,373	7,572	-2.6%	7,376
Minimum	6,601	6,522	6,668	6,647	6,643	6,678	6,421	6,597	6,755	-2.3%	6,017
Maximum	7,346	7,683	8,291	8,263	8,317	8,208	7,450	7,937	8,182	-3.0%	8,967
<b>Coal Unit Availability</b>											
Average	4,746	4,654	4,753	4,809	5,117	5,104	5,158	4,906	4,964	-1.1%	4,907
Utilization	86%	84%	86%	87%	93%	92%	93%	89%	90%	-1.1%	89%
<b>Gas and Hydro Unit Availability</b>											
Average	2,206	2,295	2,475	2,612	2,152	2,289	2,105	2,305	2,406	-1.8%	2,290
Utilization	46%	48%	52%	55%	45%	48%	44%	41%	43%	-1.8%	41%



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 \$64.79/MWh while the off-peak Pool price for the week was \$43.61/MWh.

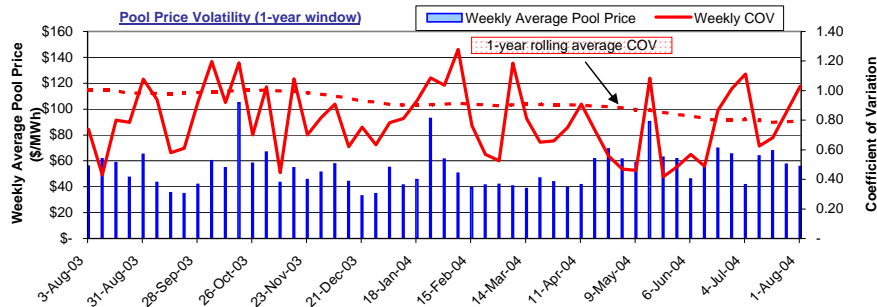
Note: Sundays and most statutory holidays are defined as off-peak.



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

For the week ending August 7, prices were at or below:

- \$20/MWh 18% of the time
- \$50/MWh 58% of the time
- \$100/MWh 89% of the time
- \$250/MWh 98% of the time
- \$500/MWh 99% of the time



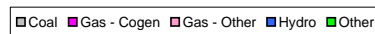
The chart plots average weekly Pool Price and the Coefficient of Variation (COV) of hourly Pool prices for the week. The COV is a standard statistical measure of volatility.

Pool price volatility increased for the week ending August 7 from the previous week.

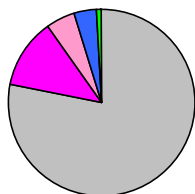
Pool price volatility also moved above the 1-year rolling average COV value.

## Market Share Statistics

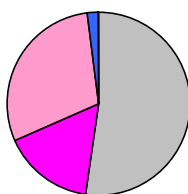
### By Fuel Type:



Weekly Generation by Fuel Type

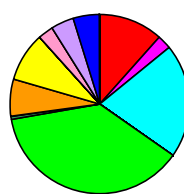


Weekly Price Setting by Fuel Type



### By Submitting Customer:

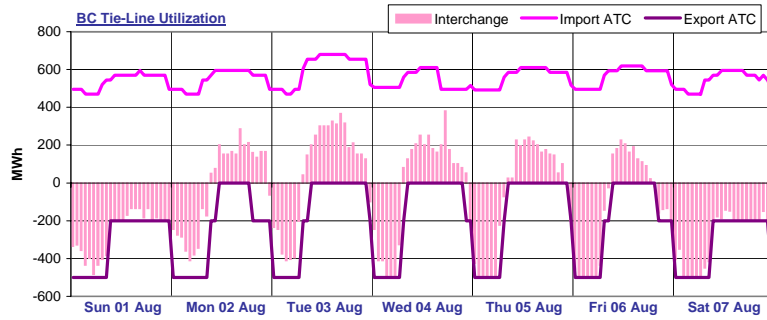
Weekly Price Setting by Submitting Customer



Last week, coal units were responsible for 78.1% of the generation in the province and set price 52.2% of the time. Gas-cogen units accounted for 12.2% of the generation and set price 16.2% of the time last week while other gas units made up 5.0% of generation and set price 29.5% of the time.

