



Q3/12 Quarterly Report

July – September 2012

November 9, 2012

The Market Surveillance Administrator is an independent enforcement agency that protects and promotes the fair, efficient and openly competitive operation of Alberta's wholesale electricity markets and its retail electricity and natural gas markets. The MSA also works to ensure that market participants comply with the Alberta Reliability Standards and the Independent System Operator's rules.

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Executive Summary

General Market Outcomes

The average pool price in Q3/12 was \$78.09/MWh, nearly double that for Q2/12 (\$40.03/MWh) but less than Q3/11 (\$94.69/MWh). The price duration curve (see Figure A.1) reveals that 75% of the value of pool price occurred in the top 10% of hours. Price volatility, as measured by standard deviation and coefficient of variation, was consistent with observations in recent quarters. Natural gas prices have continued at low levels (~\$2/GJ) and the market heat rates are high by historical standards.

Plant availability and production were generally in line with previous quarters although the production from wind farms was lower than usual. Note that Alberta had close to 1000 MW of wind installed by the end of Q3/12, and currently (November 9) stands at 1089 MW with the addition of Halkirk (150 MW).

In the operating reserves (OR) market, the am and pm super-peak regulating reserve products continue to trade at a significant premium to other OR products, recognizing the higher value of the service. In Q3/12, the am super-peak traded at an average of (pool price + \$46)/MWh whilst the pm super-peak traded at (pool price + \$4)/MWh.

Transaction volumes on the interties were less in Q3/12 as compared with recent quarters. Overall Alberta imported some 900,000 MWh, about 25% down from Q2/12. Alberta's on-peak pool prices continue to be strong relative to neighbouring markets.

Forward market activity remains at relatively low levels, although there was an uptick in trade volume in September that is an encouraging sign.

Use of TMR in Q3/12

Some transmission line work on line 908L in the Sundance area in Q3/12 required significant generation from several large assets. Whilst much of this required volume was running in merit, a portion of the requirement was dispatched using TMR.

AESO's daily and weekly market reports for this period included the total volume of generation from the assets giving the incorrect impression of extensive use of TMR. It was recommended to the AESO to correct the daily and weekly reports in respect of the TMR volumes and they have indicated that they are reviewing the TMR reporting methodology and process.

New Federal Coal Regulation

On September 5, 2012, the Federal Government of Canada announced its final regulations for reducing greenhouse gas (GHG) emissions from coal-fired generation. Coal-fired electricity is responsible for about 11% of Canada's total GHG emissions. New performance standards for coal-fired generating units will come into force in 2015.

End-of-useful-life is generally 50 years from the unit's commissioning date; however, units that were commissioned before 1975 will reach their end-of-life after 50 years of operation or at the end of 2019, whichever comes earlier. Units commissioned in or after 1975 but before 1986 will reach their end-of-life after 50 years of operation or at the end of 2029, whichever comes earlier.

The implication is that many of the existing PPA coal units will not be required by this legislation to retire immediately at the end of their PPAs.

Trend in RRO Index

In recent times there has been discussion of the effect of the RRO procurement processes causing 'buying' pressure in the forward market and elevating prices. The analysis looked at the price premium for the NGX flat index (7X24) relative to pool prices. In recent months there is a clear premium that the RRO customers are paying for the hedges. This has also occurred in the past when only a portion of the RRO was purchased in the 45-day buying window. The existing premium today cannot be totally attributed to the buy pressure caused by the RRO procurement processes.

Monitoring Indicia

The supply cushion – pool price relationship was used to screen the market outcomes of Q3/12 for outlier events. Relatively few low outliers were experienced this quarter, well down from last quarter when there were a significant number of zero dollar hours. Some 117 high outliers occurred in Q3/12 which is a higher number than in previous quarters. Many were the result of similar circumstances wherein the supply cushion for the hour was in a range where economic withholding proved effective at raising pool price. The July 9 event and the subsequent tight days yielded 29 outlier hours. Other than this period, the majority of the balance was in September.

Compliance

The number of ISO rules files that the compliance team has opened this year is 326, up some 72% over last year. There has been a trend wherein some self-reports are not of sufficient detail and accuracy to allow forbearance without additional fact checking. In such situations the company runs the risk of the self-report being disallowed. To date, the MSA has received 23 matters pertaining to Alberta reliability standards, three of which have resulted in specified penalties.

State of the Market Assessment

On August 15, the MSA published the results of a survey of industrial loads into their forward contracting practices for electrical energy. On August 20, we published a report that we commissioned by Morrison Park Advisors on the attractiveness of the Alberta market to investors. Completing the hat-trick of publications in August was a report on the basic structural features of the Alberta market.

More reports are forthcoming in the next few weeks. The MSA is still on track to complete the State of the Market Report by the end of the year.

July 9, 2012 Load Shed Event

On July 9 AESO was forced to shed load for several hours due to an insufficiency of generation resources. The MSA looked into the circumstances leading to the event including plant logs and AESO procedures leading up to and during the event. A notice was published on November 2, 2012. No evidence of wrongdoing by any of the parties was found.

1. General Comments on Market Outcomes

The average pool price in Q3/12 was \$78.09/MWh (On-Pk: \$112.72/MWh, Off-Pk: \$33.07/MWh), nearly double that for Q2/12 (\$40.03/MWh) but less than Q3/11 (\$94.69/MWh) (see Table A.1). The price duration curve (see Figure A.1) reveals that 75% of the value of pool price occurred in the top 10% of hours. A load that was flexible and could avoid those high priced hours would have an average price of less than \$22/MWh compared with the actual monthly average of \$78.09/MWh. Price volatility, as measured by standard deviation and coefficient of variation, was consistent with observations in recent quarters.

Natural gas prices have continued at low levels (~\$2/GJ) and the market heat rates are high by historical standards. It needs to be borne in mind that the fixed costs that must be recovered by generators climb in terms of heat rate units as the price of gas falls. For example, for a plant with a production heat rate of 10 GJ/MWh that needs to recoup \$25/MWh towards fixed costs (and profit) the market heat rate to achieve this is 15 GJ/MWh at a gas price of \$5/GJ (Average pool price = \$75/MWh), but rises to 22.5 GJ/MWh for a gas price of \$2/GJ (Average pool price = \$45/MWh).

Plant availability and production were generally in line with previous quarters (see Appendix B) although the production from wind farms was lower than usual. Note that Alberta had close to 1000 MW of wind installed by the end of Q3/12, and currently stands at 1089 MW with the addition of Halkirk (150 MW).

In the operating reserves (OR) market, the am and pm super-peak regulating reserve products continue to trade at a significant premium to other OR products, recognizing the higher value of the service (see Figure C.1). In Q3/12, the am super-peak traded at an average of (pool price + \$46)/MWh whilst the pm super-peak traded at (pool price + \$4)/MWh. Figure C.2 shows that standby premiums moderated from last quarter although the activation prices remained at similar levels to Q2/12.

Transaction volumes on the interties were less in Q3/12 as compared with recent quarters. Figure D.1 shows that the utilization rate of the BC intertie for imports was lower than Q2/12. Whilst imports flowed freely through July, the lower August prices resulted in less imports in the off-peak period. Overall we imported some 900,000 MWh, about 25% down from Q2/12. Alberta's on-peak pool prices continue to be strong relative to neighbouring markets (see Figures D.2 and D.3).

Forward market activity as shown in Appendix E remains at relatively low levels, although there was an uptick in trade volume in September that is an encouraging sign.

1.1 Increased Transmission Must Run (TMR)

Transmission Must Run is a service that the AESO calls upon when the transmission system is not adequate to meet the load using the regular merit order. In such situations, out of merit units are directed on by the AESO. Some units receive such TMR dispatches quite frequently and they have contracts with the AESO defining their compensation. For units that are rarely required for TMR the compensation scheme is defined in Section 11(6) of ISO Tariff.

Some transmission line work on line 908L in the Sundance area in Q3/12 required significant generation from several large assets. Whilst much of this required volume was running in merit, a portion of the requirement was dispatched using TMR. AESO's daily and weekly market reports for this period included the total volume of generation from the assets giving the incorrect impression of extensive use of TMR. Table 1.1 shows the comparison of the amounts reported and the amount actually used.

TMR volumes are of interest to market participants for a number of reasons including those wishing to understand the Alberta market dynamics and more directly those involved in the Dispatch Down Service market. It was recommended to the AESO to correct the daily and weekly reports in respect of the TMR volumes and they have indicated that they are reviewing the TMR reporting methodology and process.

Table 1.1: Use of TMR in Q3/12

	AESO Reports - TMR			Actual TMR		
	Min.	Avg.	Max.	Min.	Avg.	Max.
Jul-12	0	4	300	0	3	150
Aug-12	0	47	755	0	8	187
Sep-12	0	11	752	0	3	159

1.2 New Federal Coal Regulation

On September 5, 2012, the Federal Government of Canada announced its final regulations for reducing greenhouse gas (GHG) emissions from coal-fired generation. Coal-fired electricity is responsible for about 11% of Canada's total GHG emissions. New performance standards for coal-fired generating units will come into force in 2015.

End-of-useful-life is generally 50 years from the unit's commissioning date; however, units that were commissioned before 1975 will reach their end-of-life after 50 years of operation or at the end of 2019, whichever comes earlier. Units commissioned in or after 1975 but before 1986 will reach their end-of-life after 50 years of operation or at the end of 2029, whichever comes earlier.

The MSA has been asked by several market participants what this means for the retirement schedule of Alberta's PPA coal units. Table 1.2 was prepared for the existing coal units under PPA and estimates the applicable retirement dates.

Further to the above, it should be noted that the Federal Government has established 'equivalency' agreements with some provincial governments providing them flexibility to find ways that meet the intent of the legislation. Alberta may also follow this process and thus the dates in Table 1.2 may change.

Table 1.2: Estimated Retirement Dates of PPA Coal Units

Coal Unit	Owner	PPA Holder	Capacity (MW)	Year Comm.	End of PPA	End-of-Life	Post-PPA Life
Battle R. #3	ATCO	ENMAX	149	1969	2013	2019	6
Battle R. #4	ATCO	ENMAX	155	1975	2013	2025	12
Battle R. #5	ATCO	ENMAX	385	1981	2020	2029	9
Sundance #1	TransAlta	TCE	288	1970	2017	2019	2
Sundance #2	TransAlta	TCE	288	1973	2017	2019	2
Sundance #3	TransAlta	TCE/AltaGas	362	1976	2020	2026	6
Sundance #4	TransAlta	TCE/AltaGas	406	1977	2020	2027	7
Sundance #5	TransAlta	CPC	406	1978	2020	2028	8
Sundance #6	TransAlta	CPC	401	1980	2020	2029	9
Sheerness #1	ATCO/TransAlta	TCE	390	1986	2020	2036	16
Sheerness #2	ATCO/TransAlta	TCE	390	1990	2020	2040	20
Keephills #1	TransAlta	ENMAX	406	1983	2020	2029	9
Keephills #2	TransAlta	ENMAX	400	1984	2020	2029	9
Genesee #1	CPC	Balancing Pool	400	1989	2020	2039	19
Genesee #2	CPC	Balancing Pool	400	1994	2020	2044	24

1.3 Trend of NGX RRO Index

Last winter's high Regulated Rate Option (RRO) prices to consumers prompted the government to form a committee to review the retail market and to look at ways for modulating some of the price volatility and costs to customers. The committee published its findings to the government in early September. At the present time government is formulating its response to the report.

The committee heard from EPCOR about the so-called 'buying' pressure that they have experienced in procuring the RRO for their customers in the 45-day buying window. Some other market observers have also commented on this to the MSA. As in any market, buying pressure has a tendency to increase prices. Figure 1.1 shows the comparison of the 24X7 NGX RRO index with the corresponding average monthly pool prices. It can be seen that there are significant differences between them from month to month. The 12-month rolling average of (avg. Pool Price – RRO Index) smooth out the monthly variability and gives an idea of the average premium or discount that the RRO is paying for the monthly hedge – see Figure 1.2. The black oval clearly indicates that for the past while the RRO index has clearly been at a premium to the actual pool prices. This is consistent with the idea of buying pressure forcing up prices, but doesn't prove it. In Figure 1.2, the blue oval also shows a period of more than a year when a similar pattern occurred. In this earlier period the RRO was not fully 100% priced off the index and so any buying pressure that existed then should have been less. Examination of the pattern for the Extended peak NGX Index mimicked the results for the flat 7X24 Index and are not shown here.

These results indicate that currently there is a hedging premium (about \$20/MWh for 7X24). The data also show that this situation has occurred in the past when the RRO buying pressure would have been less than in recent times. The existing premium today cannot be totally attributed to the buy pressure caused by the RRO procurement processes. The market is dynamic and responds to many factors that change over time.

