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MSA Report

Retail Review: Electricity & Natural Gas

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Market Surveillance Administrator

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1 INTRODUCTION

Over the past several years, the MSA has commented on the state of competition in the retail electricity market, assessing both the development of the competitive market and the development of the regulated rate option (RRO). Following the introduction of the *Alberta Utilities Commission Act* (AUC Act), the MSA's mandate was expanded to include the natural gas retail market in addition to its responsibilities surrounding the wholesale and retail electricity markets.

This report provides an updated assessment of competition between retail electricity providers and assesses the state of competition in the retail natural gas market. This review does not focus on developments surrounding the RRO (i.e. the design of the Energy Price Setting Plans), although the RRO is discussed within the context of its existence as an option for customers in addition to competitive retailers.

Section 2 of this review provides a brief overview of the market structure for both the retail electricity and natural gas markets. Section 3 examines regulated prices in these markets and their position as competition to the offerings of competitive retailers. Competitive price offerings are compared with one another and with regulated rates in Section 4. Switching rates and market shares are covered in Sections 5 and 6. There are some areas where retailers are beginning to provide new ideas and products to the market and these are discussed in Section 7. Some conclusions are drawn in Section 8.

2 BACKGROUND

Full retail competition in electricity began in 2001. Since then all electricity customers in Alberta have been able to choose a supplier.[1] Natural gas competition began earlier in 1996[2]. Most electricity and all natural gas customers are able to choose between a regulated rate (Regulated Rate Option [RRO] for electricity and Default Rate Tariff [DRT] for natural gas) and numerous competitive options.[3]

Commencing July 2006, the RRO for electricity has been calculated using a blend of short term (month ahead) pricing and longer term hedges. Over time the relative weight of the month ahead pricing has increased with a corresponding reduction in that for the longer term hedges. RRO providers are required to operate in accordance with Energy Price Setting Plans (EPSP's) that are subject to approval by their regulatory authority, as described in Section 2.1.

[1] Prior to this date, some customer classes (e.g. larger industrial customers) were able to exercise some choice.
[2] Prior to this date, some customer classes (e.g. larger industrial customers) were able to exercise some choice.
[3] Electricity customers with annual electricity consumption of more than 250MWh are not eligible for the Regulated Rate Option.

Natural gas DRT prices are derived using a forecast of the next month's gas cost based on market prices and projected demand. Differences between actual and forecast prices are flowed through to end use consumers in subsequent months.[4]

In addition to the regulated option(s), there are, for both electricity and natural gas, a number of competitive options including fixed price contracts, dual fuel contracts and, in the case of electricity, a range of 'green' electricity products that are available to most consumers.[5]

2.1 Electricity

In Alberta there are ten distribution zones for which the wire owners are responsible for load settlement (distribution zones are also referred to as settlement zones). The four largest wire owners act as their own load settlement agent (LSA) while all other distribution zones have authorized either one of the other LSA's or an independent company to act as their LSA. In total there are six LSA's operating in Alberta. In addition, there are over fifty Rural Electrification Associations (REA's) also operating in Alberta.[6]

The *Electric Utilities Act* (EUA) requires that each owner of an electric distribution system must ensure that the RRO is available to all eligible customers (annual consumption less than 250 MWh) within its service territory. The wire owner may choose another party to supply this service on its behalf. The RRO rates within the four largest LSA's are approved by the AUC; the RRO rates for municipally owned entities (other than Calgary and Edmonton) are regulated by their respective city councils; and the RRO rate for each REA is approved by its board of directors.

The EUA also stipulates that all customers must have the option to obtain competitive electricity services. Therefore competitive retailers are able to offer competitive contracts to every RRO eligible customer within the province, although not all retailers operate province wide.[7]

There are three distinct customer rate classes that are common across Alberta: Residential, Small Commercial and Industrial. Residential customers account for just over 15% of the total electricity consumed in the province. In addition there are Small Commercial/Industrial sites whose consumption is less than 250 MWh annually but are not residential sites. These sites account for almost 12% of the province's electric load. The majority of the electricity consumed in the province is by non-RRO eligible loads, almost 70%. Two of the six LSA's also have a fourth customer class, Irrigation/Farm, which accounts for approximately 3% of the total provincial load.[8]

[4] For further information see EUB Decision 2001-75 and subsequent compliance decisions.
[5] For more information describing the green options available visit the UCA website: http://www.ucahelps.gov.ab.ca/206.html
[6] REA's are not-for-profit co-operatives that own electric distribution systems in rural Alberta and supply electricity to their members.
[7] Electric Utilities Act Part 8 110
[8] Due to the small percentage of total electric load this customer class is not analyzed within this report

2.2 Natural Gas

There are three main natural gas distribution zones in the province.[9] They are ATCO-North, ATCO-South and AltaGas Utilities. In addition, there are sixty gas co-ops, five First Nation gas utilities and eleven municipalities that operate independently. All of these smaller entities are supplied by Gas Alberta Inc.[10] The *Gas Utilities Act* (GUA) also allows a gas distributor to authorize a third party to act as the default supply provider in its service area.[11]

The DRT for ATCO and AltaGas Utilities is approved by the AUC. Gas co-ops are non-profit entities whose members (owners) determine their own natural gas rates. All other utilities and municipalities have rate setting processes regulated by the appropriate city councils and are not required to be approved by the AUC.

There are four rate classes within the AltaGas Utilities service area. They are: Small General Service Class, Optional Large General Service Class, Optional Demand/Commodity General Service Class and Irrigation Pumping Service Class. In the ATCO Gas service territory, there are two rate classes: Low use and High use. Within the low use rate class there are five customer classes and there are three customer classes within the high rate class.

For the purpose of this review, the data for ATCO and AltaGas Utilities has been organized into two groups, a Low Volume and a High Volume group. The Low Volume group is comprised of AltaGas Utilities' Small General Service and ATCO's Low use customers and the High Volume group is made up of all the rest.

3 REGULATED RATES

With the exception of large electricity loads, customers are currently not forced to choose a competitive contract in either electricity or natural gas and hence a regulated price offering is necessary. The existence of regulated rates for electricity and natural gas are important in the transition from a purely regulated environment to one where market forces more directly affect prices for customers. Indeed, considering the low switching rates to date, discussed later in this report, it might be concluded that there will be a need for regulated rates on an indefinite basis.

3.1 Electricity

In Alberta, the government developed an electricity retail policy in 2005 aimed at transitioning the RRO pricing to one based on short term hedges whilst still passing the efficiencies of the wholesale market to the end use consumer. Prior to July 2006 the RRO was priced via long term hedging strategies by the utilities. The existing *Regulated Rate Option Regulation* outlines a transition rate energy

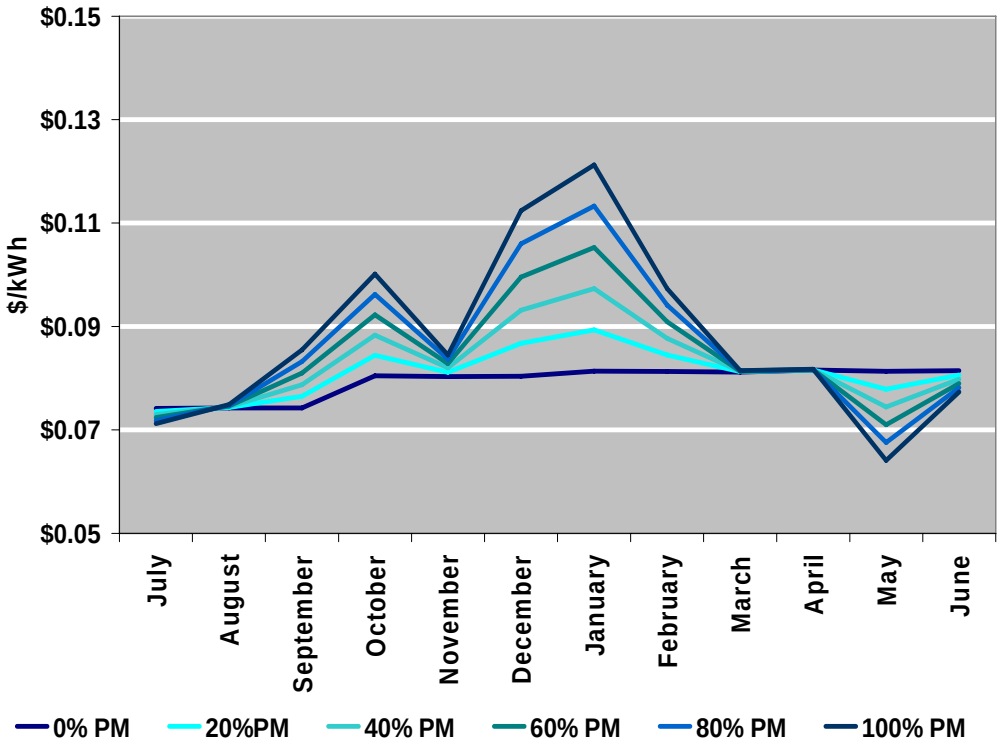
[9] Natural Gas Settlement System Code, Section 8.4.6.9. Alta Gas is not currently compliant with the current System Settlement Code but is required to be compliant by 2010.
[10] Gas Alberta Inc. was established in 1973 as a division of Alberta Transportation and Utilities. In 1998 Gas Alberta Inc. was incorporated as a private company which operates on a non-profit basis and sells gas to shareholders at a cost comparable to that charged by DERS or AltaGas Utilities.
[11] Alberta Regulation AR 184/2003 Gas Utilities Act Default Gas Supply Regulation

