

www.albertaMSA.ca



MSA REPORT

Quarterly Report

April – June, 2008

29 July, 2008

MARKET SURVEILLANCE
ADMINISTRATOR

TABLE OF CONTENTS

	PAGE
1	FEATURED MARKET DEVELOPMENTS DURING Q2/08..... 1
1.1	Wholesale Market Fundamentals..... 1
1.2	Impact of the KEG Conversion Project on Pool Price 2
1.3	Forward Market Activity 5
2	THE EVOLUTION OF THE APRIL CONTRACT 7
3	RETAIL MARKET DEVELOPMENTS..... 10
4	INCORRECT POSTING OF POOL PRICE..... 11
5	ISO RULES COMPLIANCE..... 13
6	OTHER MSA ACTIVITIES..... 15
6.1	MSA Guideline: Intertie Conduct 15
6.2	MSA Report on Dispatch Down Service..... 15
6.3	New to the MSA 15
	APPENDIX A – WHOLESALE ENERGY MARKET METRICS 16
	APPENDIX B – INTERTIE METRICS 23
	APPENDIX C – OPERATING RESERVE MARKET METRICS 27

LIST OF FIGURES

Figure I – Year to date Pool Prices and Gas Price (as of June 30).....	1
Figure II – Total MWs Offline at Genesee and Keephills due to KEG Conversion Project.....	2
Figure III – Volume Weighted Planned Outages (PPA Units).....	3
Figure IV – Volume Weighted Unplanned Outages (PPA Units).....	4
Figure V – Forward Flat Power vs. Previous Year’s Pool Prices.....	6
Figure VI – Forward Flat Heat Rate vs. Previous Year’s Heat Rate.....	6
Figure VII – The Evolution of the April Contract.....	7
Figure VIII – Monthly RRO Prices vs. Average Monthly Pool Prices.....	10
Figure IX – Estimated Number of Price Corrections By Month	12
 Figure 1 – Pool Price Duration Curves	 16
Figure 2 – Pool Price with Pool Price Volatility.....	17

Figure 3 - Pool Price with AECO Gas Price.....	17
Figure 4 - Price Setters by Submitting Customer (All Hours).....	18
Figure 5 - Price Setters by Fuel Type (All Hours)	18
Figure 6 – Heat Rate Duration Curves (All Hours)	19
Figure 7 - Implied Market Heat Rates On-Peak	19
Figure 8 – Implied Market Heat Rates Off-Peak	20
Figure 9 – PPA Outages by Quarter	20
Figure 10 – Market Share of Importers and Exporters.....	23
Figure 11 – Intertie Utilization Q2/08	24
Figure 12 - Imports with Trade-weighted Prices	25
Figure 13 - Exports with Trade-weighted Prices	25
Figure 14 - On-Peak Prices in Other Markets	26
Figure 15 - Off-Peak Prices in Other Markets	26
Figure 16 - Active Settlement Prices - All Markets (NGX and OTC).....	27
Figure 17 – Standby Premiums – All Markets (NGX and OTC)	28
Figure 18 – Activation Prices – All Markets (NGX and OTC).....	28
Figure 19 – Standby Activation Rates	29
Figure 20 – OTC Procurement as a % of Total Procurement.....	29
Figure 21 – Active Regulating Reserve Settlement by Market	30
Figure 22 – Active Spinning Reserve Settlement Price by Market	30
Figure 23 – Active Supplemental Reserve Settlement Price by Market.....	31
Figure 24 – Active Regulating Reserve Market Share by Fuel Type.....	31
Figure 25 – Active Spinning Reserve Market Share by Fuel Type	32
Figure 26 – Active Supplemental Reserve by Fuel Type	32

LIST OF TABLES

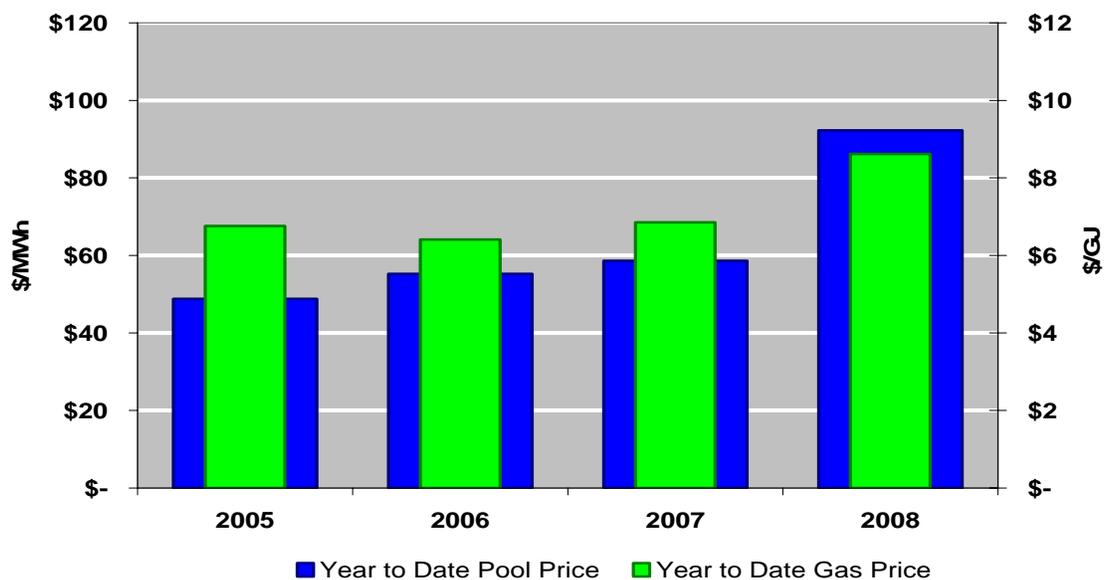
Table 1 - Pool Price Statistics	16
Table 2 - Percentage of Unplanned Outages for PPA Units.....	21
Table 3 - MW Weighted Portfolio Target Availability (%) vs.	21
Table 4 – PFEC and PFAM Tracking.....	22
Table 5 – Summary of UFE Reasonable Exception Reports.....	22
Table 6 – Intertie Statistics	23

1 FEATURED MARKET DEVELOPMENTS DURING Q2/08

1.1 Wholesale Market Fundamentals

The average pool price for Q2/08 was \$107.52 due to the high average prices experienced in April and May and this is a significant increase from \$76.95 of the previous quarter. Contributory factors included a higher than average gas price, a number of planned and unplanned outages, and transmission constraints resulting from the upgrade that took place at Keephills, Ellerslie and Genesee, otherwise referred to as the KEG conversion project.

Figure I: Year to Date Pool Price and Gas Price (as of June 30)



Pool prices for the first half of 2008 averaged \$92.23, the highest at this time of year since 2001. The year to date heat rate as of June 30 was 10.78 GJ/MWh, also much higher than the previous few years as were average natural gas prices (Figure I). In recent years, prices in the latter half of the year have been higher than the first half and forward prices for the balance of 2008 have the same expectation indicating that the average Pool Price for calendar year 2008 will be higher than for 2007.

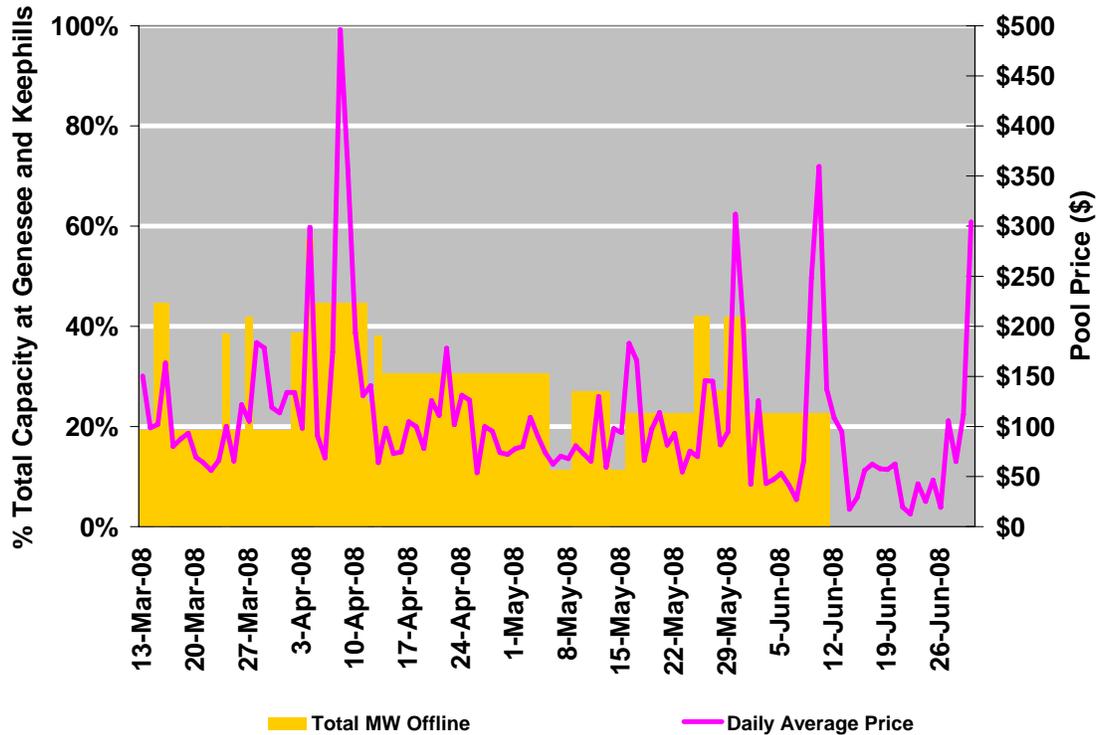
Despite the high average pool prices experienced in Alberta in Q2/08, Mid-C power prices were extremely low from late May until the end of June due to a late snow melt in the Pacific North West. Consequently import volumes were higher and export volumes were lower (down 95% from the previous quarter). Both the intertie volumes and direction of flow are what one would expect to observe in an efficient market. As a result,

prices in Alberta were much softer in June than in April and May primarily due to high import volumes on both interties and the completion of the KEG conversion project. On June 3 the high import levels, high levels of wind generation and base load availability in combination with modest loads resulted in zero dollar Pool Prices in HE4, 5 & 6 – once again a result that is concordant with market efficiency.

1.2 Impact of the KEG Conversion Project on Pool Price

The KEG conversion project consisted of a number of smaller projects including the conversion of unit transformers at the Genesee substation and the conversion of lines 1209L (connecting Genesee and Ellerslie) and 1203L (connecting Genesee and Keephills) from 240 kV to 500 kV. The KEG conversion project commenced in mid March and the bulk of work was completed by the end of May.

Figure II – Total MWs Offline at Genesee and Keephills due to KEG Conversion Project



In order to minimize the MWs constrained down, planned outages at Genesee were arranged to take place during the upgrade. However, there were significant periods of time for which MWs at Keephills and Genesee were constrained down in addition to those offline for planned maintenance. Figure II shows the average daily volume of MWs offline at Genesee and Keephills throughout the duration of the project (from March 13 and June 30). In addition to those MWs constrained down due to the KEG conversion project and those offline for planned maintenance, there were a number of forced outages that occurred at a number of facilities which in turn impacted the total level of MWs constrained off during the period.

Historically the majority of maintenance outages have been scheduled for the second and third quarters of the year with minimal maintenance planned for the first and last quarters. Figure III shows data for PPA coal units since 2005 and the level of planned outages in Q2/08 appear to be similar to those of previous years.

