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Mr John Pierce
Chairman
Australian Energy Market Commission
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Dear Mr Pierce John

Getting retail energy market competition right

In recent Council of Australian Governments (COAG) and Standing Council on Energy and Resources (SCER) meetings, governments across Australia reaffirmed their commitment to the removal of price regulation in retail energy markets where competition is found to be effective. Furthermore, it was agreed that the process of reviewing the effectiveness of competition in each retail market would be improved.

As an organisation that represents Victorian consumer interests, we have considerable knowledge and experience about retail price deregulation and how to create the conditions likely to deliver an effectively competitive market. As the first state in Australia to remove retail price controls, Victoria provides useful lessons for the other Australian jurisdictions that have indicated a desire to further progress retail energy market deregulation. Our most recent research entitled *Market Power in the Victorian Retail Energy Market* highlights some of the issues that need to be considered by policy and regulatory decision makers. This research is attached for your consideration.

CUAC's research into retail market competition indicates that success is not simply a matter of removing price controls and hoping for the best. Instead considerable effort is required to appropriately:

- prepare consumers for price deregulation through information and education;
- design market frameworks and rules that facilitate competition and effective consumer participation; and
- design consumer protections that ensure ongoing access to energy for vulnerable consumers and consumers less able to participate fully in the competitive market.

In Victoria, CUAC's research has found there are still significant barriers to the effective participation of consumers in the retail energy market. Our research report *Improving energy market competition through consumer participation* highlighted the challenges associated with finding the right energy offer given the proliferation of complex choices and unreliable information in the market.

Our latest research on the retail market, *Market Power in the Victorian Retail Energy Market* demonstrates that despite the high rates of customer churn, the retail markets for both electricity and gas in Victoria remain concentrated. Moreover, the levels of concentration in those markets have not decreased since the removal of

price controls and in some instances have increased. The retail gas market is of particular concern with the largest four firms controlling in excess of 90 per cent of the market share.

CUAC believes that a range of options exist to better facilitate competition effectiveness in either a price regulated or unregulated market. Given this, we recommend that governments undertake a number of actions to complement the removal of retail price controls. Details of these actions to enhance competition effectiveness are outlined below. A number of these have been addressed to some extent by COAG announcements.

1. Well designed consumer information and education should accompany price deregulation to ensure consumers are equipped with the right information to make informed choices. The energy industry alone cannot be relied upon to build consumer knowledge of market arrangements.
2. Governments should aim to design retail market frameworks in such a way that consumer choice is made easy and effective. Price deregulation on its own does not necessarily achieve this as the Victorian and British experience has demonstrated. Government has a role in shaping the "choice architecture" of a deregulated market in such a way that the market allows for the easy selection of the right product and the consumer is not overwhelmed by innumerable and seemingly homogenous choices.
3. The desired structure of our energy markets needs to be clearly articulated in Government policy. Government should have clear positions on the desirability of trends such as increased vertical integration that may impact on market competitiveness.
4. Independent sources of information that are well resourced and promoted by Government are a necessary feature of competitive and price deregulated markets. Such information sources should support consumers to find offers that align with their needs and aim to overcome some of the problems with unreliable information provided though marketing channels.
5. The effectiveness of retail market competition should be assessed on a regular basis in order to assess the effectiveness of reforms and what further policy and regulatory responses may be required. CUAC recommends annual assessments of customer outcomes from switching, market concentration, customer churn, retailer margins and product innovation and differentiation. Information from these assessments should be made publically available.
6. Any analysis of competition effectiveness needs to go beyond the headline figure of customer churn and examine a range of other information. As part of this, greater weight needs to be given to the actual customer experience of the market and the outcomes of their market choices. Experience in Victoria and the UK suggests that customer difficulty with energy market choice is not something that will be overcome with time alone.
7. Effective enforcement of consumer protection regulation is necessary to maintain the integrity of the market. Consumer protections have been developed to deliver the best outcomes for consumers. Compliance with these protections assists in the maintenance of consumer satisfaction.

