Q1/13 Quarterly Report

January – March 2013

April 19, 2013

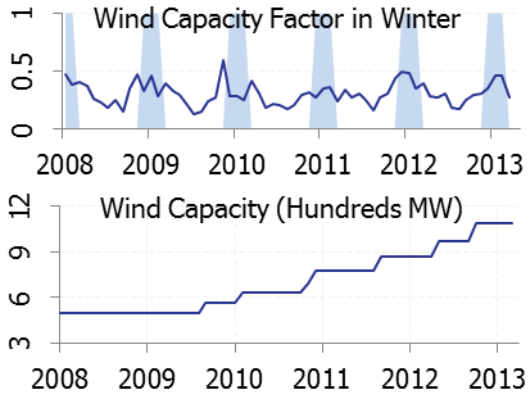
Wholesale market

The average pool price in Q1/13 was $65.28/MWh ($80.93/MWh on peak, $33.94/MWh off peak), with prices averaging 8.6% higher than Q1/12 due to high-price events in March. Mild weather throughout the quarter resulted in a period of relatively low and stable prices in the first two months of this year, despite winter demand typically being at its highest point. On average, the first two months in 2013 were the warmest in the past five years[1].

		2012	2013	*Change*
Avg. Pool Price ($/MWh)	Jan	84.54	58.02	*-31.4%*
	Feb	43.67	28.71	*-34.2%*
	Mar	51.08	105.63	*106.8%*
	Q1 Total	**60.12**	**65.28**	***8.6%***
Avg. Wind (MWh)	Jan	441	518	*17.5%*
	Feb	316	519	*64.4%*
	Mar	353	303	*-14.1%*
	Q1 Total	**371**	**444**	***19.8%***
Avg. Supply Cushion (MW)	Jan	1336	1629	*22.0%*
	Feb	1335	1928	*44.5%*
	Mar	1491	1336	*-10.4%*
	Q1 Total	**1388**	**1621**	***16.8%***

The low prices observed in the first two months of the quarter were ultimately a result of a high supply cushion. The high supply cushion in turn was as a result of a number of factors including:

- Lower demand due to warmer weather
- Higher capacity factor for the wind generation leading to more output year over year as installed wind capacity has increased
- No planned transmission outages leading to constrained down generation
- No major planned generator outages
- No major forced generator outages

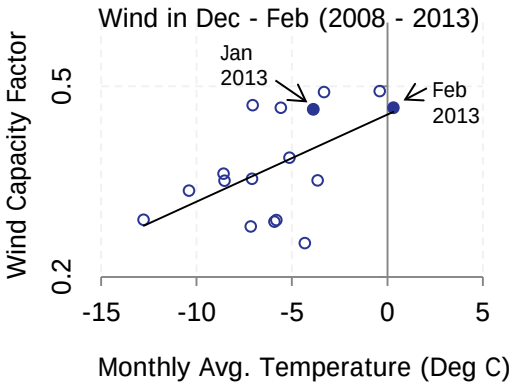


There was a total of 940,000 MWh of wind energy produced with a 40% capacity factor. In comparison, the capacity factor for wind power over the past five years (2008 – 2012) was about 30%.

January

- In the winter months warmer temperatures lead to lower market demands and higher wind speeds.

  As shown in the chart above, the highest capacity factor for wind is typically in the winter. The chart on the right also shows that the warmer a winter the higher the capacity factor for the wind. So a warm winter day typically leads to two things simultaneously: lower demands and more wind energy, and hence a larger supply cushion.



[1] Temperature measurement is from Lethbridge – the closest point to most of the wind generation in the province.

- **Jan 21 – 23**: Serving as an exception to the trend in January-February, during January 21 – 23rd temperatures dropped to day-time highs in the order of -11C and wind generation fell. Typically very cold days exhibit little wind energy production. Most of the price jumps in this period coincided with low wind generation. Also notable during this period was an increase in forced outages as at times close to 1200 MW of generation was on outage combined at times with reduced interconnection capability with BC. Pool prices averaged $220/MWh over those three days.