price setting plan for the regulated tariffs in which the long term hedge portion decreases by 20% annually beginning on July 1, 2006 and ending on June 30, 2010.[12] As the portion of the RRO that is priced off long term hedging strategies decreases the portion priced off prompt month purchases increases by a correspondent amount.

One of the objectives of the policy was to more closely align the retail and wholesale market prices. Also, the policy effectively increases the volatility of the RRO as the price is based on increasing percentages of prompt month prices. Monthly prices are inherently more volatile than quarterly or annual prices. Those customers who wish to avoid the potentially volatile price movements of the wholesale market (as reflected in the RRO prices) may seek out a fixed price option from a competitive retailer and switch off the RRO.

Figure 1 shows the impact of the change in ratio of the longer term to prompt month portion of the electricity price index (RRO) for 2006/7 holding everything else constant. The difference between 100% long term hedging strategy versus 100% prompt month pricing strategy can be as large as 4 cents per kWh in some months in this example. It is important to note that these are all market based prices. The only difference between them is the time frames of the purchases.

Figure 1: Example of Increased Volatility from Increasing Prompt Month Portion of RRO Index



[12] RRO Regulation (AR 262/2005).The Regulation sets out that the increasing proportion based on month-ahead pricing is contingent upon review by the Department of Energy.

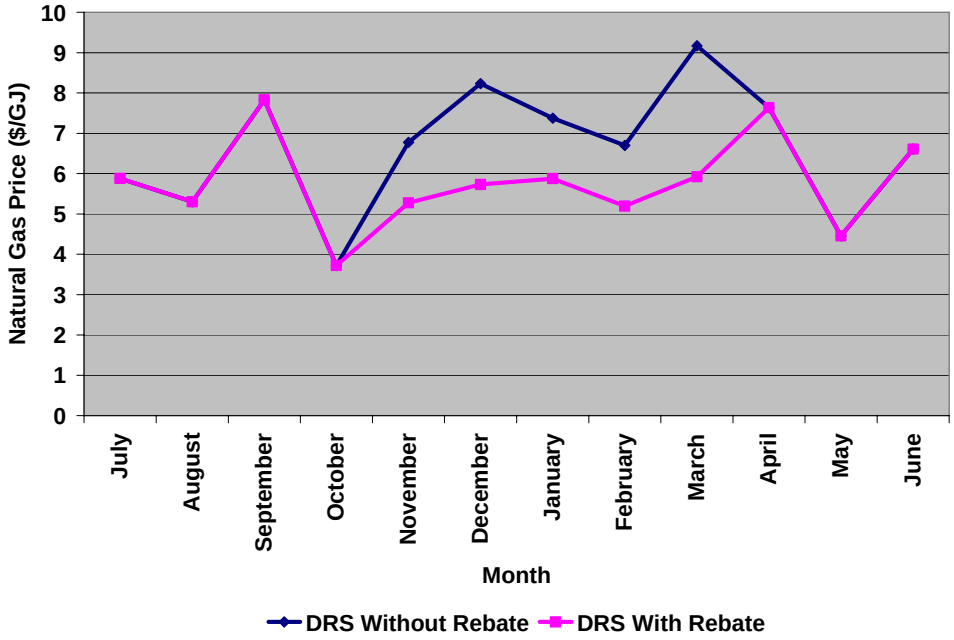
3.2 Natural Gas

The DRT in the natural gas market was also designed such that the market cost of the resource would be passed on to the retail customer. Most of the required natural gas is procured between one and two months ahead of the start of the delivery month. The volume is based on the low end of the forecast range. The difference between the actual volume required and the forecast is then bought in the short term markets.

Deferral accounts are used to correct for any price and volume forecast errors. As the deferral account correction is passed through in the commodity price, when the consumption levels are low (in summer) the price adjustment can be large. The deferral also creates a lag in the price signal from the wholesale to the retail market.

The Alberta Government also has a natural gas subsidy program in place at the present time that reduces the costs to consumers when natural gas rates are high during the winter months (October to March, inclusive). The volatility of natural gas prices for consumers with and without the Government's rebate program is demonstrated in Figure 2 for the 2006/7 period.

Figure 2: Example of Volatile DRT Natural Gas Prices



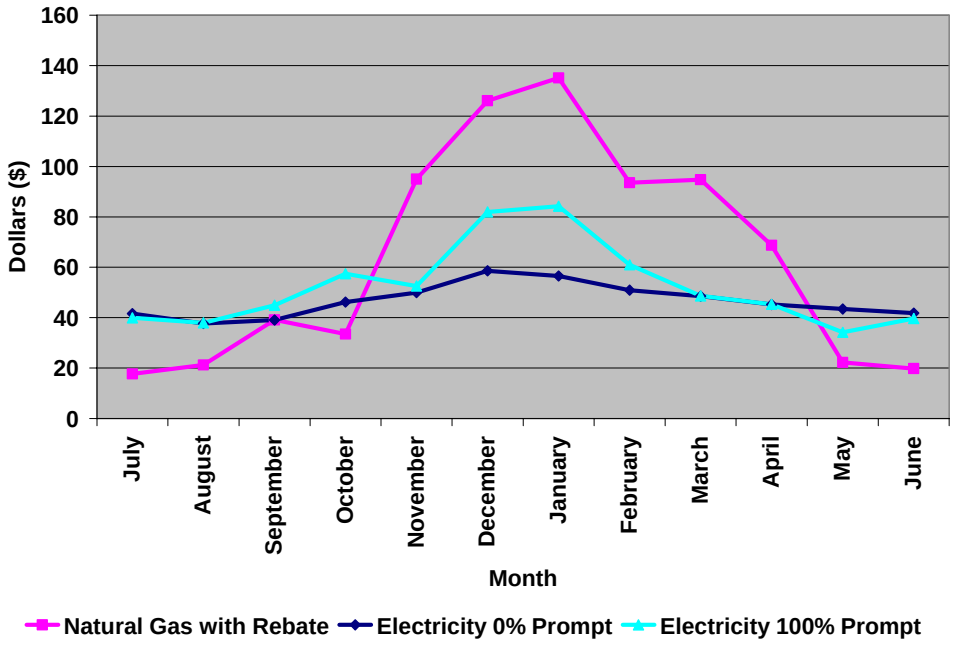
Clearly Figure 1 shows that the RRO rates for consumers will be more volatile in the future, closer to that of the DRT of natural gas (Figure 2). However, customer bills are the product of unit price and consumption, and natural gas consumption has a higher variability from month to month.

Perhaps a most useful way of comparing electricity and natural gas commodity costs for consumers on default rates is in dollar terms. Using average monthly

consumption of electricity and natural gas, the RRO and DRT rates are compared in Figure 3 which shows only the energy (commodity) component of these bills. The figure shows that both the level and volatility of an average consumer's electricity bill are considerably less than for natural gas, even in the case of electricity being priced using 100% prompt month. This result stems primarily from the fact that electricity usage throughout the year is much more even than natural gas.

Another factor to consider is the existence of 'budget billing' (or equal payment plans as they are sometimes called). In the case of natural gas, consumers can elect to go on budget billing with Direct Energy and AltaGas Utilities which flattens their monthly natural gas bills for a period of time. In electricity, although that option exists, it is only mandatory for certain types of customers.

