



## **Rule Change Directions Paper Concerning National Electricity Amendments (Potential Generator Market Power in the NEM) rule**

### **Contacts:**

Mark Henley  
Project Manager  
UnitingCare Australia  
08 8202 5135  
0404067011  
[mark.henley@ucwesleyelaide.org.au](mailto:mark.henley@ucwesleyelaide.org.au)

Lin Hatfield Dodds  
National Director  
UnitingCare Australia  
02 6249 6717  
[susan@nat.unitingcare.org.au](mailto:susan@nat.unitingcare.org.au)



**To: Australian Energy Market Commission**  
**From: Uniting care Australia**  
**Re: Rule Change Directions Paper Concerning National Electricity Amendments (Potential Generator Market Power in the NEM) rule**

### **Executive Summary**

We have made 4 observations in this submission:

1. Too many residential consumers are simply not coping with rising energy costs. Indeed we would offer the observation that privatisation/full retail contestability has not delivered price benefits to consumers in at least some energy markets.
2. No element of the Australian energy market meets criteria for being effectively competitive. Further, market information, including information about business decisions such as hedges or long-run marginal costs, is simply not available to consumers or consumer representative groups. This combination of factors leads us to observe there is high consumer risk in current Australian energy markets. Oligopoly and monopoly markets, coupled with inadequate consumer information, do not provide for attention to delivering energy pricing in the long term interests of consumers.
3. There are sound theoretical reasons and supporting evidence for our view that electricity markets may be unusually susceptible at times to the exercise of market power compared to other markets. This view is based on our analysis of findings from a review of the monitoring of market power by Paul Toomey, Richard Green, Carsten Neuhoff and David Newberry, March 2005

UnitingCare Australia has concluded that:

- ▶ The thrust of the Rule Change is supported, particularly identification of dominant generator(s) / gentailer(s), (businesses that have both generator and retail functions) setting bounds on price and dispatch requirements
- ▶ Notion of “Substantial Market Power” is not particularly helpful for small consumers
- ▶ Exercise of (substantial) Market Power should be about BOTH ‘spikes’ (beyond reasonable adjustment) AND sustained prices that are greater than long run marginal cost (LRMC)
- ▶ Focus of the rules needs to be ‘ex ante’ and deal with the potential for generator market power as well as actual generator market power.
- ▶ The potential for ‘strategic behaviour’ by gentailers also needs to be considered as part of this review
- ▶ Information asymmetry continues to disadvantage small consumers

Which leads us to recommend that the AEMC proceed to the next stage of the rule change process, with regard to this rule change, which is the development of a Draft Rule determination.

## Background

This submission is from Uniting Care Australia, a network of well over 400 community-based social services working in 1300 sites across all states and territories. This response however, is not so much from Uniting Care network as a major user of energy, but seeks to represent a perspective of consumers, many of whom are receiving services from Uniting Care agencies; services including financial counselling, disability support services, aged care accommodation and related services. While UnitingCare Australia is interested in the well being of all citizens, we are specifically advocate with and on behalf of disadvantaged and vulnerable people and communities, including rural and isolated communities.

Uniting Care Australia believes that this rule change is very important and we note that one Uniting Care Australia agency, Uniting Care Wesley Adelaide, raised the very issues that are the focus of this rule change in their 2008 submissions to the AEMC 'Review of Effectiveness of Retail Competition in South Australia'.

We start our consideration of this rule change with a perspective provided by the national electricity objective as stated in the national electricity law: "to promote efficient investment in, and efficient operation and use of, electricity services for the **long term interest of consumers** of electricity with respect to:

- Price, quality, safety, reliability, and security of supply of electricity
- Reliability, safety and security of the national electricity system"

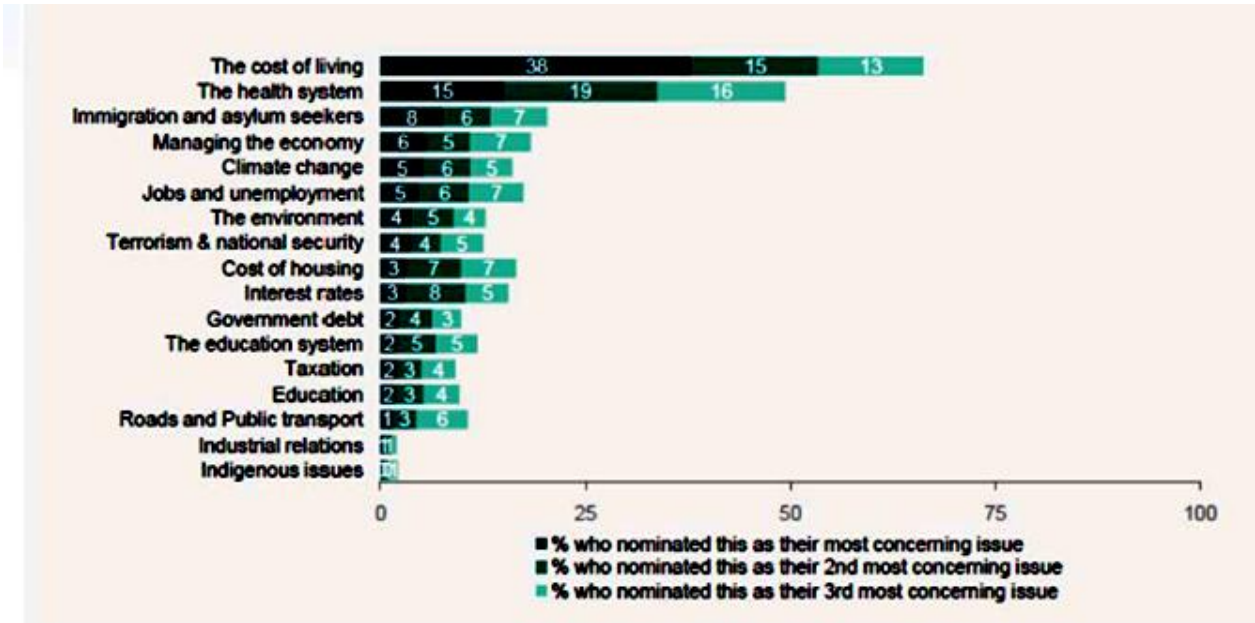
We are particularly concerned about both the short and long term interests of consumers and present our comments to this rule change proposal from that perspective.