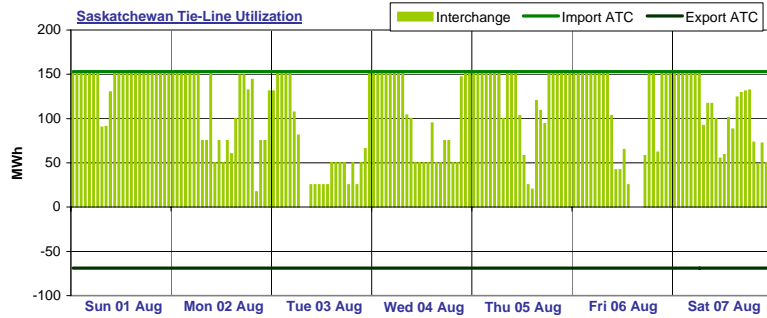
A total of 11 market participants set price last week. Two market participants set price more than 20% of the time last week. The top price setter set price 37.5% of the time and the top five price setters set price a total of 85.3% of the time.

# Interties



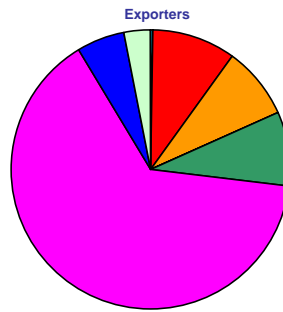
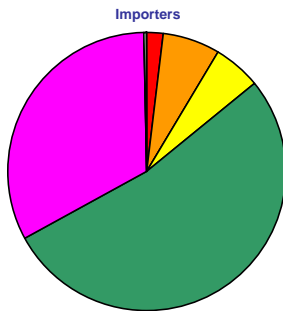
BC import capacity was 12% utilized last week while BC export capacity was 74% utilized. Energy was being imported into Alberta over the BC tie-line 42% of the time and exported out of Alberta over the BC tie-line 58% of the time last week. There was no activity on the BC tie-line 0% of the time last 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 73% utilized last week while Saskatchewan export capacity was 0% utilized. Energy was being imported into Alberta over the Saskatchewan tie-line 97% of the time and exported out of Alberta over the Saskatchewan tie-line 0% of the time last week. There was no activity on the Saskatchewan tie-line 3% of the time last week.

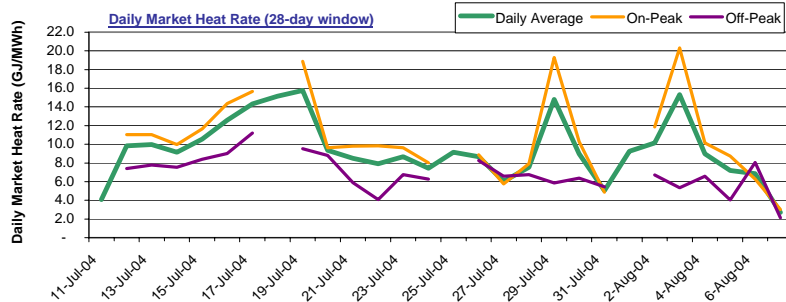
## Tie-Line Market Shares



Last week, there were a total of 7 importers. The most active importer had a market share of 52.6% while the second most active importer had a market share of 32.9%. There were a total of 7 exporters last week. The most active exporter had a market share of 64.6% while the next largest exporter had a market share of 9.7%.

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 9.4 GJ/MWh and ranged from a low of 2.7 GJ/MWh to a high of 15.8 GJ/MWh.

The daily On-Peak Market Heat Rate for the last 28 days averaged 10.7 GJ/MWh while the daily Off-Peak Market Heat Rate averaged 6.9 GJ/MWh.

## Sparksreads

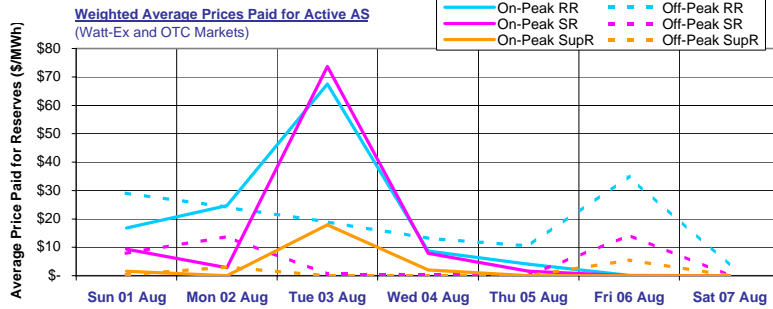
Date	AECO-C Gas Price (\$/GJ)	Daily Average			On-Peak			Off-Peak				
		Pool Price (\$/MWh)	Sparksread (\$/MWh)	HR=7.5	HR=10.0	Pool Price (\$/MWh)	Sparksread (\$/MWh)	HR=7.5	HR=10.0	Pool Price (\$/MWh)	Sparksread (\$/MWh)	HR=7.5
Sun 01 Aug	\$ 6.54	\$ 60.56	11.50	(4.86)	NA	NA	NA	\$ 60.56	11.50	(4.86)		
Mon 02 Aug	\$ 6.52	\$ 66.13	17.23	0.93	\$ 77.31	28.41	12.11	\$ 43.77	(5.12)	(21.42)		
Tue 03 Aug	\$ 6.47	\$ 99.15	50.64	34.46	\$ 131.39	82.87	66.70	\$ 34.68	(13.84)	(30.01)		
Wed 04 Aug	\$ 6.48	\$ 58.10	9.50	(6.71)	\$ 65.79	17.19	0.98	\$ 42.72	(5.89)	(22.09)		
Thu 05 Aug	\$ 6.47	\$ 46.53	(2.03)	(18.21)	\$ 56.66	8.11	(8.07)	\$ 26.26	(22.30)	(38.48)		
Fri 06 Aug	\$ 6.31	\$ 43.27	(4.06)	(19.84)	\$ 39.52	(7.82)	(23.60)	\$ 50.79	3.45	(12.33)		
Sat 07 Aug	\$ 5.98	\$ 16.24	(28.63)	(43.58)	\$ 18.05	(26.82)	(41.77)	\$ 12.62	(32.25)	(47.21)		