Figure 3: Comparison of the Energy Component of Residential Electricity and Natural Gas Bills on RRO/DRT Assuming Typical Household Consumption Rates



3.3 Comparison

Clearly, the design of the regulated rates for these commodities is converging with the RRO gradually morphing towards the DRT process, as intended by Government policy.

There are some stakeholders who criticize the design of the RRO. They claim that it seems to deliberately induce volatility to consumers in order to make switching to a competitive alternative attractive to them, an alternative that is usually fixed price and more expensive than the RRO. They argue that the RRO could just as well be based on long term market based prices and meet the needs of consumers by having more stable prices.

Such an RRO would be tough to beat because so many customers are still on the RRO and that provides significant economies of scale to the provider. Competitive retailers would then need to bring added value to customers in areas other than the commodity price. If this proves too challenging for them, then it could be argued that the retailers have nothing much to offer customers that they cannot get by staying on the RRO. Much the same rationale could be applied to the natural gas DRS.

In the case of natural gas, the lack of a public hue and cry suggests that consumers seem to have accepted the DRT rates, albeit with the added comfort of the natural gas rebates to protect against the larger monthly bills and the option of using budget billing. When one considers that the level and volatility of residential consumers' electricity bills are less than for natural gas (Figure 3), the above noted criticism seems less convincing. Accordingly, it seems reasonable to suppose that pure monthly pricing of RRO should prove to be acceptable in the long run. In both cases consumers can smooth out the volatility of their RRO/DRT bills using the budget billing option.

The retail policy calls for another review of the RRO in 2009/10.

4 COMPETITIVE PRICES

The focus of this part of the report will be on competitive prices for small consumers as this information is publicly available. Larger consumers have more specific requirements and will tend to sign contracts tailored to these needs, with associated prices that are not publicly available.

4.1 Electricity

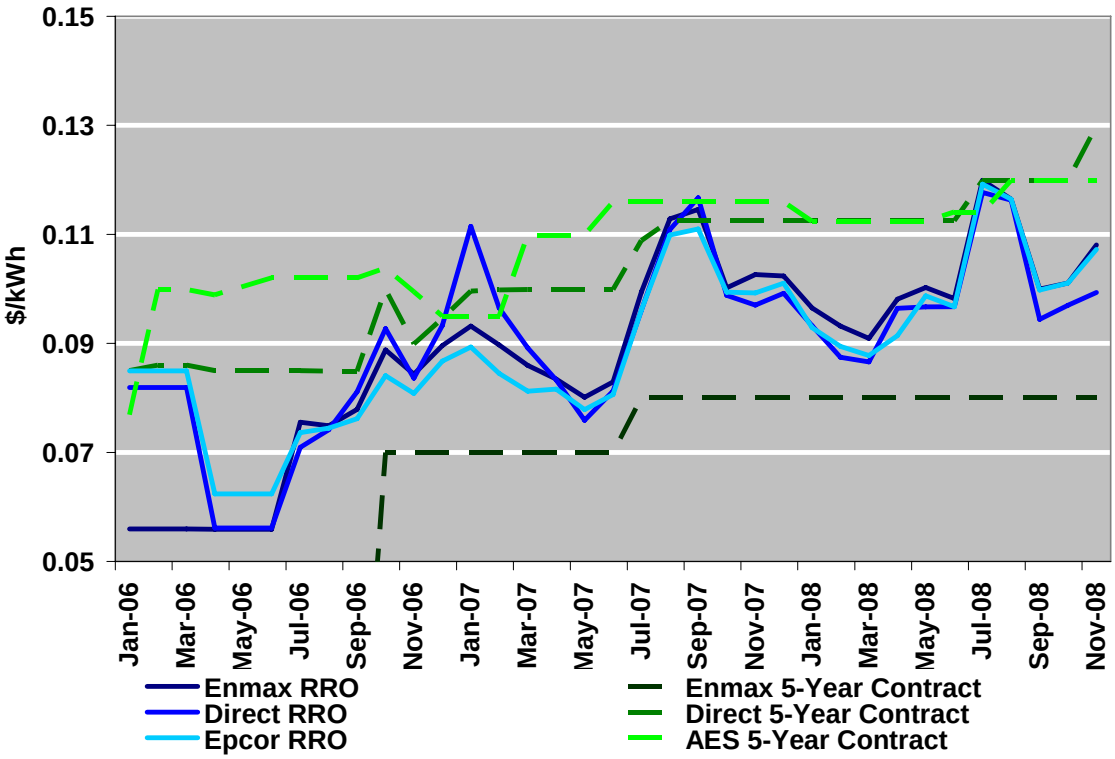
Figure 4 shows a sample of the monthly RRO prices and competitive electricity 5-year contract prices available at the same time since 2006. Although each of the three regulated rate providers shown have differing price setting plans, the RRO rates offered by those parties track each other quite closely. This gives some comfort on the validity of the plans in terms of providing competitive outcomes.

The competitive rates offered by the retailers differ more dramatically in this sample. Throughout the time period of Figure 4, Enmax's five year contract rate has been significantly below both its competitors and the RRO rates. The contract rates offered by Alberta Energy Savings and Direct Energy are similar, but are generally higher than the RRO rates. By design, a customer on the RRO would be subject to more volatility in the rate than one on a competitive fixed-price contract. Further, although the contract rates for Alberta Energy Savings and Direct Energy are typically higher than the RRO at a given point in time in this sample period, there does appear to be an increasing trend in the RRO rate(s) and a customer signing with Direct Energy prior to July 2006, for example, would have 'beat the RRO' the majority of the time to date.

When a customer signs a fixed price contract with a retailer it is usually to avoid price risk, and hence it is reasonable that the customer will pay a premium for the risk transfer. Generally then, the contract prices should be expected to be higher

than the average of the monthly RRO prices. Enmax's competitive prices appear to be less than the RRO prices and this is discussed in more detail in Section 4.3.

Figure 4: Electricity Residential RRO Rates vs. Competitive Contract Rates



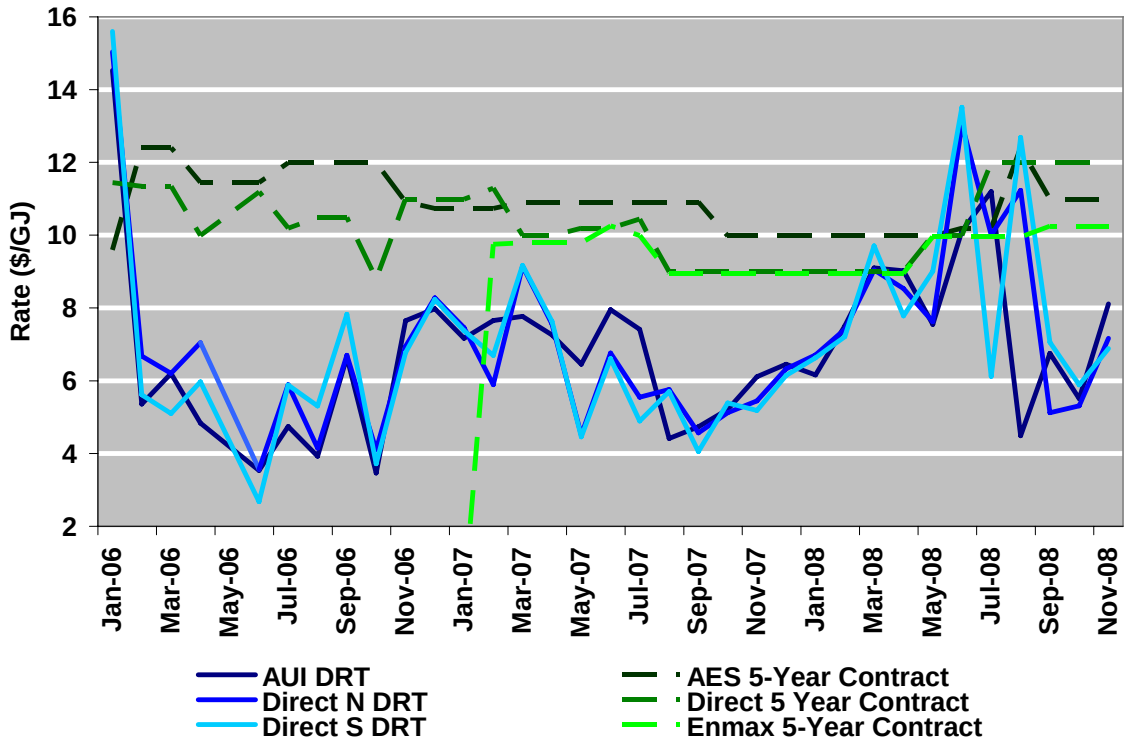
4.2 Natural Gas

Figure 5 illustrates that in the case of natural gas, as with the RRO rates in electricity, there is very little difference among the DRT rates charged by the default supply providers. Also there is very little difference among the contract rates offered by each of the three retailers shown in this sample. It seems that, although Enmax has chosen to price aggressively in the electricity market, their natural gas contract rates are comparable to those for Direct Energy and Alberta Energy Savings.

