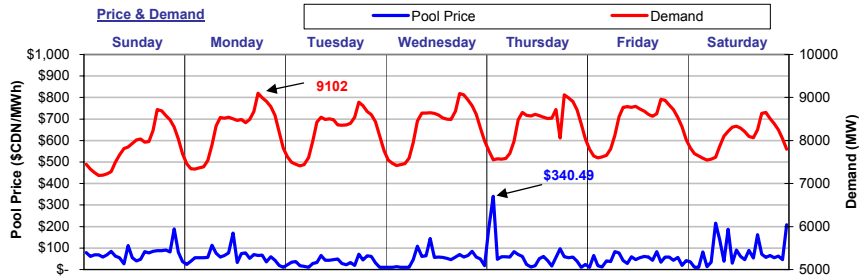


# The Market Monitor

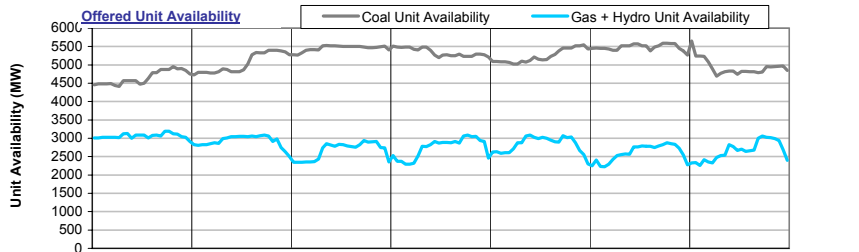
WATCHING THE MARKET : your fact source

Week Ending January 15, 2005

## Weekly Highlights

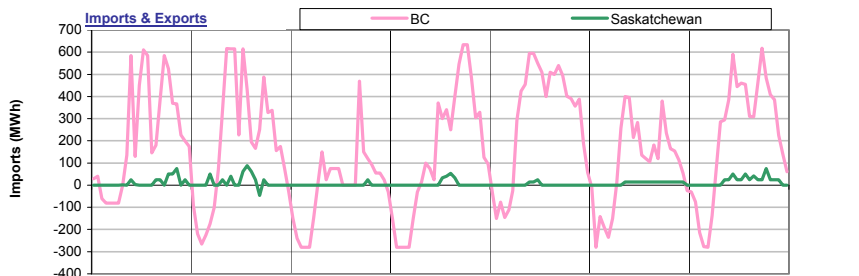


For the week ending January 15, 2005, **Pool Price** averaged \$58.91/MWh and ranged from a minimum of \$10.84/MWh in HE03 on Saturday to a maximum of \$340.49/MWh in HE14 on Thursday. **Demand** reached a high of 9102 MW in HE187 on Monday and a low of 7184 MW in HE04 on Sunday. Average demand for the week was 8196MW. **Pool Price** and **Demand** were positively correlated last week with an R-squared value of 0.01.

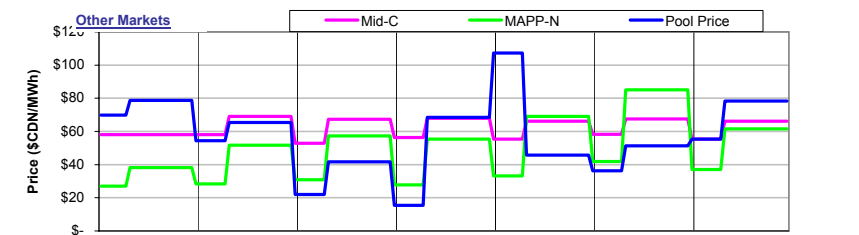


**Coal Unit Availability** averaged 51664 MW last week. This is an equivalent availability of 87% (based on MCR). **Gas and Hydro Unit Availability** averaged 2783MW last week, which is an equivalent of 49% (based on MCR).

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

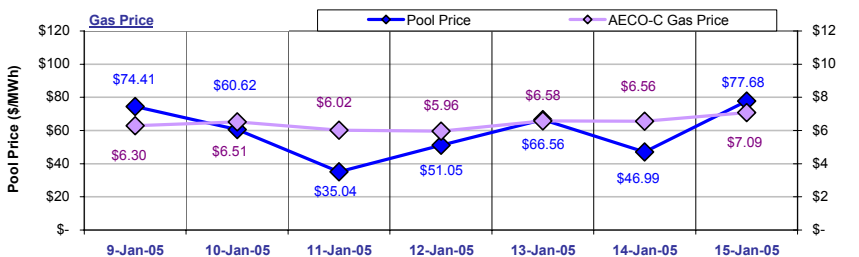


Alberta was a net importer from BC last week with total imports equal to 28,249MWh. Alberta was a net importer from Saskatchewan last week with total imports equal to 1,541MWh. Overall, Alberta imported 29,790MWh of electricity last week.