Figure 1.1: Flat RRO Index vs. Average Pool Price

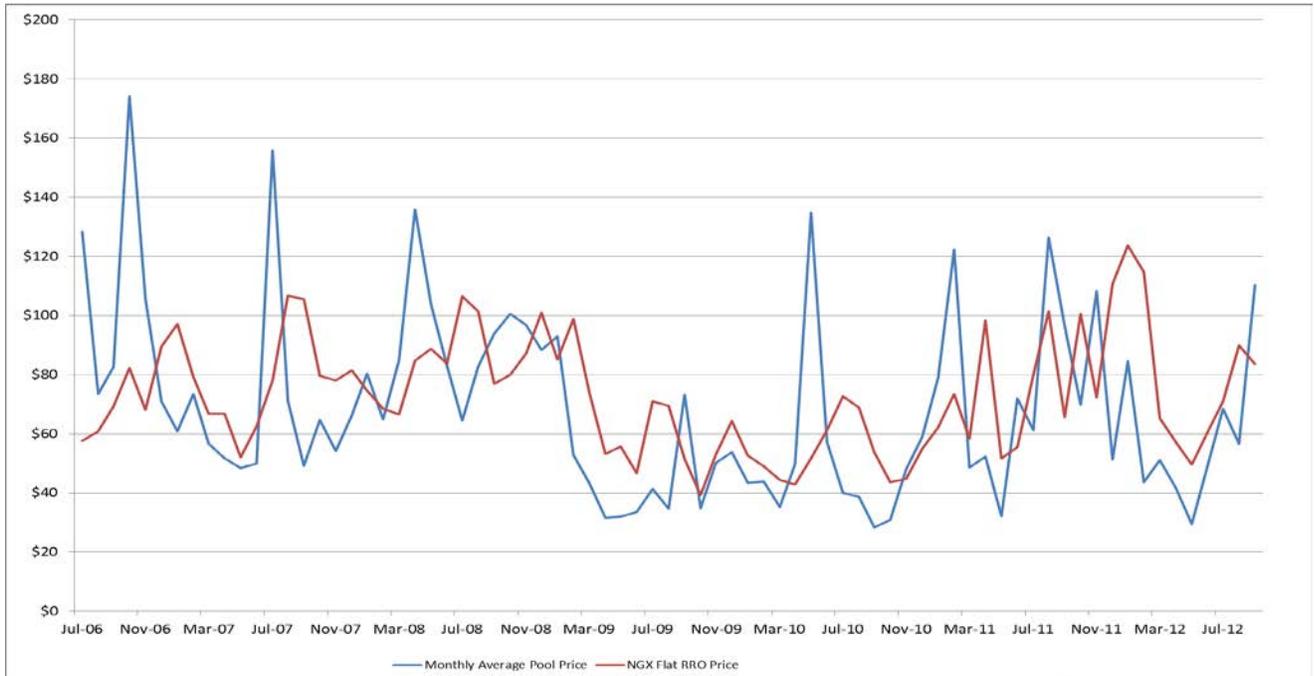
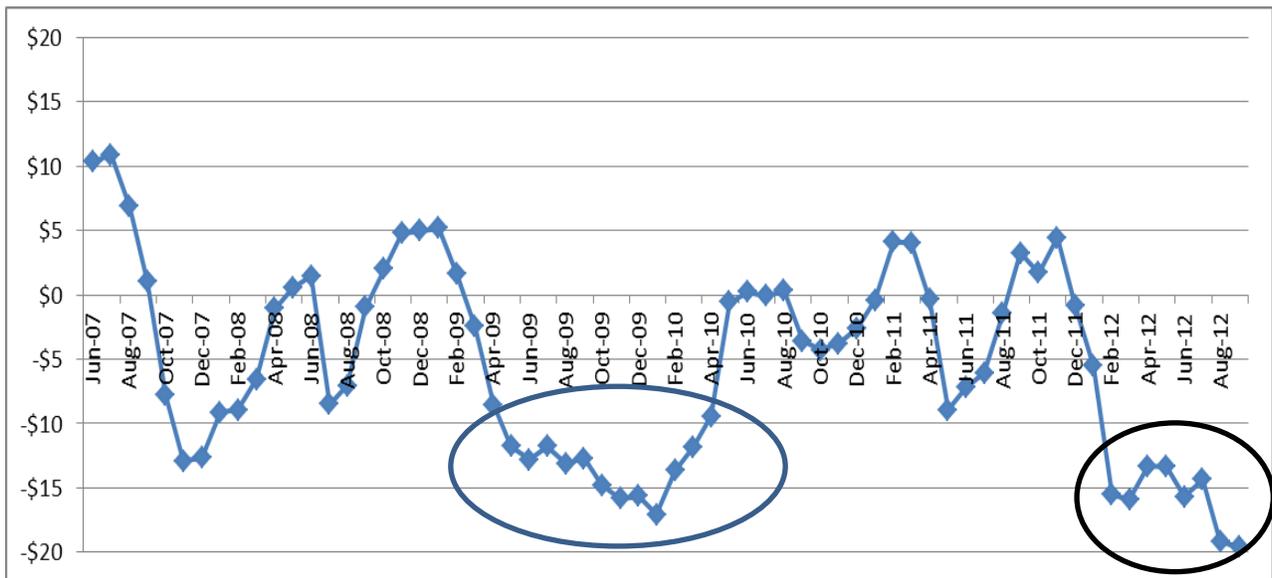


Figure 1.2: 12-Month Rolling Average of (Pool price – RRO Index)



2. Monitoring Indices

Monitoring indices are data summaries the MSA uses to flag apparent anomalous market outcomes or report on the competitive health of the market for further assessment now, or in the future. In recent quarterly reports the MSA has reported on two metrics: supply cushion outliers and a complimentary analysis of un-dispatched MW (See previous quarterly reports for the derivation and interpretation of the metrics). In this quarterly report we continue to do so but note that the MSA is in the final stages of completing its State of the Market Report and, once it has done so, will review the set of metrics used in quarterly reporting.

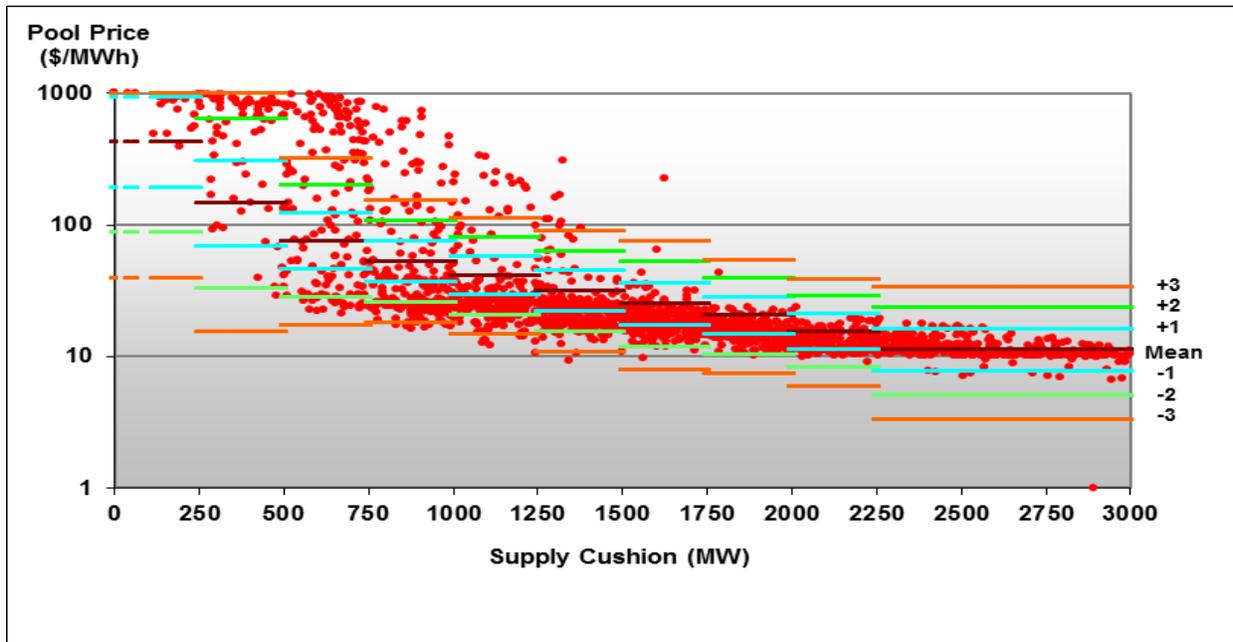
2.1 Supply Cushion Analysis – Q3/12

In Q3/12, a total of 117 hours were observed when the pool prices were higher than 3 standard deviations above the mean established using the historical data. There were some 24 hours that lie below 3 standard deviations below the mean. The prices above +3 standard deviations were concentrated in the hours when the supply cushion was in the range of 500 MW to 1,500 MW (See Figure 2.1). Of the 905 hours when the supply cushion was between 500 MW and 1,500 MW, there were 116 hours in which the pool prices were above +3 standard deviations, accounting for 13% of the total number of hours in this supply cushion range. In this regard, the data observed in Q2/12 are in line with recent quarters.

Appendix F presents more details of the 117 hours >3 StD identified above.

The high numbers of hours of supply surplus did not occur in Q3/12. This can be attributed to the lower wind production, lower levels of imports and increased Alberta load.

Figure 2.1: Q3/12 Supply Cushion v. Pool Price (Confidence Bands Based on Historic Data)



	≤ 250	>250 ≤ 500	>500 ≤ 750	>750 ≤ 1000	>1000 ≤ 1250	>1250 ≤ 1500	>1500 ≤ 1750	>1750 ≤ 2000	>2000 ≤ 2250	>2250	Total
$\geq +3$	0	0	59	29	19	9	1	0	0	0	117
$< +3$ & $\geq +2$	0	40	13	11	6	4	1	1	0	0	76
$< +2$ & $\geq +1$	14	12	11	11	3	5	1	0	2	10	69
$< +1$ & $\geq \text{mean}$	15	8	12	8	6	13	23	15	37	147	284
$< \text{mean}$ & ≥ -1	1	6	14	29	38	93	131	119	117	295	843
< -1 & ≥ -2	0	1	22	78	56	19	4	1	0	6	187
< -2 & ≥ -3	0	5	26	43	111	137	115	90	37	40	604
< -3	0	0	0	9	9	2	0	0	0	4	24
Total	30	72	157	218	248	282	276	226	193	502	2205

2.2 Output Gap Analysis – Q3/12

The output gap analysis calculates the market supply cushion by market participant, identifying the proportion of the supply cushion that is attributable to each market participant in a given hour. The theory and its application in our work were fully described in the MSA’s Q1/11 report.

As for other quarters, due to the high number of identified hours, we have not done the manual adjustment of the assignment of control by market participant. Table 2.1 shows the results of the unadjusted analysis for the Q3/12 events. The most notable feature of Table 2.1 is that in July Firm C featured a market share of 68% of the output gap, but featured much less in August and September. The HHI for the output gap of July was correspondingly large at more than 6000 (meaning highly concentrated).

Table 2.1: Output Gap Analysis – Q3/12

Month	Count of Events	Average Price	Average SC	Average Share of Supply Cushion by Participant						Average HHI
				A	B	C	D	E	Other	
Jul-12	34	\$550.98	834	1%	8%	74%	8%	1%	8%	6,035
Aug-12	10	\$580.41	666	11%	33%	14%	14%	7%	21%	3,199
Sep-12	73	\$447.72	861	20%	28%	4%	16%	9%	23%	2,768
Q3/12	117	\$489.07	836	13%	22%	25%	14%	6%	18%	3,755

Figure 2.2 shows the supply cushion duration curves for each month of the quarter. Overall the supply cushion for July was higher than for the other two months. However, July still generated 34 event hours showing how averages can be deceptive. The distribution of supply cushion speaks to the number of hours in a period where there may be an opportunity to withhold and increase pool price. Other factors are relevant such as the ability to foresee the hours of tightness and the net position of firms in these hours.

Figures 2.3, 2.4 and 2.5 show the distribution of output gap for each event hour. It is evident that Firm C featured heavily in the July event hours and the first few in August. After that, Firm C's contribution fell and was replaced by a mix of other firms.

Examination of the details of the hours as shown in Appendix F reveals that during September most of the hours are associated with low volumes of import on the BC intertie. In September there was an outage on the 1201L line as well as periods of significant derates on the import ATC from BC. Past experience has been that some generators will recognize the market tightness and respond with increased withholding knowing that imports will not be able to respond to the elevated market prices. Whilst this may have occurred in September, Table 2.1 shows that the supply cushions and corresponding prices were similar across the months (in July and August the event hours all had high import volumes from BC).