### Cost of Living Primary Concern

The following graph, graph 1, reproduces data collected from a survey conducted for the Clean Energy Council, asking Australians what is their issue of most concern at the moment. Very clearly the cost of living is dominating concerns of Australian citizens at the moment, followed by the health system.

Many other debates receiving considerable media coverage rate at very low levels of interest to citizens in comparison to cost of living concerns.

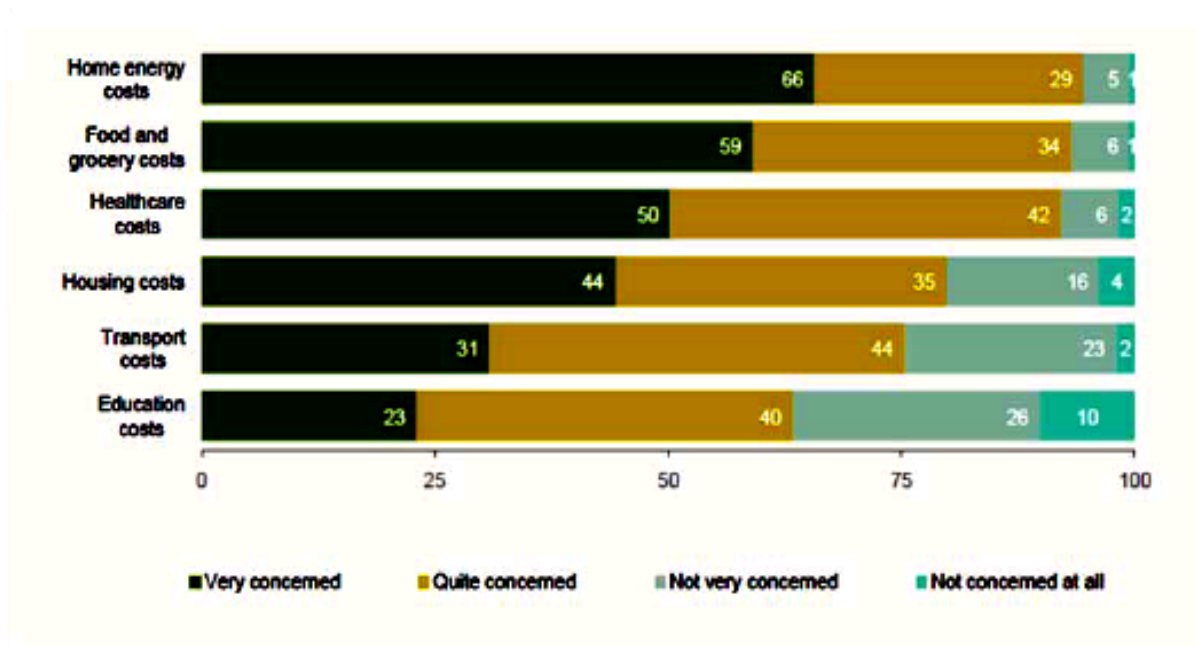
Issues of concern for Australians, 2011



Graph 1: Source: Clean Energy Council of Australia

Central to cost of living concerns are deep concerns about high energy costs, with two thirds of Australians being 'very concerned' about high energy costs, followed by food and grocery costs and health care costs as shown in the second graph below.