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

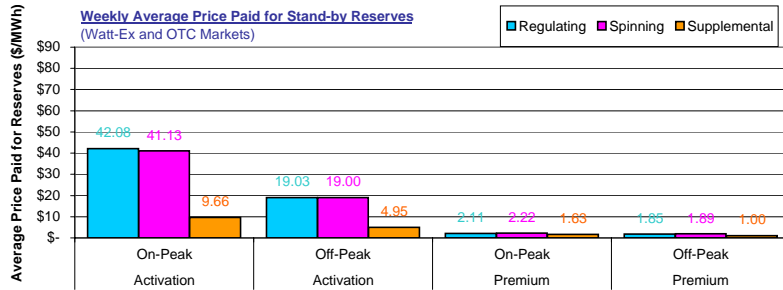
Off-peak sparksreads last week were mostly negative for a heat rate of 7.5 GJ/MWh and all negative for a heat rate of 10.0 GJ/MWh.

# Ancillary Services Market



Average on-peak prices paid for active ancillary services last week were \$18.72/MWh, \$17.55/MWh and \$4.08/MWh respectively for active regulating, spinning and supplemental reserves.

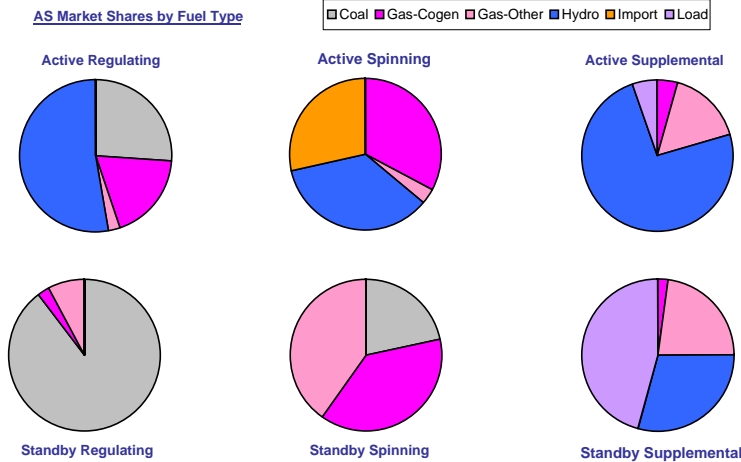
Active average off-peak prices were somewhat lower and averaged \$20.85/MWh, \$3.77/MWh and \$0.85/MWh for active regulating, spinning and supplemental reserves respectively.



Weekly average activation prices for stand-by reserves ranged from \$4.95/MWh for off-peak supplemental reserves to \$42.08/MWh for on-peak regulating reserves.

Weekly average premium prices ranged from \$1.00/MWh for off-peak supplemental reserves up to \$2.22/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 52.9%. In the active spinning reserve market, hydro units had the leading market share with 35.3% while in the active supplemental reserve market, hydro units dominated with a 74.1% market share.

Coal units dominated the standby regulating reserve market with a 89.8% market share. Leading market share in the standby spinning market was held by gas units with a 40.2% market share. In the standby supplemental reserve market, load units had the leading market share with 45.8%.

## Glossary

<b>HE</b>	Hour Ending
<b>On-Peak Hours</b>	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)
<b>Off-Peak Hours</b>	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)
<b>COV</b>	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.
<b>ATC</b>	Available Transfer Capacity A measure of the maximum energy flow possible in one direction across an intertie.
<b>Market Heat Rate</b>	The prevailing Pool price divided by the prevailing gas price.
<b>Sparks spread</b>	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.