Figure III – Volume Weighted Planned Outages (PPA Units)

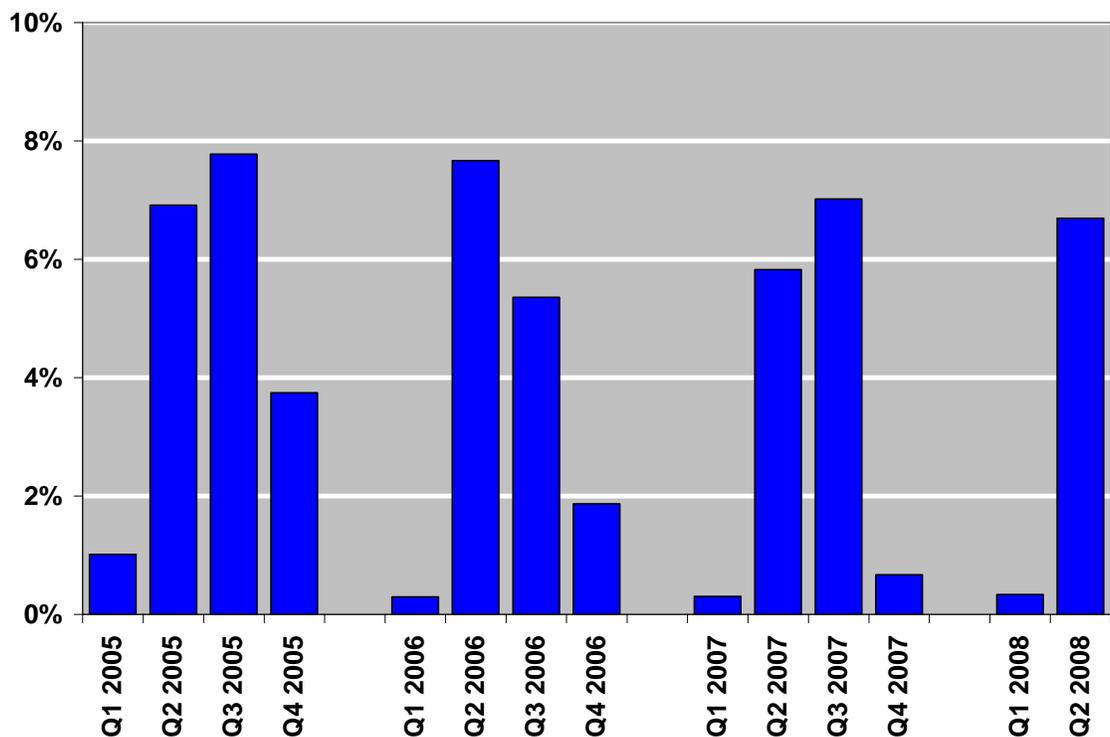
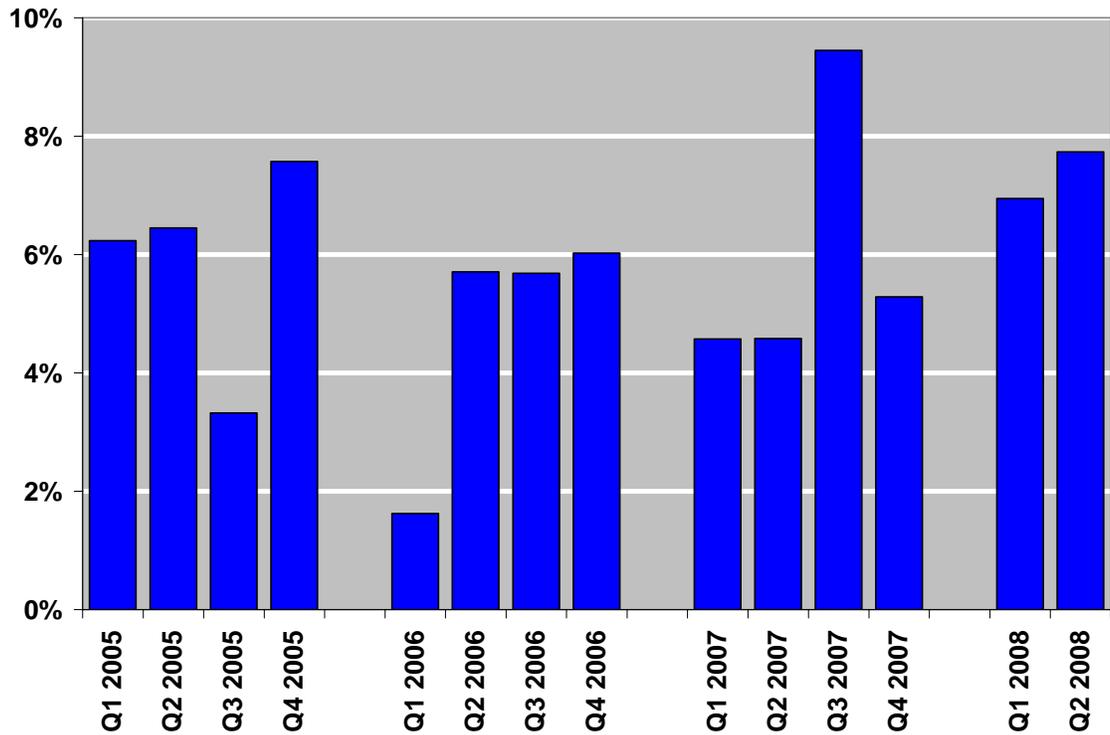


Figure IV – Volume Weighted Unplanned Outages (PPA Units)



Not surprisingly, at an aggregate level, the forced outages shown by quarter in Figure IV appear to be more randomly and uniformly distributed than the planned outages of Figure III. Although the forced outages that occurred in Q2/08 were higher than average of the quarters shown in Figure IV, they did not reach unprecedented levels.

In addition to the MWs offline or constrained down, the KEG conversion project also resulted in a restriction to import Available Transmission Capability (ATC) on the BC intertie placing further upward pressure on price. Between April 3 and April 10 the total volume constrained down was at a maximum for the entire period and during this time import ATC was derated by almost 150 MW (assuming a maximum ATC of 550 MW). Additional outages and derates not associated with the KEG conversion project were also a factor at this time resulting in higher Pool Prices than for any other period during the upgrade.

1.3 Forward Market Activity

Transactions in the forward market totaled over 9,000 GWh in Q2/08 and the number of participants increased over the previous quarter¹. The total volume transacted in the forward market was equivalent to about 54% of the physical spot market during the same period. Since the data analyzed does not consider those transactions settled bilaterally on OTC this figure understates the actual volume. The MSA is encouraged to see this increase in liquidity.

In addition to the strong spot market prices experienced in Q2/08, forward electricity prices also increased across the curve driven in part by forward gas prices which rose by more than \$2/GJ throughout the quarter. The front end of the curve was also supported by the expectation that there would be significant curtailments at Keephills and Genesee, as well as decreased import ATC due to the KEG conversion project.

At the end of Q2/08, with the exception of the Q2/09 contract, forward power prices were higher on average than the previous year's settles. While forward power prices in dollar terms are up, forward heat rates are significantly lower than those experienced in the past twelve months, partly due to higher forward AECO-C prices (Figures V & VI). It would appear that the market is expecting less supply tightness in the spot market in the upcoming months.

¹ The data analyzed includes all transactions that took place on NGX and those that settled through NGX. The analysis does not consider those transactions settled bilaterally on OTC.

Figure V: Forward Flat² Power Price vs. Previous Year's Pool Prices

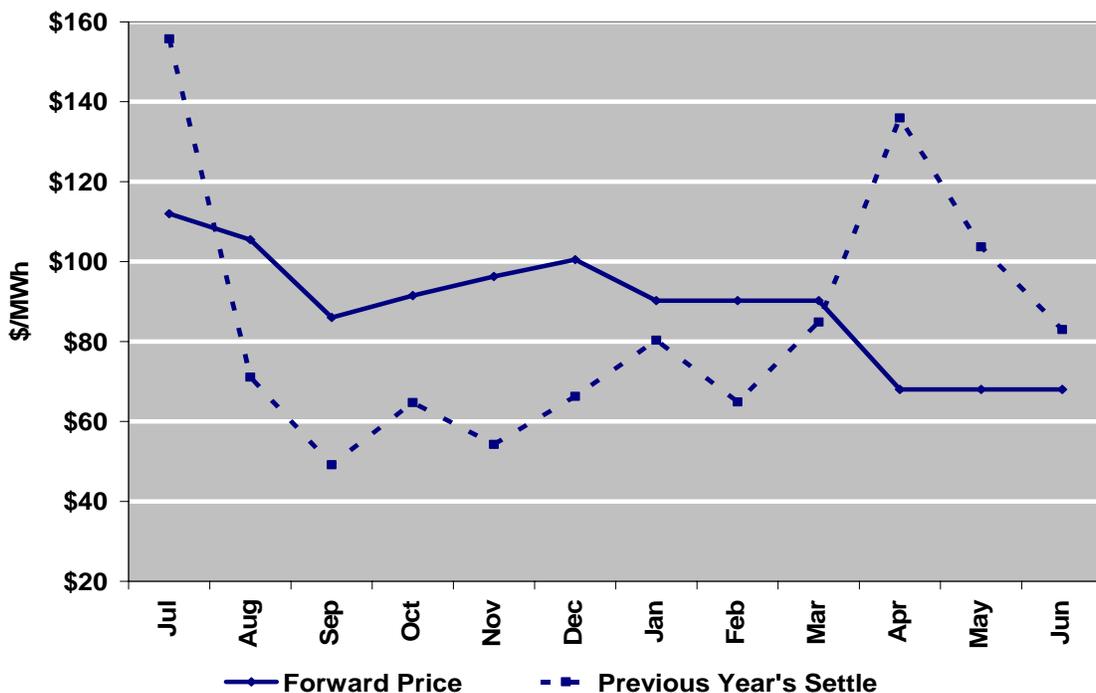
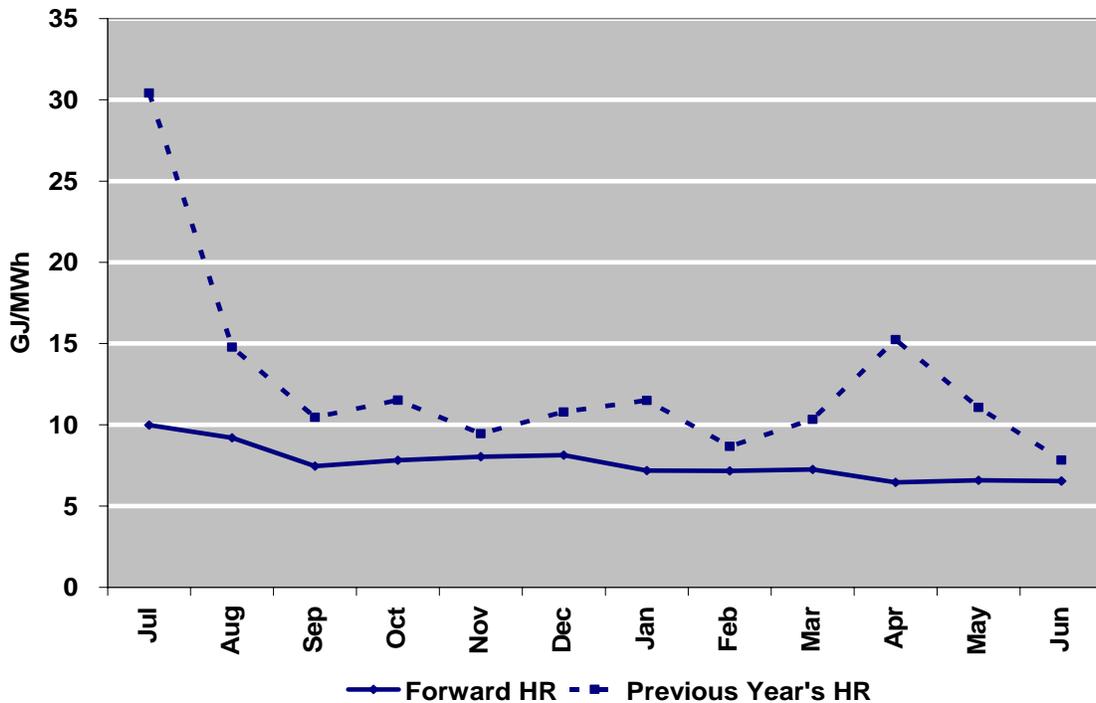


Figure VI: Forward Flat² Heat Rate vs. Previous Year's Heat Rate

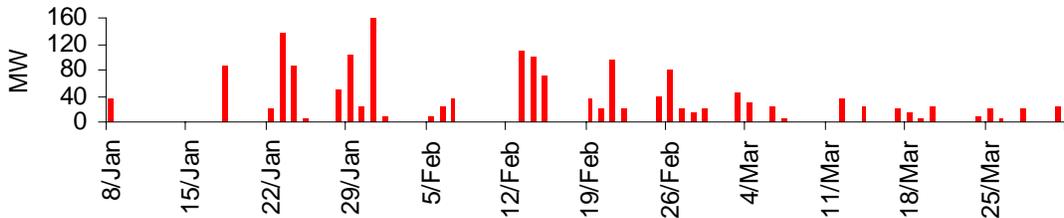
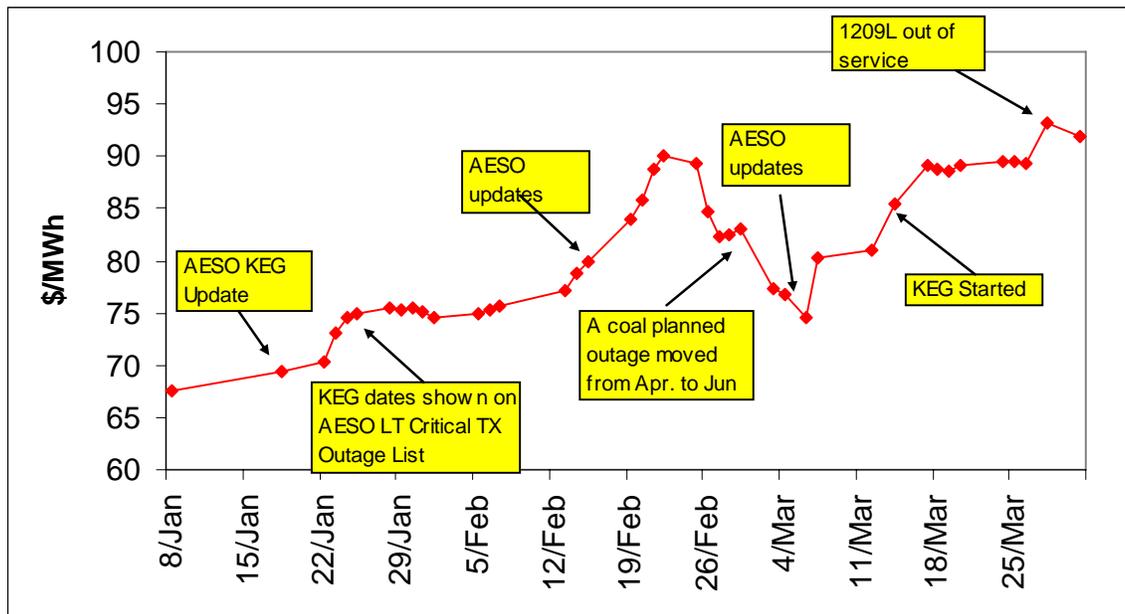


² Flat Power is the average price over a given period. Flat Heat Rate here is the average price for power divided by the average price for Natural Gas in a given period.