**Pool Prices** were generally lower than prices in **Mid-C** and higher than prices in **MAPP-N** last week. **Mid-C** prices averaged \$67.32/MWh on-peak and \$56.36/MWh off-peak. **MAPP-N** prices averaged \$63.35/MWh on-peak and \$32.30/MWh off-peak.

Prices in \$/MWh at an exchange rate of 1.232.

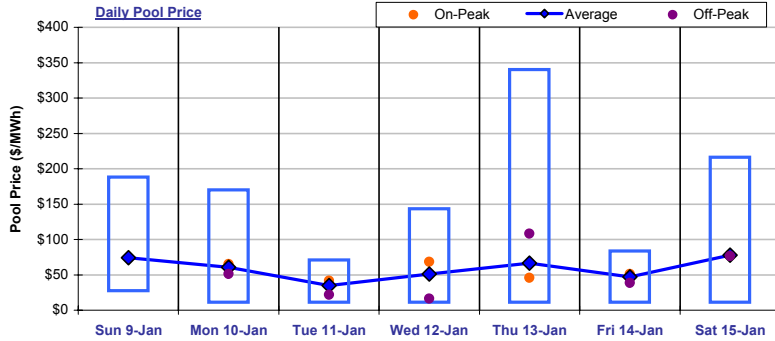


The average **AECO-C Gas Price** last week was \$6.43/GJ and ranged from a minimum of \$5.96/GJ to \$7.09/GJ. Prevailing gas prices resulted in market heat rates ranging from a low of 5.82GJ/MWh to a high of 11.82GJ/MWh. The average market heat rate for the week was 9.11GJ/MWh.

# Wholesale Market

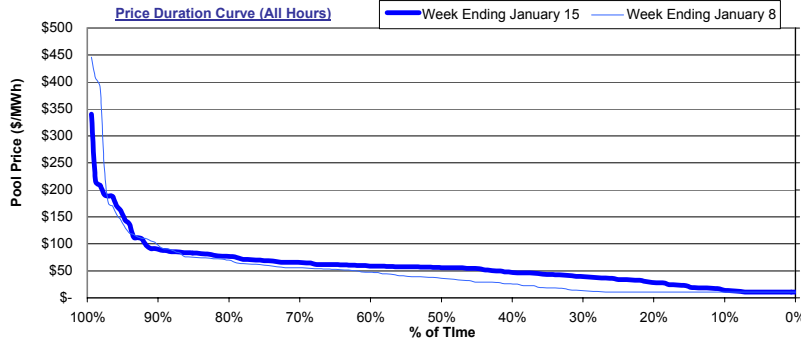
## Weekly Market Statistics

	Sunday 9-Jan	Monday 10-Jan	Tuesday 11-Jan	Wednesday 12-Jan	Thursday 13-Jan	Friday 14-Jan	Saturday 15-Jan	Average	Last Week	% Change	YTD
<b>Pool Price</b>											
Average	\$ 74.41	\$ 60.62	\$ 35.04	\$ 51.05	\$ 66.56	\$ 46.99	\$ 77.68	\$ <b>58.91</b>	\$ <b>49.79</b>	<b>18.3%</b>	\$ <b>52.12</b>
On-Peak	NA	\$ 65.34	\$ 41.61	\$ 68.40	\$ 45.81	\$ 51.30	\$ 78.35	\$ <b>58.47</b>	\$ <b>61.50</b>	<b>-4.9%</b>	\$ <b>57.17</b>
Off-Peak	\$ 74.41	\$ 51.18	\$ 21.90	\$ 16.35	\$ 108.06	\$ 38.37	\$ 76.36	\$ <b>59.49</b>	\$ <b>34.16</b>	<b>74.1%</b>	\$ <b>44.50</b>
COV	0.42	0.53	0.52	0.65	1.03	0.44	0.78	<b>0.62</b>	<b>0.91</b>	<b>-31.5%</b>	
<b>Demand</b>											
Average	7,851	8,238	8,199	8,311	8,319	8,393	8,062	<b>8,196</b>	<b>8,123</b>	<b>0.9%</b>	<b>7,470</b>
Minimum	7,184	7,336	7,410	7,415	7,553	7,600	7,543	<b>7,434</b>	<b>7,327</b>	<b>1.5%</b>	<b>6,017</b>
Maximum	8,720	9,102	8,892	9,095	9,061	8,962	8,654	<b>8,927</b>	<b>8,960</b>	<b>-0.4%</b>	<b>9,236</b>
<b>Coal Unit Availability</b>											
Average	4,652	5,045	5,456	5,344	5,238	5,484	4,939	<b>5,166</b>	<b>5,570</b>	<b>-6.9%</b>	<b>5,399</b>
Utilization	80%	86%	93%	92%	90%	94%	85%	<b>88%</b>	<b>95%</b>	<b>-6.9%</b>	<b>92%</b>
<b>Gas and Hydro Unit Availability</b>											
Average	3,063	2,926	2,668	2,743	2,833	2,600	2,651	<b>2,783</b>	<b>2,522</b>	<b>4.6%</b>	<b>2,624</b>
Utilization	64%	61%	56%	58%	59%	55%	56%	<b>49%</b>	<b>45%</b>	<b>4.6%</b>	<b>46%</b>