Figure 2.2: Supply Cushion Duration Curves

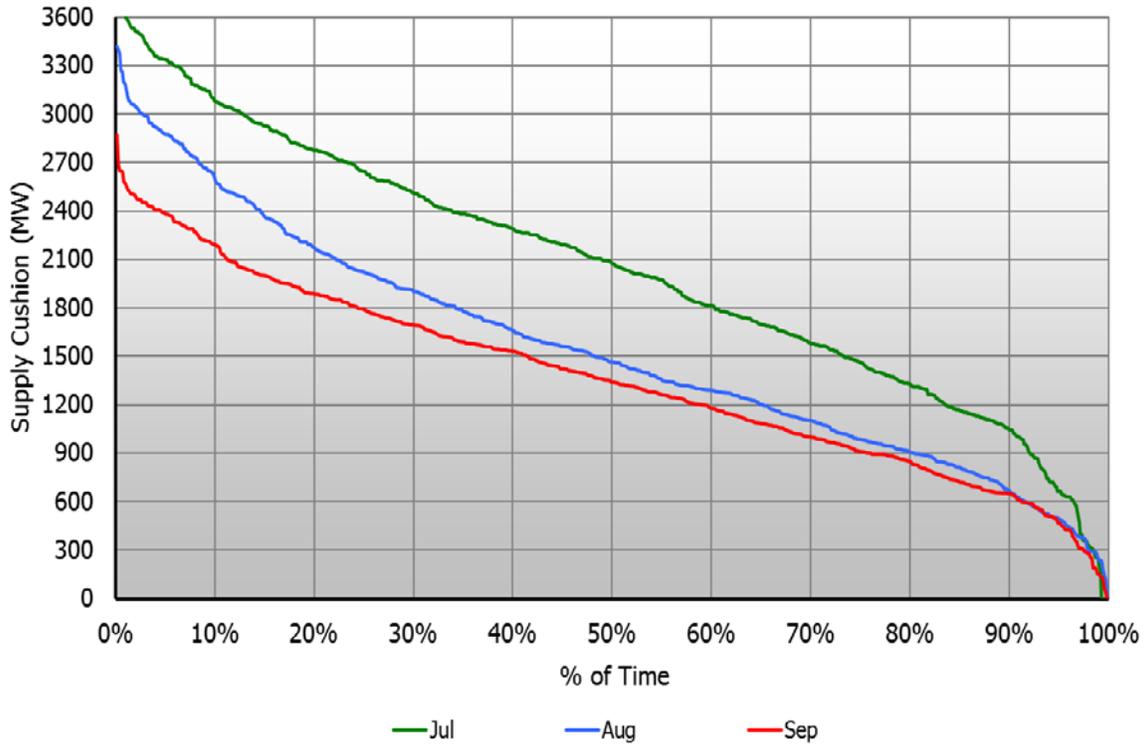


Figure 2.3: Output Gap Analysis – July 2012

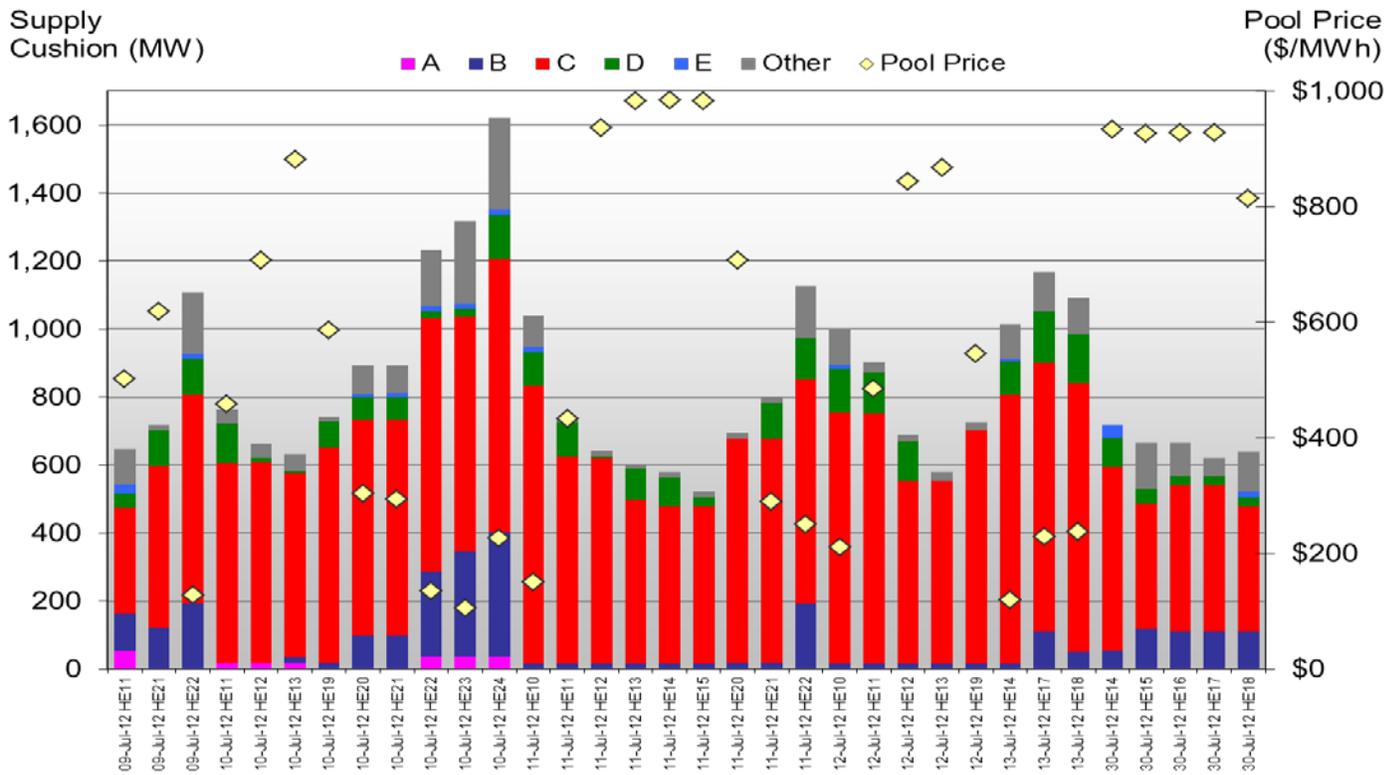


Figure 2.4: Output Gap Analysis – August 2012

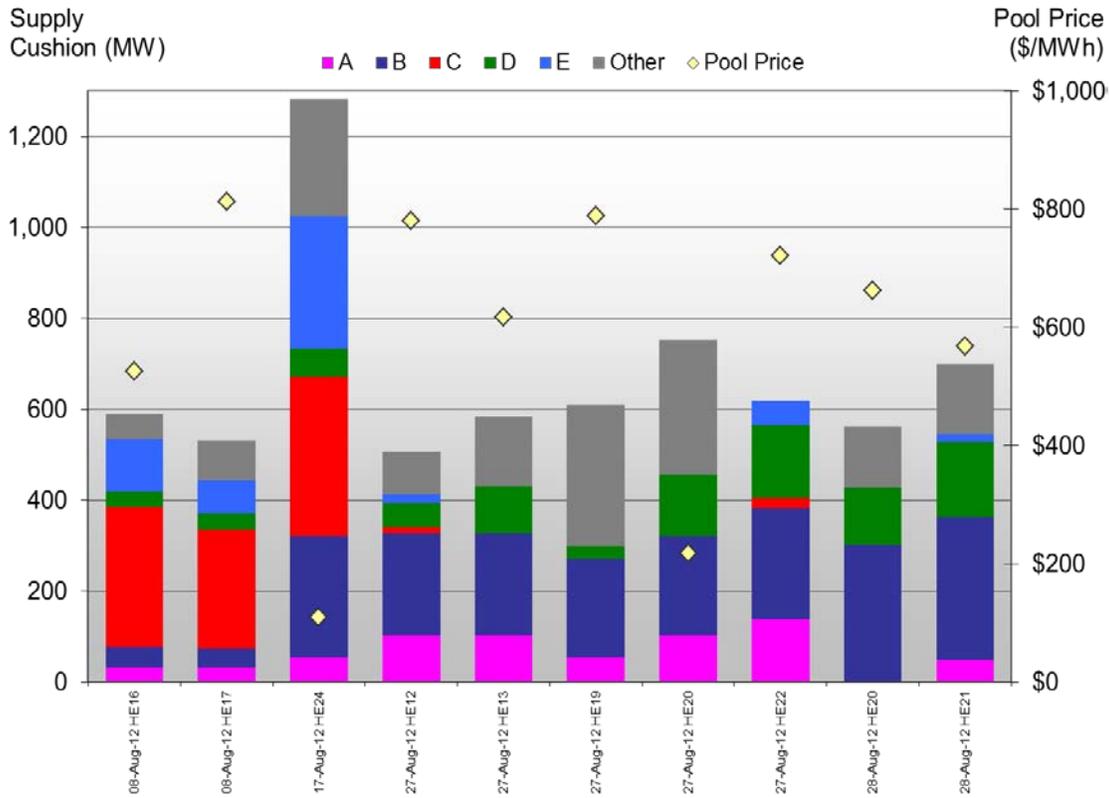
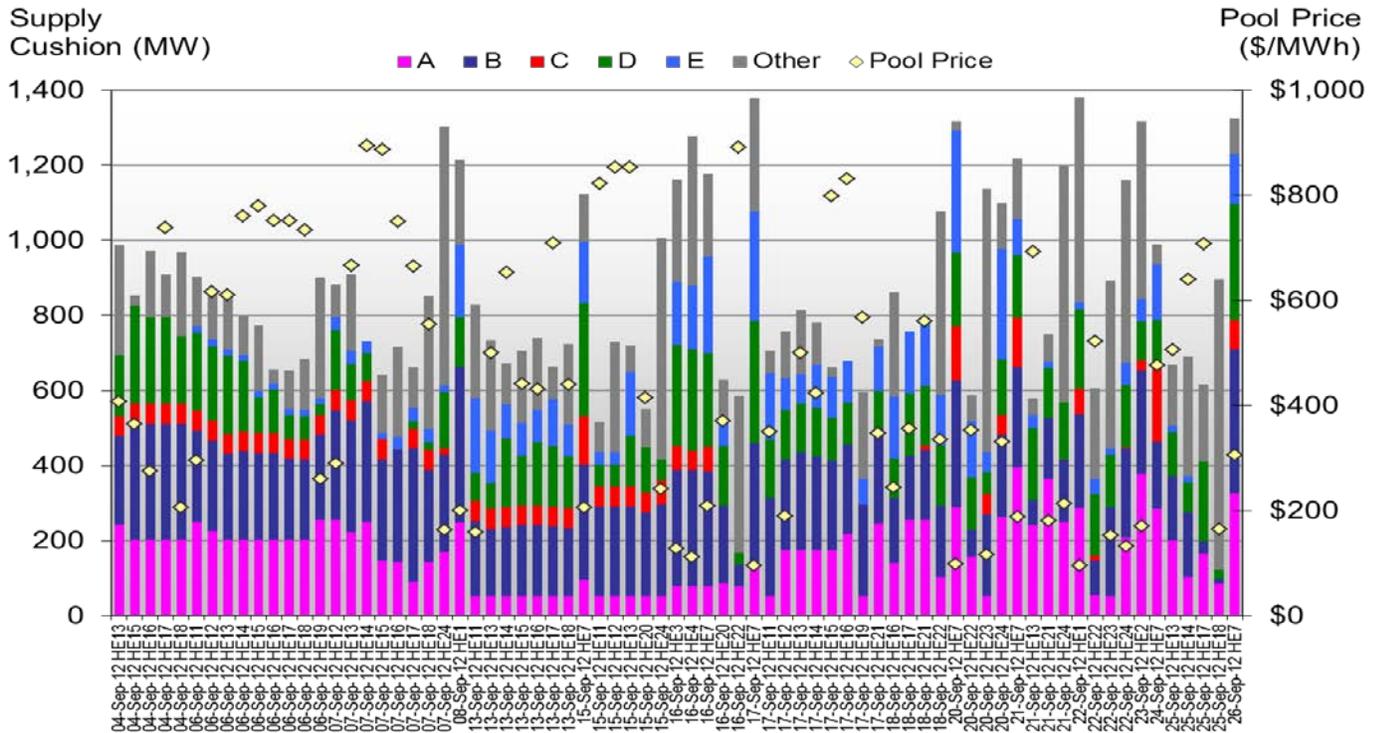


Figure 2.5: Output Gap Analysis – September 2012



3. Compliance

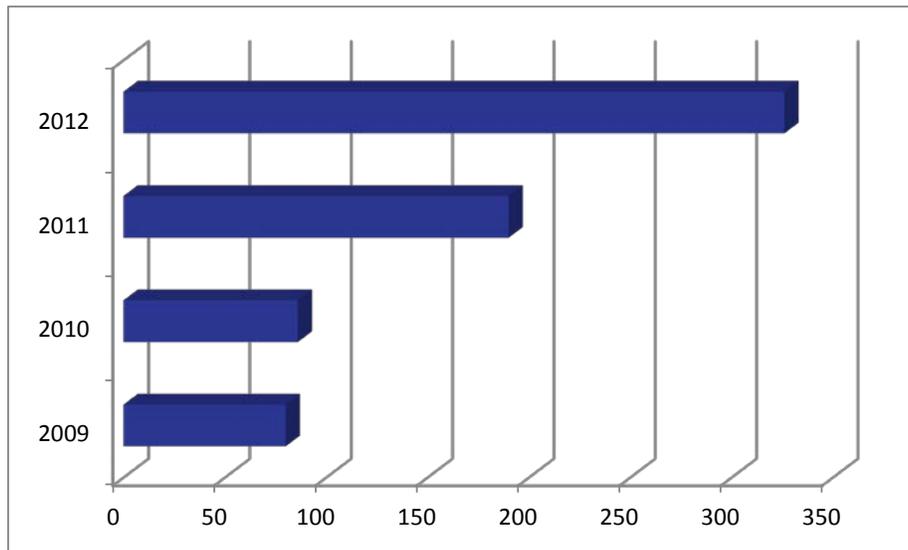
3.1 ISO Rules Compliance

Table 3.1 provides an update of the MSA's ISO rules compliance activities as of the end of Q3/12. The MSA issued 42 notices of specified penalty during the first nine months of 2013. This figure is an increase compared to the previous year with 34 notices of specified penalty issued as of the end of Q3/11. In 256 other cases, the MSA chose to forbear, while 42 other matters remained under review. For comparison, the MSA issued 152 forbearances and had 13 matters under review at the end of Q3/11.