2 THE EVOLUTION OF THE APRIL CONTRACT

In the past quarter, some market participants expressed concern regarding the evolution of the April contract. Much like the September 2007 contract, the development of the April 2008 contract exhibited significant changes over time. While some believed that the information about the KEG conversion project was the primary driver behind the volatility of the April contract, others were less convinced with this explanation. The MSA has reviewed available data on prices and transactions of the April contract and the information that was available to the market. The MSA is of the view that the volatility of the April contract was primarily driven by the information related to the KEG conversion project (Figure VII).

Figure VII: The Evolution of the April Contract



In mid-January, the AESO informed the market that the KEG conversion project was “tentatively scheduled to proceed in early 2008”. At the same time, the AESO published a notice, “Information on AESO Website Reports – Outages”, which directed participants to various information sources published by the AESO. Among these, there was information regarding long and short term generation outages, transmission outages, intertie ratings, and the generation outages as a result of transmission outages or maintenance³. In addition, AESO Operating Policy and Procedure 517 which describes impacts of transmission maintenance on the output of the Keephills and the Genesee units as well as the ATC ratings under various scenarios was available. Market participants were able to use this information to ascertain the impact of the KEG conversion project reasonably well.

On the trading day immediately following the AESO’s initial update, the forward contracts for both March and April increased. The reference to “early 2008” indicated a possibility that a portion of the project could occur in March (i.e. if the project started in February). As a result both the price increase and the transaction volumes for the March contract surpassed those of the April contract.

In late January, the AESO updated the Long Term Critical Transmission Outage List with specific dates in March and April as to when the various tasks of the project were expected to be carried out. This update indicated that the bulk of the work was expected to occur in April, particularly that which would impact 1203L and 1209L. The April contract increased until late February, possibly as more participants began to understand the significant impacts to Genesee, Keephills and import ATC. At the same time April AESO prices rose by about a dollar, further contributing to the strengthening of the April contract. Meanwhile as the March contract was approaching delivery, April surpassed March in terms of activity and volatility. An accelerated rise in the April contract price occurred in the second half of February after the AESO updated the market again. On February 25, the April contract was traded at \$91.50/MWh on NGX, about \$12 higher than in the previous trading week.

The April contract took a turn and dropped between late February and early March as the Monthly Outage Graph showed that a planned coal outage was moved from April to June. Selling possibly initiated by profit taking selling and risk control also appeared to have contributed to the price drop. After the drop, the prices were range-bound for a couple of days and started to trend up again on the new updates from AESO in early March.

³ Until the expected generation outages and derates caused by transmission activities are received by the generators, they are captured in Year End Supply and Demand Projection graphs instead of the Outage Graphs.

The KEG conversion project commenced in mid-March and during the first few days of the project, generation derates/outages and lower ATC ratings related to the KEG conversion project coincided with an outage that occurred at Battle River #4 that had extended into March, as well as an outage at Sundance #5. The average pool price over the first weekend of the project tripled over the previous weekend. The impact of the KEG conversion project on the spot market prompted participants to price more upside risk into the forward April contract. As a result, the price of the April contract jumped more than \$8 in the first two trading days immediately following the start of the project. On the last weekend of March, 1209L was taken out of service severely restricting output from both Keephills and Genesee, as well as import ATC. The result was a decrease in supply of approximately 900 MW. This compounded by outages at Genesee #1, HR Milner and Sundance #3, resulted in an extremely tight spot market and once again pool price settled very high. This surge in the pool price reinforced the bullish tenor of the upcoming April market. After a \$3.80 rise on March 28, the April contract finished at about \$92/MWh with an implied heat rate of over 12GJ/MWh. The April contract clearly demonstrates once again that markets are both dynamic and information driven.

The AESO's prompt and accurate disclosure of relevant information throughout the KEG conversion project played an important role in the orderly evolution of the April contract. At this time, the MSA is satisfied that the prices of the April contract correlated very well with the information as it became available to market participants and that the value of the April contract was in the end determined by the market's view of the fundamentals. Ultimately the April contract settled higher (\$136/MWh) than its forward value at the end of March (\$92/MWh) largely due to a high number of unforeseeable forced outages that occurred in April.

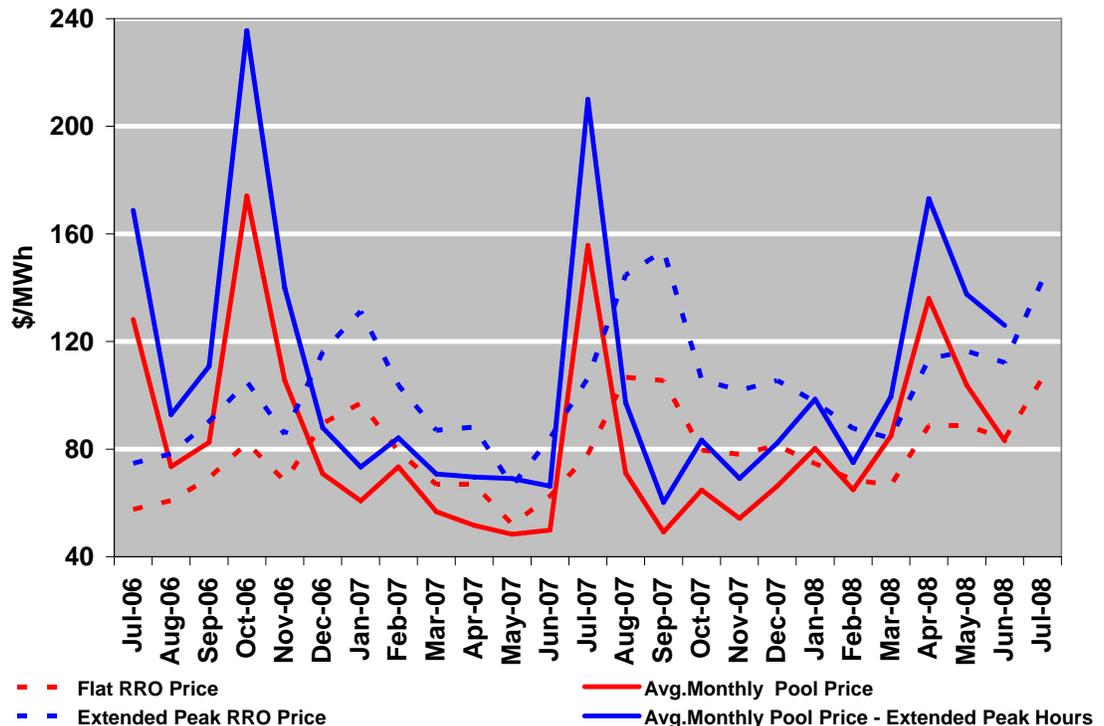
This event illustrates the MSA's long standing view that the availability of information plays an important role in the efficient operation of the market and the MSA will continue to focus on the timely and non-discriminatory availability of information in the market place.

3 RETAIL MARKET DEVELOPMENTS

As laid out in the RRO Regulation (AR 262/2005) by July 2010 the RRO rate is to be based entirely on short term (month ahead) purchases. In compliance with this regulation the ratio of short term to long term purchases that feed into the calculation of the RRO rate have increased yearly starting at 20% in July 2006. July 2008 marked the third increase of the short term hedge portion from 40% to 60%.

Figure VIII displays both the Flat and Extended Peak RRO prices up to July 2008. Like the forward price discussed in Section 2, the RRO prices are also indicators of the forward view of the actual settles. The Flat RRO price can be viewed as an estimate of the upcoming month's average pool price whereas the Extended Peak RRO price is an estimate of the upcoming month's 'peak' pool prices (the 16 hours from 7 am through 11 pm each day). In order to determine how well these two indicators predict the actual pool price, the RRO prices were compared with their respective settles for July 2006 to June 2008 (Figure VIII). The data indicates that there is very little correlation between the average monthly pool prices and the RRO price for either the flat or extended peak portions of the index. In fact it appears that more often than not RRO prices are highest in months following high average settles indicating that forward views are strongly influenced by current spot prices.

Figure VIII – Monthly RRO Prices vs. Average Monthly Pool Prices



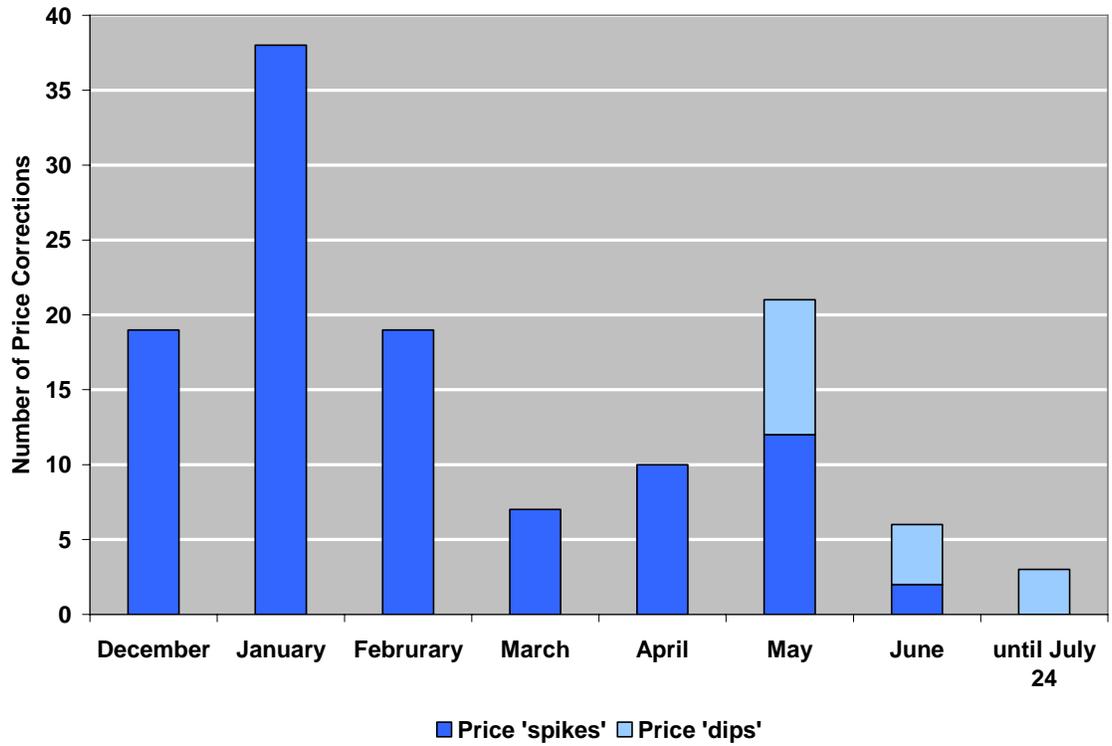
4 INCORRECT POSTING OF POOL PRICE

Since the introduction of the 'Quick Hits' package and the resulting rule changes that took effect on December 3, 2007 the AESO has experienced a variety of technical difficulties relating to the posting of System Marginal Price (SMP). This has impacted the accuracy of the posting of SMP on occasion and in turn has had some impact on the accuracy of the resultant posted pool price. It is the MSA's understanding that IT issues have resulted in both price 'spikes' (SMP is declared higher than it should be) and price 'dips' (SMP is declared lower than it should be). Figure IX shows the estimated number of price 'spikes' and 'dips' since December 3, 2007 up until July 24, 2008. Based on data received from the AESO there have been over 100 price spike / dip events since Quick Hits went live. Some unknown portion of these events were screened out by alert System Controllers and would never have been apparent to the market. While most of the pricing errors that resulted in incorrect postings did so for only a few minutes, the incorrectly posted price has in some cases remained posted for much longer periods.

In the MSA's view any errors in SMP or pool price are harmful to market confidence. In real time such errors may cause unwarranted action by price responsive load, influence generators' offers or intertie flows for upcoming hours. Market participants may also be less inclined to believe, and therefore respond to, prices that are truly reflective of market conditions. A loss of confidence in the posted SMP and pool price will also result in negative impacts in other areas of the market, including forward liquidity.