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 **\$58.47/MWh** while the **off-peak Pool price** for the week was **\$59.49/MWh**.

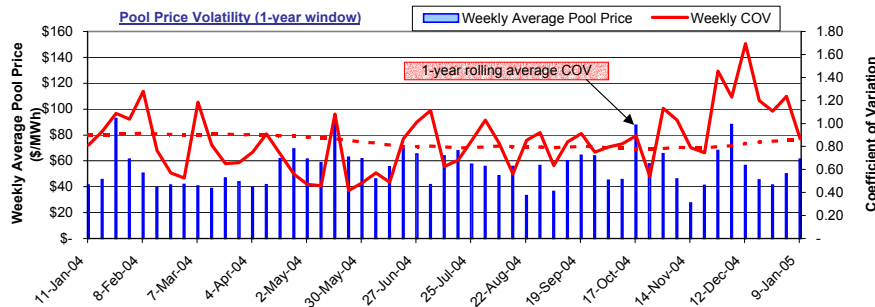
Note: Sundays and most statutory holidays are defined as off-peak.



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

For the week ending **January 15**, prices were at or below:

- \$20/MWh 15% of the time
- \$50/MWh 42% of the time
- \$100/MWh 92% of the time
- \$250/MWh 99% of the time
- \$500/MWh 100% of the time



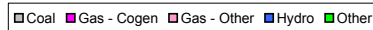
The chart plots average weekly Pool Price and the Coefficient of Variation (COV) of hourly Pool prices for the week. The COV is a standard statistical measure of volatility.

Pool price volatility **decreased** for the week ending **January 15** from the previous week.

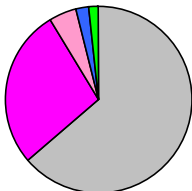
Pool price volatility also moved **above** the 1-year rolling average COV value.

### Market Share Statistics

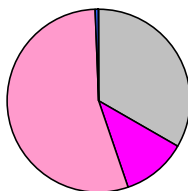
By Fuel Type:



Weekly Generation by Fuel Type



Weekly Price Setting by Fuel Type



By Submitting Customer:

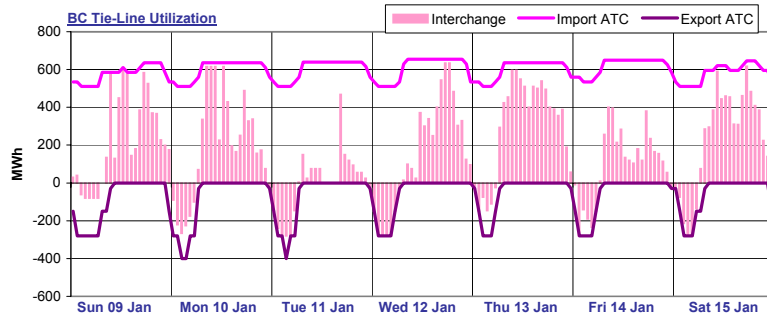
Weekly Price Setting by Submitting Customer



Last week, coal units were responsible for **63.5%** of the generation in the province and set price **33.3%** of the time. **Gas-cogen** units accounted for **27.8%** of the generation and set price **11.4%** of the time last week while **other gas** units made up **4.7%** of generation and set price **54.7%** of the time.