We would be more than happy to share our knowledge and research on retail market competition garnered through our efforts to advance the interests of Victorian consumers. As part of this we would be happy to arrange for a briefing for you or other members of your organisation on the issues raised in this letter. Do not hesitate to contact me on 03 9639 7600 or at jo.benvenuti@cuac.org.au to discuss these issues further.

Yours sincerely,

Jo Benvenuti

Jo Benvenuti
Executive Officer

CUAC
Consumer Utilities Advocacy Centre

Market Power in the Victorian Retail Energy Market

An analysis of market share and concentration

Introduction

According to the Australian Energy Market Commission (AEMC), the objectives of energy retail market competition are to give customers the opportunity to choose among competing retailers and to deliver efficient prices and services.[1] In neoclassical economic theory, effective competition is desirable because it allocates resources efficiently and maintains pressure on market participants to deliver efficient prices to consumers. The Victorian retail energy market is designed to work competitively with the informed choices of consumers placing competitive constraints on price and restricting inefficient market outcomes. Unlike other Australian retail energy markets, Victorian retail prices are not subject to a regulated price cap.

Once a competitive retail market is in place, it may or may not deliver on these expectations. Hence, it is important to assess the impact of reforms to ensure they are delivering the intended public benefits. Deregulated markets do not necessarily become effectively competitive, and the presence of market failures can result in inefficient outcomes that may justify targeted interventions.

The Consumer Utilities Advocacy Centre Ltd. (CUAC) has had some concerns about the level of competition in the Victorian retail energy market since price deregulation. Despite high rates of switching between providers in Victoria, the market remains concentrated and innovation is limited. Customer service standards are in decline and our research has shown significant problems with the information available to consumers. Given this, CUAC has committed to

The Victorian retail electricity and gas markets

The electricity market

According to the latest available data from the Essential Services Commission (ESC)[3], for the year 2011-12 there were 12 electricity retailers of significance operating in Victoria. Two of these retailers are owned by the same parent company. These 12 retailers supplied a total of 2,641,832 customers of which 2,331,288 were households and 330,545 were businesses.

The gas market

Over the same 2011-12 period there were 7 retailers of natural gas. These retailers supplied a total of 1,869,073 customers of which 1,817,030 were households and 52,043 were businesses.

research and monitor issues in the Victorian retail market to continually assess competition effectiveness. As part of this effort, we recently completed research into consumer participation in the Victorian retail energy market, which found that many consumers find it difficult to participate effectively.[2]

This short paper builds on that work by looking at the issue of market concentration in the retail market, how it is trending and what this might mean for the effectiveness of competition. Two widely used measures of market concentration, the Herfindahl–Hirschman Index (HHI) and the Four Firm Concentration Ratio (CR_4) will be applied to the Victorian retail electricity and gas markets for each year since price deregulation. From this, we are able to explore whether market concentration is an issue for continued monitoring and, along with other evidence from the market, identify further areas for examination as well as possible policy and regulatory implications.

Market concentration—How is it measured? What does it tell us?

Key points

- Market concentration as measured by HHI and CR_4 are relevant to the analysis of competition in a market and the extent of market power.
- Measures of concentration are not definitive indicators of competitiveness and need to be considered alongside other data.
- HHI and CR_4 are the most common measures of market concentration. HHI is the sum of the squares of the market shares of all the firms in the market and CR_4 is the sum of the market shares of the largest four firms in a market.