Table 3.1: Compliance Files (as of end of Q3/12)

	Under Review	Notice of Specified Penalty	AUC Administrative Proceedings	Forbearance
3.5.3	4	11		23
3.6.3		1		3
6.3.5				1
6.3.3	3	3		68
6.5.3	2	6		26
6.6	9	10		67
9.1.3	1			
9.1.5				1
302.5		0		1
OPP 003.2				1
OPP 102	21	10		57
OPP 303	1			
OPP 401				3
OPP 404		1		3
OPP 603				1
OPP 1305	1			1
TOTAL	42	42		256

Three hundred and twenty-six new files were opened during the first three quarters of 2012 which is a seventy-two percent increase as compared to files opened during the same time period in 2011. Figure 3.1 illustrates the growth trend of the number of new compliance files by year up until the end of Q3/12. This growth continues to be driven in large measure, by participant self-reporting – a positive sign of well-functioning internal compliance monitoring processes and procedures.

Figure 3.1: Count of New Files (as of end of Q3/12)

The contravention dates of the 42 notices of specified penalty issued in Q3/12 ranged from July 2011 through July 2012. Thirty-one of these notices of specified penalty were referrals from the AESO. The remaining 11 notices of specified penalty are attributed to self-reports that did not meet the MSA's criteria to forbear. Eight of these matters were deemed to be more serious, warranting a specified penalty; while the other three matters were self-reported outside of the 30 day period following the event. The self-reporting criteria to assure forbearance can be found in section 4.3 of the MSA's [Compliance Process](#). Of the 42 notices of specified penalty issued as of the end of Q3/12, none have been disputed and all have been paid. Table 3.2 segments the first, second and fourth columns of Table 3.1 by month of contravention date.

Table 3.2: Q3/12 Compliance Files by Month of Contravention

	Rule	2011						2012						Total				
		Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May		Jun	Jul	Aug	Sep
Under Review	3.5.3												2			2	4	
	3.6.3																	
	6.3.3															3	3	
	6.3.5																	
	6.5.3												1			1	2	
	6.6												1		6	2	9	
	9.1.3							1									1	
	9.1.5																	
	302.5																	
	OPP 003.2																	
	OPP 102								1	2	1			11		1	5	21
	OPP 303														1			1
	OPP 401																	
	OPP 404																	
	OPP 603															1		1
OPP 1305																		
Total								2	2	1		4	11	1	7	13	42	
NSP	3.5.3			1	1	3	1	2		1	1			1			11	
	3.6.3								1								1	
	6.3.3									2			1				3	
	6.3.5																	
	6.5.3						3					1	1		1		6	
	6.6			1		2		3	2					1	1		10	
	9.1.3																	
	9.1.5																	
	302.5																	
	OPP 003.2																	
	OPP 102		4	2	2		2											10
	OPP 303																	
	OPP 401																	
	OPP 404						1											1
	OPP 603																	
OPP 1305																		
Total		4	4	3	5	7	2	4	5	1	1	2	2	2			42	
Forbearance	3.5.3						1	2	2		1	4	6		5	2	23	
	3.6.3										1		1				3	
	6.3.3							3	7	1	12	15	11	9	6	4	68	
	6.3.5										1						1	
	6.5.3	1					2	4	1	1	3	2	2	5	4	1	26	
	6.6					1	1	4	5	7	6	5	11	13	3	11	67	
	9.1.3																	
	9.1.5																	
	302.5																	
	OPP 003.2							1										1
	OPP 102		5	3	5	1	3	7	5	6	4	4		7	4	2	1	57
	OPP 303																	
	OPP 401												2		1			3
	OPP 404						1							2				3
	OPP 603												1					1
OPP 1305							1										1	
Total	1	5	3	5	2	8	17	23	15	28	31	34	34	24	23	2	256	

3.2 Emerging Trends

Year to date, eighty-eight percent of notices of specified penalty can be attributed to four ISO Rules: 3.5.3 (26%), OPP 102 (24%), 6.6 (24%), and 6.5.3 (14%). The 11 contraventions of ISO Rule 3.5.3: Offers can generally be categorized into two types:

1. Failing to restate the available capability of the source asset for the applicable hours in the trading day as soon as reasonably practicable; and,
2. Submitting an energy restatement which redistributes quantities offered when a restatement of available capability could reasonably have accommodated the asset's operating state.

Notices of Specified penalty for ISO Rule 6.3.3: Interconnection Dispatching have remained low; however this rule remains the most frequently self-reported ISO Rule. The majority of 6.3.3 self-reports received by the MSA are due to human error made when restating volumes within T-2 due to transmission cuts or subsequent reloading of electronic tags.

During Q3/12, the MSA witnessed an increase in inaccurate and unclearly written self-reports. Consequently, the confirmation of facts becomes more difficult and may lead to rejection of the self-report or an information request if the facts are not accurately represented.

3.3 Alberta Reliability Standards

As of the end of Q3/12, the MSA has received 23 compliance matters relating to Alberta Reliability Standards (ARS). Table 3.3 illustrates the distribution of these matters by Reliability Standard. Twelve of these matters received forbearance, two matters were each deemed a non-breach, three matters are pending the completion of a mitigation plan, four matters are on hold pending the AESO's final audit report and one matter was under review at quarter end. Additionally three matters received notices of specified penalty during Q3/12. One of these three events was originally self-reported in 2010; however compliance audit results indicated that the contravention remained ongoing. Two of the notices of specified penalty were for PRC-001-AB-1 (Protection System Coordination) and the third for CIP-001-AB-1 (Sabotage Reporting).

The four matters noted above that are on hold pending the AESO's final audit report were self-reported to the MSA after the AESO had initiated a scheduled compliance monitoring audit. Accordingly, the MSA will defer a decision on these matters until receipt of the AESO final audit report. The MSA encourages registered entities to self-report matters prior to the start of the audit.

Table 3.3: Q3/12 Alberta Reliability Standards Compliance Matters

Reliability Standard	Count
CIP-001-AB-1	3
FAC-003-AB-1	7
PRC-001-AB-1	10
PRC-004-AB-1	1
TOP-005-AB01	2
Total	23

With respect to referrals of reliability matters to the MSA from the AESO, s. 4.4 of the MSA's Compliance Process indicates that once a matter is referred to the MSA, if a registered entity has additional

information it believes should be considered by the MSA, it should indicate this at the earliest opportunity following referral. In view of ss 7.7 and 7.8 of the AESO's Alberta Reliability Standards Audit Guideline, the MSA generally expects that all relevant evidence has been provided in the course of the audit process. Accordingly, the MSA will not as a standard practice, solicit additional information from registered entities before initiating its review of the matter.

4. MSA Activities

4.1 State of the Market Report

Work on this important project continued through the quarter. In August three reports were published as part of this work.

On August 15, the MSA published the results of a survey of industrial loads into their forward contracting practices for electrical energy.¹ On August 20, we published a report that we commissioned by Morrison Park Advisors on the attractiveness of the Alberta market to investors.² Completing the hat-trick of publications in August was a report on the basic structural features of the Alberta market.³

More reports are forthcoming in the next few weeks. The MSA is still on track to complete the State of the Market Report by the end of the year.

4.2 July 9, 2012 Event

On July 9 AESO was forced to shed load for several hours due to an insufficiency of generation resources. The MSA looked into the circumstances leading to the event including plant logs and AESO procedures leading up to and during the event. A notice was published on November 2, 2012.⁴ No evidence of wrongdoing by any of the parties was found.

¹ "Identification of impediments to forward contracting

A Survey of Industrial Loads undertaken as part of the 2012 State of the Market Report", MSA Report, August 15, 2012. <http://albertamsa.ca/uploads/pdf/Archive/2012/SOTM%20Load%20Survey%20Report%20120815%20FINAL.pdf>

² "Investor Perspectives on the Attractiveness of Alberta's Electricity Generation Market", Morrison Park Advisors, August 2012.

<http://albertamsa.ca/uploads/pdf/Archive/2012/Investor%20Perspectives%20Report%20to%20MSA%20-%2017%20August.pdf>

³ "Alberta Wholesale Market. A description of basic structural features undertaken as part of the 2012 State of the Market Report", August 30, 2012.

<http://albertamsa.ca/uploads/pdf/Archive/2012/SOTM%20Basic%20Structure%20083012.pdf>

⁴ "July 9 2012, Load Shed Event"

<http://albertamsa.ca/uploads/pdf/Archive/2012/Notice%20July%209%20121102.pdf>

Appendix A: Wholesale Energy Market Metrics

Table A.1: Pool Price Statistics

Month	Average Price ¹	On-Pk Price ²	Off-Pk Price ³	Std Dev ⁴	Coeff. Variation ⁵
Jul-12	68.39	111.65	13.53	200.85	294%
Aug-12	56.54	82.56	20.52	154.93	274%
Sep-12	110.39	146.41	65.35	217.31	197%
Q3-12	78.09	112.72	33.07	193.84	248%
Apr-12	41.69	57.63	21.78	110.95	266%
May-12	29.46	42.31	11.66	86.56	294%
Jun-12	49.30	76.13	12.58	120.81	245%
Q2-12	40.03	58.49	15.42	107.14	268%
Jul-11	61.21	91.37	22.96	156.35	255%
Aug-11	126.36	192.39	34.93	223.50	177%
Sep-11	96.57	149.35	24.35	200.08	162%
Q3-11	94.69	144.98	27.36	196.99	208%

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 A.1: Pool Price Duration Curves

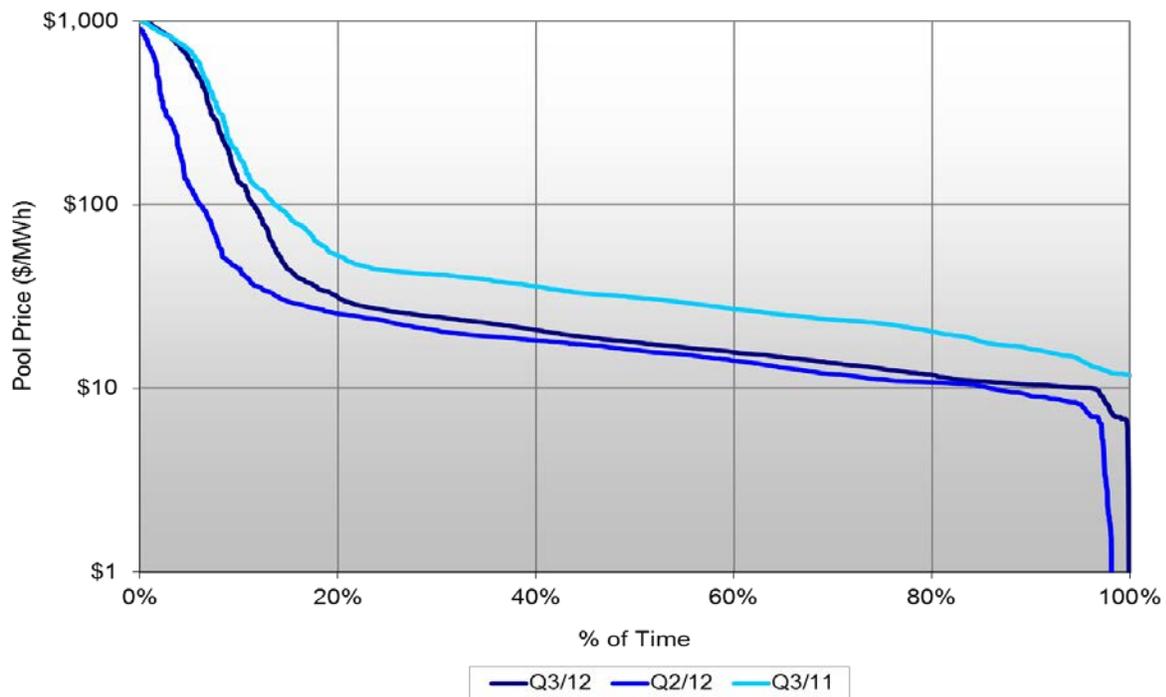
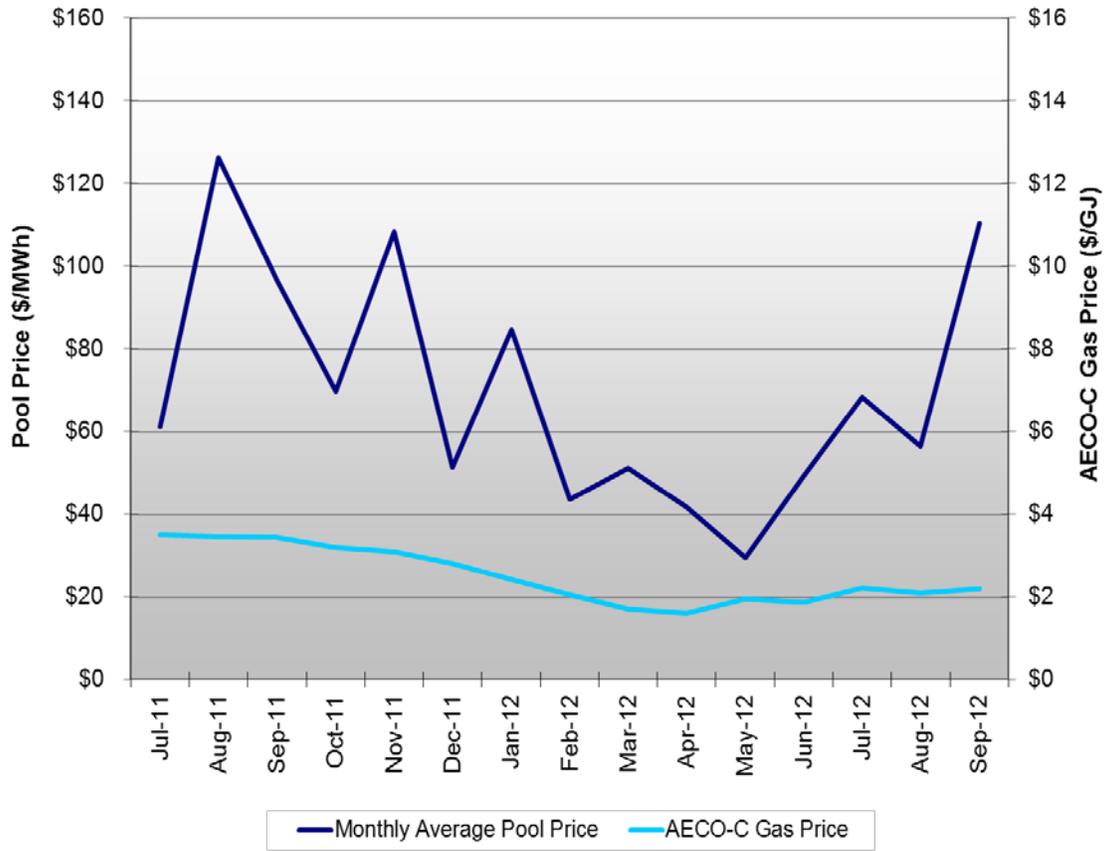