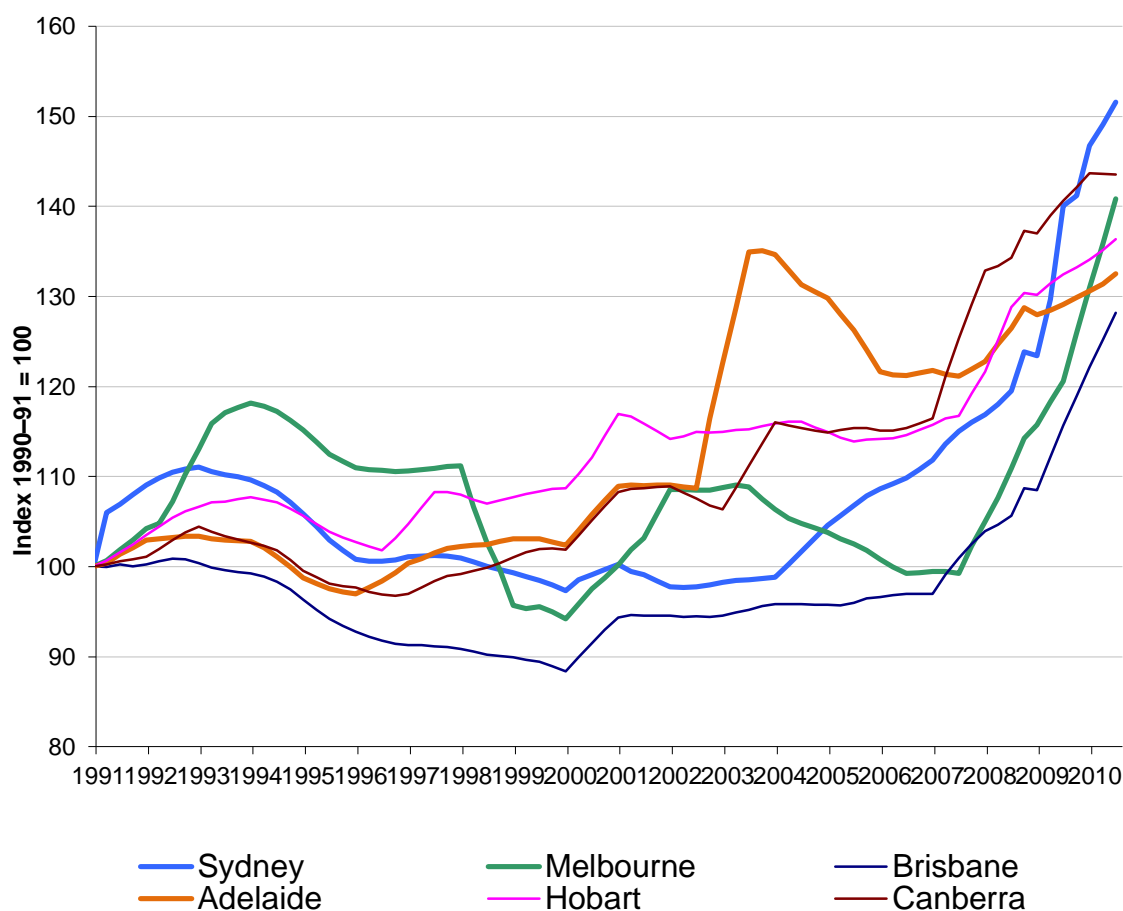
Cost of Living Concerns 2011



Graph 2: Source: Clean Energy Council of Australia

Graph 3 shows the Retail Electricity Price Index from 1991-2010 for Australian capital cities and is taken from the AER state of the market report published in 2010. What this data shows is that prices have gone up quite considerably over the last three to four years in all jurisdictions. South Australia clearly experienced a major increase in prices for residential consumers of 25-30% per customer when the South Australian market moved from state ownership to full retail contestability in 2003.