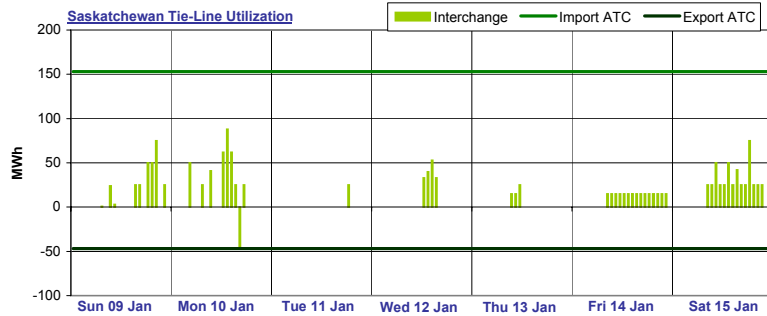
A total of **13** market participants set price last week. **1** market participants set price more than **20%** of the time last week. The top price setter set price **38.7%** of the time and the top five price setters set price a total of **82.3%** of the time.

# Interties



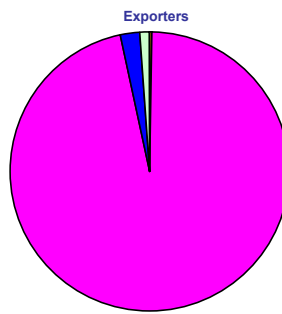
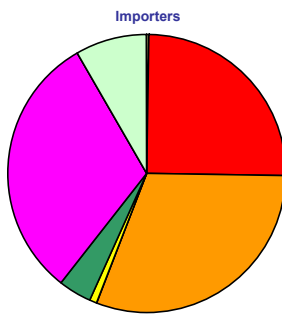
BC import capacity was 33% utilized last week while BC export capacity was 55% utilized. Energy was being imported into Alberta over the BC tie-line 70% of the time and exported out of Alberta over the BC tie-line 27% of the time last week. There was no activity on the BC tie-line 3% of the time last 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 6% utilized last week while Saskatchewan export capacity was 1% utilized. Energy was being imported into Alberta over the Saskatchewan tie-line 32% of the time and exported out of Alberta over the Saskatchewan tie-line 1% of the time last week. There was no activity on the Saskatchewan tie-line 67% of the time last week.

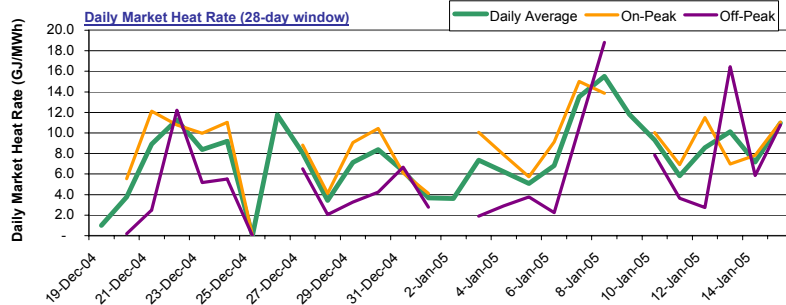
### Tie-Line Market Shares



Last week, there were a total of 7 importers. The most active importer had a market share of 31.1% while the second most active importer had a market share of 30.6%. There were a total of 4 exporters last week. The most active exporter had a market share of 96.5% while the next largest exporter had a market share of 2.3%.

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 7.9 GJ/MWh and ranged from a low of 1.0 GJ/MWh to a high of 15.5 GJ/MWh.

The daily On-Peak Market Heat Rate for the last 28 days averaged 9.0 GJ/MWh while the daily Off-Peak Market Heat Rate averaged 6.0 GJ/MWh.

### Sparksreads

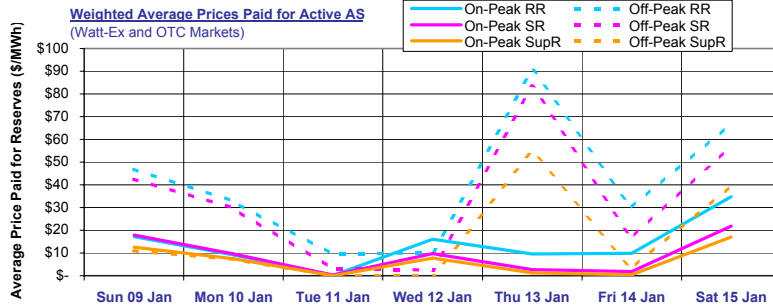
Date	AECO-C Gas Price (\$/GJ)	Daily Average				On-Peak			Off-Peak		
		Pool Price (\$/MWh)	Sparksread (\$/MWh) HR=7.5	Sparksread (\$/MWh) HR=10.0	11.45	Pool Price (\$/MWh)	Sparksread (\$/MWh) HR=7.5	Sparksread (\$/MWh) HR=10.0	Pool Price (\$/MWh)	Sparksread (\$/MWh) HR=7.5	Sparksread (\$/MWh) HR=10.0
Sun 09 Jan	\$ 6.30	\$ 74.41	27.19	11.45	NA	NA	NA	\$ 74.41	27.19	11.45	
Mon 10 Jan	\$ 6.51	\$ 60.62	11.77	(4.52)	\$ 65.34	16.49	0.21	\$ 51.18	2.33	(13.96)	
Tue 11 Jan	\$ 6.02	\$ 35.04	(10.12)	(25.17)	\$ 41.61	(3.55)	(18.60)	\$ 21.90	(23.26)	(38.31)	
Wed 12 Jan	\$ 5.96	\$ 51.05	6.37	(8.52)	\$ 68.40	23.72	8.83	\$ 16.35	(28.33)	(43.22)	
Thu 13 Jan	\$ 6.58	\$ 66.56	17.24	0.80	\$ 45.81	(3.51)	(19.95)	\$ 108.06	58.74	42.30	
Fri 14 Jan	\$ 6.56	\$ 46.99	(2.21)	(18.61)	\$ 51.30	2.10	(14.30)	\$ 38.37	(10.83)	(27.23)	
Sat 15 Jan	\$ 7.09	\$ 77.68	24.52	6.80	\$ 78.35	25.18	7.46	\$ 76.36	23.19	5.47	