The MSA is aware that the AESO has been working diligently to correct the IT issues that have resulted in incorrectly posted prices. A number of 'fixes' have been introduced since January but, since the problem does not have a single root cause, it has been difficult to eliminate the posting of incorrect prices. The MSA understands that the most recent changes made to address these problems were implemented on July 10 and it appears that there have been no further price incidents since this upgrade. The MSA has asked the AESO to ensure that it fully and consistently discloses each and every error to market participants. The MSA believes that this is the best way to limit the harm to market confidence caused by such pricing errors. The MSA has also requested that the AESO keep them fully informed of any incidents when it suspects a pricing error has occurred.

Figure IX: Estimated Number of Price Corrections by Month
(Source: AESO)



5 ISO RULES COMPLIANCE

The mandate of the MSA includes surveillance, investigation, and enforcement regarding compliance with the ISO rules. In carrying out those responsibilities the MSA works closely with the AESO, which has a coincident responsibility to monitor rules compliance for suspected contraventions (those are then referred to the MSA for investigation/enforcement, as applicable). Those roles and responsibilities were clarified by the Alberta Utilities Commission Act (AUCA) which came into force January 1, 2008.

As part of the transition to the new AUCA legislation, the AESO retained responsibility for various non-compliance events which occurred prior to January 1, 2008. Those files were handled by the existing AESO compliance process (ISO rule 12), and the AESO has now issued decisions in respect of all such non-compliance files.

For its part, during Q2/08 the MSA issued 4 notices of specified penalty for breaches of ISO rules. In two cases, payment of the specified penalty was due within the Q2/08 reporting period, and both payments were made. The MSA will report on the other two specified penalties in its Q3/08 report, as applicable. During Q2/08 the MSA also issued 5 Warning Letters and 2 Non-Compliance Letters, in accordance with the existing AUC Rule 019 Penalty Table.

The MSA also has two AUC hearings pertaining to specified penalties issued in Q1/08 (see AUC Proceeding ID 71 and 75, scheduled to be heard in August and September).

As of June 30, 2008, and not including the hearing files referenced above, there were a total of 54 compliance events of interest jointly being assessed by the AESO and the MSA. Subsequent to standard due diligence and data verification, these will either be formally referred to the MSA for prosecution/forbearance or dealt with by other means by the MSA in conjunction with the AESO, as the MSA deems reasonable and appropriate.

During Q2/08, in addition to the enforcement activities referenced above, the MSA continued to work with the AESO toward assisting market participants in understanding new or revised rules resulting from the implementation of 'Quick Hits' with an eye to education and improved compliance. With the concurrence of the MSA, the AESO engaged in a program of dialogue with market participants regarding specific compliance issues - as appropriate, forbearance was exercised by the MSA such that discrete non-compliance events became fodder for compliance education rather than enforcement.

Effective July 1, 2008 the AUC established a revised AUC Rule 019, which applies to the issuance of specified penalties by the MSA. The revised rule includes changes to the Penalty Table, to publication of

notices of specified penalty, and to the manner of self-reporting by market participants regarding their non-compliance events. The changes do not affect non-compliance events which occurred prior to July 1. To address the changed approach to self-reporting, the MSA made consequential amendments to the MSA Investigation Procedures (per our website notice dated July 8, 2008).

6 OTHER MSA ACTIVITIES

6.1 MSA Guideline: Intertie Conduct

In May the MSA initiated a stakeholder consultation around 'Intertie Conduct' in light of the 'Quick Hits' rule changes. The MSA presented a strawdog on which it invited stakeholder comment. This was refined into a draft Guideline in June and following more stakeholder consultation was finalized in a Guideline released on July 14. The MSA was very pleased with the level of participation from stakeholders and from the constructive comments received.

6.2 MSA Report on Dispatch Down Service

In July the MSA published a report entitled 'Quick Hits' Review: Dispatch Down Service. This report contains the MSA's analysis and findings relating to some unanticipated consequences following the introduction of the dispatch down service (DDS). The MSA expects to complete similar analysis on other aspects of the 'Quick Hits' rules package and will report our findings to the market where appropriate.

6.3 New to the MSA

The MSA welcomed a new analyst to our team at the end of Q2/08, Nandan Randhawa. Nandan is a recent graduate of the Actuarial Science program at the University of Calgary. Nandan will be working with the market monitoring and analysis group.

APPENDIX A – WHOLESALE ENERGY MARKET METRICS

Table 1 - Pool Price Statistics

	Average Price ¹	On-Pk Price ²	Off-Pk Price ³	Std Dev ⁴	Coeff. Variation ⁵
Apr-08	135.95	169.88	84.50	158.75	117%
May-08	103.73	134.07	56.66	108.73	105%
Jun-08	83.00	131.70	30.12	156.86	189%
Q2-2008	107.56	145.22	57.10	145.31	137%
Jan-08	80.30	98.56	55.02	96.23	120%
Feb-08	64.89	74.99	51.24	38.31	59%
Mar-08	84.89	99.51	66.30	90.37	106%
Q1-2008	76.95	91.02	57.52	80.43	95%
Apr-07	51.67	69.60	29.26	52.20	101%
May-07	48.37	68.97	19.83	57.03	118%
Jun-07	49.87	66.25	27.44	50.71	102%
Q2-2007	49.97	68.28	25.51	53.42	107%

1 - \$/MWh

2 - On-peak hours in Alberta include HE08 through HE23, Monday through Saturday

3 - Off-peak hours in Alberta include HE01 through HE07 and HE24 Monday through Saturday, and HE01 through HE24 on Sundays

4 - Standard Deviation of hourly pool prices for the period

5 - Coefficient of Variation for the period (standard deviation/mean)

Figure 1 – Pool Price Duration Curves

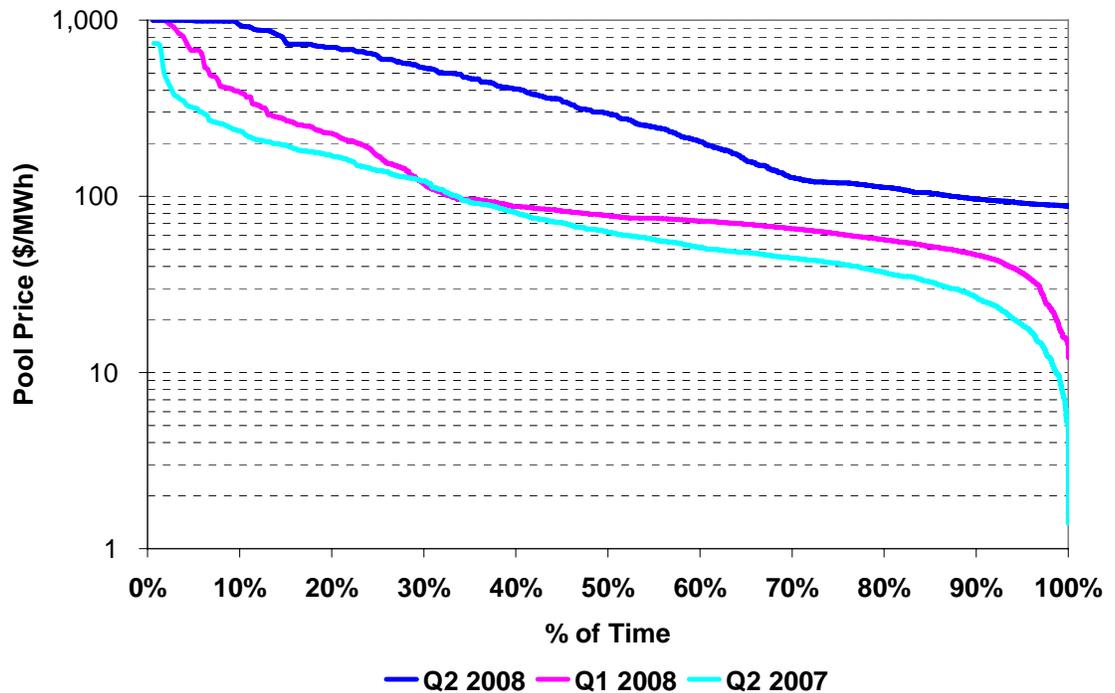


Figure 2 – Pool Price with Pool Price Volatility

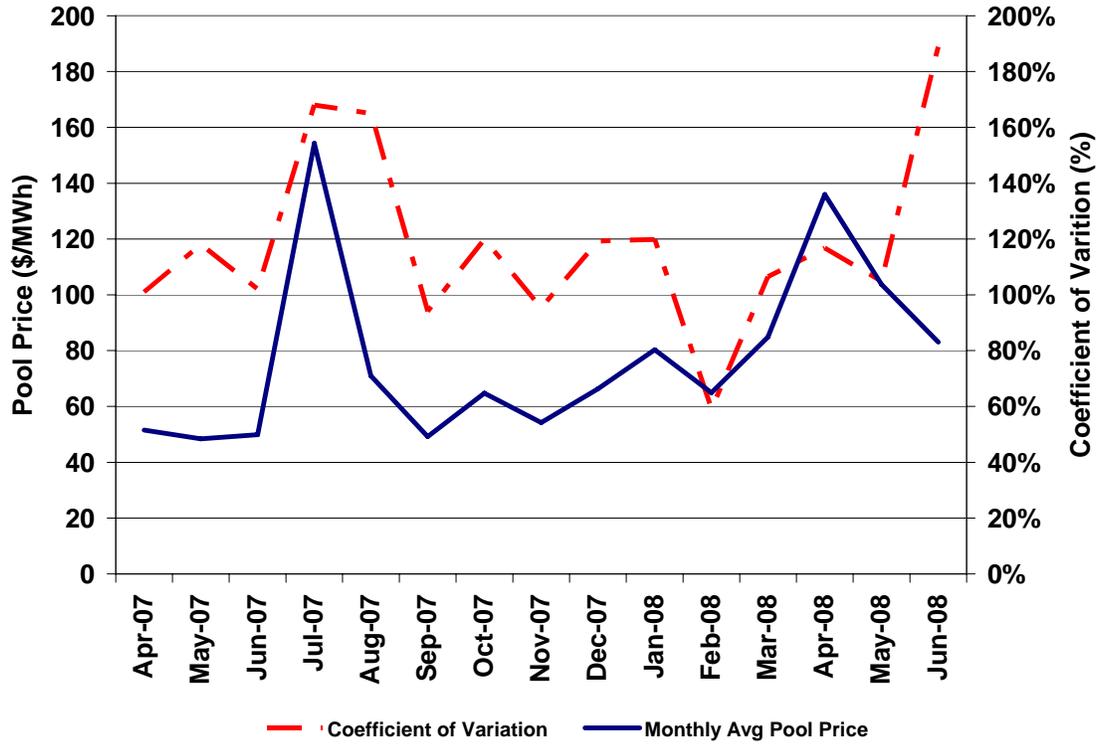


Figure 3 - Pool Price with AECO Gas Price

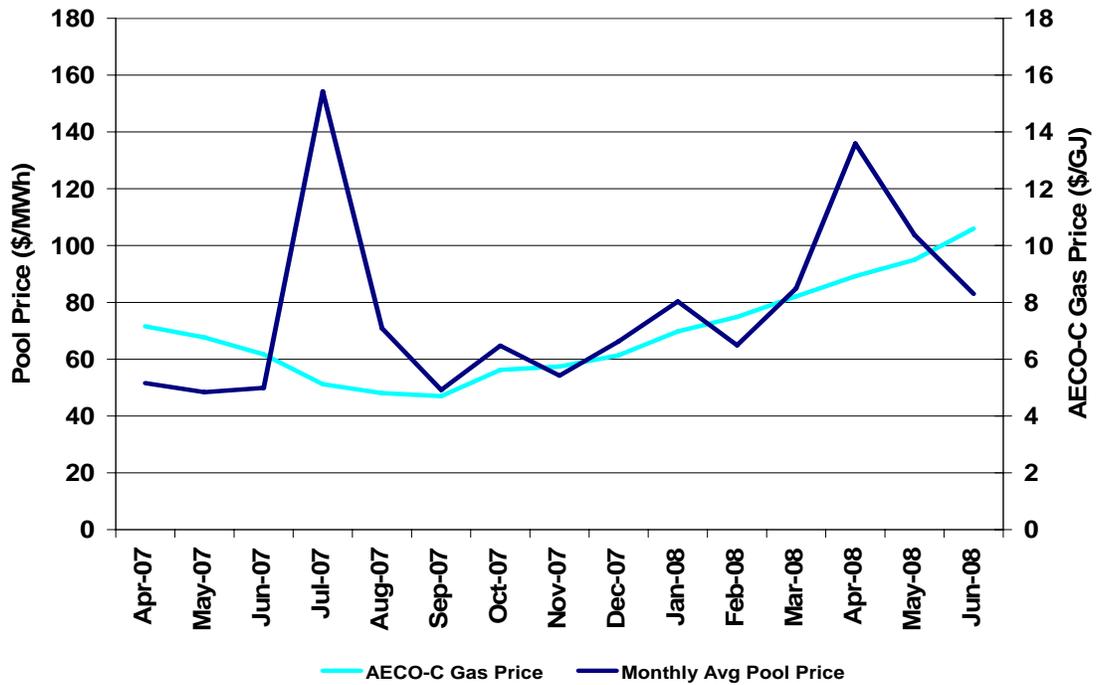


Figure 4 - Price Setters by Submitting Customer (All Hours)