**Retail Electricity price Index**

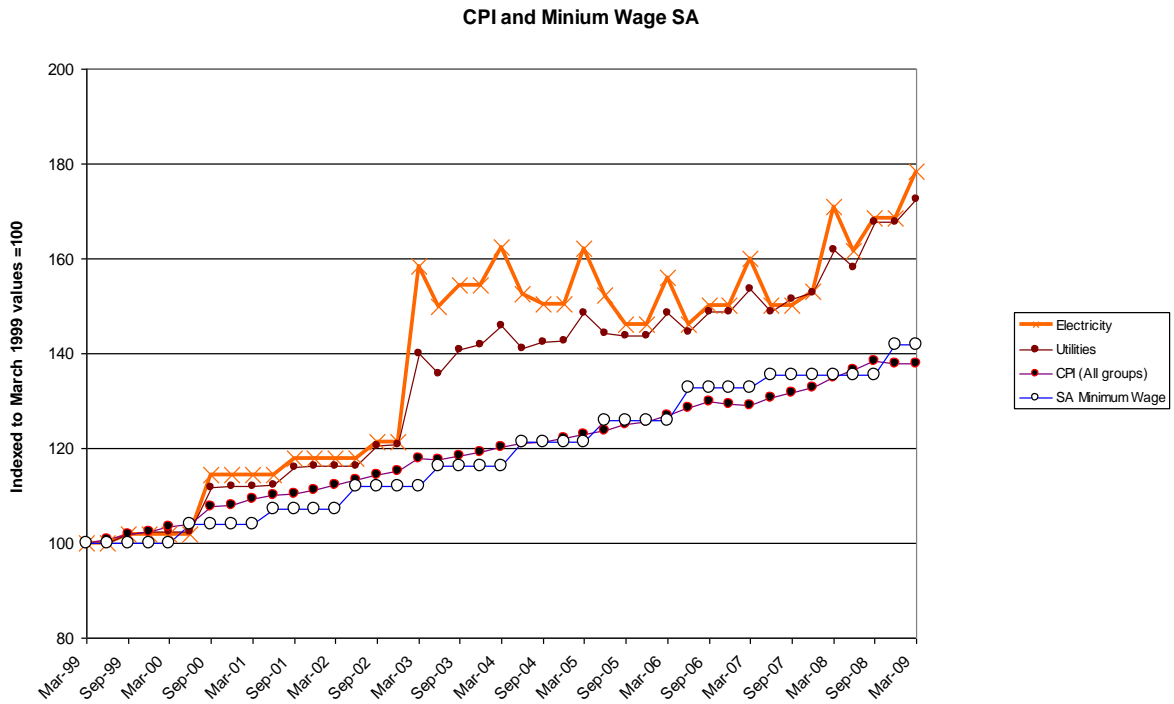


Graph 3: Source: AER State of the Market report 2010

Graph 4 presents the South Australian situation, and using an index marked 1999 set at 100, the graph compares changes in electricity costs and utility charges overall with CPI and South Australian minimum wages. It is clearly evident that the price of electricity and utilities has gone up at a dramatically faster rate than CPI and minimum wages since 2003, with a steady rise since 2007, after some stabilisation from the dramatic price rise of 2003. This significant gap between CPI, real wages and, we suggest, revenue for many small businesses, has increased the cost of electricity, compared to other costs, for small consumers.

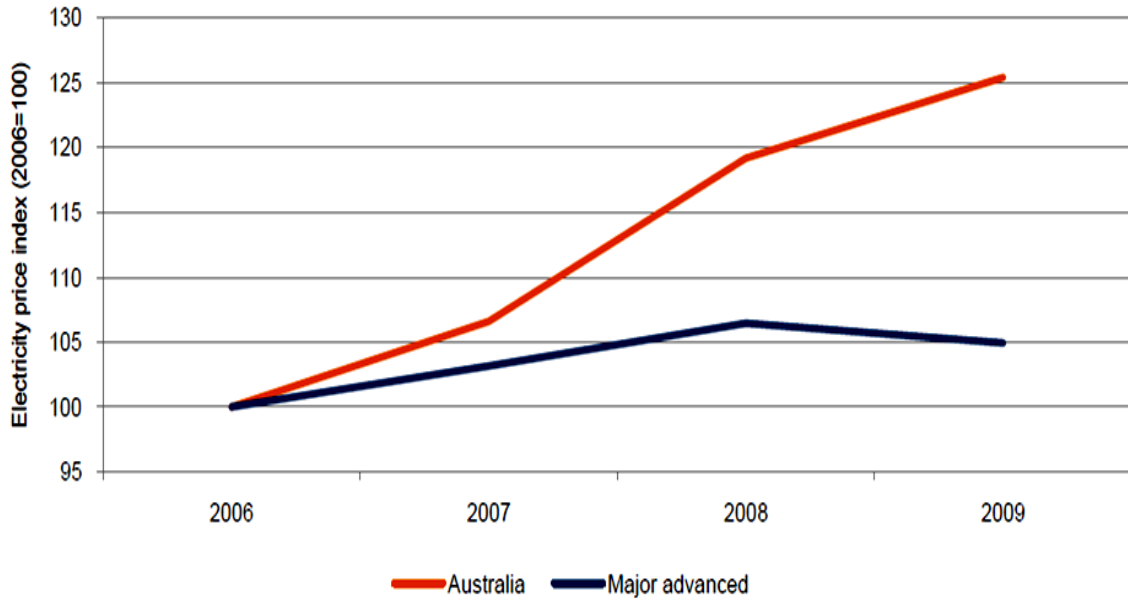
The following graph, graph 5, then compares Australian electricity prices in an aggregate as an index compared with other OECD economies.

Clearly, electricity prices in Australia have grown at a much faster rate than other OECD nations since 2006, a factor that has exacerbated energy affordability problems for growing numbers of small consumers.