Although it does not provide a complete picture of market dynamics or competitiveness, measures of market concentration can offer some useful information about the health of competition within a particular market. When data on concentration is coupled with other information such as the height of barriers to entry, the level of innovation, the ability of market participants to set prices above marginal costs and the homogeneity of the market's products, it gives an understanding of the effectiveness of competition. According to analysis in the AEMC's First Final Report on the Review of the effectiveness of competition in electricity and gas retail markets in Victoria, concentration indices are a relevant factor "when analysing the extent and nature of competition in a market or likely changes to competition in a market as a consequence of mergers or firm conduct. They are relevant because the unilateral market power of individual firms and the collective or coordinated market power of a group of firms tends to increase with their market share."[1]

In a relatively new market, such as the competitive retail electricity and gas markets, the analysis of market concentration can highlight the effectiveness of new entrants in challenging the position of incumbent businesses and improving the effectiveness of

competition. The ACCC, in its merger guidelines, emphasises that changes in market concentration over time can "reveal the frequency of new entry and provide insight into the ability of new entrants and smaller competitors to attract custom and expand."[4] Broadly speaking, the conventional view is that industry concentration is associated with incumbent monopoly power.[5] If market concentration is high and remains that way, incumbent firms may be exercising their market power to restrict new entrants and competition while maintaining their dominant position. Where market concentration is declining over time, this highlights the effectiveness of new entrants at challenging the dominant market participants. The importance of analysing concentration changes over time is also emphasised by the AEMC.[1]

Having said this, measures of concentration are by no means definitive measures of competitive market health. They are illustrative of some of the market dynamics but they are not an analysis of the strategic behaviour of market participants. Measures of concentration are most often used by regulators as an initial test of competition when assessing mergers and acquisitions. The concentration assessment is then supplemented with other information to determine the likely effects on competition of any merger. Given this, it is important to evaluate competition and market dynamics with regard to a broad range of data and evidence. Concentration is just one limited tool in the information available to assess market competitiveness. This paper seeks to highlight concentration trends in the Victorian retail electricity and gas markets and to place this in the context of current and future work into the competitiveness of those markets.

HHI and CR_4

There are two frequently used measures of market concentration. These are the Herfindahl–Hirschman Index (HHI) and the four firm concentration ratio (CR_4). The HHI has received widespread attention because of its use by competition regulators in assessing whether to allow mergers and acquisitions within particular markets. The Australian Competition and Consumer Commission (ACCC) will usually begin its analysis of a potential merger by analysing the HHI. The HHI is calculated by adding the sum of the squares of the market shares of the firms in a particular market. The HHI can range from 0 to 10,000, where 0 would indicate very low concentration and 10,000 would indicate the presence of a complete monopoly. According to the guidelines, the ACCC is less likely to be concerned with mergers in a particular market where the post merger HHI is less than 2,000, or if the post merger HHI has not increased from the pre merger HHI by more than 100. This suggests that the ACCC starts to become concerned about market concentration levels in excess of 2,000 as measured by HHI.[4] The HHI is generally the preferred measure of market concentration because it gives greater weight to the market share of larger firms in measuring the level of concentration.

Conversely, the CR_4 does not give greater weight to large firms as it is simply a sum of the market shares of the four largest firms in a particular market. This means that a substantial change in the market share of one of the dominant four firms at the expense of one of the other dominant firms would not alter the CR_4, even though this would likely substantially alter market dynamics, competitiveness and concentration. However, the

CR_4 can tell us the extent to which the largest 4 firms contribute to activity in a particular market and is a useful complement to the HHI. High CR_4 levels are often linked to the presence of an oligopoly.[5]

To accurately measure the HHI and CR_4 in particular markets the market itself needs to be defined. This is done by assessing the substitutability of the products on offer. In other words, an assessment is made of the extent to which an alternative product in the market would equally satisfy the needs of the consumers in that market. This is the approach used in the Australian Competition and Consumer Act. Having defined the market, accurate market share data is also essential for measuring HHI and CR_4 given that these indices require accurate market share data for their calculation.

Victorian retail energy markets and market concentration

Key points

- Full retail contestability in electricity and gas markets has been in place in Victoria since 2002. Full retail price deregulation occurred in 2009.
- Three retailers, Origin, AGL and Energy Australia, retain very significant market shares across both gas and electricity retail markets.
- It is appropriate to measure market concentration for four distinct markets. These are the residential markets for gas and electricity and the business market for gas and electricity.