Figure A.2: Pool Price and AECO Gas Price

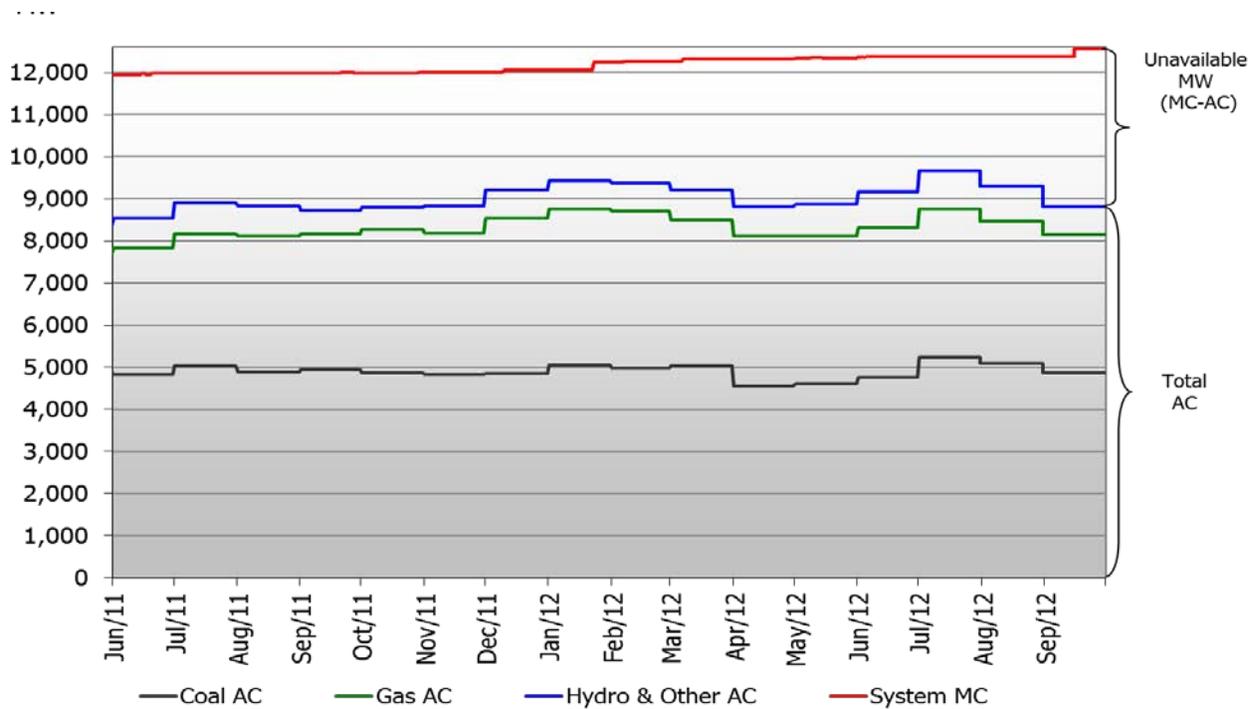


Appendix B: Supply Availability Metrics

Table B.1: Availability and Capacity Factors

Fuel Type	Quarter	Average MC	Average AC	Availability Factor	Generation	Capacity Factor
		[A]	[B] MW	[C]=[B]/[A]	[D]	[E] = ([D]x1000)/([A]xhrs)
		(MW)	(MW)	(%)	(GWh)	(%)
All Fuels <i>(excl. Wind)</i>	Q3/12	12,409	9,266	75%	15,606	57%
	Q2/12	12,345	8,953	73%	14,323	53%
	Q3/11	11,984	8,824	74%	15,704	59%
Coal	Q3/12	6,286	5,064	81%	9,502	68%
	Q2/12	6,271	4,646	74%	8,312	61%
	Q3/11	6,244	4,956	79%	10,082	73%
Natural Gas	Q3/12	5,077	3,393	67%	5,047	45%
	Q2/12	5,037	3,537	70%	5,184	47%
	Q3/11	4,798	3,200	67%	4,942	47%
Hydro & Other	Q3/12	1,046	810	77%	1,057	46%
	Q2/12	1,037	770	74%	827	37%
	Q3/11	942	669	71%	679	33%
Wind	Q3/12	939	n/a	n/a	424	20%
	Q2/12	895	n/a	n/a	592	30%
	Q3/11	777	n/a	n/a	427	25%

Figure B.1: Available Capacity (AC) vs Maximum Capacity (MC)



Appendix C: Operating Reserve Market Metrics

Figure C.1: NGX Active Reserves Weighted Average Trade Index

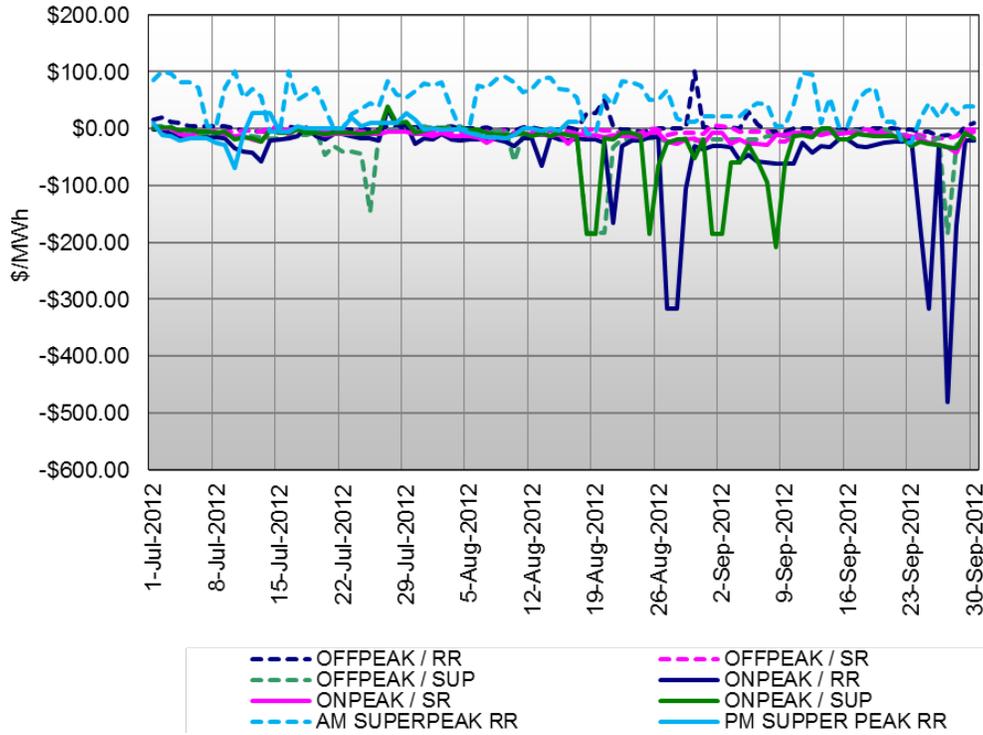


Figure C.2: Standby Reserve Prices

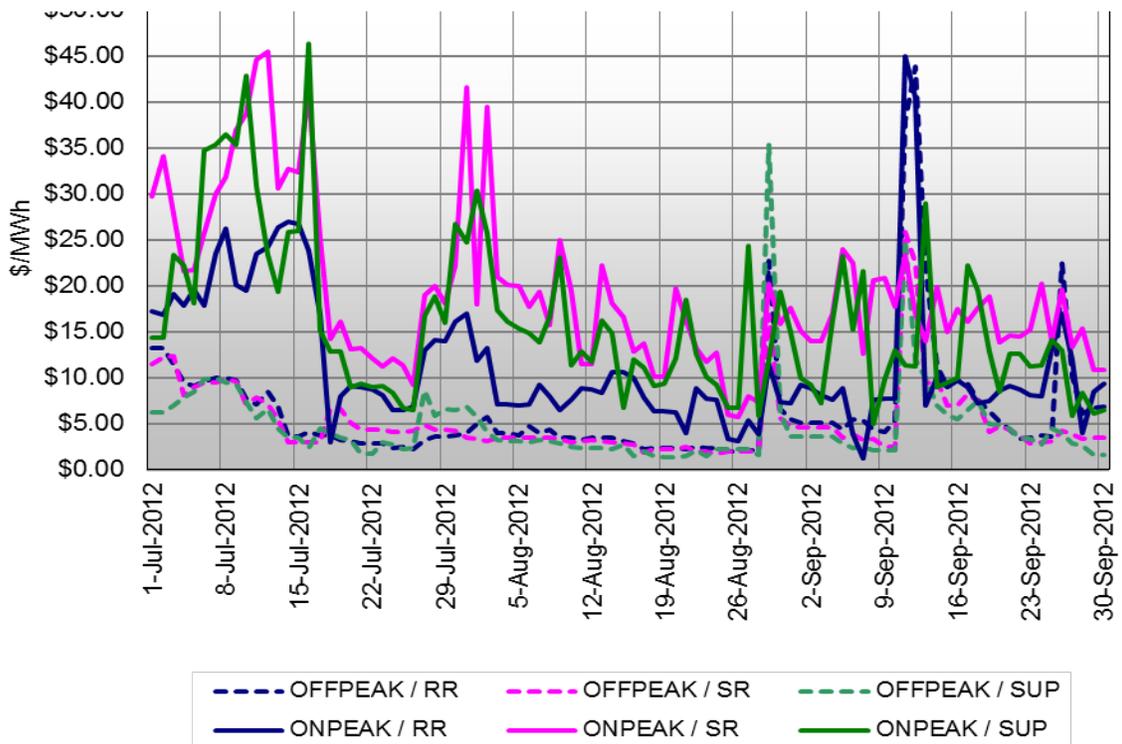
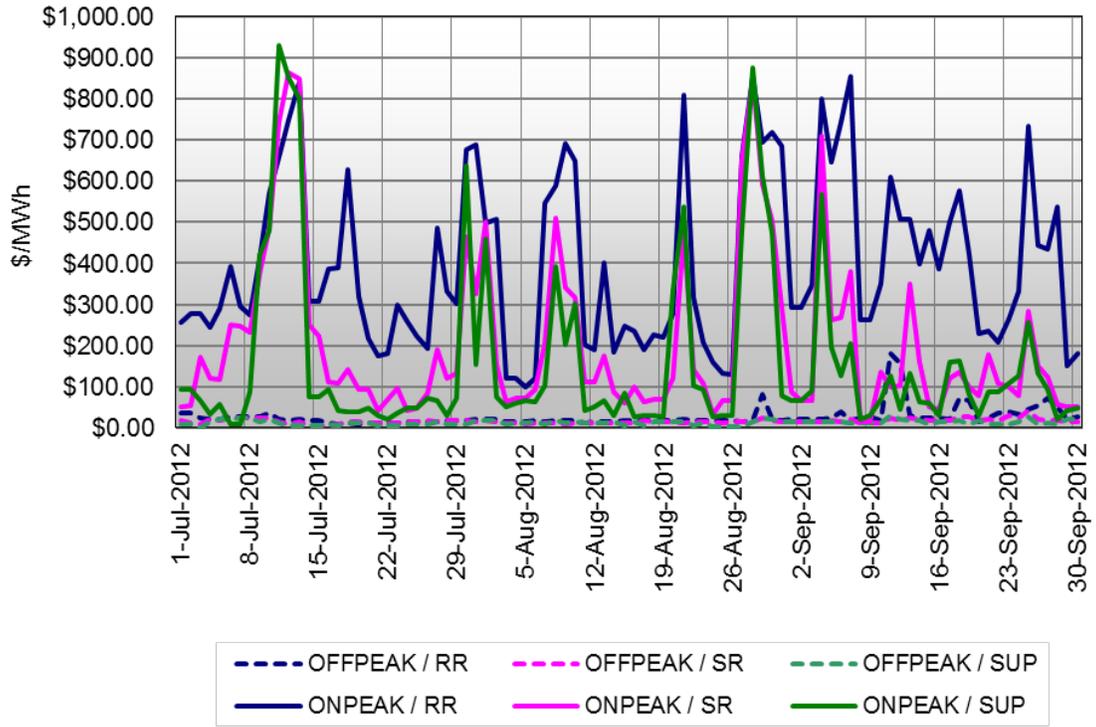