Graph 4: Source ABS

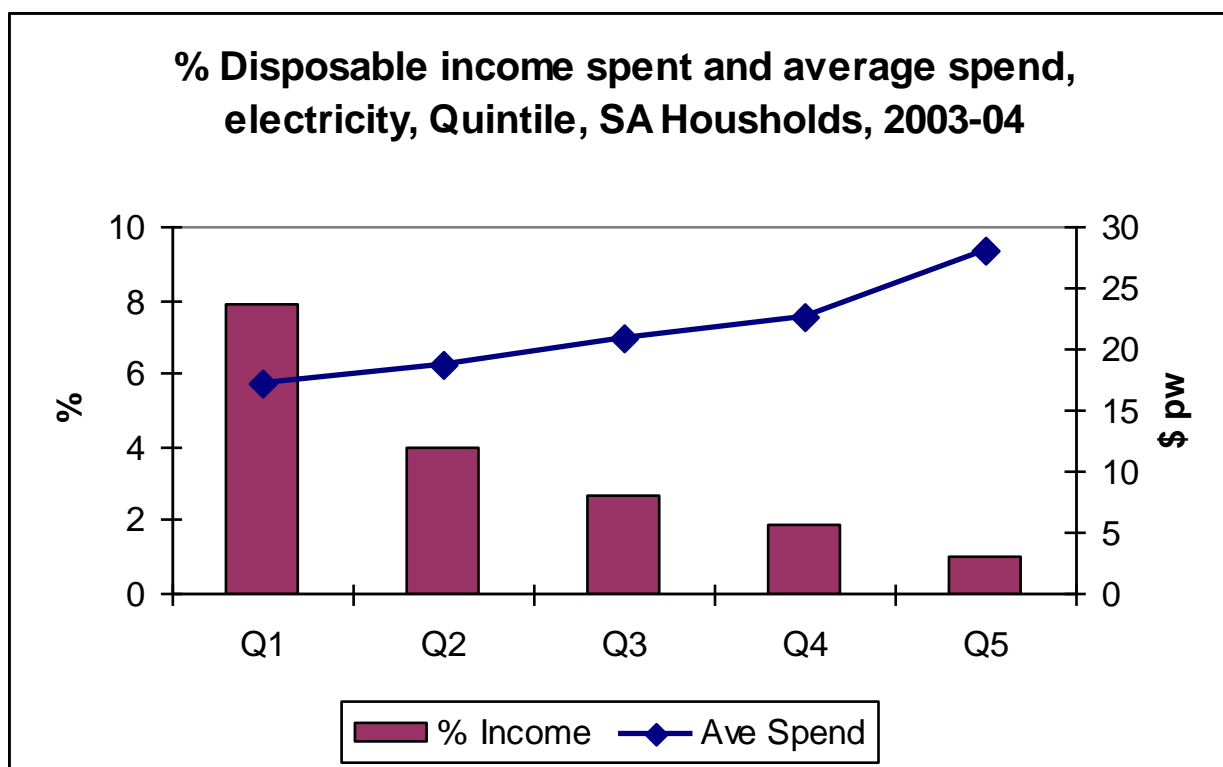
**Real Electricity Prices Australia and the 7 Major economies, 2006-9, indexed to \$US**



Graph 5: Source IEA, 2009, OECD 2010

Another critical factor in considering the incidence of electricity prices is shown in the following graph which is taken from the 2003-2004 household expenditure survey from the ABS and shows the percentage of household income spent on electricity by income quintile

and compares that with average use per household from each (equivalised household) income quintile.

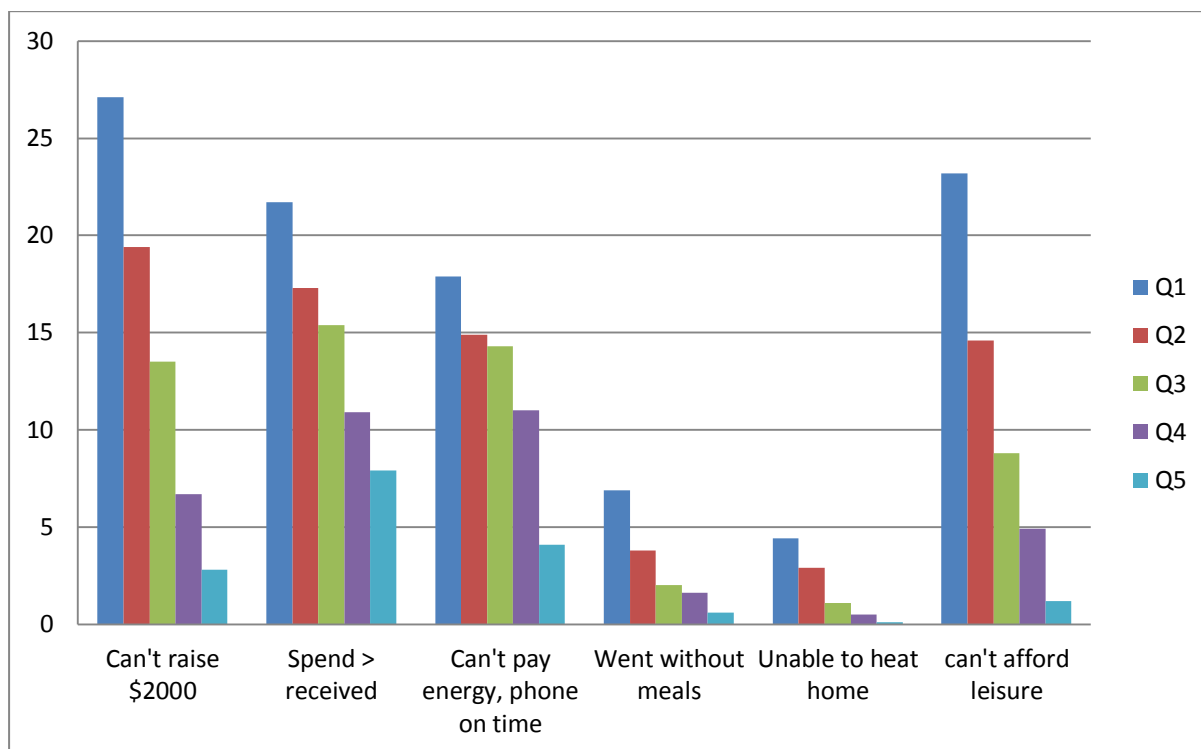


Graph 6: source: ABS, household expenditure Survey 2003-4

Graph 6 clearly shows that low income people pay a dramatically higher proportion of their income on electricity, despite being the lowest users of electricity, on average.