Until recently, the long term contract rates were significantly higher than the corresponding DRT natural gas prices. Although a customer signing with Direct Energy or Alberta Energy Savings in January of 2006 would have paid a significantly higher price for much of the first two and a half years of their contract, future natural gas prices are uncertain and could potentially rise. Therefore, there is a possibility that customers that signed at the beginning of 2006 could end up paying a lower price overall than had they remained on the DRT. Thus, such customers could benefit not just from a stable price for 5 years, but also from one that averaged lower than the default rate.

As noted above, most customers seek fixed price contracts primarily to avoid volatility and, as for electricity, should expect to pay a price premium for the transfer of risk.

Figure 5: Residential Gas DRT vs. Competitive Contract Rates



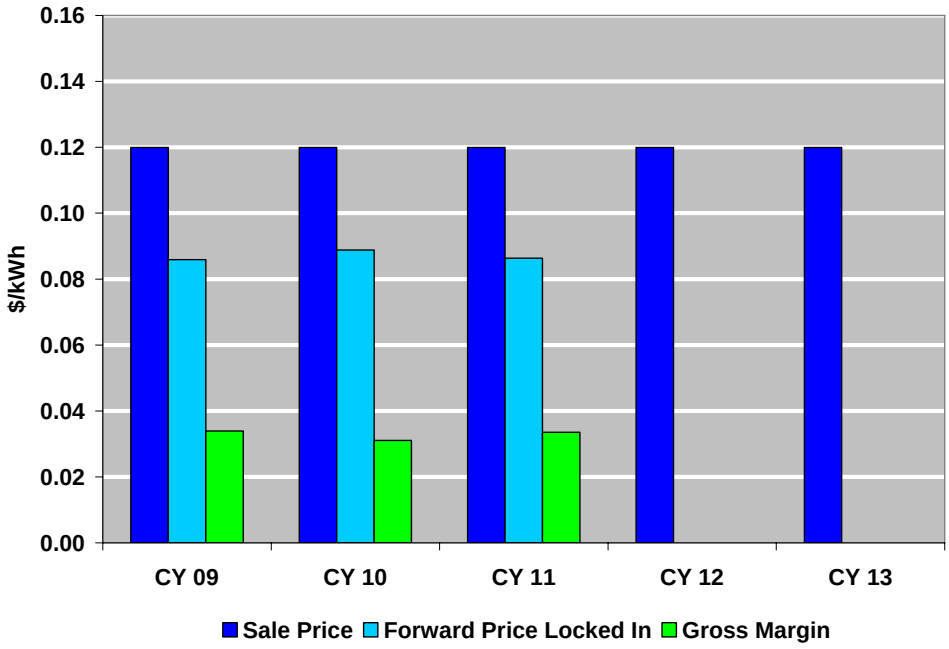
4.3 Discussion of Pricing Strategies

In Alberta's electricity and natural gas markets, there are retailers that own physical assets or are vertically integrated and those that are not. Retailers that do not own any physical assets meet their retail energy obligation through the purchase of energy from the wholesale market. Retailers that own their own generation or fuel supply can likewise meet their supply requirements by purchasing energy from the wholesale market but also have the option to produce energy to meet their retail obligation.

There are a number of ways that retailers may procure energy from the wholesale market. A retailer could theoretically meet its electricity supply needs by simply purchasing from the Power Pool's hourly real time market or by purchasing natural gas from the daily spot market. This method, however, exposes the retailer to significant price risk and volatility. Alternatively, retailers may buy 100% of their obligation in the forward market. The closer that a retailer can match its projected demand with forward market purchases the less exposure to the spot market is faced.

Consider the following stylized hedging strategy in which an electricity retailer attempts to hedge 100% of its energy requirement. Assume the retailer signs up a group of customers on five-year contracts at the end of 2008 for delivery in calendar years 2009 through 2013. The retailer locks in an assumed sale price of 12 cents per kWh. In late 2008, the wholesale forward price of flat electricity (7 X 24 hours) was trading between $78 and $80 for calendar years (CY) 2009-2011 (forward prices for 2012 and 2013 were still very uncertain as there are few transactions that far forward). The retailer then forecasts the future consumption of its customers accounting for all relevant factors. Next the retailer purchases the equivalent volume on the forward market. Figure 6 provides a graphical representation of the described strategy. The forward wholesale price includes a premium to account for shaping the flat volume to match demand patterns.[13] The difference between the sale price and the shaped forward price is the retailer's gross margin per kWh. This gross margin provides a revenue stream to the retailer that must cover any and all costs that are not recouped via any administration charges, plus profit.

Figure 6: Illustrative Example of 100% Hedging Strategy

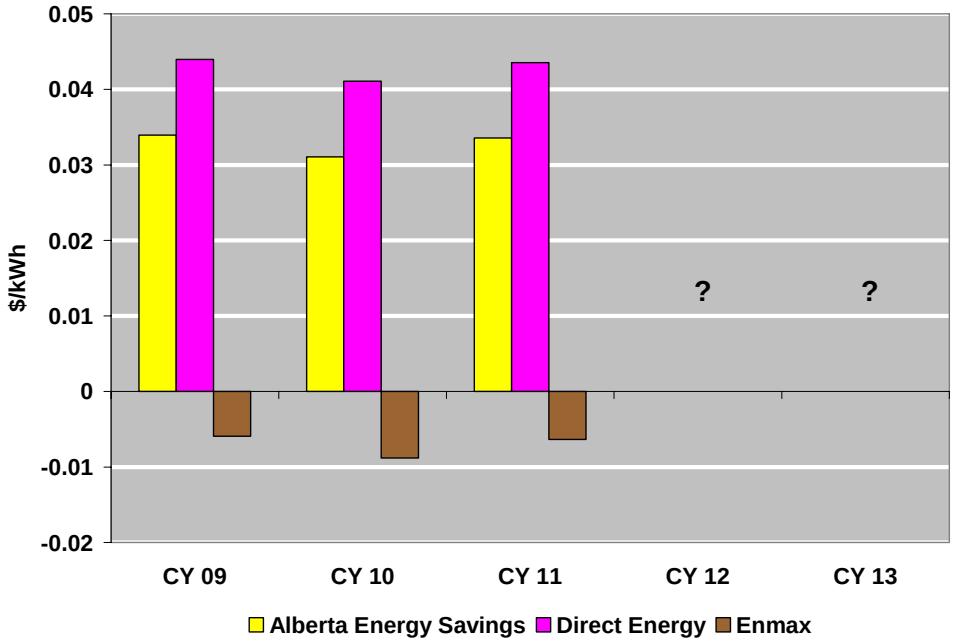


The stylized hedging analysis was carried out using the late 2008 contract prices for each of the three main retailers in the residential sector. The competitive 5-year offerings for residential customers as of late 2008 were 11.99 cents/kWh for Alberta Energy Savings, 12.99 cents/kWh for Direct Energy and 8.00 cents/kWh for Enmax. The gross margins were calculated for each retailer and are compared in Figure 7. The analysis shows that two of the three retailers would enjoy gross margins ranging between three and four cents for the first three years of the five

[13] A premium of 10% was added to the flat product in order to account for the shaping. This value is based on earlier work carried out by the MSA.

year contract. However, neither retailer would yet have been able to lock in profits for 2012 & 2013 which creates risk. The gross margin for Enmax however, is *negative* for 2009-11 indicating that it is unlikely that they use this specific type of forward hedging strategy. Of note, Enmax is the only retailer of the three that currently owns generation in the province and, therefore, there are other presumably profitable pricing options available to Enmax.

Figure 7: Gross Margin by Retailer (100% Hedging Strategy)



The above hedging analysis indicates that Enmax may be taking up the option to supply its retail arm by accessing energy from its wholesale business at lower prices. The internal transfer price from Enmax wholesale to Enmax retail could be below the wholesale market forward price and closer to Enmax's wholesale cost of production.