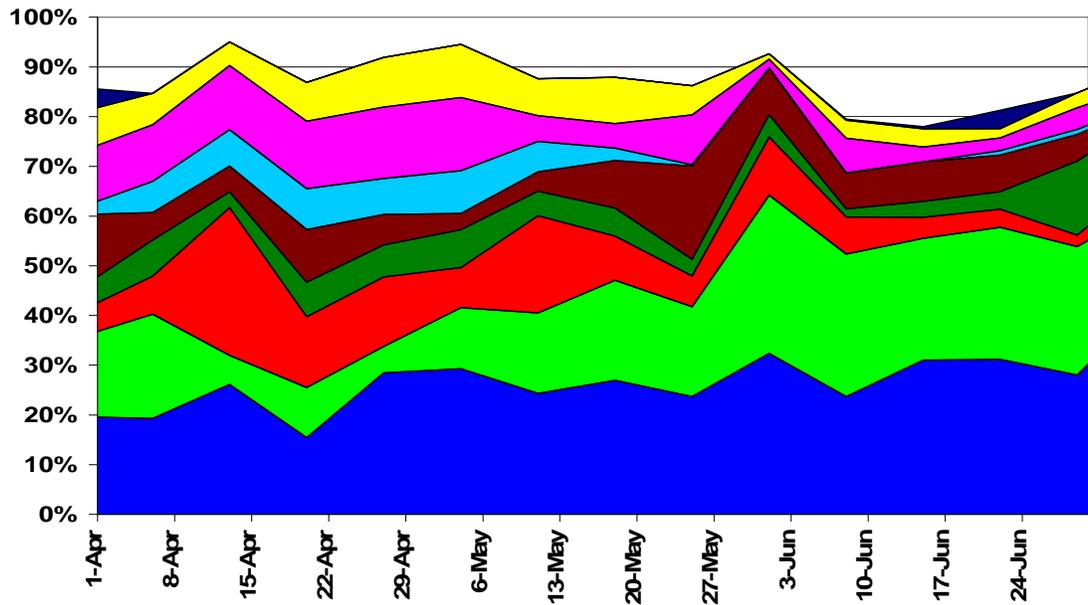


Figure 5 - Price Setters by Fuel Type (All Hours)

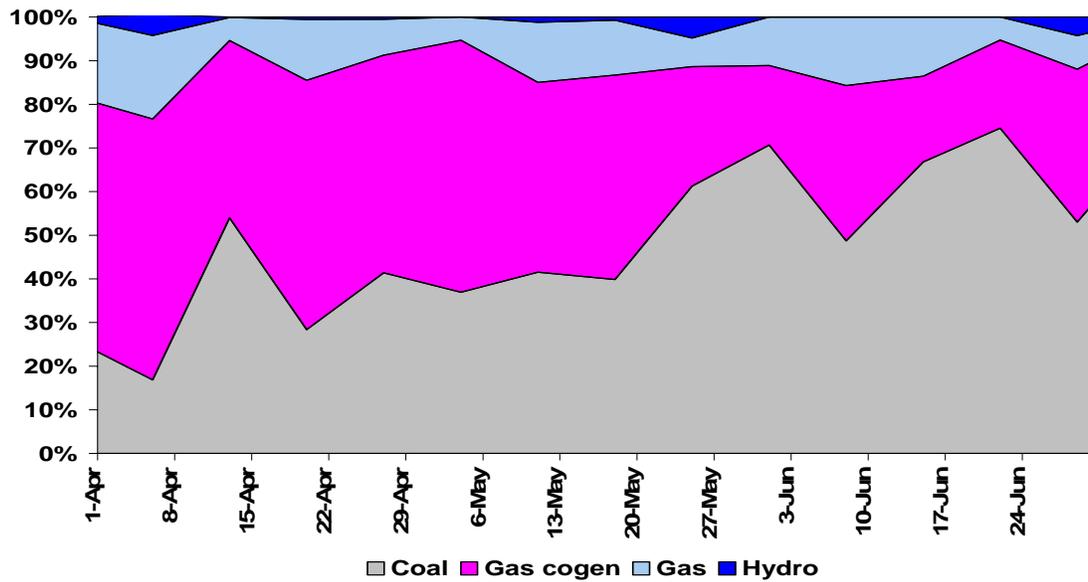
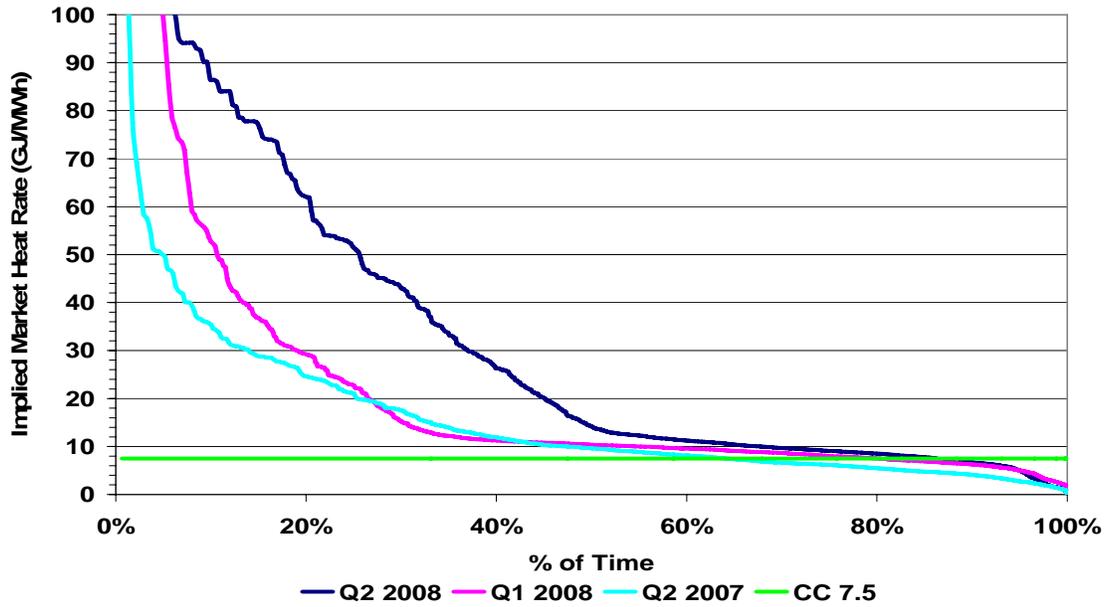


Figure 6 – Heat Rate Duration Curves (All Hours)



1 – CC denotes a representative combined-cycle generator with a heat rate of 7.5 GJ/MWh

Figure 7 - Implied Market Heat Rates On-Peak

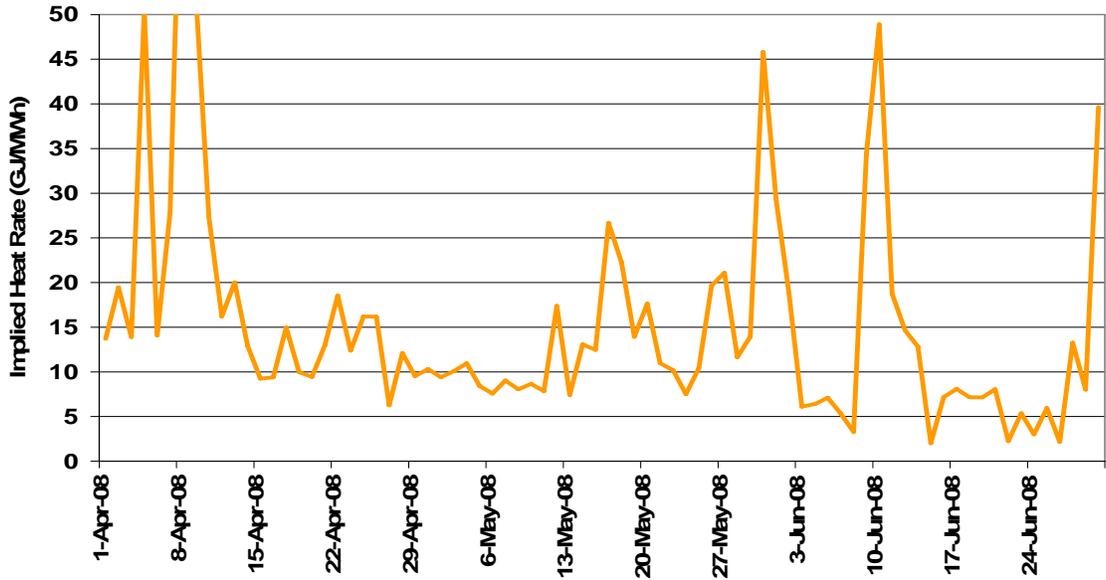


Figure 8 – Implied Market Heat Rates Off-Peak

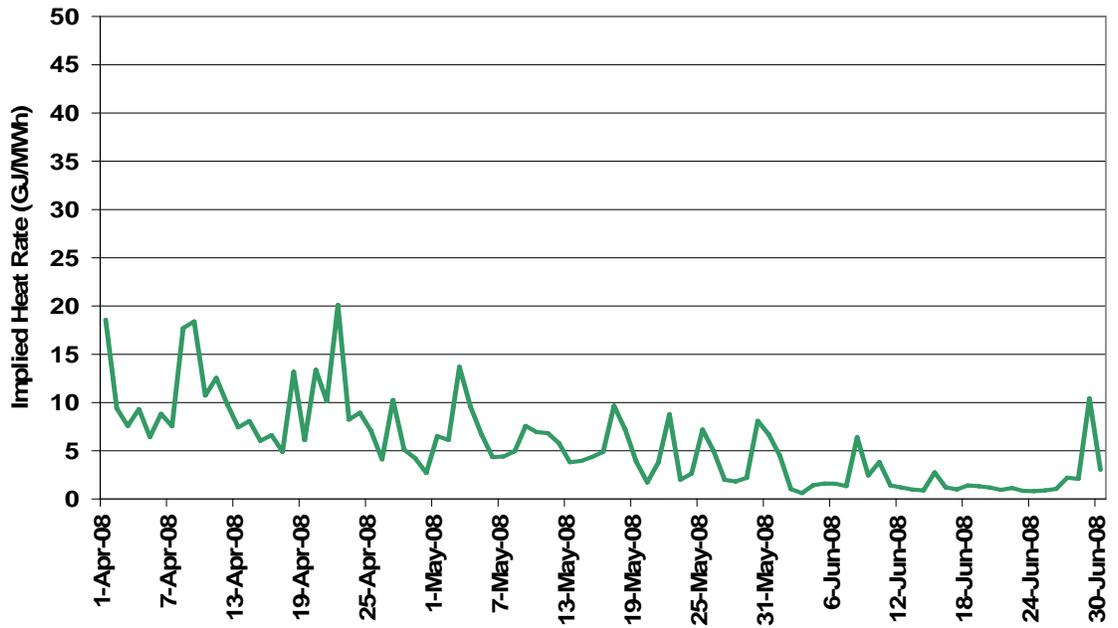


Figure 9 – PPA Outages by Quarter

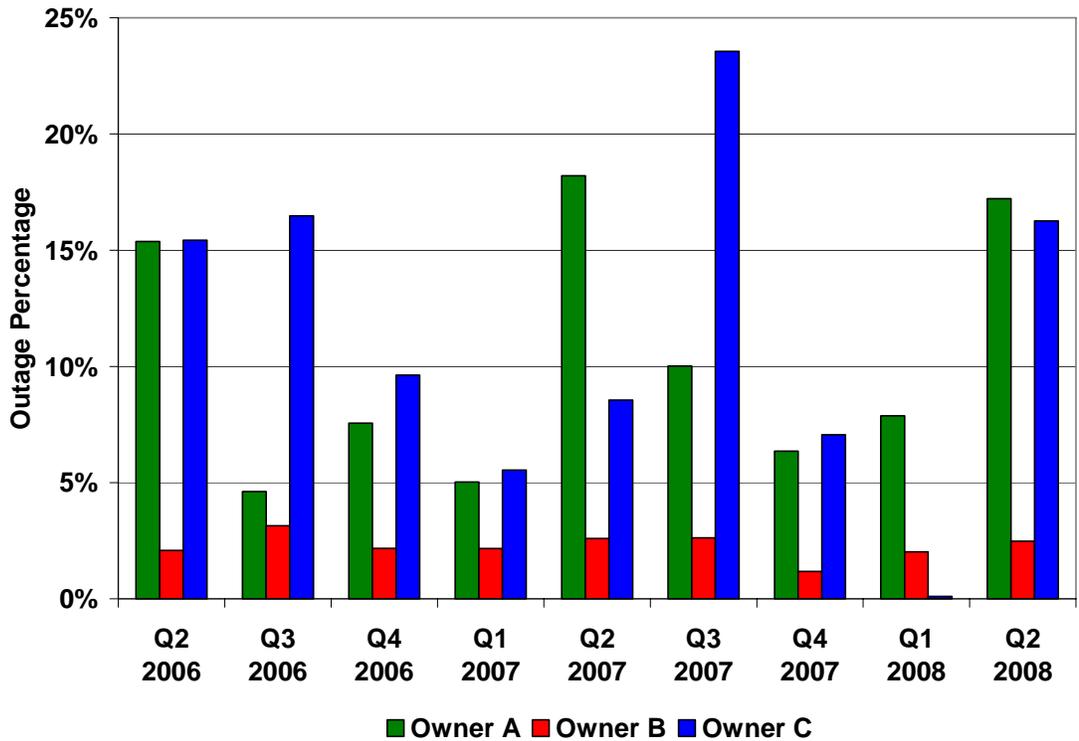


Table 2 - Percentage of Unplanned Outages for PPA Units

	Q2/2008	Q1/2008	2007	2006	2005	2004	2003	2002
Owner-A	3.6%	7.9%	6.0%	5.2%	5.0%	6.1%	4.9%	4.2%
Owner-B	1.9%	1.9%	1.8%	1.8%	5.4%	1.5%	1.5%	0.5%
Owner-C	11.4%	7.9%	7.1%	5.3%	6.5%	6.3%	5.7%	10.8%
PPA weighted average	7.7%	6.9%	6.0%	4.8%	5.9%	5.5%	4.9%	7.7%