This is a particularly important factor to consider when dealing with any circumstance with the potential of increasing the cost of electricity. We now ask what does the impact of rising electricity prices look like on residential consumers? The following graph taken from the ABS household expenditure survey, released in 2011, shows various indicators of household financial stress against equivalised household income quintiles.

### Indicators of Household Financial Stress



Graph 7: Source ABS Household expenditure Survey 2011

It is noted that inability to pay energy and other utility bills on time is of major concern for all quintiles, for the poorest quintile households about 18% reporting inability to pay bills on time. However, second and third quintiles are at about 14% inability to pay bills on time and even the fourth quintile of income distribution reports over 11% of that relatively high income group struggling to pay energy bills in particular on time.

Uniting Care Australia has undertaken some surveying on its own to consider the impact on households of rising electricity costs. We have asked the question “ if electricity prices doubled over the next 5 years,(which we believe to be likely), then what will be the impact on spending on various other parts of the household budget? Results are given in graph 8 and are given for 3 income levels, households with less than \$40,000 per year, \$40, 000 - \$80,000 per year and over \$80,000 per year.

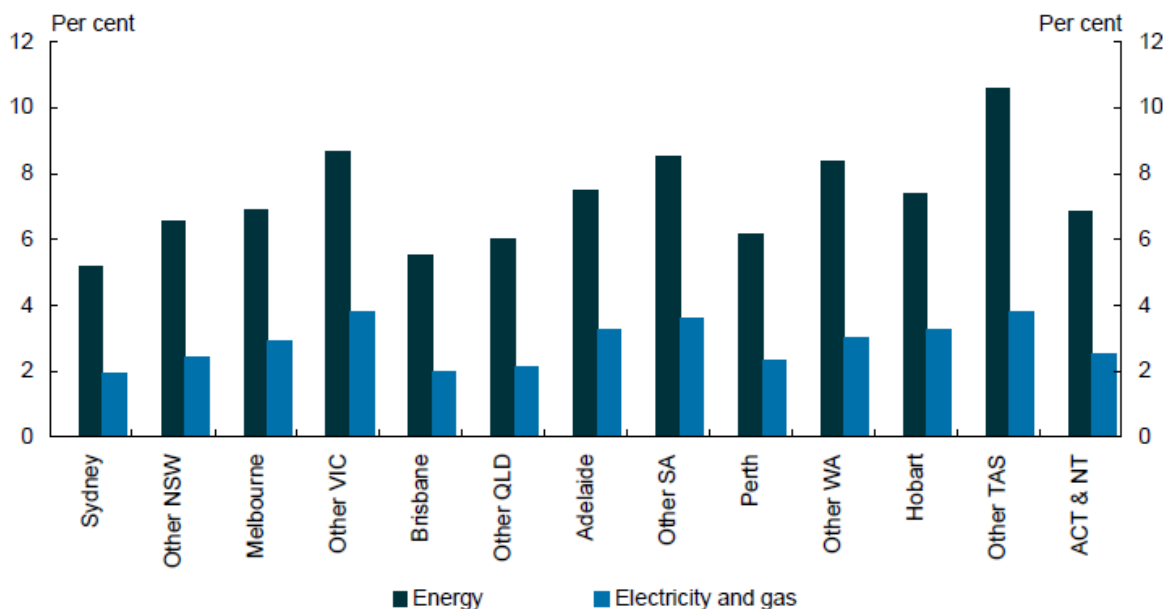
We also continue to be concerned about and small business and community service providers as well as low income household customers.

Graph 8 is taken from “Australia’s Low Pollution Future, The Economics of Climate Change Mitigation, 2008” and shows that for each State, households from non capital city locations spend a greater percentage of their income on energy, including electricity. This indicates to us that the concerns we have raised about rising energy prices, apply to a greater extent to rural consumers.

We also understand that many small businesses, both in metropolitan and rural communities are facing similar cost pressure to those faced by residential consumers.