In 2002, full retail contestability was introduced in Victoria for all electricity and gas customers. This followed an extensive program of privatisation and structural separation of the previously state-owned electricity and gas utilities. Victorians could choose between different energy retail products offered by different energy retailers. Until 2009, competition occurred under a regime of retail price regulation. All retail price controls were removed in 2009 as market competitiveness was deemed sufficient to restrain prices at efficient levels.

Contestability was initiated with the creation of 5 'incumbent' electricity retailers and 3 'incumbent' gas retailers, each of which was assigned customers from defined geographic areas. These retailers and others were then allowed to compete for customers across Victoria. Through processes of mergers and acquisitions, the incumbent retailers were the forerunners of the current 'big three' energy retailers that now control the vast majority of market share in Victoria's gas and electricity retail markets. These three retailers, Origin, AGL and Energy Australia (formerly TRU) continue to hold the lion's share of the retail market.

Initial retail contestability led to decreases in retail market concentration as new entrant retailers laboured to attract customers from the incumbent retailers. This was highlighted by the AEMC in their review of the effectiveness of competition in Victoria's gas and electricity markets. Their analysis of CR_4 and HHI showed a steady decline in overall

market concentration between 2003 and 2006.[1] However, CUAC's analysis shows that the level of concentration is now stable or increasing, across both electricity and gas retail markets. Interestingly, this has occurred despite the removal of retail price controls, which was intended to encourage even greater competition and market dynamism.

HHI and CR_4 in Victorian retail gas and electricity markets

As mentioned previously, in order to accurately determine the HHI and the CR_4 for a particular market, the market in question must first be defined. This paper focuses on retail electricity and gas markets in Victoria. This provides a good starting point for market definition. The products in the Victorian retail electricity market are quite closely substitutable, as are the products in the retail gas market. There is, however, an important distinction between the markets for households and the markets for businesses. Contracts in each of these markets are subject to different regulatory conditions and there are some retailers who operate only in the residential market. The residential and the business markets should therefore be defined as distinct markets. The key reason for this is substitutability. A business cannot replace its current electricity or gas product in the business market with a product from the residential market and vice versa. Given this, calculations of the HHI and the CR_4 are made for the retail electricity market for households, the retail electricity market for business and the equivalent gas markets.

The second crucial ingredient for accurate calculation of the HHI and CR_4 is market share data. While this data is unavailable in the market for many goods and services, retail energy is a different story. Average customer numbers for each retailer are published annually by the ESC in their Energy Retailer Comparative Performance Reports. Using this data, HHI and CR_4 can be calculated for each of the four defined markets for each year since retail price deregulation, allowing for the identification of any trends and issues.

Trends in HHI and CR_4 in Victorian retail energy markets since price deregulation

Key points

- Market concentration, as measured by HHI and CR_4 has been stable or increasing since price deregulation in 2009.
- Particularly high concentration is exhibited in the gas and electricity markets for business customers.
- High levels of market concentration are a "necessary but not sufficient" condition for the exercise of market power, so further investigation into the competitiveness of Victoria's retail energy market is warranted.

The following table* shows the calculations of HHI and CR_4 in Victoria's four defined retail energy markets.

Residential electricity market			
Year	**2009 – 2010**	**2010 – 2011**	**2011 – 2012**
HHI	1,904	2,016	1,903
CR_4	80	82	80
Residential gas market			
Year	**2009 – 2010**	**2010 – 2011**	**2011 – 2012**
HHI	2,199	2,221	2,149
CR_4	86	86	85
Business electricity market			
Year	**2009 – 2010**	**2010 – 2011**	**2011 – 2012**
HHI	2,338	2,495	2,519
CR_4	86	89	90
Business gas market			
Year	**2009 – 2010**	**2010 – 2011**	**2011 – 2012**
HHI	2,946	2,946	2,869
CR_4	95	96	95