Table 3 - MW Weighted Portfolio Target Availability (%) vs. Actual Availability (%) - Coal Fired PPA Units

	Target Availability 2006	Actual Availability 2006	Target Availability 2007	Actual Availability 2007	Target Availability 2008	Actual Availability Q2 2008
Owner-A	87%	93%	87%	90%	87%	83%
Owner-B	89%	98%	89%	98%	89%	98%
Owner-C	87%	89%	86%	89%	86%	84%
PPA weighted Average	87%	91%	87%	94%	87%	86%

PFEC and PFAM, are mechanisms by which corrections and adjustments can be made to settlement calculations pursuant to the retail Settlement System Code ("Code"), which is part of the ISO rules. PFEC ("pre-final error correction"), serves to correct errors prior to a subsequent run of settlement and thus improves settlement results prior to final settlement. PFAM ("Post-final adjustment mechanism"), is a process that market participants must follow when final settlement data is being disputed and the market participants are requesting financial adjustments be made as a result of the dispute.

UFE ("Unaccounted-for energy") reflects the extent of the settlement differences between energy going into the system vs. energy taken out by consumption and losses. UFE reasonable exception reports note instances where UFE was outside the tolerances allowed for in the Code. Load settlement agents (LSAs) are required to investigate and report to the market on such variances.

Table 4 – PFEC and PFAM Tracking

Claim Type	Carry-Over	Submitted	Accepted	Rejected	Unresolved	Net kWh Adjustment
PFEC						
Q2/08	48	69	79	37	1	NA
Q1/08	15	221	110	78	48	NA
PFAM						
Q2/08	20	734	654	69	18	37,907,173
Q1/08	21	52	35	18	20	385,946

Table 5 – Summary of UFE Reasonable Exception Reports

Quarter	Outstanding	New	Resolved	Unresolved
Q2/08	523	85	0	608
Q1/08	577	20	74	523

APPENDIX B – INTERTIE METRICS

Table 6 – Intertie Statistics

	British Columbia			Saskatchewan			Overall		
	Imports (MWh)	Exports (MWh)	Net Imports (MWh)	Imports (MWh)	Exports (MWh)	Net Imports (MWh)	Imports (MWh)	Exports (MWh)	Net Imports (MWh)
Apr	122,878	35,795	87,083	91,796	0	91,796	214,674	35,795	178,879
May	122,059	23,818	98,241	55,938	600	55,338	177,997	24,418	153,579
Jun	242,436	0	242,436	58,462	1,982	56,480	300,898	1,982	298,916
Q2 Total	487,373	59,613	427,760	206,196	2,582	203,614	693,569	62,195	631,374