Some retailers have complained that Enmax is engaging in an unfair or irrational pricing strategy. Note that Enmax does not appear to be selling below its cost. It has relatively cheap energy available from its PPA rights which is less than its retail price. The continued existence of the RRO would provide consumers with a reasonably priced option even in the rather extreme situation that existing retailers choose to exit the market.

Arguably Enmax's pricing strategy may be considered by any retailer trying to increase its market share. Significant increases in market share may enable a retailer to enjoy economies of scale and therefore higher profits in the long run.

It is interesting to note that Enmax's competitive fixed price natural gas offerings to the market are comparable to those of its competitors. As Enmax does not own any natural gas production facilities, the option to price aggressively by passing through wholesale efficiencies is not available.

Enmax's pricing strategy may act as a barrier to entry for potential retailers. The presence of a retailer whose gross margin based on the forward prices is negative makes it difficult for new entrants (who aren't vertically integrated) to compete and the capital investment required to become vertically integrated in and of itself acts as a significant barrier to entry. This argument applies where the commodity price is the governing factor in a consumer's decision to sign a competitive electricity contract with a retailer. However, there has always been the expectation that new ideas would be brought forward by retailers such that factors other than price would bear on the decision.

5 SWITCHING STATISTICS

One of the expected outcomes from the development of a competitive retail market was that consumers would freely and actively choose among different service providers competing to meet their needs. Although, in and of themselves, switching statistics cannot be used to determine the level of competition within a market, the percentage of sites that have switched from regulated prices to competitive contracts has long been used as one of the benchmarks for evaluating the success of competitive markets.

The switching statistics reported herein are simply based on the numbers of sites currently on competitive contracts and subsequently no longer on the RRO/DRT.[14]

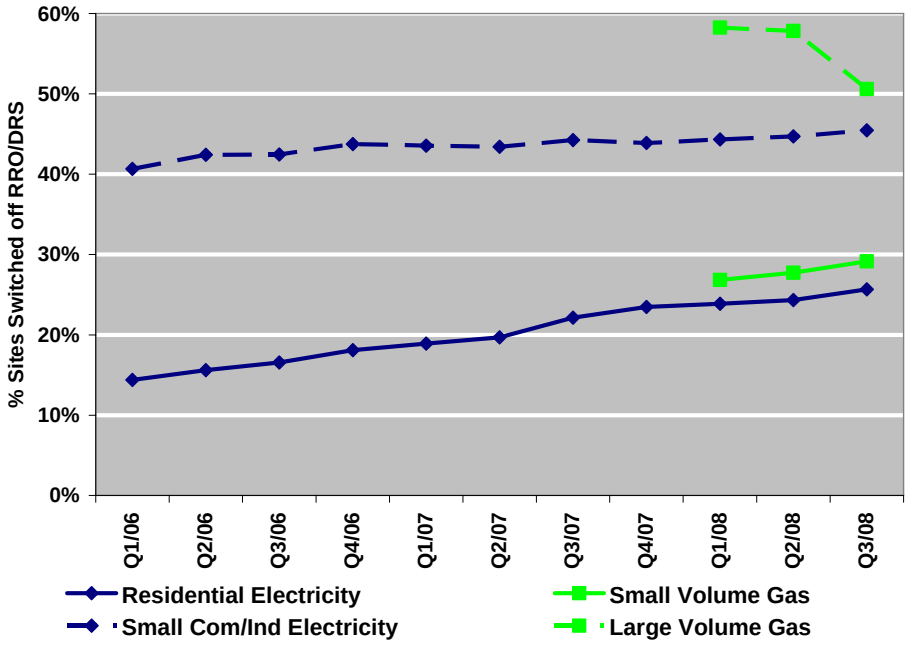
5.1 Electricity

Switching statistics for Residential and Small Commercial/Industrial consumers are shown in Figure 8. Since Q1/06 the percentage of residential sites that have signed a competitive contract has increased by ten percentage points. The percentage of Small Commercial/Industrial sites that have switched from the RRO has also increased in that time frame, albeit by a lesser amount.

Switching rates for residential consumers increased between Q2/07 and Q3/07. Possible explanations for this increase are increased marketing activity by some competitive retailers.

[14] In some markets 'switching statistics' track customers who have exercised choice even if they later return to their original provider.

Figure 8: Comparison of Percentage of Sites Switched from RRO (Electricity) and DRT (Natural Gas)



5.2 Natural Gas

Figure 8 shows the switching rates for small and large natural gas consumers. As discussed in the background section, the customer classes within the two markets are somewhat different. Although the customer classes are consistent across all LSA's for electricity, this is not the case for natural gas. Therefore, the customer classes shown for natural gas were created for the purpose of this report. There are very few sites that are considered large volume sites and the small volume customers are not exclusively residential customers. The MSA has only recently begun to monitor and collect data on the natural gas retail market and so the data only spans a brief period (3 Quarters).

In the case of the large volume natural gas customer class there appears to be a large decrease in the overall number of sites off the DRT in Q3/08. This is primarily related to the small number of sites in this group and the withdrawal of a major retailer from the market. Many of the customers went back on DRT and hence the dip in switching statistics in Q3/08. The MSA will continue to monitor for changes or trends within this market and may be able to refine the analysis in the future.

5.3 Comparison

Overall switching levels appear to be slightly higher for natural gas where customer choice has existed for a longer period of time than for electricity.

However, truly active competition for natural gas customers really only began about the same time as it did in electricity.

The current rates of switching has to be considered low, and for whatever reasons consumers are not flocking to take up competitive offers in the market place.

5.3.1 Experience in Other Markets

To assess whether there is much more potential for switching, it is useful to examine switching rates in other markets.

In the UK, a 2005 survey suggested that 47% of all electricity customers and 46% of natural gas customers had switched to competitive contracts. A recent report estimated that, of those consumers in Britain who purchase both gas and electricity, over 75% had switched energy supplier at least once since the market opened in 1999.[15] In Texas, over 65% of residential customers had moved to a competitive product offered by a competitor or to a non-default product offered by their default supplier.[16] Switching statistics in other jurisdictions suggest that there is still more scope for switching in Alberta within both the electricity and natural gas markets.

It is worth noting that annual switching in the UK is the highest in the world of any sizeable competitive energy market. This could in part be due to higher energy rates (since 2004 a typical household's energy bill has more than doubled) and no equivalent to the RRO/DRT. The UK studies also indicate the importance of dual fuel contracts in competitive markets.

In Texas, switching has likely been elevated due to restrictions placed on incumbent providers versus competitive retailers. Legislation required incumbents to post regulated rates (the 'price to beat') that were essentially inflated and allowed competitive retailers to offer lower rates.

Although the pricing mechanisms for both the RRO and DRT could potentially increase the level of switching by exposing customers to price volatility, it is important to consider the impact of such policies on those customers that have not or cannot switch.

5.3.2 Barriers to Switching

Approximately three-quarters of all residential customers are on the RRO/DRT. There are a number of reasons why someone may not choose to sign a competitive contract and it is important to try to understand them.

If all customers that remained on the RRO/DRT could be considered educated regarding their options to switch and aware of the resultant implications of not doing so, then perhaps the current level of switching reflects an efficient outcome. One would be able assume that customers that remain on the RRO/DRT have chosen to do so because they believe that the downside of paying volatile prices will be offset by paying lower prices on average (than they would have paid by signing a longer term competitive contract). In this case their choice accurately

[15] OFGEM Press Release April 2, 2008; Energy Supply Probe – Initial Findings Report
[16] http://www.gulfcoastpower.org/default/f07confpdf/f07hudson.pdf

reflects their views. However, it is extremely unlikely at this time that all customers currently on the RRO/DRT have consciously made this decision for those reasons.

There are a number of potential barriers to switching and the following will be discussed in more detail in this section:

- Vulnerable Customers
- Contract Terms and Conditions
- Existence of RRO/DRT and Low Energy Costs

Vulnerable Customers

Of those customers that have not switched off the RRO/DRT there are many that may not even be aware of the options they have regarding their electricity and natural gas service needs. Others may understand that they are eligible to switch but do not know how to do so. Some of these customers may be considered vulnerable customers. Vulnerable consumers may also include those that are elderly, those in isolated areas, or are those that are unable to easily compare the rates of competitors. Others may simply be unable to switch due to credit restrictions established by competitive retailers. Consumer education can be very helpful here and it can be argued that not enough has been done in the past. At the January 9, 2009 EUA Committee meeting, consumer education was identified by the Government as a priority area.