		2012	2013
Avg. MW on Outage	Jan	787	358
	Feb	936	133
	Mar	894	1012
	Q1 Total	**871**	**513**
Avg. Temp (Deg C)	Jan	-3.3	-3.9
	Feb	-3.6	0.3
	Mar	2.2	-1.6
	Q1 Total	**-1.5**	**-1.8**

February

- February was also warm and windy with no long term planned outages and few forced outages. The average supply cushion was 1928 MWs during the month. As a result, at $28.71/MWh, February 2013 yielded the lowest monthly average pool price at since September 2010. Wind production for the month averaged 519 MW and produced a historical monthly record of over 324 GWh. The capacity factor for wind in February equalled 46% while the average monthly temperature was the highest February in the past 5 years.

March

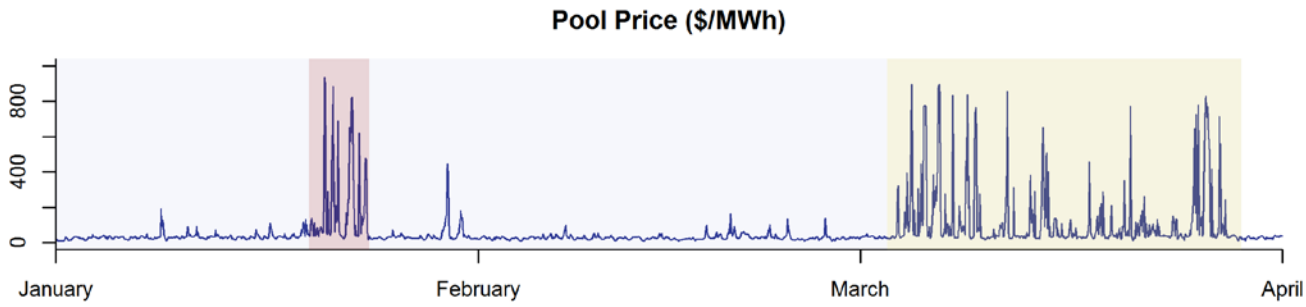
- Unlike the previous two months, March had numerous high price events. The average monthly pool price for March was $105.63/MWh, an increase of $76.92/MWh from February. High prices were typically caused by a drop in supply cushion caused by:
    - Less wind (over 200 MW less on average)
    - Generator outages (both planned and forced)

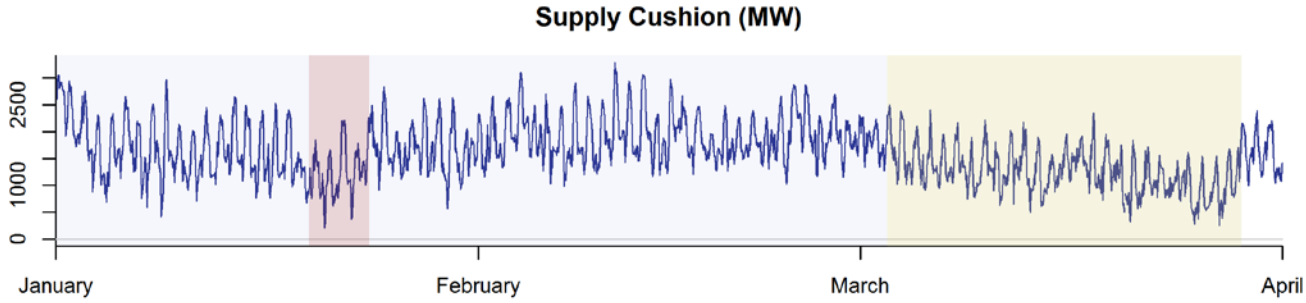
A note to the reader: A new focus for the Quarterly Report