Figure 10 – Market Share of Importers and Exporters

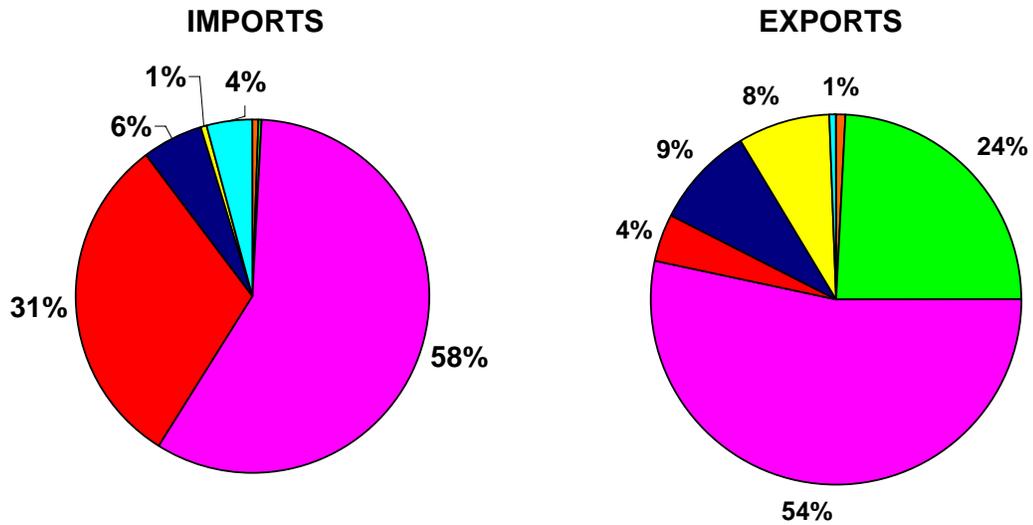


Figure 11 – Intertie Utilization Q2/08

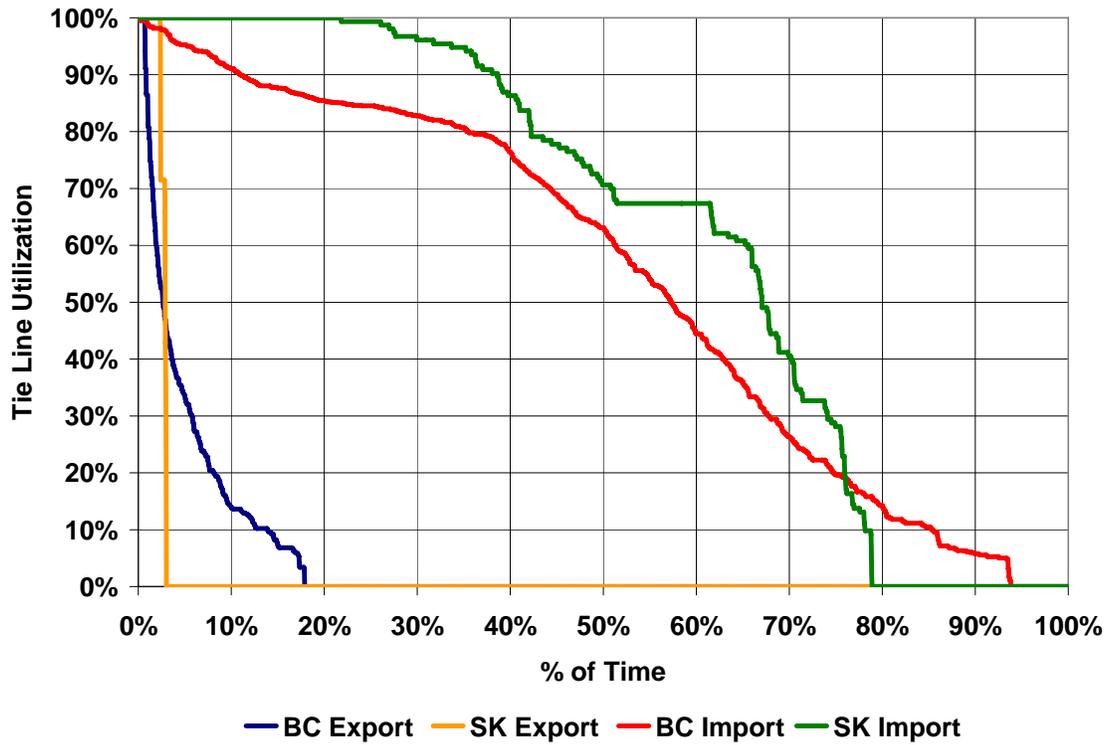


Figure 12 - Imports with Trade-weighted Prices

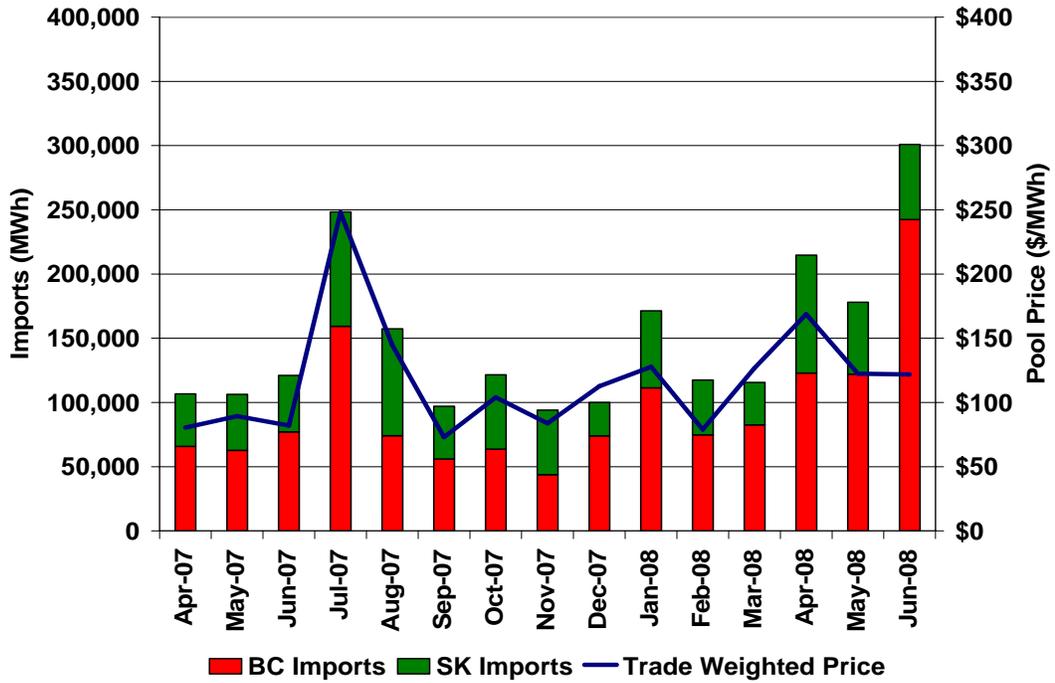


Figure 13 - Exports with Trade-weighted Prices

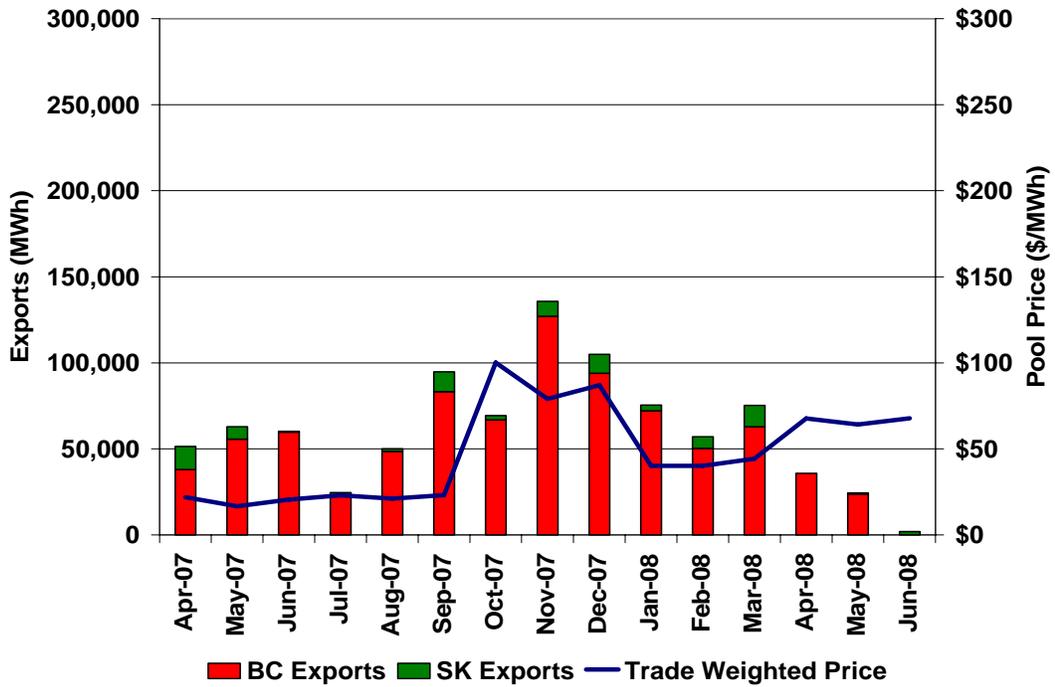


Figure 14 - On-Peak Prices in Other Markets

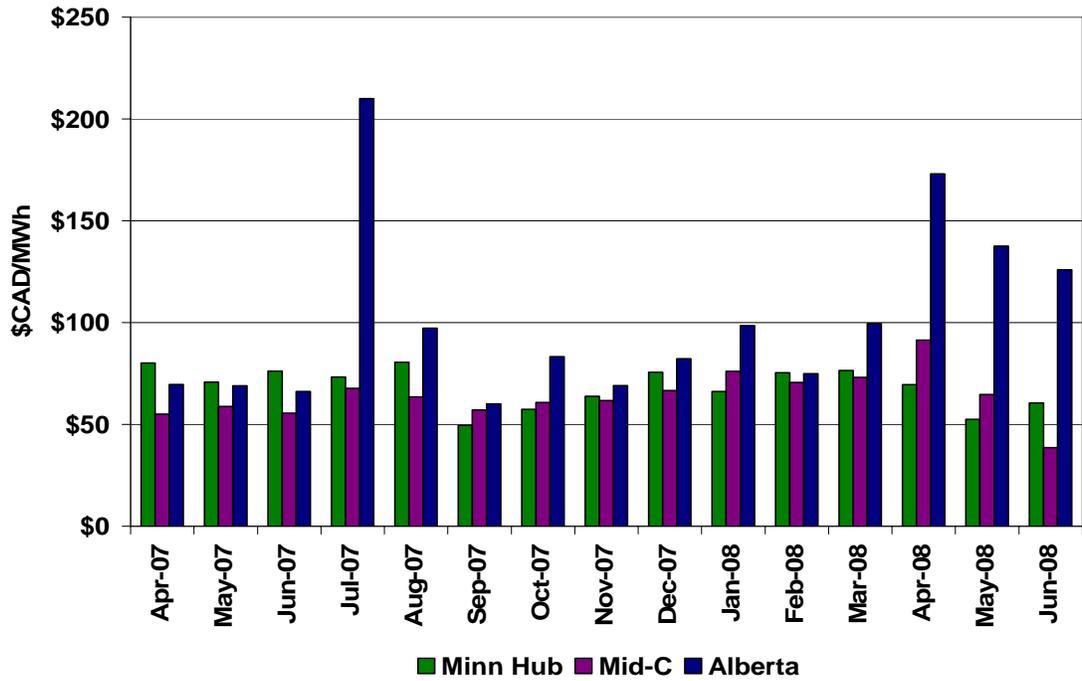
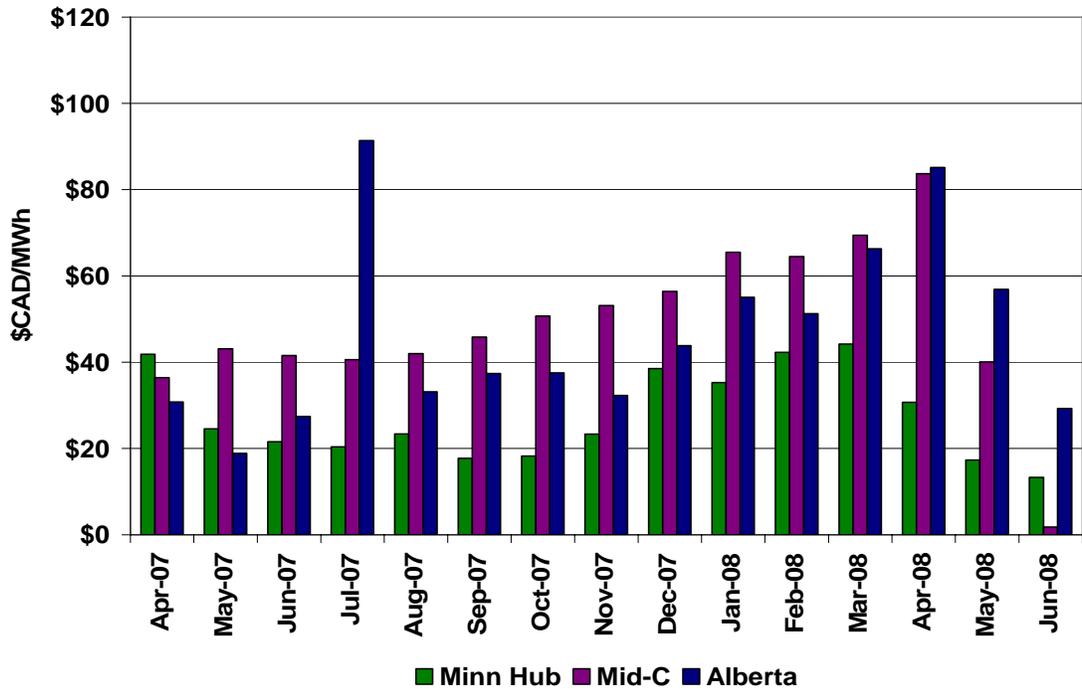


Figure 15 - Off-Peak Prices in Other Markets



APPENDIX C – OPERATING RESERVE MARKET METRICS

Ancillary services are the system support services that ensure system stability and reliability. The Alberta Interconnected Electric System (AIES) is required to carry sufficient operating reserves in order to assist in the recovery of any unexpected loss of generation or an interconnection. Operating reserves are competitively procured by the AESO through the Alberta NGX Exchange (NGX) and over the counter (OTC). Standard operating services products (contracts) include active and standby products for each of Regulating, Spinning, and Supplemental operating reserves. The majority of active operating reserve products are indexed and settled against the Pool price prevailing during the contract period. Standby operating reserve products are priced in a similar manner to options with a fixed premium and an exercise price (activation price). The activation price is only paid in the event that the contract is activated.

Figure 16 - Active Settlement Prices - All Markets (NGX and OTC)

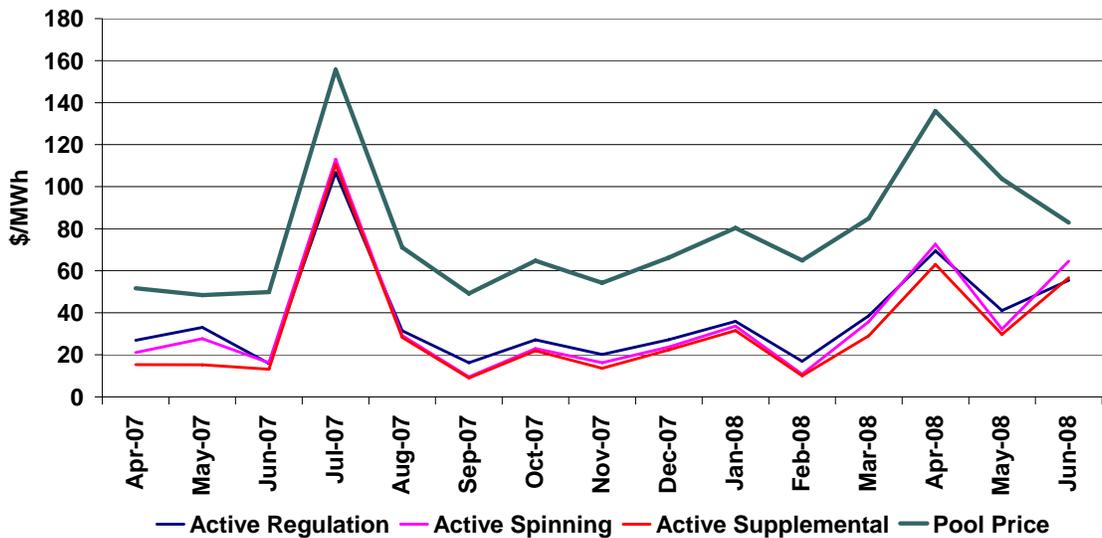


Figure 17 – Standby Premiums – All Markets (NGX and OTC)

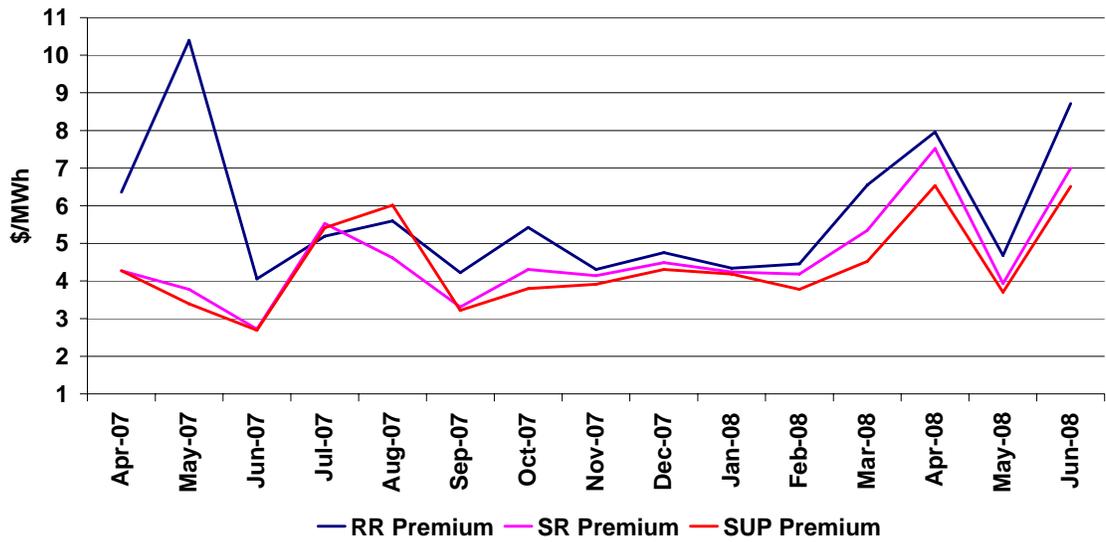
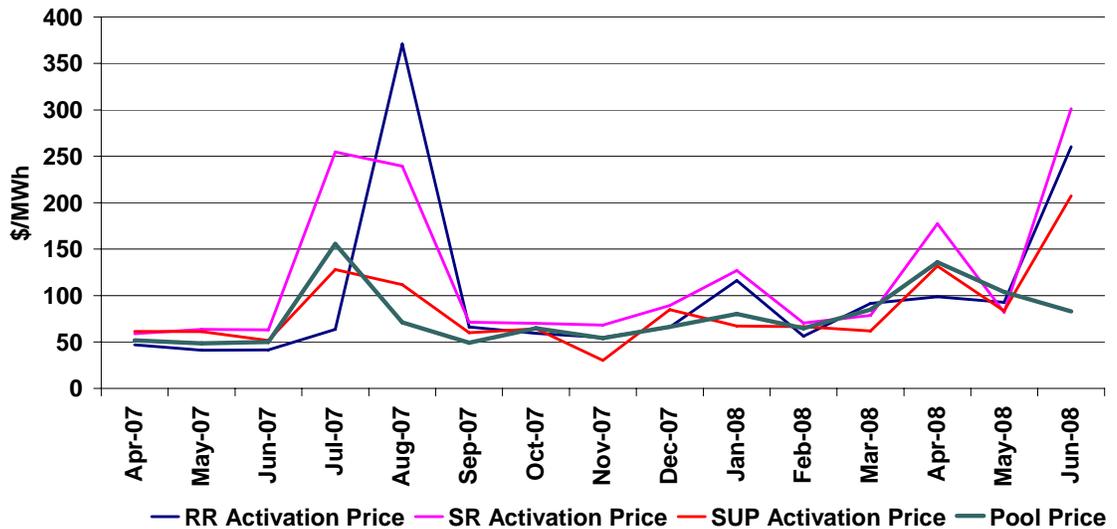


Figure 18 – Activation Prices – All Markets (NGX and OTC)