Chart 3.42: Spending on energy as a percentage of all spending 2010-11

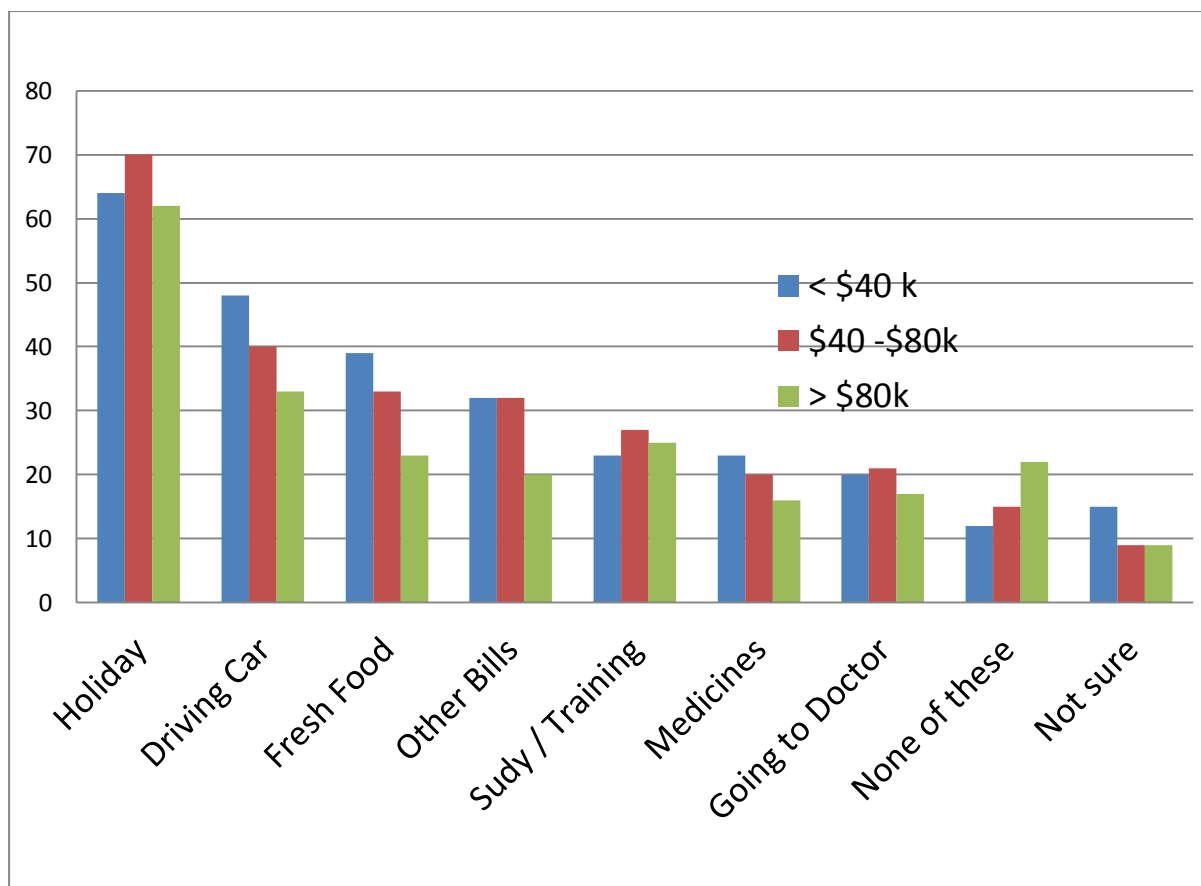


Graph 8: Source Treasury, Australia's Low Pollution Future The Economics of Climate Change Mitigation, 2008

As a network of over 400 organisations across over 1300 sites, right across Australia, we are also acutely aware of the cost pressures that rising energy prices place on community service organisations. While growing numbers of Uniting Care agencies are being proactive in applying energy efficiency measures to their sites, the reality is that for aged care and services supporting people with disabilities, there is no way that resident / participant well being would be compromised by reducing air conditioning use. However, every increase in energy prices above approved charges, puts pressure on service providers. In aged care, for example, the services most likely to be parred back by rising utility costs are services like art therapy, activities coordinators and the like. The services that improve quality of life for residents, beyond physical well being

## Likely Impact on spending of a doubling in electricity prices, over 5 years

Australia, 2011, n = 1300



Graph 9. Source: Survey conducted for Uniting Care Australia, by The Australia Institute

Of considerable concern is that about half of households with incomes of less than \$80k per year indicated that they would struggle to pay other bills if electricity prices increased, while nearly 40% of lower income households and about half of middle income households (our definition of \$40-80k per year household income as middle income) would reduce their spending on fresh food. Of major concern too was that about one fifth of households across the entire survey of about 1300 sample size, said they would go without medicines or visits to the doctor.

### Observation 1

Too many residential consumers are simply not coping with rising energy costs. Indeed we would offer the observation that privatisation/full retail contestability has not delivered price benefits to consumers in at least some energy markets.

## The Nature of Current Energy Markets

The following considers retail market structure for electricity in Australia for which we have considered Herfindahl-Hirschman Index (HHI) for two of Australia's more competitive energy markets.

Note that a score of less than 1000 on the HHI reflects a market that is effectively competitive, a score of 1000-1800 reflects moderately concentrated market while a score of greater than 1800 is regarded as a highly concentrated market. A score of 10,000 is that of a pure monopoly.

The HHI score for Victoria in 2009-2010 was 1865, in other words, a highly concentrated market. This is despite Victoria often being quoted as one of the most competitive electricity markets in the world. SA which often rates in the top 10 of competitive energy markets in the world had an HHI score for 2009-2010 of 3,714, very solidly in the highly concentrated market range. By way of comparison the South Australian Centre of Economic Studies calculates the HHI index for Australia's banking sector as being 1,448. We conclude that the current retail market across Australia is highly concentrated. That is we have an oligopoly retail market in all jurisdictions.