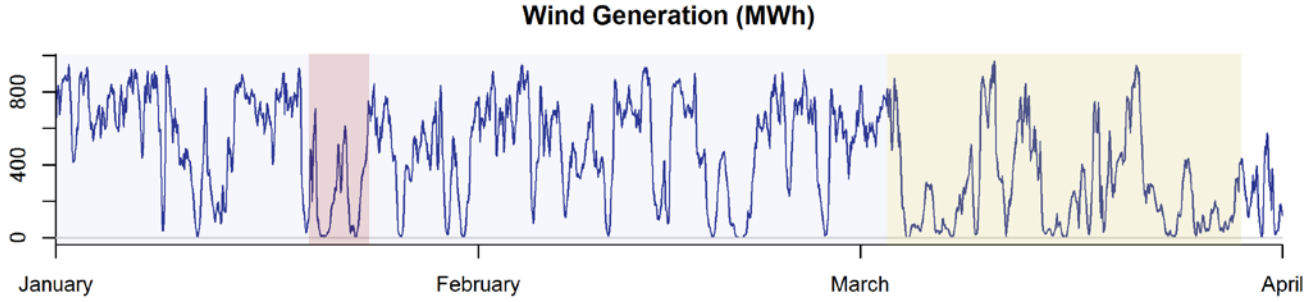
Since the MSA's State of the Market Report released in December 2012, we have been looking at ways to improve the MSA's regular reporting via Quarterly Reports. This report is the second of this work in progress; for an outline of what the MSA hopes to accomplish in this new look, see the first section of the Q4 2012 Report. The MSA welcomes feedback and advice on what changes should be made to both the content and frequency of reporting. To date, the MSA has not received feedback on the new report style. Please submit any comments via email.

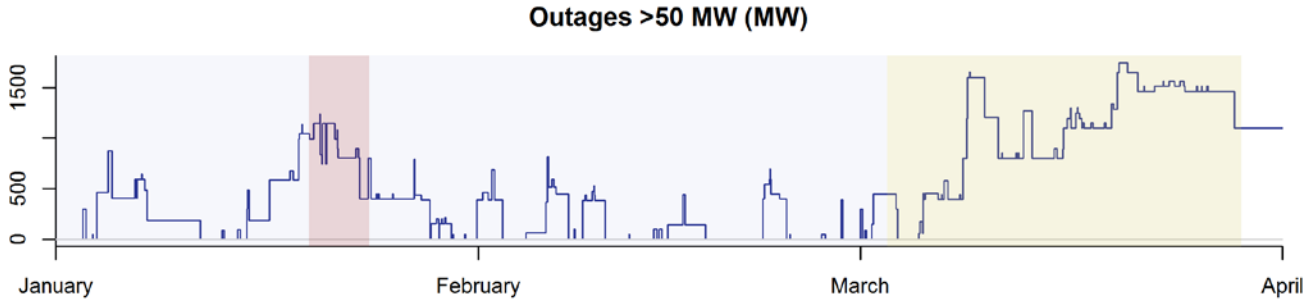
Relative to the previous report, new sections/discussions are now included:

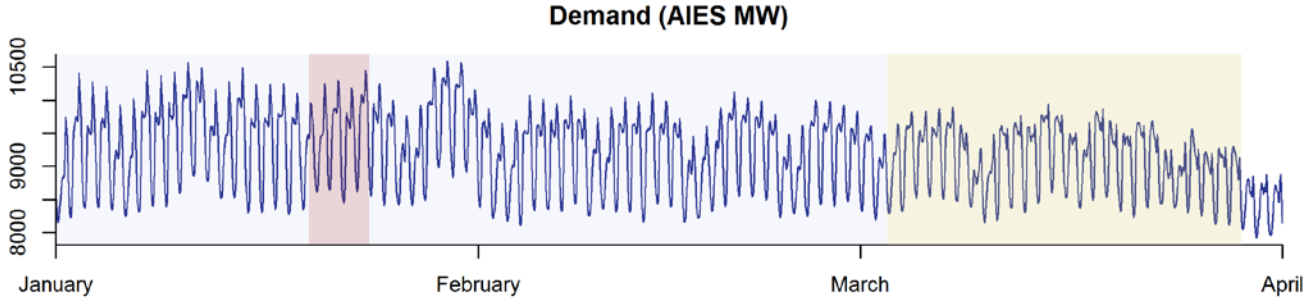
- A section on compliance, summarizing activity for the first quarter of 2013. Please note that comprehensive compliance reporting on an annual basis will be unaffected.
- A section on operating reserves, discussing trends and observations from the quarter
- Discussion of specific events in the forward market that occurred in the quarter