The table shows that all retail energy markets in Victoria remain highly concentrated. The CR_4 shows that in all four markets, the largest four firms control over 80 per cent of the market. Moreover, the HHI scores for all four markets are at levels that would likely arouse interest from the ACCC in the event of further merger and acquisition activity. It is telling that there has been no great reduction in market concentration in any of the markets analysed since the removal of price controls. In fact, in some markets, such as the business electricity market, the trend is the opposite. Concentration in that market has increased markedly since price deregulation, with the largest four firms now controlling 90 per cent of the market and HHI levels in excess of 2,500.

In the other three markets, concentration indicators remain fairly stable. However, in some of these markets the concentration levels are alarmingly high. The business gas market appears to be particularly concentrated, with an HHI approaching 3,000 and four firms controlling 95 per cent of the market.

The high concentration levels in the residential gas market should also be cause for some concern and further analysis. While 12 retailers remain active in electricity, there are only 7 retailers in the gas market where market concentration remains high across both business and residential markets.

The persistently high levels of concentration in Victoria's retail energy markets raises questions of the effectiveness of competition since price deregulation. As highlighted by the AEMC, high levels of market concentration are a "necessary but not sufficient"

* Notes: These calculations were made taking into account ownership and progressive acquisitions. AGL and Powerdirect were treated as a single retailer in this study. Despite the fact that two brands are maintained, AGL was the parent company for the period of analysis. Two significant mergers happened during the period of analysis. Country Energy and Energy Australia were purchased by Origin Energy and TRU respectively in 2011. For the purposes of this calculation the market share of the purchased provider was added to that of the acquirer in the year of acquisition. Only retailers with over 1000 customers are included in the calculation. All data was taken from the ESC's comparative performance reports on pricing for the respective years, which are referenced at end notes 3,6 and 7.

condition for the exercise of market power.[1] Given the *prima facie* concerning levels of market concentration, it is appropriate to analyse some of the other features of the retail market that may add to our understanding of market competitiveness and dynamism. It is also appropriate to identify some areas for further investigation to ensure the market is actually delivering against its objectives.

Why the persistently high levels of concentration in the Victorian retail market?

Key points

- A number of factors could be behind the high market concentration in the Victorian retail energy market.
- Acquisition of smaller retailers by large retailers is one factor but not the whole story.
- There is a possibility that the customer base of the large incumbent retailers is more 'sticky' or loyal. This can present a barrier to the erosion of market share.
- Barriers to entry in the retail market may be caused by vertical integration. The major retailers all have a portfolio of wholesale market assets that allows them to manage wholesale market risk internally.

The analysis of market concentration raises questions as to why new entrant or so-called second tier retailers are failing to erode the market dominance of the three major retailers. A key dynamic that has resulted in this outcome has been the process of acquisition. Origin and TRU (as it then was) managed to preserve their market share through, among other strategies, the acquisition of new entrant retailers and their market share. 2011 saw two such transactions with Country Energy and Energy Australia, both active retailers in Victoria, purchased from the NSW Government by Origin and TRU. This resulted in almost 100,000 customers moving across to the major retailer and a consolidation in market shares.

Among the smaller retailers, there have been no remarkable success stories in attracting market share. In the residential electricity market, Australian Power and Gas attracted approximately 50,000 new customers, while Neighbourhood Energy acquired almost 40,000 new customers over the three year period. However, these successes seemed to occur at the expense of other new entrant retailers and, as the data shows, did not fundamentally alter the market's concentration. It is significant that these successes in the residential market were not mirrored in the business electricity market, where both Neighbourhood Energy and Australian Power and Gas are not active retailers. This may explain why market concentration in the business electricity market has, in fact, been increasing.

The business and residential gas markets are considerably less dynamic than the electricity markets, with much smaller movements in market share among new entrant retailers. In the residential market, Australian Power and Gas was successful in increasing its market share, albeit off a low base. Red Energy also had some success in both business and residential markets. The ability of retailers to easily gain market share in gas seems considerably more limited than in electricity.