Figure C.3: Average Activation Price



Appendix D: Intertie Metrics

Figure D.1: Intertie Utilization – Q3/12

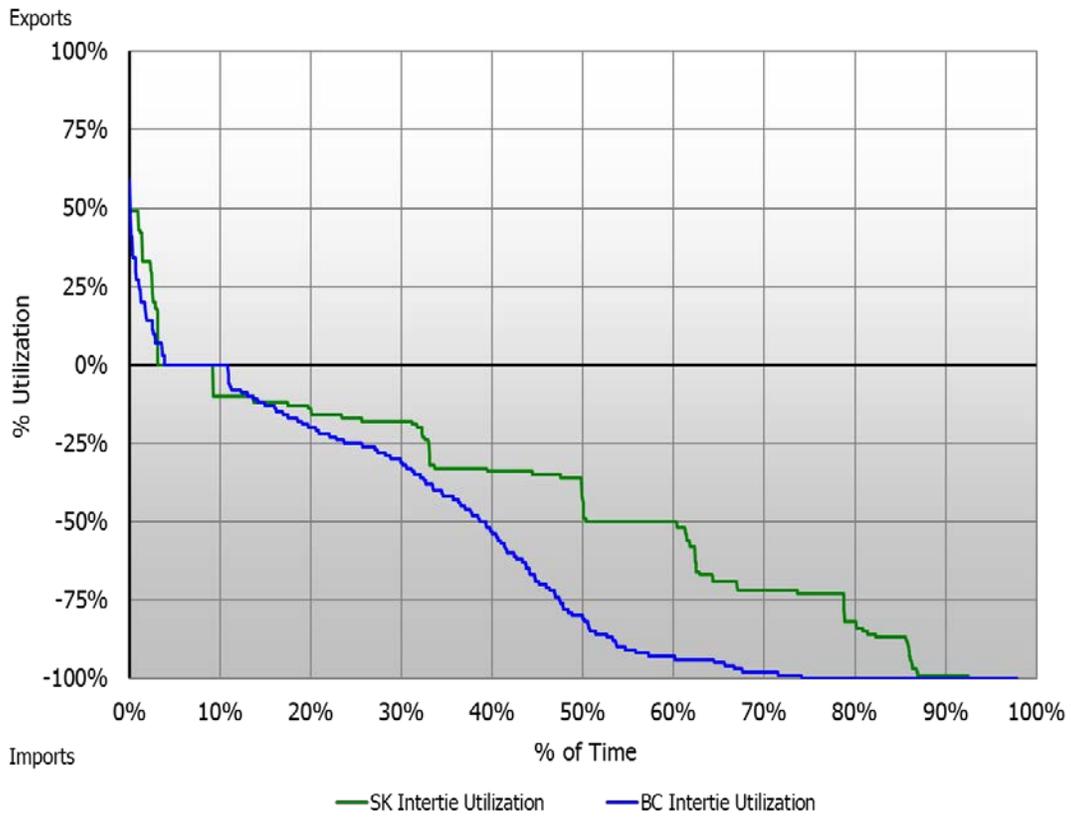


Figure D.2: On-Peak Prices in Neighbouring Markets

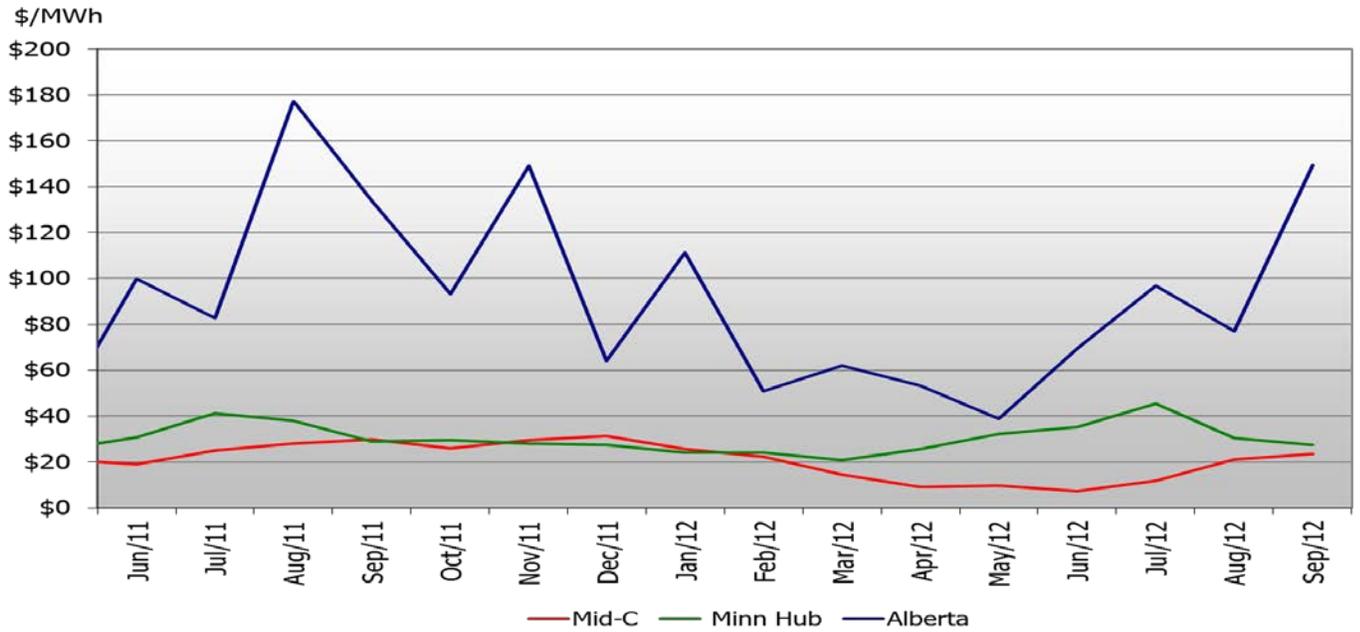


Figure D.3: Off-Peak Prices in Neighbouring Markets

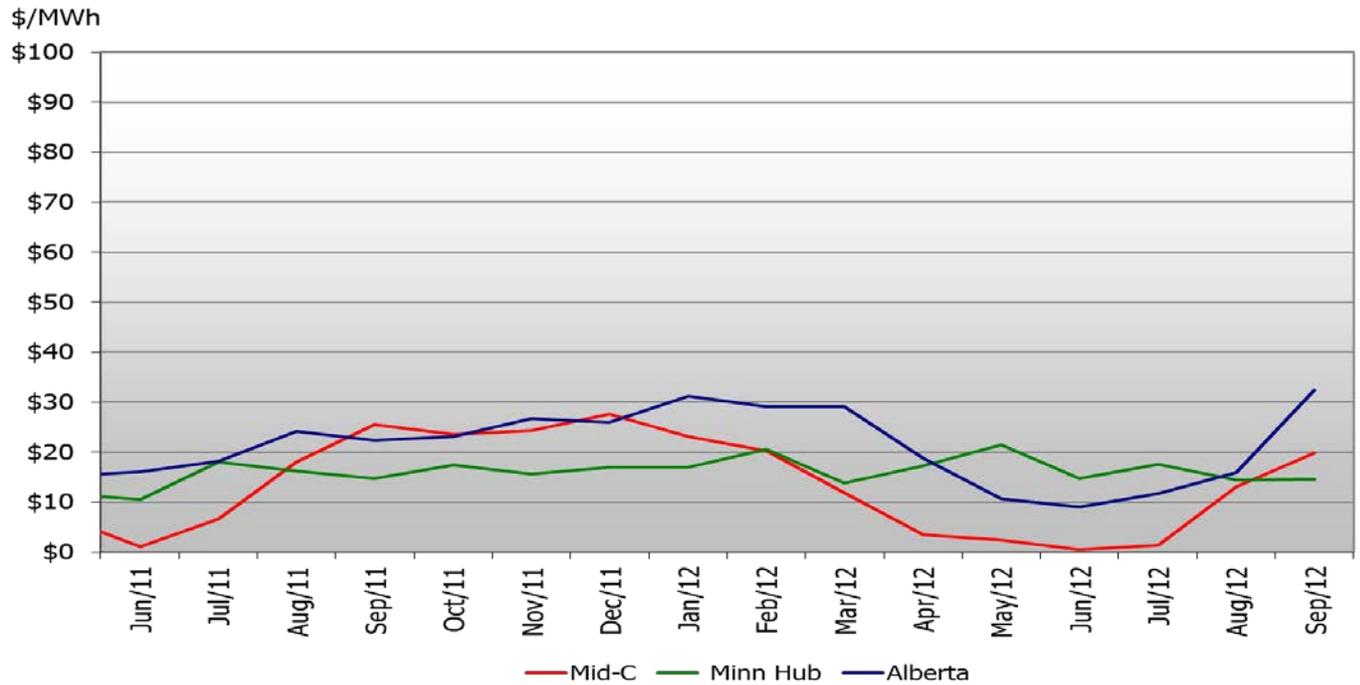
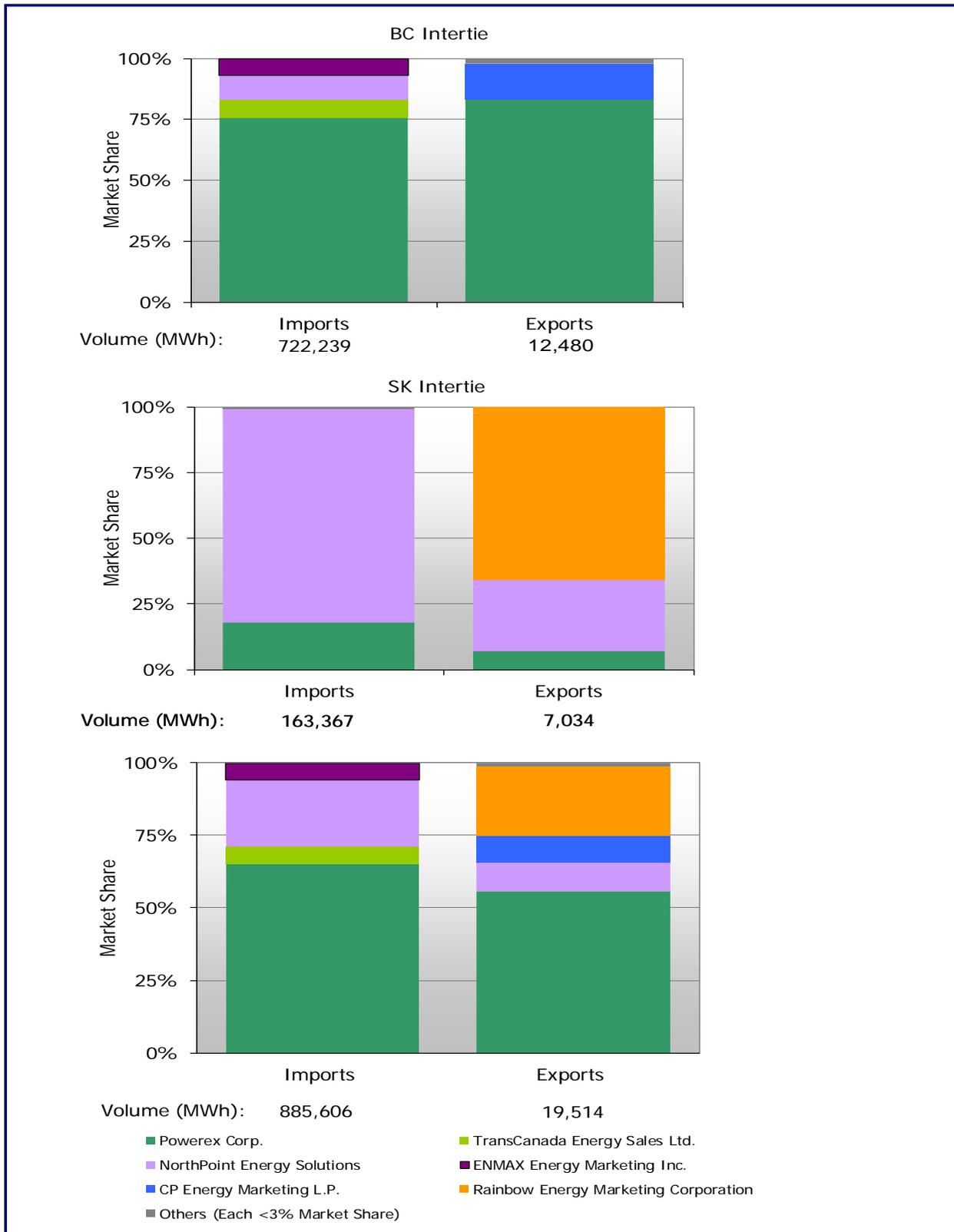