Pool Price ($/MWh)
0
400
800
January
February
March
April


Supply Cushion (MW)
0
1000
2500
January
February
March
April


Wind Generation (MWh)
0
400
800
January
February
March
April


Outages >50 MW (MW)
0
500
1500
January
February
March
April


Demand (AIES MW)
8000
9000
10500
January
February
March
April

Wholesale forwards

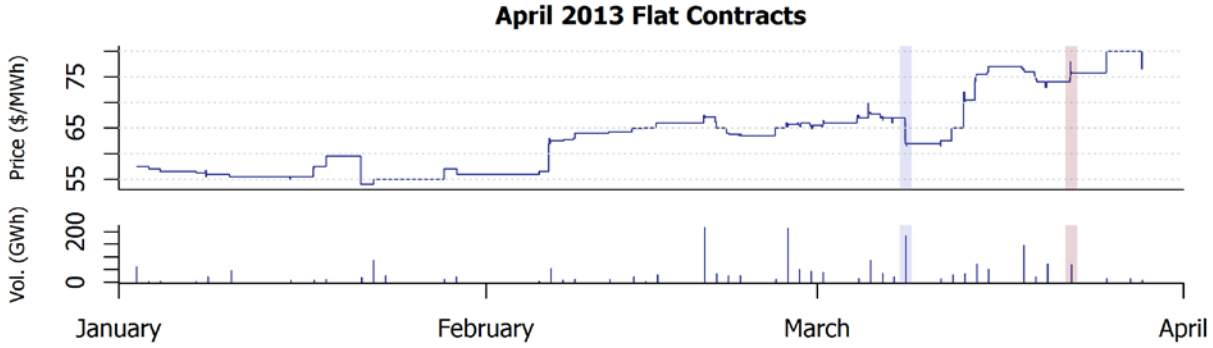
Trading Activity

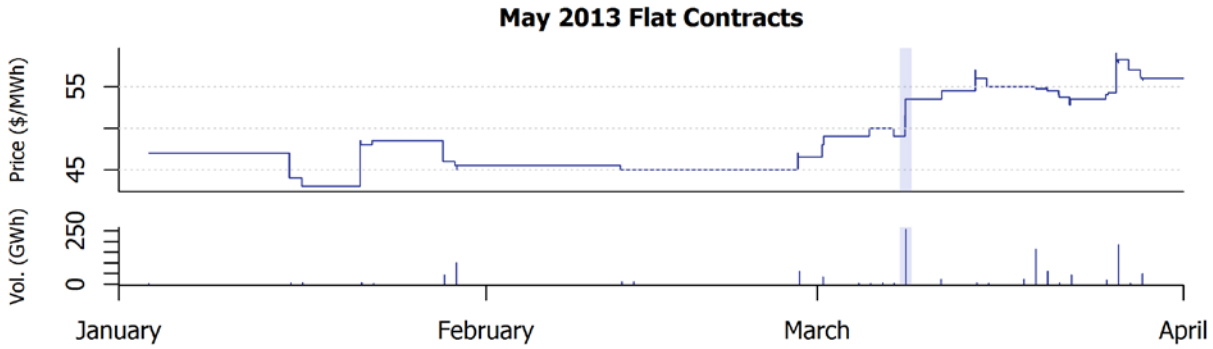
In Q1/13 there were approximately 13.3TWh of forward Trading, 43% more than Q1/12. Each month in the quarter saw improvements in liquidity over the previous year.

The MSA as part of its ongoing monitoring of the forward market thought that it may be helpful to discuss two particular events.

	TWh Traded		
	2012	2013	*% Change*
Jan	3.54	4.80	*35.6%*
Feb	2.76	4.63	*67.9%*
Mar	3.01	3.85	*28.1%*
Q1 Total	**9.31**	**13.29**	***42.7%***

- On March 8 the MSA observed a large volume of forward trading for April (280 MW) and May (345 MW). This would typically be a result of the RRO purchasing, but in this instance was not. The April contract fell roughly $3.50 over two days while the May contract increased $5.50 over the same period. We examined the period and determined from the AESO that this was as a result of the movement of a two-week intertie outage of the 500 kV line with BC from April to early May. The AESO rescheduled the outage for reliability reasons.
- On March 22 the MSA observed a run-up in prices and aggressive buying and selling across the course of the morning for the April contract. Coincidentally, late in the afternoon of the same day a coal fired generator outage was extended by 10 days in April. The MSA was concerned that the buying in the morning was as a result of someone trading with non-public knowledge of the outage extension. We reviewed the data and came to the conclusion that the aggressive buying and selling was a coincidence with the outage and not done by parties who would have had inside knowledge of the outage extension.