Are 'sticky' customers the problem?

One of the interesting features of the Victorian retail energy market is that market concentration remains high despite the highest churn rate of any energy market in the world. Churn refers to customers moving from their current energy retailer to take up an offer with a new retailer. The work of VaasaETT continues to show that 28 per cent of Victorian retail energy consumers are churning each year.[8] This would appear to suggest a high willingness of consumers to take up new offers from different energy providers. However, despite this high rate of churn, the three years since price deregulation have not seen a significant reduction in market concentration or evidence of strong new entrant retailers. This suggests that there are significant barriers to the establishment and retention of a customer base for new entrant retailers in particular.

Given that an analysis of market shares indicates that some second tier/new entrant retailers are losing market share to other second tier retailers, it may that the most active churn is happening in this market sector. So called 'sticky' customers who are less likely to churn and who exhibit some brand loyalty are much more likely to be customers of the 'big three.' As a result of how the market has evolved, they are much less likely to be lured by new entrant retailers. Customers of new entrant retailers, on the other hand, will already have switched at least once to a new provider and are much more likely to be open to the process.

The problem of 'sticky' customers providing an advantage to incumbent retailers was highlighted by Ofgem as an issue in the UK Retail Markets Review. Despite consistently high churn rates in that market, the major six retailers retain considerable market dominance.[9] Our analysis suggests this may also be an issue in the Victorian market.

Can new entrants compete on price?

The St Vincent de Paul Society tracks and analyses energy offers in gas and electricity retail markets in the national energy market. They have recently released a paper detailing the results of this analysis. The St Vincent de Paul Society found that second tier retailers were not consistently offering better prices to consumers.[10] One would think that without offering lower prices it would be difficult for new retailers to attract new customers. A recent CUAC survey found that 52 per cent of respondents still found price the most important reason for switching energy provider. In the residential retail market for electricity, the St Vincent de Paul "data shows that none of the retailers have attempted to significantly differentiate themselves in regards to price increases. In Melbourne, for example, a typical consumption household experienced an annual electricity bill increase of between 9-15% between January and July 2012, if they were on a market contract with one of the big three retailers (AGL, Origin or TRU). If

households were with one of the second tier retailers the price increase would have been between 7-18%. Analysis of the previous price reset in January 2012 paints a similar picture."[10]

It seems that there are two possible explanations for this. One is that consumers are not able to effectively assess price and are therefore making choices on the basis of other, possibly complex or unhelpful, information. This reduces the incentive for second tier retailers to offer more competitive prices and, instead, provides an incentive for all retailers to attract customers through other channels such as marketing and promotion. This is a distinct possibility given that CUAC's research has shown that many consumers find it difficult to compare different offers and often base their choices on unreliable information provided at the door, on the telephone and online.[2] This suggests that marketing expenditure, is a significant factor in the ability to retain market share, rather than product differentiation and innovation. This would likely advantage incumbent retailers and would suggest that there are concerns about the current level of market concentration and possible barriers to the sustainable operation of a new entrant retailer.

Another possible explanation is that second tier retailers simply cannot offer more competitive prices than the incumbent retailers. This possibility is also concerning as it suggests that there are barriers for new entrant and second tier retailers to acquire customers on the basis of the factor that is identified in consumer surveys as the most important motivator for switching. If this were the case, the persistent high concentration in the retail market should be cause for considerable concern.

Is vertical integration the issue?