In Alberta, competitive retailers are unable to take deposits from any customer until the delivery of energy under the contract commences.[17] As a result competitive retailers are subject to significant bad debt risk. As well competitive retailers are responsible for both the energy and the distribution charges in the event a customer does default. In order to minimize their exposure to bad debt the majority of competitive retailers in Alberta request that all potential customers undergo a credit check as part of the application process. In the event the customer refuses to undergo or fails the credit check the retailer refuses to supply the customer. Although the MSA is of the view that retailers are entitled to protect themselves from business risk and encourage them to take necessary precautions, there exists a potentially large group of Albertans that are simply unable to switch off the RRO/DRT.

[17] AR 246/2005 Fair Trading Act Energy Marketing Regulation Section 18

Contract Terms and Conditions

Switching statistics in Alberta's electricity and natural gas markets reflect the number of customers that have moved from the RRO/DRT onto a competitive contract. Another interesting measure of switching captures the 'churn' of customers moving from one competitive retailer to another. This gives a better indication of the level of competition occurring amongst competitive retailers (some jurisdictions report this measure as the switching rate). However, in Alberta the majority of competitive contracts offered by retailers are fixed for a four- or five-year term and most long term contracts are subject to cancellation fees. Some retailers charge up to $400 for each product subscribed. That is, a dual fuel customer may have to pay as much as $800 for exiting the contract early. The existence of long term contracts in combination with significant cancellation fees limits the amount of potential 'churn'. Furthermore, in order to calculate the level of 'churn' that is occurring site level data would be required, and at the current time this level of detail is not being collected by the MSA.

Existence of RRO/DRT and Low Energy Costs

Finally, some customers may simply be uninterested in "going through the hassle" of switching for what they consider to be a limited payoff. For many Albertans the actual energy charge (particularly in the case of electricity) is a relatively small portion of their total energy bill and is often outweighed by other charges such as administration fees. As a result many may not see the point of moving off the RRO even if they thought they could save a few cents per kWh. Since July of 2006 the RRO has fluctuated between 6 and 12 cents/kWh and the natural gas DRT rates have fluctuated between 6 and 12 $/GJ for the majority of the period. In jurisdictions with higher switching rates the energy costs are typically a much higher percentage of their total costs and in some cases no default rate is available.

The combination of low energy costs and the presence of a competitively priced RRO/DRT may leave very little incentive for customers to switch, especially if they are exposed to relatively low volatility.

In summary there exist a number of barriers to switching in both Alberta's electricity and natural gas markets and as a result there are potentially large groups of customers that are unlikely to switch.

6 MARKET SHARES

The deregulating of Alberta's retail markets was based on the belief that consumers would benefit from lower prices; prices that accurately reflected the cost of the underlying resource. Efficiencies would be gained through the competition of numerous participants with one another. In a deregulated market participants are driven to reduce costs (rather than inflate them as regulated returns have the potential to do) in order to maximize their profits. The hope is that participants would continually look for ways to reduce costs and to increase the services they are able to offer to consumers. Large profit margins earned by

incumbent participants would entice new entrants to the market in hopes of capturing a portion of the economic rent. As the number of new entrants increases, prices and profit margins decline as the participants compete in an attempt to increase market share.

Since the retail electricity and natural gas markets were opened to competition there have been a reasonable number of new entrants, all of which compete to supply small commercial and industrial loads. In the residential customer class there has been modest new entry since market inception. It is difficult to ascertain why there has been relatively little entry in either the residential retail electricity or natural gas markets, although the MSA is aware of a number of potential barriers to entry.

The MSA is of the view that lower concentration contributes to the development of fair, efficient and openly competitive markets. However, there is a trade off in that firms need some 'size' to enjoy the economies of scale that allow them to offer lower prices to consumers. In this section we will discuss market shares with respect to retail electricity and natural gas markets. The MSA has been publishing metrics describing the status of market share and concentration in the retail electricity market for a number of years and this review will highlight those areas that are of particular interest since the beginning of 2006. The AUC Act gave oversight responsibility for retail natural gas to the MSA starting January 1, 2008. The MSA's database on natural gas retailers starts in 2008 and is clearly limited in duration.

6.1 Electricity

Currently there are three main retailers offering competitive contracts within the residential customer class and there are more than fifteen companies competing to supply power to those consumers in the Small Commercial/Industrial.[18] This analysis does not include data for several REAs who offer competitive contracts to their members and do not attempt to retail outside their own territory.

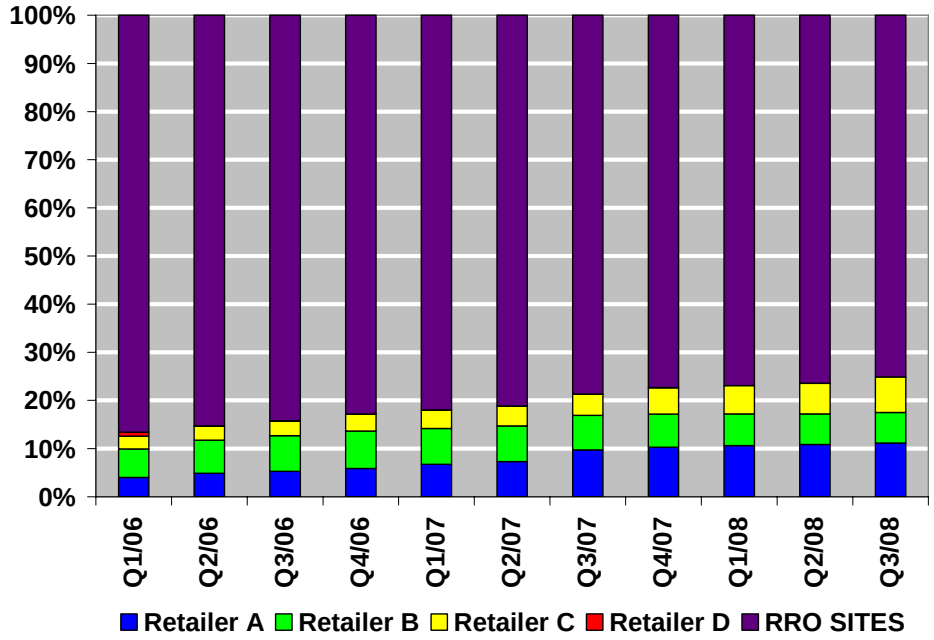
In recent years some electricity market participants have expressed a concern that there is a lack of competition within the retail electricity market due to the presence of a dominant retailer. In this section we consider the relative market shares of competitive retailers in the residential and small commercial/industrial market segments.

Figure 9 shows the market shares of each of the retailers offering competitive electricity contracts to residential customers. In early 2006 one competitive retailer with less than a 1% market share (shown as Retailer D) exited the market, selling its contracts to one of the three other retailers thereby reducing the number of providers to three. Since Q1 2006, retailers A and C have grown their market share while retailer B's share has remained fairly constant. Over the whole period the number of RRO eligible sites has increased by just over 7%.

[18] For a complete list of competitive retailers outside of the small volume consumer class please visit the UCA's website: http://www.ucahelps.gov.ab.ca/9.html

Thus, despite Enmax's pricing strategy, described in Section 4.3, the evidence does not show any retailer suffering a serious decline of market share. Direct Energy and Alberta Energy Savings do not appear to be being driven out of the residential retail market. Further, the lack of dramatic growth of market share by any retailer indicates customers are hard to persuade to sign competitive contracts through price alone. They are presumably using other factors when making a decision to sign a contract.

Figure 9: Change in Market Share in Residential Customer Class (Sites)



The overall number of sites switched varies across the four largest LSA's from 17% to 33%, while the overall switching rate is 25%. Market shares of the three competitive retailers also show significant regional variability. Regional differences may be a function of focused marketing campaigns that concentrated on one market rather than another. Switching rates also appear to be higher in those LSA's that contain major cities. Furthermore there appears to be some evidence that residential customers with above-average consumption are more likely to switch as competitive sites make up 25% of the total sites but consume 28% percent of the total electricity. Although not part of this analysis, anecdotal evidence indicates that some of the REAs have higher switching rates than these in Figure 9.

In the Small Commercial/Industrial class there are three main retailers, a number of other smaller retailers as well as a number of customers that are self retailers'.[19] The distribution of market shares within this customer class is shown in Figure 10. Both the market share of the self retailers and those retailers that make up the 'Other' group has diminished throughout the period, while all three

[19] The other category is the sum of the market share of all retailers whose individual market share is less than 5%.

large retailers (in particular retailers A and C) have enjoyed increases in market share.