Operating reserves

Operating reserves and ancillary services are critical components to the reliability of the AESO interconnected system. Operating reserves are classified in three different products: regulating reserve (RR), spinning reserve (SR) and supplementary reserve (SUP). Operating reserves are also split into active (which account for most of the expenditures) and standby. The market for active reserves is typically cleared at a discount to pool price; for example, a participant supplying spinning reserve for an hour may receive pool price minus fifty dollars per megawatt.

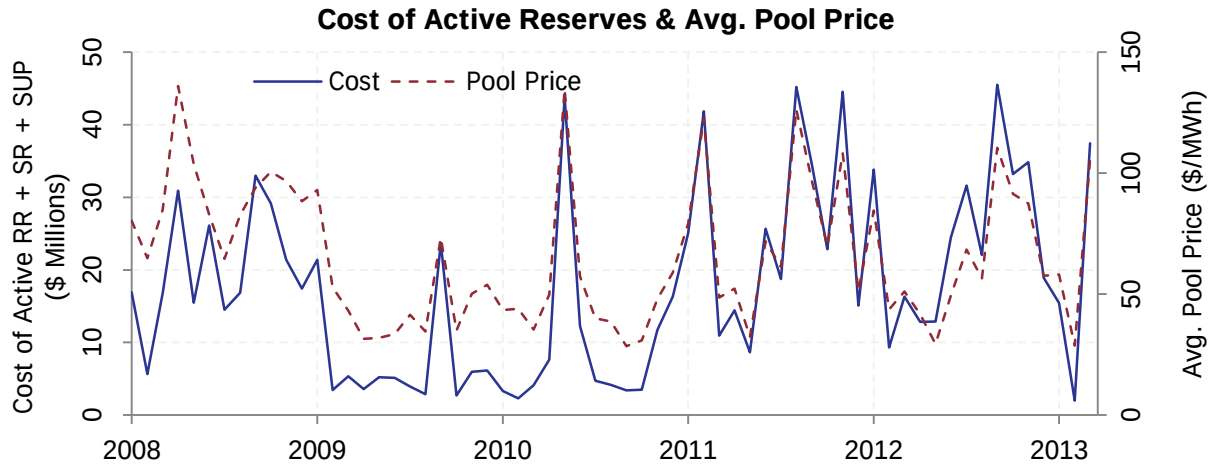
Q1 Active Reserve Costs ($ Millions)	RR	SR	SUP
2008	10.63	15.52	13.19
2009	10.31	11.14	8.72
2010	5.44	2.81	1.48
2011	19.24	31.60	26.99
2012	15.45	22.98	20.99
2013	11.21	22.33	21.38

Over the past few years, there has been a general trend of decreasing discounts (active reserve prices which are closer to pool price). However, in this quarter there has been a marked change in the RR costs in comparison to the previous year. In a quarter where average pool price has increased approximately $5 compared to 2012, costs of supplying RR declined by 27%.

Q1 Avg. Discounts to Pool Price ($/MWh)	RR	SR	SUP	Pool Price
2008	-53.47	-57.92	-62.19	76.95
2009	-66.86	-74.25	-98.79	63.36
2010	-36.44	-45.54	-63.29	40.78
2011	-33.51	-31.85	-52.45	82.05
2012	-24.32	-27.16	-40.08	60.12
2013	-166.40	-31.32	-38.16	65.28

Active RR contracts in Q1/13 cleared at much deeper discounts than they have in previous years, as a result of participants fighting for market share. In Q1/12 two market participants collectively enjoyed 87% total market share. In Q1/12 three market participants collectively enjoyed 89% market share. The third participant had secured a 19% share, up from essentially zero in Q1/12. The result was a lowering of prices.