The inability of second tier retailers to either compete on price or erode the market share of the incumbent retailers may be a product of vertical integration creating barriers to entry and success for new retailers. The big three retailers are not only active in the retail energy market, but also have substantial holdings in wholesale electricity and upstream gas markets. According to the Australian Energy Regulator's (AER's) latest *State of the Energy Market Report,* "Origin Energy, AGL Energy and TRU Energy now...control almost 30 per cent of generation capacity in the mainland regions of the National Electricity Market. Around 58 per cent of new generation capacity commissioned or committed since 2007 is controlled by these entities. Generation investment since 2007 by entities that do not also retail energy has been negligible...Origin Energy, AGL Energy and TRU Energy also have interests in gas production and /or gas storage that complement their interests in gas fired electricity generation and energy retailing."[11]

The investment by the big three retailers in electricity generation is largely a result of the need for retailers to manage the risk of price volatility in wholesale markets. Deregulated wholesale electricity markets often exhibit "high price volatility, strong mean-reversion and frequent extreme price spikes...In fact, the Australian electricity market is regarded as significantly more volatile and spike-prone than many comparable systems."[12] Retailers are exposed to this price risk and most have to

manage the risk through participation in hedge markets. This comes with its own risks and retailers can seek greater security by internally managing the risk of price volatility in the spot market through the ownership of generation assets. Although gas prices are not as volatile, there are also advantages to owning upstream gas assets, and this is reflected in the decision to invest in such assets by the big three retailers.

The problem with this vertical integration is that it can "reduce liquidity in wholesale markets, posing a potential barrier to entry and expansion for generators and retailers that are not vertically integrated."[11] The persistent high concentration over the last few years could well be caused by barriers to entry in the retail market caused by increased vertical integration between major supply side participants in the wholesale and retail markets. This should be further investigated by regulators and Government and careful consideration should be given to the appropriateness of a continually expanding presence of major retailers in wholesale markets.

Conclusions and next steps

Key points

- Persistently high market concentration in retail energy markets coupled with the other factors highlighted in this research raises questions about the effectiveness of retail competition.
- Government, regulators and others should continue to investigate the issue. CUAC will be conducting further research into the Victorian retail market to provide additional insight into its competitiveness.
- Very close regulatory attention should be given to future acquisitions of second tier retailers by large incumbents. The impacts on markets for business customers should be the subject of particular analysis.
- Clearer policy direction from Government on the desirability of vertical integration in Australia's energy markets would better support the evolution of Australia's energy markets in ways that best serve the long term interests of consumers.

The Trade Practices Tribunal (now called the Australian Competition Tribunal) set out the factors that it regards as relevant to the analysis of the effectiveness of competition in a particular market. These were outlined in the AEMC's report on the effectiveness of retail market competition in Victoria. According to the Tribunal:

> *"The elements of market structure which we would stress as needing to be scanned in any case are these:*
>
> *1) the number and size distribution of independent sellers, especially the degree of market concentration;*

2) *the height of barriers to entry, that is the ease with which new firms may enter and secure a viable market;*

3) *the extent to which the products of the industry are characterised by extreme product differentiation and sales promotion;*

4) *the character of 'vertical relationships' with customers and with suppliers and the extent of vertical integration; and*

5) *the nature of any formal stable and fundamental arrangements between firms which restrict their ability to function as independent entities.*

Of all these elements of market structure, no doubt the most important is 2), the condition of entry. For it is the ease with which firms may enter which establishes the possibilities of market concentration over time; and it is the threat of the entry of a new firm or a new plant into a market which operates as the ultimate regulator of competitive conduct."[1]

This paper has demonstrated that substantial market concentration persists in the energy retail market and that vertical integration may both restrict entry into the market by new retailers and contain the expansion of existing second tier retailers. Against the criteria identified by the Tribunal, this suggests that the effectiveness of competition in the Victorian retail market may currently be less than optimal.

This paper builds on previous work by CUAC and others that highlights factors that may be detracting from the quality of retail energy market competition. CUAC research has revealed concerns about the effectiveness of consumer participation in energy retail markets and the quality of information available to consumers to facilitate their choices. If persistently high levels of market concentration were the only noteworthy feature of an otherwise highly competitive market, it would hardly warrant a mention. However, taken in concert with other factors, such as barriers to entry arising from vertical integration, challenges to effective consumer participation and a seemingly more loyal customer base among the major retailers, the high market concentration may be indicative of broader problems with the effectiveness of retail competition.