1 - These prices are for Standby volumes that were activated

Figure 19 – Standby Activation Rates

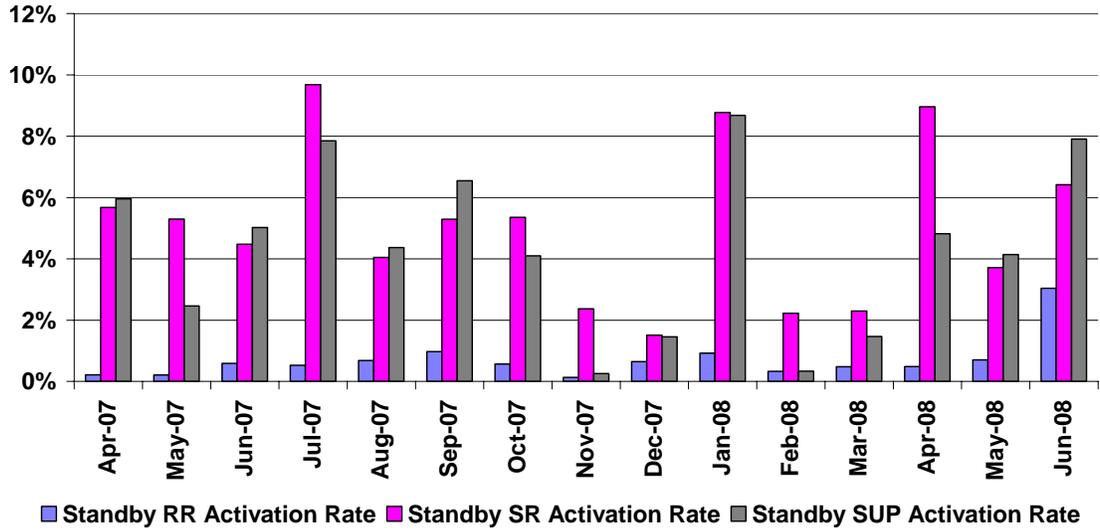


Figure 20 – OTC Procurement as a % of Total Procurement

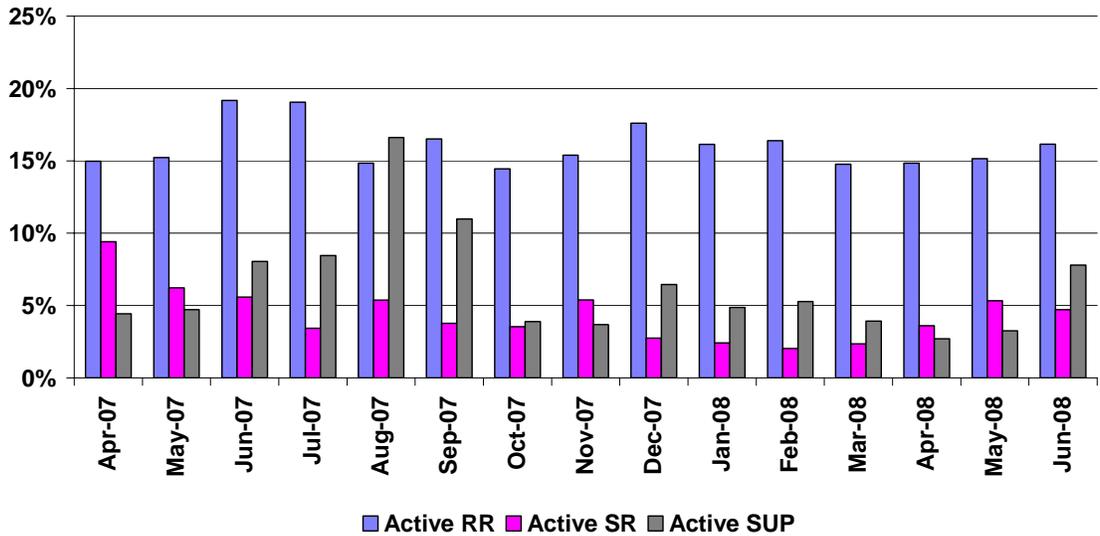


Figure 21 – Active Regulating Reserve Settlement by Market

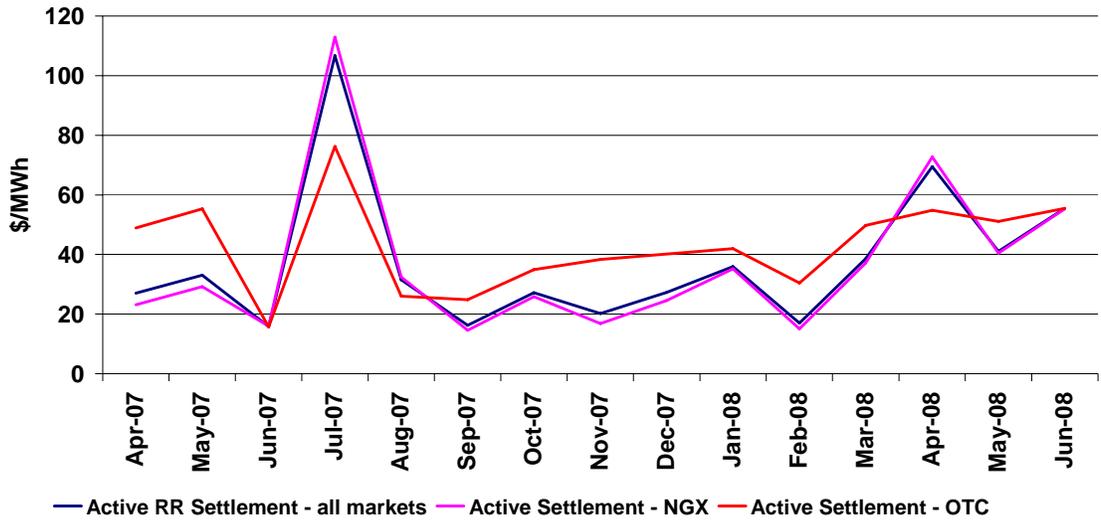


Figure 22 – Active Spinning Reserve Settlement Price by Market

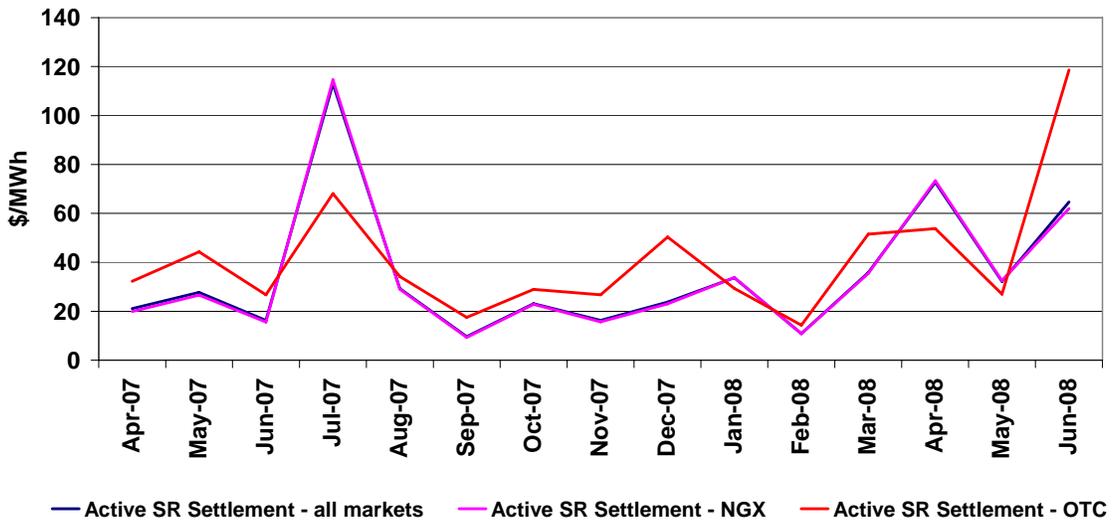


Figure 23 – Active Supplemental Reserve Settlement Price by Market

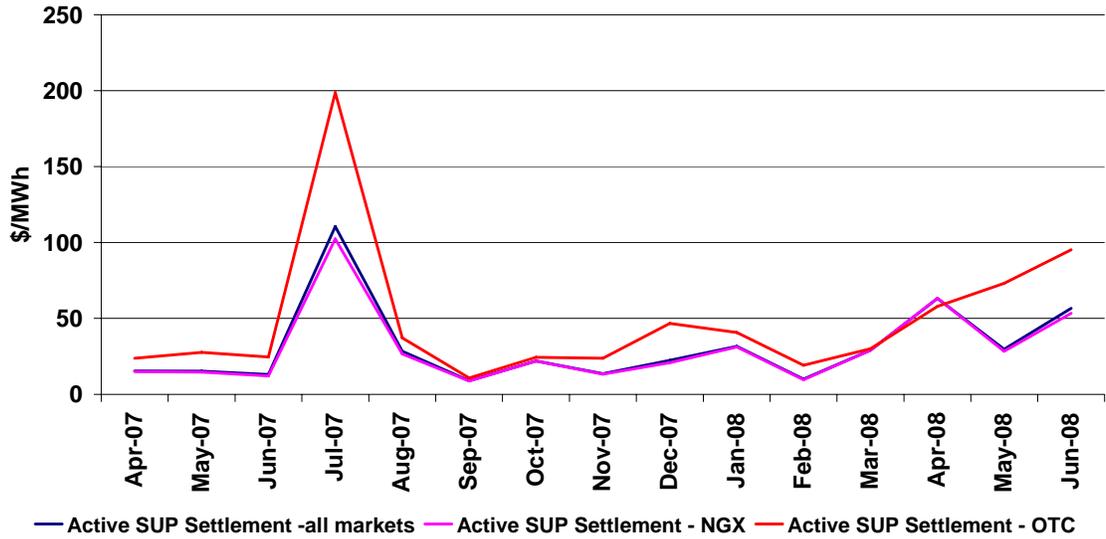


Figure 24 – Active Regulating Reserve Market Share by Fuel Type

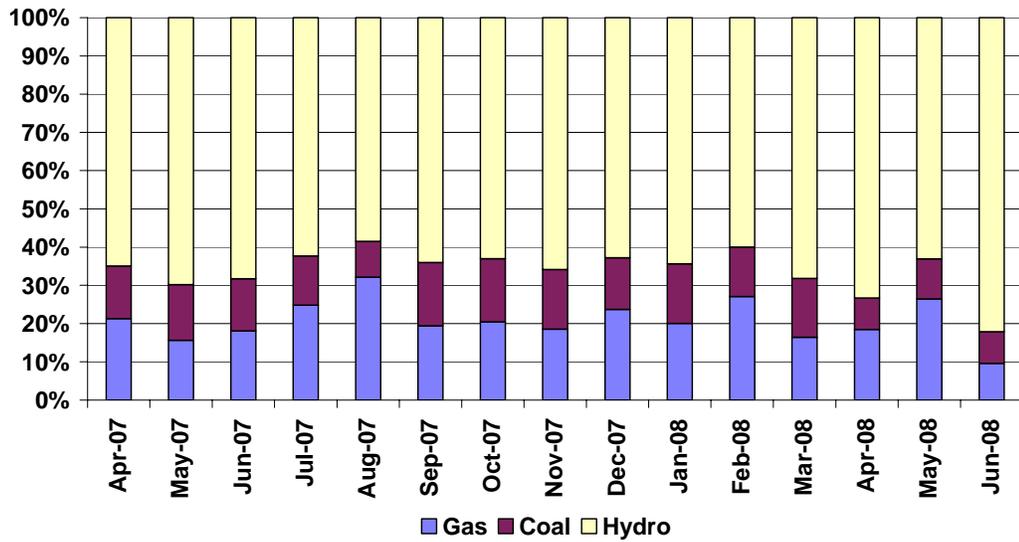


Figure 25 – Active Spinning Reserve Market Share by Fuel Type

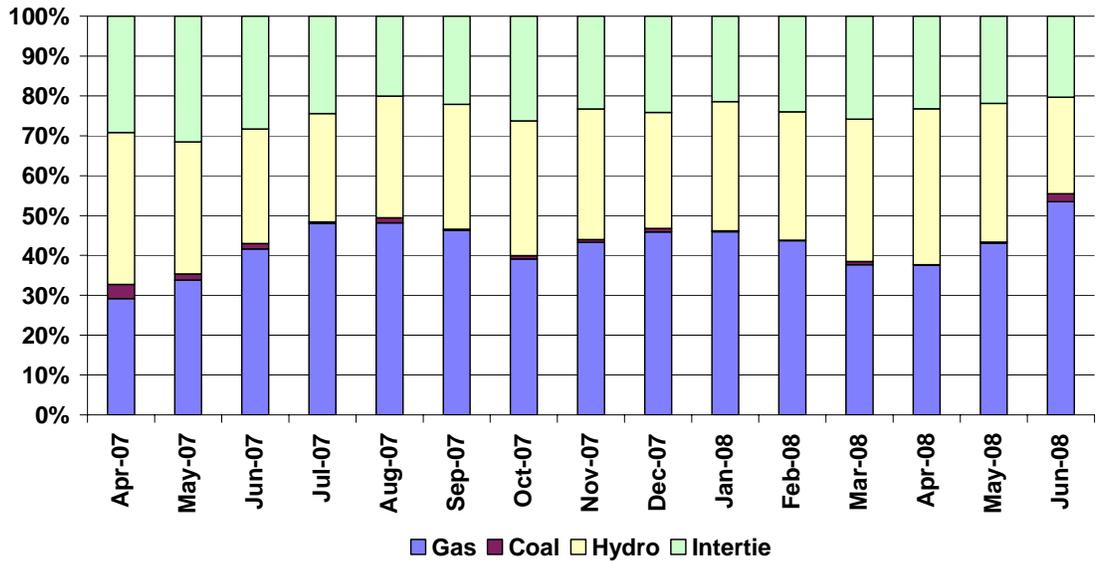


Figure 26 – Active Supplemental Reserve by Fuel Type