Within the 'Other' group, the number of retailers has also declined over the period, while others are not growing their market share (Figure 11).

It also appears that larger sites have more incentive to sign competitive contracts as competitive sites account for 44% of the total sites but consume 55% of the total consumption. Consistent with this is the visible decrease in the market share of the self retailers. Many of the largest customers are self retailers and account for 6% of the total sites but consume one and a half times that much electricity. Overall the number of RRO eligible Small Commercial and Industrial sites has decreased by about 3% since the beginning of 2006.

Figure 10: Change in Market Share in Small Commercial/Industrial Class (Sites)

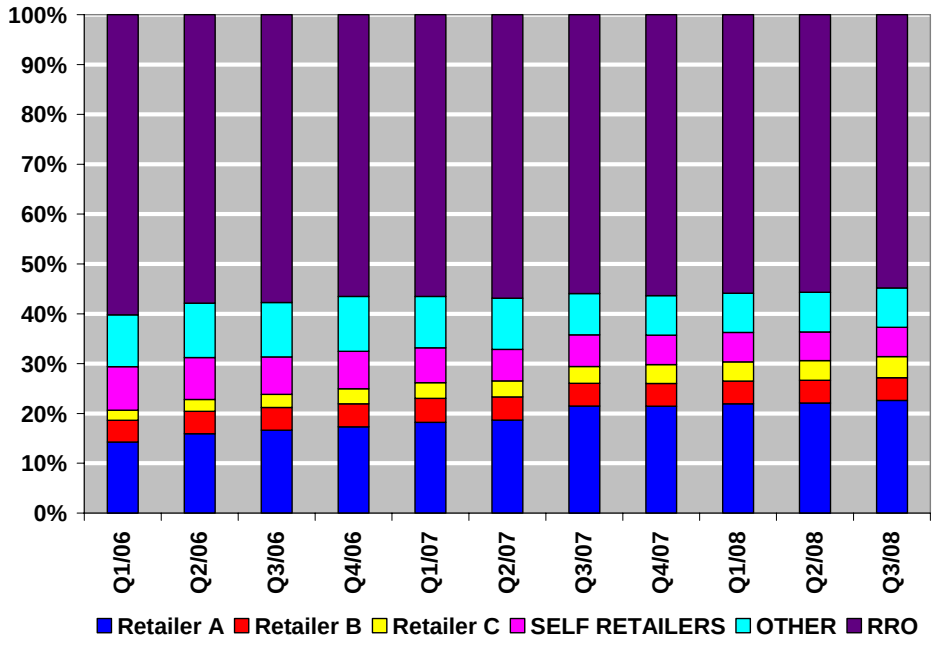
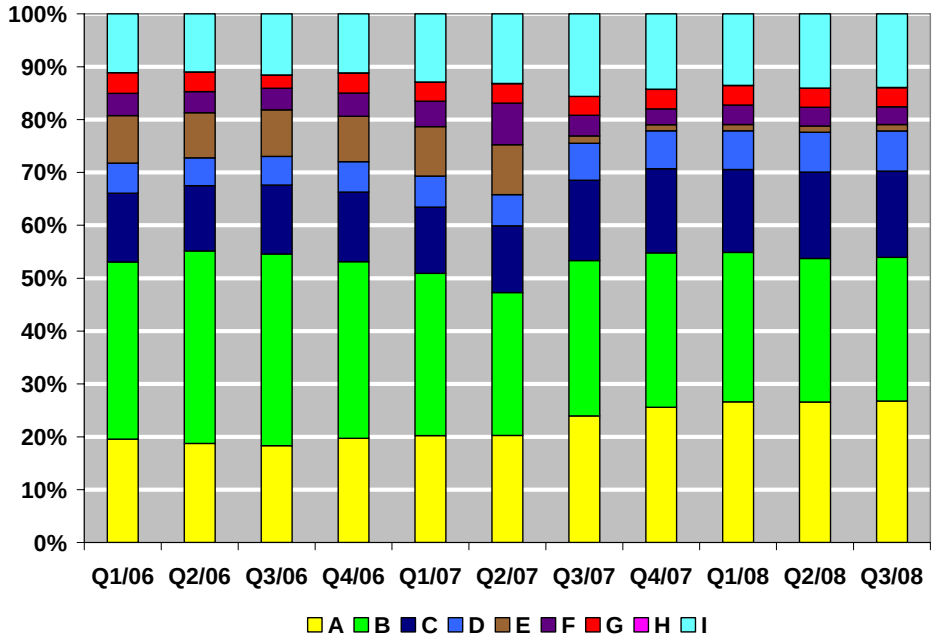
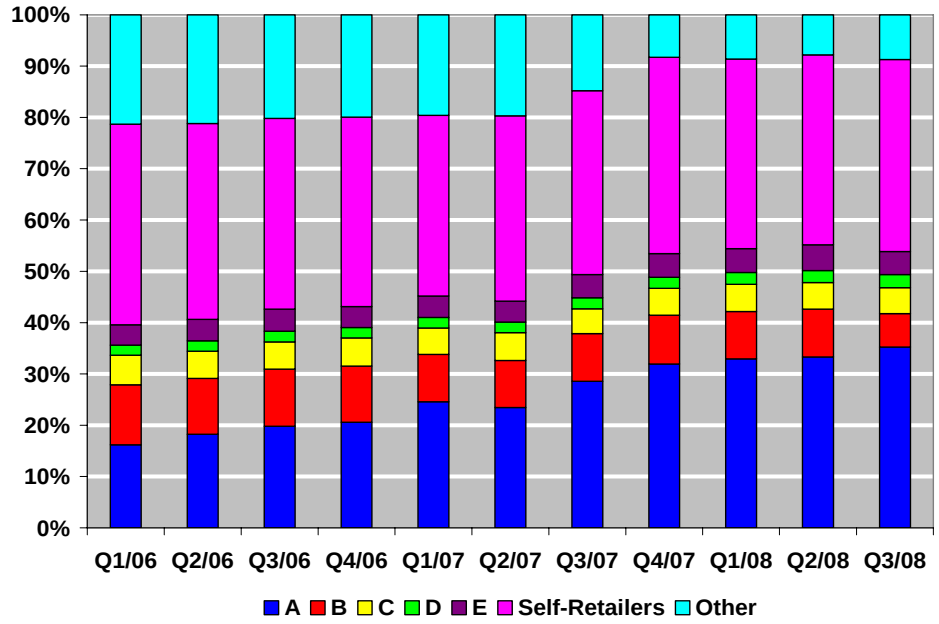


Figure 11: Changes in Market Share of "Other" Retailers in Commercial Customer Class (Sites)



In the non-RRO category, there appears to be healthy competition for these larger customers. Figure 12 shows the changes of market shares over time. Of note is the significant drop in the market share of the 'Other' category in the past year or so – largely taken up by one large retailer. While the distribution of market shares appears to indicate that industrial customers are well served through competition, the MSA has some anecdotal evidence that not all customers are competed for with equal enthusiasm. These customers may have load shapes that make it difficult for sellers to manage their risks, or simply that they have unrealistic expectations of what retailers will do for them.