The high levels of concentration in retail gas markets and the retail electricity market for business consumers are of particular concern and are certainly worthy of further analysis. In gas markets, for both residential and business consumers, there have been fewer new entrant retailers challenging the position of incumbents, which lessens the chance that incumbent market dominance will be effectively challenged.

This then leads to consideration of what actions are required by government, regulators and others seeking better consumer outcomes in the market for energy. The first conclusion is a relatively obvious one that relates to the most common application of concentration indices. Given that concentration persists and is often maintained through the acquisition of smaller retailers by large incumbents, there should be considerable scrutiny of further mergers and acquisitions in the Victorian retail energy market. Acquisitions of innovative new entrant/second tier retailers who are successfully gaining

market share should be subject to particular regulatory attention. The regulator should closely consider the impacts any mergers or acquisitions would have on business and residential consumers in both electricity and gas markets, as these are clearly distinct markets.

The second conclusion relates to the structure of Australia's energy market. Policy makers and regulators need to analyse the impact of vertical integration on our energy supply system and the impacts that this has on the competitiveness of the retail sector. There are arguments that can be made in favour of vertical integration. If internally managing risks results in lower costs and lower prices for end users, then it may be a desirable market structure. However, if this market structure imposes barriers to entry that reduce the effectiveness of competition and enshrine the position of the dominant retailers then policy reforms may be required. Clearer policy direction could ensure that market structures evolve in ways that best serve the long term interests of consumers.

A third conclusion relates to the need to continually monitor the effectiveness of retail competition and issues that may be hampering consumer benefits from market deregulation. CUAC has previously expressed concern that there has been insufficient ongoing monitoring of the effectiveness of competition and the experience of consumers in the competitive retail market. To that end, CUAC has launched a range of research and advocacy initiatives to assess competition and deliver competition-enhancing improvements to the retail energy market. CUAC's other initiatives developed to support retail competition are:

- detailed research on consumer participation in retail energy markets;
- a set of principles to support the development of a code of practice for online price comparison/switching websites;
- a reform proposal for fixed term retail energy contracts backed by consumer research; and
- comprehensive consumer research on the issue of door-to-door sales.

CUAC has also flagged its intention to develop a rating scheme that allows retailers to be compared on non-price indicators of performance. This research on retail market concentration fits with this research and advocacy agenda and suggests issues for further consideration regarding the effectiveness of competition in the retail energy market. CUAC believes that the issues raised in this paper highlight the ongoing need to conduct research into competition effectiveness. Given this, CUAC intends to conduct research in early 2013 on the components of retail prices paid by consumers and the extent to which rising retail costs are responsible for rising electricity and gas prices in Victoria.

To ensure that this concentration analysis is of ongoing relevance, CUAC will also commit to annual updates of the HHI and CR_4 figures based on the annual release of market share data by the ESC. These updates will include a commentary on the issues that have impacted on retail market concentration in the previous year and what this

may indicate about competition effectiveness. Such an ongoing analysis of market concentration over time can provide much greater insight than one-off measurements that fail to account for the dynamic nature of markets.

However, Government and regulators should also consider this research and how they can continue to ensure the effectiveness of competition in Victoria through improved monitoring and regulation. To this end, it is appropriate to consider the adequacy of existing data collection and its dissemination by energy regulators. Better data could assist policy makers, the community and the regulators to assess the health of competitive retail markets and target policy and regulatory interventions.

Above all, it is important that the overarching objective of energy policy and regulation should be the long term interests of consumers. If existing markets are not delivering on this objective, either as a result of weaknesses in the competitive market or other factors, then governments and regulators should respond with appropriate measures to correct this. This research aims to provide a contribution to the knowledge base that will allow for the effective development of future energy reforms.

Endnotes

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