Activity in the operating reserve market will continued to be monitored.



Retail market

Regulated Rate Option (RRO) Procurement

Earlier this year, the Minister of Energy released the Retail Market Review Committee's report and the Alberta Government's proposed course of action in response to its recommendations. Many of the recommendations were 'accepted in principle' and implementation was assigned to a committee of MLAs supported by a secretariat. The MSA understands that the MLA committee will be undertaking extensive stakeholder consultation before the recommendations are implemented.

Average RRO Procurement Prices ($/MWh)						
	Flat (7 X 24)			Ext. Peak (7 X 16)		
	Epcor	Enmax	Direct	Epcor	Enmax	Direct
Feb-12	115.00	114.56	115.34	157.53	158.39	160.20
Mar-12	64.85	67.14	68.42	84.38	90.28	93.40
Apr-12	57.76	57.83	58.79	79.41	78.23	80.58
May-12	49.71	50.14	49.89	67.28	67.57	65.72
Jun-12	61.47	61.07	60.97	85.43	83.60	85.52
Jul-12	71.00	72.11	72.68	100.74	101.44	100.14
Aug-12	92.01	90.99	91.54	132.65	129.49	130.27
Sep-12	81.74	86.87	86.91	117.66	123.08	123.91
Oct-12	80.17	78.31	78.93	119.30	106.01	119.02
Nov-12	60.17	59.40	59.90	79.43	77.39	76.73
Dec-12	69.47	69.28	69.51	90.28	89.73	90.07
Jan-13	71.68	74.97	75.88	96.06	98.64	101.54
Feb-13	60.16	62.87	61.79	80.76	81.72	82.14
Mar-13	59.10	58.82	58.50	76.64	76.05	75.77
Apr-13	66.56	68.30	69.36	88.31	91.13	86.88

Several recommendations relate to the design of the RRO. Each of the three largest providers are operating under AUC approved Energy Price Setting Plans (EPSPs) that are in place until mid-2014. One of the recommendations from the RMRC report was that all the RRO procurement could be done through NGX auctions as Epcor does in its current EPSP.

Epcor began procuring its RRO energy through NGX auctions starting in mid-2011. At the start there were a few issues of liquidity which were remedied by changing the auction seed price setting mechanism. Since that time, the auction process appears to have worked quite well.

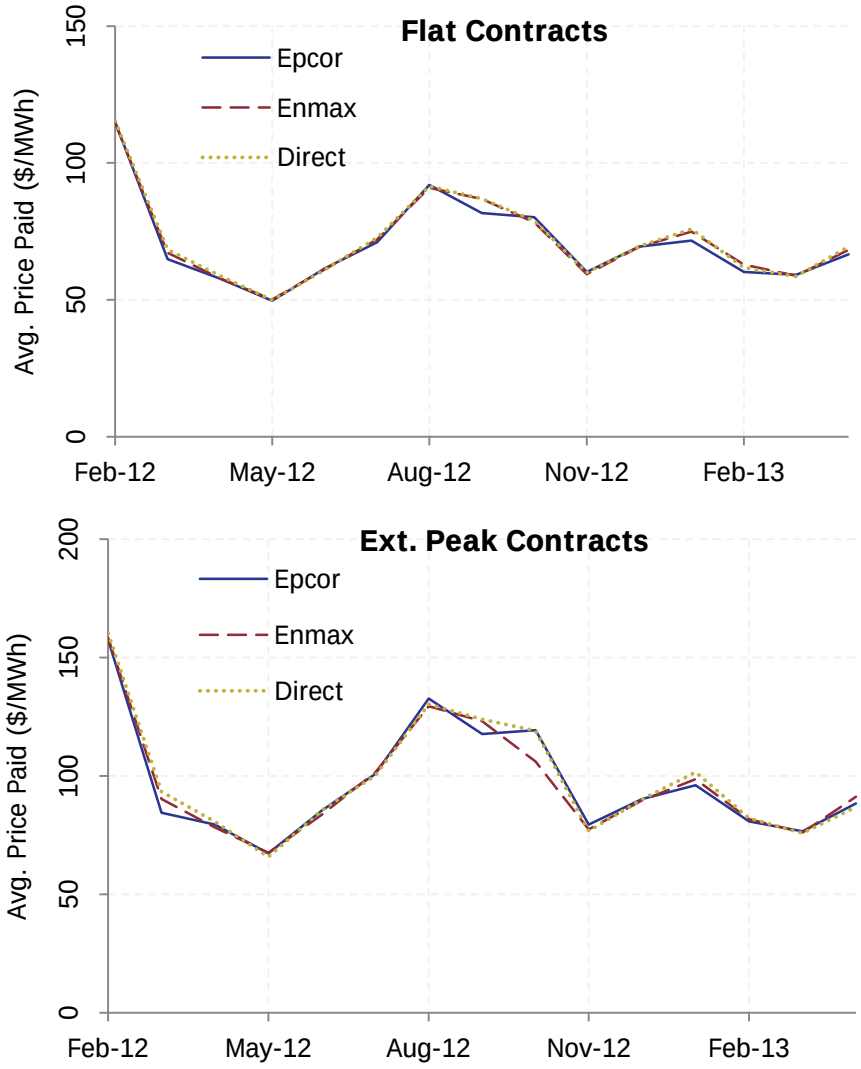
The other two providers, Enmax and Direct, operate under similar EPSPs where the Independent Advisor and consumer representatives provide daily target volumes and prices to the traders of the providers. It's a more 'hands-on' approach than that for Epcor.