Figure D.4: Intertie Market Shares – Q3/12



Appendix E: Forward Market Metrics

Figure E.1: Volume by Trading Month

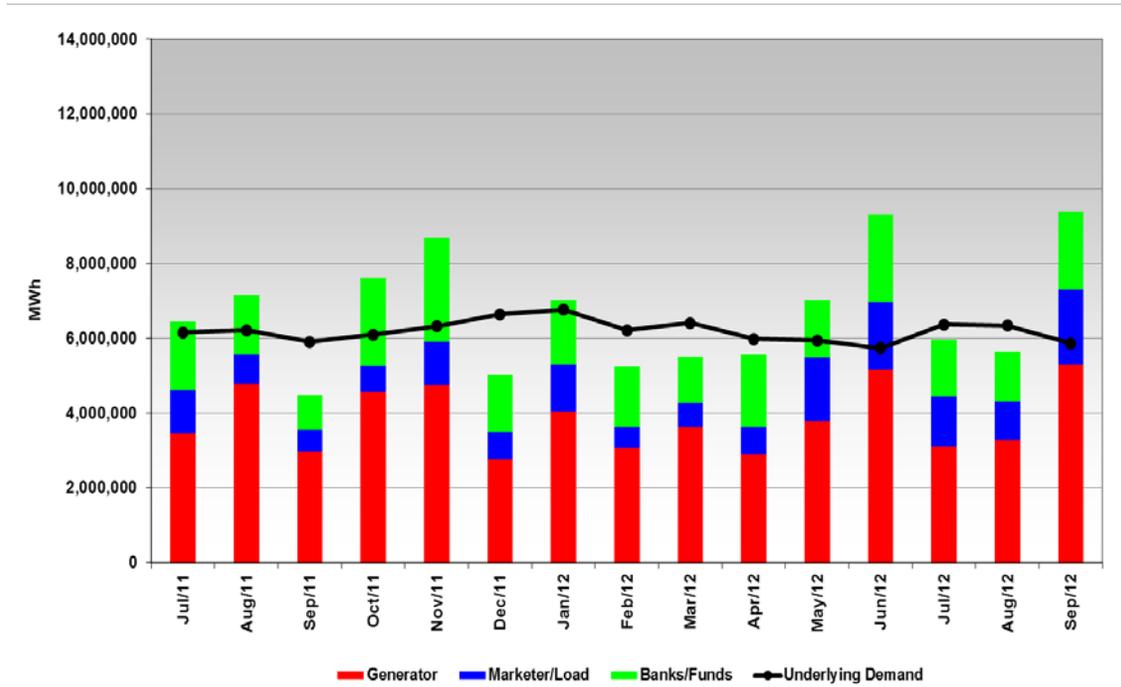


Figure E.2: Market Shares by Participant Type

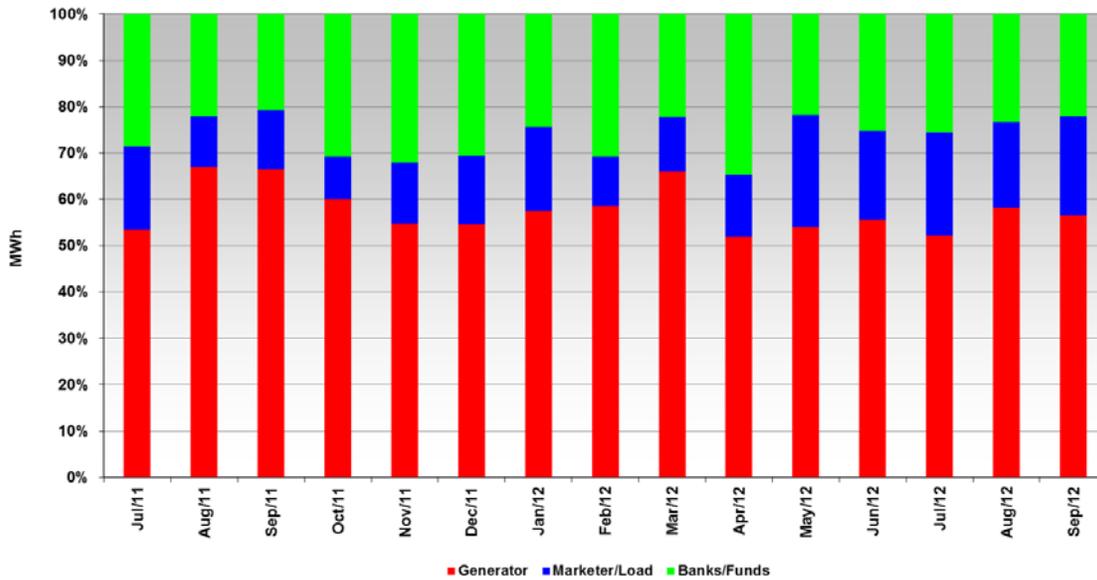
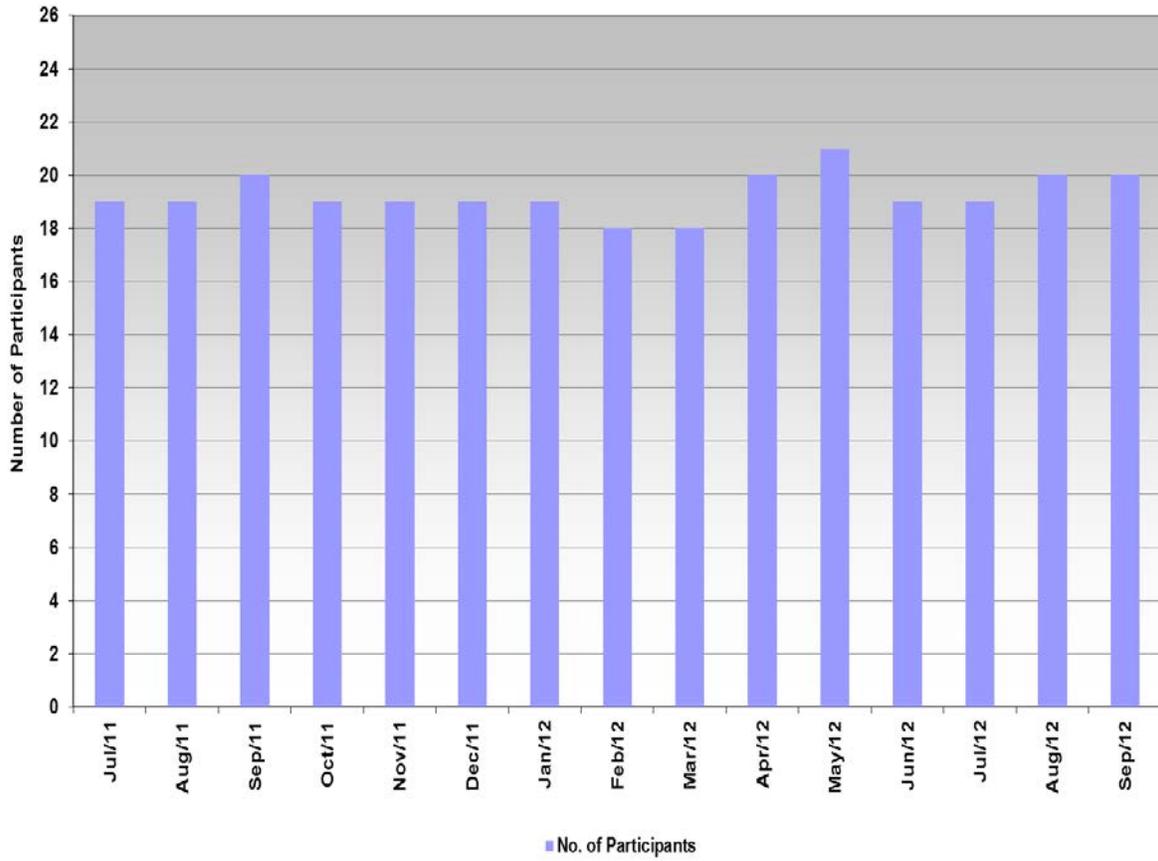


Figure E.3: Number of Active Market Participants



Appendix F: Hours >3 ST. D. in Q3/12

Date	HE	Pool Price(>=3)	Demand	MC	AC	Dispatched MW	Supply Cushion	BC Net Import	SK Net Import	Wind	% of Supply Cushion					
											A	B	C	D	E	Other
2012-07-09	11	502.59	9589	12379	9420	9039	647	570	153	1	8%	17%	48%	6%	4%	16%
2012-07-09	21	619.27	9071	12379	9035	8296	718	550	75	33	0%	17%	66%	15%	0%	2%
2012-07-09	22	128.4	8972	12379	9495	8481	1109	550	75	43	0%	17%	56%	9%	1%	17%
2012-07-10	11	458.88	9638	12379	9527	8959	763	545	125	21	2%	0%	77%	15%	0%	5%
2012-07-10	12	707.83	9723	12379	9583	8970	662	495	125	43	3%	0%	89%	2%	0%	6%
2012-07-10	13	881.13	9765	12379	9303	8779	631	470	125	97	3%	3%	86%	1%	0%	8%
2012-07-10	19	586.44	9395	12379	9293	8545	742	495	0	210	0%	2%	85%	10%	0%	2%
2012-07-10	20	303.88	9330	12379	9300	8474	893	575	0	130	0%	11%	71%	7%	1%	9%
2012-07-10	21	294.17	9230	12379	9301	8449	893	550	0	126	0%	11%	71%	7%	1%	9%
2012-07-10	22	134.33	9036	12379	9302	8134	1232	550	0	186	3%	20%	61%	2%	1%	13%
2012-07-10	23	105.38	9003	12379	9322	8073	1318	550	15	220	3%	23%	53%	2%	1%	19%
2012-07-10	24	226.58	8662	12379	9147	7673	1622	510	15	240	2%	23%	50%	8%	1%	17%
2012-07-11	10	150.57	9339	12379	9465	8530	1038	495	110	73	0%	1%	79%	10%	1%	9%
2012-07-11	11	432.76	9506	12379	9363	8681	740	470	54	25	0%	2%	82%	14%	0%	2%
2012-07-11	12	936.96	9582	12379	9421	8742	641	470	55	3	0%	2%	95%	1%	0%	2%
2012-07-11	13	982.32	9629	12379	9466	8798	603	470	54	2	0%	2%	80%	15%	0%	2%
2012-07-11	14	983.65	9690	12379	9464	8861	579	470	55	3	0%	3%	80%	14%	0%	3%
2012-07-11	15	982.36	9755	12379	9453	8909	522	470	54	3	0%	3%	89%	5%	0%	3%
2012-07-11	20	707.34	9402	12379	9285	8645	694	495	54	39	0%	3%	95%	0%	0%	2%
2012-07-11	21	290.07	9280	12379	9287	8540	800	495	55	62	0%	2%	82%	13%	0%	2%
2012-07-11	22	249.99	9093	12379	9303	8192	1128	470	54	134	0%	17%	58%	11%	0%	14%
2012-07-12	10	210.14	9289	12379	9406	8488	1003	520	110	40	0%	1%	74%	13%	1%	11%
2012-07-12	11	484.34	9471	12379	9380	8695	902	520	153	23	0%	2%	82%	14%	0%	3%
2012-07-12	12	843.45	9641	12379	9379	8850	690	495	153	12	0%	2%	78%	17%	0%	3%
2012-07-12	13	867.37	9744	12379	9354	8954	580	495	152	8	0%	3%	93%	0%	0%	4%
2012-07-12	19	545.83	9505	12379	9392	8659	726	572	0	79	0%	2%	94%	0%	0%	3%
2012-07-13	14	119.31	9737	12379	9788	8988	1014	560	110	25	0%	1%	78%	10%	1%	10%
2012-07-13	17	229.38	9639	12379	9736	8786	1168	560	110	50	0%	9%	68%	13%	0%	10%
2012-07-13	18	237.35	9522	12379	9742	8765	1092	535	55	49	0%	5%	72%	13%	0%	10%
2012-07-30	14	933.94	9727	12379	9511	9076	628	523	110	39	0%	9%	86%	14%	6%	-14%
2012-07-30	15	927.34	9723	12379	9550	9014	665	523	111	44	0%	18%	55%	7%	0%	20%
2012-07-30	16	927.48	9777	12379	9548	9066	665	498	54	40	0%	17%	65%	4%	0%	15%
2012-07-30	17	928.25	9784	12379	9633	9095	620	498	35	55	0%	18%	70%	4%	0%	9%
2012-07-30	18	814.38	9714	12379	9579	8997	640	523	21	90	0%	17%	58%	4%	3%	18%
2012-08-08	16	525.55	9774	12379	9646	9085	589	500	54	51	5%	8%	52%	6%	19%	9%
2012-08-08	17	812.44	9718	12379	9598	9113	530	500	30	39	6%	8%	49%	7%	14%	16%