Figure 12: Change in Market Share on Non-RRO Eligible Customer Class (Volume)

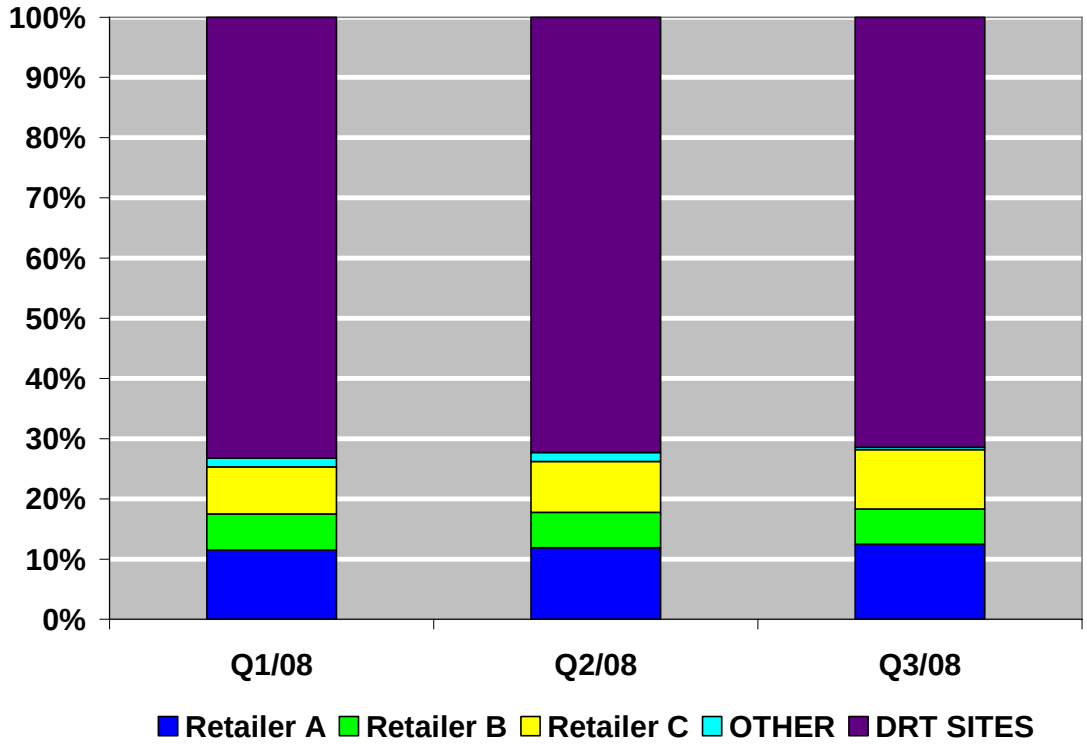


6.2 Natural Gas

Currently there are three retailers offering competitive natural gas contracts within the Low Volume customer class to residential customers and there are many retailers competing to sell natural gas to the other larger customer classes.[20] Unlike the EUA, the GUA granted franchise areas to the gas co-ops and some municipalities such that no other retailer may offer natural gas products within their distribution area. For this reason the data reported herein is limited to the three distribution zones (ATCO-N, ATCO-S and AltaGas Utilities). As indicated earlier, the data period is limited to the first three quarters of 2008 and the results are shown in Figure 13. It is difficult to identify any trends but preliminary analysis seems to indicate that the status of competition within the retail natural gas market is very similar to that of the retail electricity market (Figure 9). The distribution of competitive sites seems to be stable across the three quarters. Retailer A and C marginally increased their market shares drawing customers away from the DRT. The market share of the smaller retailers serving non-residential sites are included in the 'Other' category which shrank significantly in Q3/08 due to the withdrawal of a retailer. As mentioned earlier there are very few sites within the High Volume customer class, most of which are Irrigation customers on the DRT whose load is seasonal and for that reason not discussed further in this analysis.

[20] For a complete list of competitive retailers outside of the small volume consumer class please visit the UCA's website: http://www.ucahelps.gov.ab.ca/9.html

Figure 13: Change in Market Share in Natural Gas Small Volume Customer Class (Sites)



7 RETAILER/MARKETER INNOVATION

The emergence of new marketing strategies, products and services are also indicative of healthy markets, as marketers compete to serve the needs of consumers. It is important to recognize that competition between retailers occurs not only over the price of a commodity but also through the diversification of products and numerous other factors. In recent years retailers have begun to offer a number of new products using new marketing strategies. These have included variations in the terms of fixed contracts, exit conditions and the overall broadening of the range of services offered. In this section we review two recent retailer innovations: dual fuel contracts and 'green' electricity products.

7.1 Dual Fuel Contracts

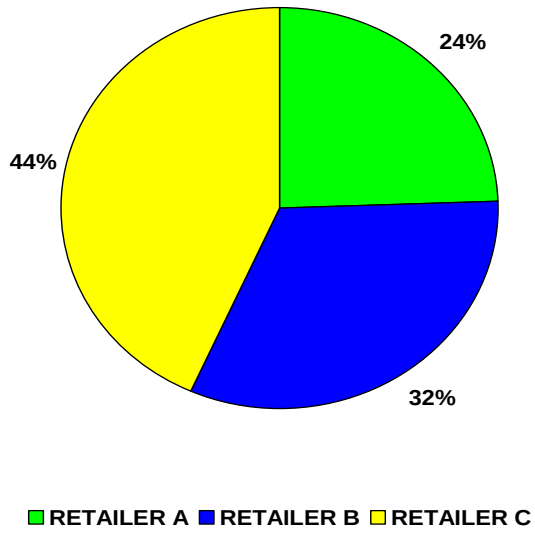
A customer who has signed a dual fuel (bundled) contract receives both natural gas and electricity services from the same competitive retailer. By supplying both electricity and natural gas to their customers, retailers are able to realize economies of scale in marketing, administration, billing and customer care. This allows the retailer to pass along some of these savings to the end use consumer and to ultimately be more competitive.

The data indicates that 75% of competitive electricity customers have signed dual fuel contracts (approximately 17% of the total residential sites in the province). Figure 14 provides a break down of the duel percentage of total sites that are dual fuel by retailer and we see that dual fuel contracts are commonly marketed by all three retailers. It is also worth noting that not all customers on competitive

contracts are eligible to sign a duel fuel contract as they do not consume both fuels (e.g. some residents of apartment complexes).

The prevalence of the dual fuel contracts has impacted the competitive landscape for both electricity and natural gas and has created incentives for consumers to switch both their electricity and natural gas to the same provider. It is a persuasive reason for having the monitoring and surveillance of both natural gas and electricity carried out by the same agency. More broadly, it is also likely to be a driver for convergence in regulations relating to retail electricity and retail natural gas markets.

Figure 14: Market Share of Dual Fuel Sites by Retailer



7.2 Green Products

As is the case for the dual fuel contracts discussed above, retailers have become more innovative as they are forced to compete with each other for market share. Therefore that increase in the 'green' product options available to consumers is an encouraging sign that competition is working.

Currently in Alberta's electricity retail market there are a number of retailers that offer some form of green product to consumers. Although the volumes and prices of the product differ across all the retailers, the basic underlying concept is the same. For a fee consumers can ensure a certain volume of green energy is either injected to the Alberta power grid or ensure the purchase of renewable energy certificates or carbon emission credits. Variations in green products sold by retailers could make it difficult for consumers make economic comparisons across the different products offered.

The data shows that 6.3% of the total residential electricity sites on competitive contracts also purchase some form of green products from one of the three largest

electricity retailers (this is approximately equal to 1.5% of the total residential sites in the province). It is important to recognize however that this value is likely understated as this data does not include any information regarding those customers that have purchased green products from non electricity retailers. However such data may be of interest to the MSA in the future.

Finally, the emergence of 'green' products raises a number of questions for further consideration by the MSA:

- Who is monitoring the sale of certified energy credits to ensure that those sold do not exceed those purchased?
- Who ensures that retailers promising to purchase renewable energy credits are actually doing so?
- How much 'green' power is being injected to Alberta's electricity grid?

8 CONCLUSIONS

Although the indicators analyzed in this review cannot provide a complete picture of the level of competition in either the retail electricity or natural gas markets they do provide some indication of the overall success of these markets.

Switching statistics indicate that electricity customers are continuing to choose to switch off the RRO. At the current time about 25% of residential RRO eligible consumers have chosen a competitive contract. Although electricity switching rates have remained stable, they are relatively low.

Anecdotally, some REAs have higher switching rates than this. The switching levels for electricity customers is over 30% within one of the LSA's and is an encouraging sign that further growth in switching can be achieved particularly through targeted marketing efforts and increased education. Overall, the number of electricity sites switched in Alberta appears to be lower than in other jurisdictions such as the UK and Texas, which may indicate further growth of competitive contracts is possible. However, the presence of default rates that are close to wholesale prices may act as an inhibitor that is not present in those other markets.

Switching levels from the natural gas DRT appear to be slightly higher than the overall electricity switching level.

There are three large retailers competing to serve residential electricity needs, all of which seem to have experienced growth since the beginning of 2006. All three retailers have actively pursued the retailing of mass market electricity and natural gas contracts, resulting in economies of scale allowing these retailers to be more competitive. Consequently there may be limited opportunities for further entrants to this market segment.

Factors other than the energy price may be more important drivers of switching – dual fuel contracts featuring discounts in administrative charges appear to be popular and growth in 'green' retailing may be a significant driver in the coming years. These are two particular areas where the MSA will continue to monitor.

Despite any optimism that may be gleaned from the data that overall switching will increase over time, it seems unlikely that the majority of Albertans will have switched in the near to medium term. This has obvious implications for the future of the RRO/DRT.