The table above shows the average prices for flat and extended peak product for each of the three providers since February 2012. The convergence of prices is more clearly evident on the figures below and the different styles of procurement do not yield substantially different prices. The results suggest that either method could be used to procure the RRO energy. The choice can then be made based on other considerations such as costs and transparency.

MSA Roundtable Discussions

For the past several years, the Alberta Department of Energy has published switching rates for electricity and natural gas on its web site at http://www.energy.gov.ab.ca/Electricity/1570.asp. The data is provided to the Department by the Load Settlement Agents and published in a monthly format. The Load Settlement Agents (LSAs) calculate the consumption of all the customers within the agent's territory to enable them to be billed by the retailers. The Department asked the MSA to take on this publishing

responsibility as it more appropriately fits with the general mandate of the MSA with respect to competition oversight of the retail electricity and natural gas markets.

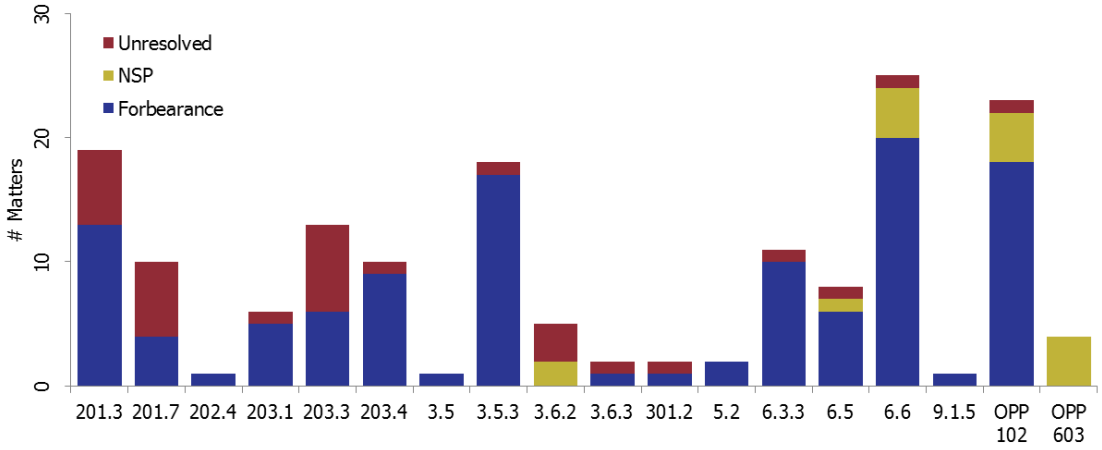


The MSA has been working with the LSAs to develop new reports that will allow the MSA to undertake additional analyses beyond those reported by the Department. This includes customer 'churn' a term that measures the loss of customers by a retailer over a given period of time. There is an opportunity to consider what metrics regarding the retail data the MSA might publish on a regular or irregular basis. To that end we will shortly announce a roundtable session with interested parties to discuss the matter. Some readers may recall that in 2009 the MSA undertook a formal stakeholder consultation process on this topic - http://albertamsa.ca/index.php?page=publication-of-retail-market-statistics. The roundtable will be an opportunity to see if views have changed and to consider additional items not in that earlier consultation process.