Date	HE	Pool Price(>=3)	Demand	MC	AC	Dispatched MW	Supply Cushion	BC Net Import	SK Net Import	Wind	% of Supply Cushion					
											A	B	C	D	E	Other
2012-08-17	24	109.85	8260	12380	8884	7542	1282	75	51	26	4%	21%	27%	5%	23%	20%
2012-08-27	12	781.02	8955	12380	9193	8314	508	0	106	38	20%	44%	3%	11%	4%	19%
2012-08-27	13	616.89	8995	12380	9224	8245	584	0	106	45	18%	38%	0%	18%	0%	26%
2012-08-27	19	788.75	9112	12380	9111	8197	609	0	153	282	9%	36%	0%	5%	0%	51%
2012-08-27	20	217.83	8952	12380	9139	8035	753	0	126	250	14%	29%	0%	18%	0%	40%
2012-08-27	22	721.38	8889	12380	8789	7924	539	0	152	296	26%	45%	4%	30%	10%	-15%
2012-08-28	20	662.46	9007	12380	8908	8045	562	0	152	370	0%	54%	0%	22%	0%	24%
2012-08-28	21	567.94	8974	12380	8943	7902	700	0	106	427	7%	45%	0%	24%	2%	22%
2012-09-04	13	407.27	8767	12380	9192	8020	988	0	152	155	25%	24%	5%	16%	0%	30%
2012-09-04	15	364.28	8808	12380	9161	8000	854	0	153	143	24%	36%	6%	31%	0%	3%
2012-09-04	16	275	8777	12380	9271	7990	972	0	153	111	21%	32%	5%	24%	0%	18%
2012-09-04	17	738.43	8819	12380	9258	8053	909	0	153	110	22%	34%	6%	25%	0%	13%
2012-09-04	18	205.63	8784	12380	9256	7949	968	0	152	140	21%	32%	5%	19%	0%	23%
2012-09-06	11	295	8692	12380	9156	7947	903	0	151	0	28%	27%	6%	23%	2%	15%
2012-09-06	12	616.55	8717	12380	9155	7998	864	0	151	0	26%	28%	6%	23%	2%	15%
2012-09-06	13	609.98	8706	12380	9131	8002	850	0	151	1	24%	27%	6%	24%	2%	17%
2012-09-06	14	759.85	8729	12380	9121	8013	797	0	153	1	25%	29%	7%	23%	2%	13%
2012-09-06	15	779.82	8734	12380	9155	8073	774	0	152	1	26%	30%	7%	12%	2%	23%
2012-09-06	16	751	8740	12380	9072	8116	656	0	153	2	31%	35%	8%	18%	3%	6%
2012-09-06	17	751	8764	12380	9063	8107	654	0	152	5	31%	33%	8%	10%	3%	16%
2012-09-06	18	734.6	8720	12380	9056	8030	684	0	153	7	30%	31%	8%	9%	2%	20%
2012-09-06	19	259.59	8589	12380	9143	7859	901	0	153	14	28%	25%	6%	3%	2%	36%
2012-09-07	12	289.16	8793	12380	9261	8122	882	0	153	148	29%	33%	6%	18%	4%	10%
2012-09-07	13	665.48	8799	12380	8983	8033	910	0	152	121	25%	33%	6%	11%	4%	23%
2012-09-07	14	893.53	8839	12380	9034	8022	652	0	152	96	38%	50%	8%	11%	5%	-12%
2012-09-07	15	886.45	8881	12380	9062	8095	641	0	153	72	23%	42%	8%	0%	3%	24%
2012-09-07	16	750.3	8887	12380	9169	8153	716	0	153	60	20%	42%	0%	0%	5%	33%
2012-09-07	17	664.73	8898	12380	9115	8152	661	0	153	62	14%	53%	8%	3%	5%	16%
2012-09-07	18	553.66	8851	12380	9126	7930	851	0	152	77	17%	29%	6%	3%	4%	42%
2012-09-07	24	163.09	7754	12380	8653	7077	1302	50	26	112	13%	20%	1%	12%	1%	53%
2012-09-08	1	199.16	7429	12380	8559	6730	1214	0	27	118	20%	34%	0%	11%	16%	19%
2012-09-13	11	158.51	8598	12380	8949	7866	829	45	133	103	6%	24%	6%	9%	24%	30%
2012-09-13	13	500	8636	12380	8922	7939	733	45	152	52	7%	24%	7%	9%	19%	33%
2012-09-13	14	653.45	8674	12380	8889	7962	672	45	153	88	8%	27%	8%	27%	13%	16%
2012-09-13	15	440.39	8685	12380	8885	7895	706	45	153	159	8%	27%	8%	19%	12%	27%
2012-09-13	16	431	8734	12380	8874	7912	741	45	153	196	7%	25%	7%	23%	12%	26%

Date	HE	Pool Price(>=3)	Demand	MC	AC	Dispatched MW	Supply Cushion	BC Net Import	SK Net Import	Wind	% of Supply Cushion					
											A	B	C	D	E	Other
2012-09-13	17	709.23	8812	12380	8907	7988	663	45	153	218	8%	28%	8%	24%	19%	13%
2012-09-13	18	439.95	8766	12380	8876	7938	724	45	152	252	7%	25%	7%	19%	12%	30%
2012-09-15	7	205.52	7380	12380	7844	6456	1123	45	27	279	8%	27%	12%	27%	14%	11%
2012-09-15	11	822.2	8009	12380	8354	7375	516	45	133	24	10%	46%	10%	11%	7%	16%
2012-09-15	12	852.48	8075	12380	8350	7355	729	45	133	13	7%	33%	7%	8%	5%	40%
2012-09-15	13	853.79	8032	12380	7991	7430	720	35	152	18	7%	33%	7%	19%	24%	10%
2012-09-15	20	414.23	7749	12380	7645	6963	551	13	153	44	10%	40%	10%	22%	0%	19%
2012-09-15	24	240.72	7351	12380	7668	6448	1005	45	151	176	5%	24%	6%	6%	0%	59%
2012-09-16	3	127.5	7019	12559	7634	6201	1178	45	77	156	7%	26%	6%	23%	14%	24%
2012-09-16	4	110.83	6990	12559	7680	6098	1282	45	76	170	6%	24%	4%	21%	13%	31%
2012-09-16	7	208.33	7136	12559	7701	6341	1177	45	153	92	7%	26%	6%	21%	22%	19%
2012-09-16	20	370.75	8079	12559	8029	7139	628	45	153	119	14%	33%	0%	25%	10%	19%
2012-09-16	22	890.61	8136	12559	8055	7206	586	45	153	137	13%	10%	0%	5%	0%	71%
2012-09-17	7	95.25	7896	12559	8691	7022	1378	45	153	144	10%	23%	0%	24%	21%	22%
2012-09-17	11	350.57	8616	12559	8949	7973	706	45	153	46	8%	37%	0%	22%	25%	8%
2012-09-17	12	188.89	8678	12559	9010	7920	757	45	153	63	23%	32%	0%	17%	11%	16%
2012-09-17	13	500	8703	12559	8996	7931	814	45	152	74	22%	32%	0%	16%	10%	21%
2012-09-17	14	423.37	8770	12559	9027	8009	781	45	153	97	23%	32%	0%	16%	15%	15%
2012-09-17	15	797.89	8827	12559	8945	8061	661	45	153	98	27%	36%	0%	17%	17%	3%
2012-09-17	16	830.93	8844	12559	8852	8116	501	45	153	104	43%	48%	0%	23%	22%	-35%
2012-09-17	19	568.07	8655	12559	8755	7880	595	45	153	204	9%	41%	0%	0%	12%	39%
2012-09-17	21	346.53	8777	12559	8835	7926	735	45	153	373	33%	35%	0%	13%	16%	2%
2012-09-18	16	244.33	8856	12559	8808	7771	861	45	153	589	16%	20%	0%	12%	19%	32%
2012-09-18	17	355.64	8931	12559	8725	7882	719	45	153	506	36%	24%	0%	23%	23%	-5%
2012-09-18	21	560.17	8832	12559	9100	7913	666	45	153	252	38%	28%	2%	24%	25%	-17%
2012-09-18	22	334.63	8518	12559	8917	7521	1078	45	153	185	10%	18%	0%	15%	13%	45%
2012-09-20	7	98.1	8006	12559	8892	7330	1316	150	77	40	22%	26%	11%	15%	25%	2%
2012-09-20	22	352.14	8551	12559	8631	7715	587	150	77	14	27%	12%	0%	24%	25%	12%
2012-09-20	23	116.14	8090	12559	8560	7156	1137	150	76	11	5%	19%	5%	5%	5%	62%
2012-09-20	24	330.7	7679	12559	8291	6915	1098	100	76	7	24%	20%	5%	13%	27%	11%
2012-09-21	7	187.96	7967	12559	8343	7219	1217	450	152	18	33%	22%	11%	14%	8%	13%
2012-09-21	13	693.27	8936	12559	8645	8290	580	482	152	0	42%	11%	0%	33%	6%	8%
2012-09-21	21	180.67	8804	12559	8548	7964	751	482	126	190	49%	21%	0%	18%	2%	10%
2012-09-21	24	213.58	7789	12559	8024	6872	1199	300	50	199	21%	14%	0%	13%	0%	52%
2012-09-22	1	94.84	7563	12559	8146	6529	1380	200	0	259	21%	18%	5%	15%	1%	40%
2012-09-22	22	522.16	8308	12559	7770	7344	607	415	136	168	9%	15%	2%	27%	7%	40%
2012-09-22	23	152.92	7985	12559	7654	7070	893	415	134	157	6%	27%	0%	16%	2%	50%
2012-09-22	24	131.72	7638	12559	7722	6781	1161	415	135	126	18%	20%	0%	14%	5%	42%
2012-09-23	2	170.78	7344	12559	7917	6526	1316	100	36	87	29%	21%	2%	8%	5%	36%
2012-09-24	7	476.69	7885	12559	8087	7191	1014	450	85	69	29%	18%	20%	12%	15%	5%
2012-09-25	13	505.94	8797	12559	8550	7978	669	345	151	120	30%	26%	0%	17%	3%	25%
2012-09-25	14	639.45	8729	12559	8535	7928	691	345	152	149	15%	25%	0%	12%	2%	46%
2012-09-25	17	706.81	8740	12559	8242	7743	617	445	104	383	27%	6%	0%	34%	0%	34%
2012-09-25	18	164.16	8691	12559	8075	7516	896	395	129	428	9%	2%	0%	3%	0%	86%
2012-09-26	7	306.03	8074	12559	8623	7333	1326	220	145	126	25%	29%	6%	23%	10%	7%

Date	HE	Pool Price(>=3)	Demand	MC	AC	Dispatched MW	Supply Cushion	BC Net Import	SK Net Import	Wind	% of Supply Cushion					
											A	B	C	D	E	Other
2012-09-21	24	213.58	7789	12559	8024	6872	1199	300	50	199	21%	14%	0%	13%	0%	52%
2012-09-22	1	94.84	7563	12559	8146	6529	1380	200	0	259	21%	18%	5%	15%	1%	40%
2012-09-22	22	522.16	8308	12559	7770	7344	607	415	136	168	9%	15%	2%	27%	7%	40%
2012-09-22	23	152.92	7985	12559	7654	7070	893	415	134	157	6%	27%	0%	16%	2%	50%
2012-09-22	24	131.72	7638	12559	7722	6781	1161	415	135	126	18%	20%	0%	14%	5%	42%
2012-09-23	2	170.78	7344	12559	7917	6526	1316	100	36	87	29%	21%	2%	8%	5%	36%
2012-09-24	7	476.69	7885	12559	8087	7191	1014	450	85	69	29%	18%	20%	12%	15%	5%
2012-09-25	13	505.94	8797	12559	8550	7978	669	345	151	120	30%	26%	0%	17%	3%	25%
2012-09-25	14	639.45	8729	12559	8535	7928	691	345	152	149	15%	25%	0%	12%	2%	46%
2012-09-25	17	706.81	8740	12559	8242	7743	617	445	104	383	27%	6%	0%	34%	0%	34%
2012-09-25	18	164.16	8691	12559	8075	7516	896	395	129	428	9%	2%	0%	3%	0%	86%
2012-09-26	7	306.03	8074	12559	8623	7333	1326	220	145	126	25%	29%	6%	23%	10%	7%

References

Market Surveillance Administrator

Offer Behaviour Enforcement Guidelines, 2011

<http://albertamsa.ca/uploads/pdf/Consultations/Market%20Participant%20Offer%20Behaviour/Decide%20-%20Step%205/Offer%20Behaviour%20Enforcement%20Guidelines%20011411.pdf>

MSA Quarterly Reports

<http://albertamsa.ca/index.php?page=quarterly-reports>

Identification of impediments to forward contracting, A Survey of Industrial Loads undertaken as part of the 2012 State of the Market Report, MSA Report, August 15, 2012.

<http://albertamsa.ca/uploads/pdf/Archive/2012/SOTM%20Load%20Survey%20Report%20120815%20FINAL.pdf>

Investor Perspectives on the Attractiveness of Alberta's Electricity Generation Market, Morrison Park Advisors, Prepared for the MSA, August 2012.

<http://albertamsa.ca/uploads/pdf/Archive/2012/Investor%20Perspectives%20Report%20to%20MSA%20-%202017%20Augus.pdf>

Alberta Wholesale Market. A description of basic structural features undertaken as part of the 2012 State of the Market Report, August 30, 2012.

<http://albertamsa.ca/uploads/pdf/Archive/2012/SOTM%20Basic%20Structure%20083012.pdf>

Statutes and Regulations

Commission Decisions and Rules



The Market Surveillance Administrator is an independent enforcement agency that protects and promotes the fair, efficient and openly competitive operation of Alberta's wholesale electricity markets and its retail electricity and natural gas markets. The MSA also works to ensure that market participants comply with the Alberta Reliability Standards and the Independent System Operator's rules.