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.

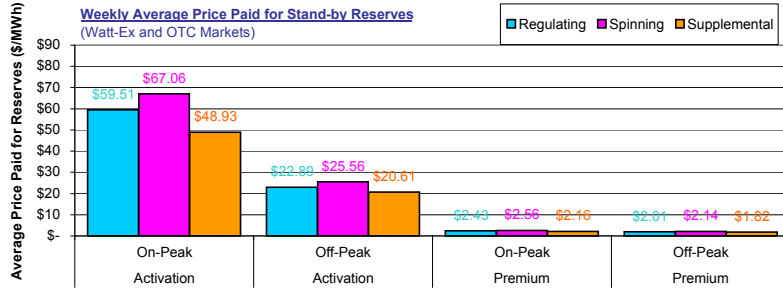
Off-peak sparksreads last week were mostly positive for a heat rate of 7.5 GJ/MWh and mostly negative for a heat rate of 10.0 GJ/MWh.

# Ancillary Services Market



Average on-peak prices paid for active ancillary services last week were **\$13.58/MWh**, **\$8.94/MWh** and **\$6.52/MWh** respectively for active **regulating**, **spinning** and **supplemental** reserves.

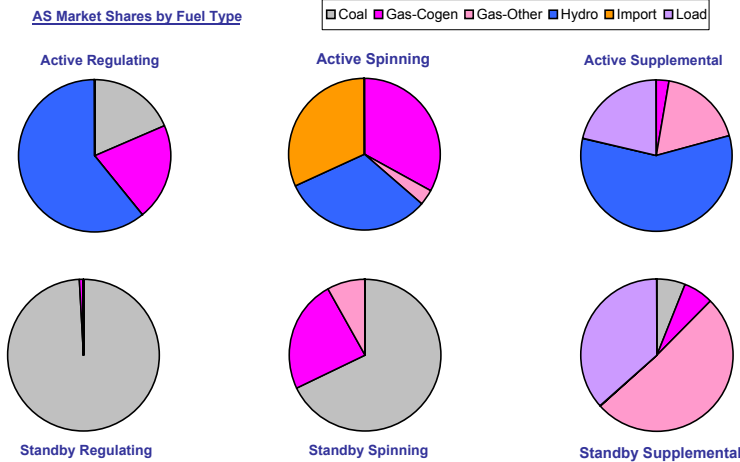
Active average off-peak prices were somewhat **higher** and averaged **\$42.18/MWh**, **\$34.36/MWh** and **\$17.17/MWh** for active **regulating**, **spinning** and **supplemental** reserves respectively.



Weekly average activation prices for stand-by reserves ranged from **\$20.61/MWh** for **off-peak supplemental** reserves to **\$67.06/MWh** for **on-peak spinning** reserves.

Weekly average premium prices ranged from **\$1.82/MWh** for **off-peak supplemental** reserves up to **\$2.56/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 **60.8%**. In the **active spinning** reserve market, **gas-cogen** units had the leading market share with **33.0%** while in the **active supplemental** reserve market, **hydro** units dominated with a **58.0%** market share.

**Coal** units dominated the **standby regulating** reserve market with a **99.2%** market share. Leading market share in the **standby spinning** market was held by **coal** units with a **67.9%** market share. In the **standby supplemental** reserve market, **gas** units had the leading market share with **50.9%**,

## 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.