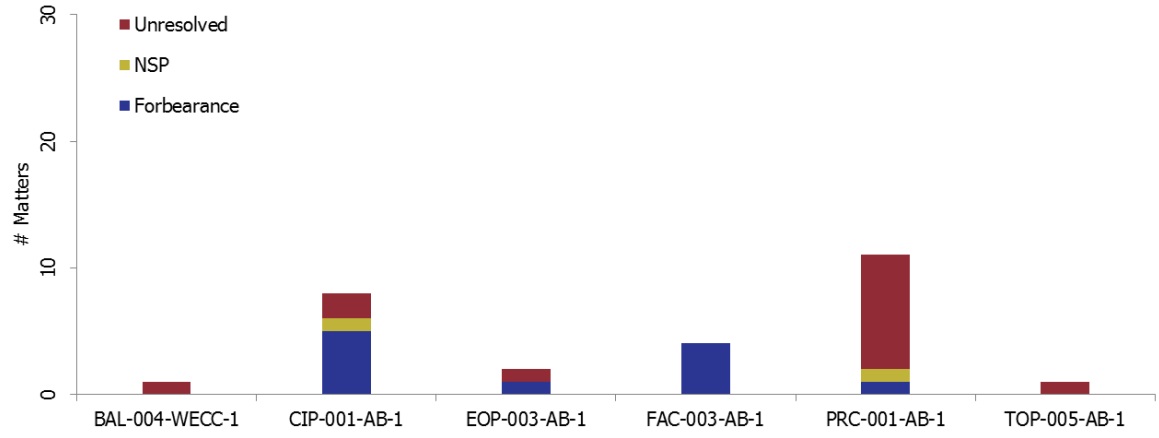
Compliance

- Progress was made during Q1/13 to address the inventory of unresolved files at the end of 2012. From the beginning to the end of Q1, unresolved ISO rules matters declined from 59 to 31.
- During Q1/13, the MSA issued 14 notices of specified penalty in relation to ISO rules compliance matters and 2 notices of specified penalty in relation to reliability standards matters.
- In early Q1/13, the AESO's "core market rules" changes became effective. Participants are advised to review their processes to ensure matters are reported under revised rule references.
- On December 3, 2012, ISO rules section 201.3 (Offer Control Information) became effective. A number of participants were caught unaware of the new obligation to submit offer control information no later than 30 days after the settlement interval to which the offer control information applies (for offer blocks > 0 MW). Participants are advised to ensure they are meeting this new obligation in respect of energy and ancillary services offers.

ISO Rules Compliance



Alberta Reliability Standards Compliance



MSA Activities and Releases

Market Reporting

MSA Annual Report to the Minister, 2012 (03/22/13)

Notice re State of the Market Report 2012 Stakeholder Comments (03/06/13)

Notice re State of the Market Report Feedback and Related Initiatives (02/01/13)

Compliance Review 2012 (02/20/13)

Processes

Notice re MSA Compliance Process Revision (04/15/13)

Notice re Applicability of the Freedom of Information and Protection Act (04/11/13)

Presentations

"Markets, Agencies & Advocates" – MSA Speaking Notes at IPPSA 19th Annual Conference (03/15/13)

Notice re February 7, 2013 Presentations to ACDC (02/20/13)

Consultations

Notice re Market Data Transparency: MSA Response to Stakeholder Comments (03/06/13)

Notice re Stakeholder Consultation: Amendment to Market Share Offer Control Process (Draft) (04/09/13)

Notice re Historical Trading Report Working Group (03/06/13)

Other

MSA Staff Changes (01/03/13)

February 2013 Alberta Market Surveillance Administrator (MSA) Newsletter (02/01/13)

Forbearance letter re Total Export Transfer Capability Postings (01/02/13)

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.