<u>HHI scores</u>	
<b>Victoria, 2009/10 score</b>	<b>= 1865</b>
<b>SA, 2009/10, score</b>	<b>= 3714</b>
cf Banking score (Aust)	= 1448

Both distribution and transmission markets are regulated monopolies, which leads us to the question of generation which we suggest like retail is in fact an oligopolistic market. We also consider later in this paper the role of gentailers with reference to this rule change proposal.

## **Observation 2**

No element of the Australian energy market meets criteria for being effectively competitive. Further, market information, including information about hedges, long-run marginal costs etc., is simply not available to consumers or consumer representative groups. This combination of factors leads us to observe there is high consumer risk in current Australian energy markets. Oligopoly and monopoly markets, coupled with inadequate consumer information, is not a basis for the long term interests of consumers to be attended to.

## **Definition of market power**

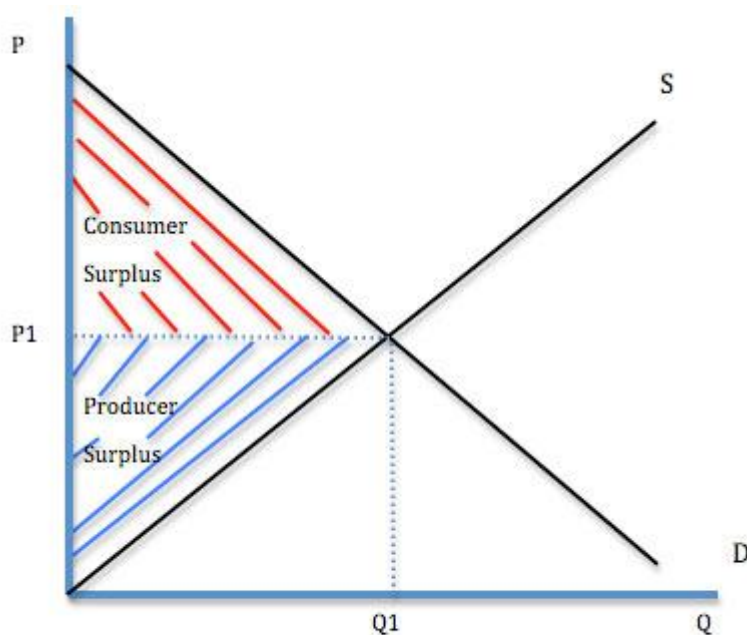
This brings us more directly to the central question, we regard, of the rule change proposal and that is a definition of market power. Stoft in 2002 defined market power as "the ability to profitably alter prices away from competitive levels". We suggest there are a range of other definition's of market power which are somewhat similar to this view. In considering market power however, rarely is a consumer perspective considered. So, we suggest a definition of market power as being simply "the ability of any market entity to cause consumers to pay more than would be reasonably expected in a competitive market". We suggest that this consumer focus perspective is central to the national electricity objective and should be the basis of any consideration of market power.

The AEMC directions paper considers the question of market power being exerted by a spike in prices or in continued price levels above long-run marginal cost, and suggests that both are necessary to demonstrate market power. We suggest that market power, with consumer detriment, can be exercised through either spikes or continued higher prices, or, as the AEMC suggests, both.

Regarding market power being exercised through a spike in prices, we recognise that spikes are part of the Australian energy landscape and that adjustment mechanisms are essential

within the NEM. However, we still contend that spikes in prices can also be exercises of market power, and so spikes and continued higher prices both need to be considered to be aspects of the exercise, or potential exercise of market power. In other words, we are talking about spike and/or continued price, both being elements of potential market power rather than our understanding of the directions paper which suggests that market power needs to be influenced by both spike in prices and continued price levels above long run marginal cost. The following two charts consider the impact of increased generator driven prices in electricity, by considering transfers of consumer and producer surplus.

Consumer Surplus is the difference between the price that consumers pay and the price that they are willing to pay. It is the area between the equilibrium price and the demand curve, as shown in chart 1 below.



[www.economicshelp.org](http://www.economicshelp.org)

Chart 1. Source: [www.economicshelp.org](http://www.economicshelp.org)

Firms can reduce consumer surplus by:

1. Setting different prices for different customers (for example supermarkets charging higher prices, for a standard product, in higher income districts)
2. Setting higher prices by utilising non price competition strategies, eg brand loyalty
3. Auctioning, eg through ebay
4. Exercising market power, whereby that are able to set price levels higher than where equilibrium prices would be in a competitive market
5. Exercising monopoly power.

We accept that the first 3 strategies are accepted as appropriate marketing and sales strategies, of much greater concern, in the case of potential generator market power, are the final 2 consumer reduction strategies listed above, notably the exercising of market power

To examine the potential for generator exercise of market power in the short run, we consider that most consumers face a relatively inelastic demand curve. Using micro economics, we can suggest that a spike can be represented by an upward shift in the supply curve with no change in a relatively inelastic consumer demand curve.

**Short Run Impacts of the Exercise of Generator Market Power**

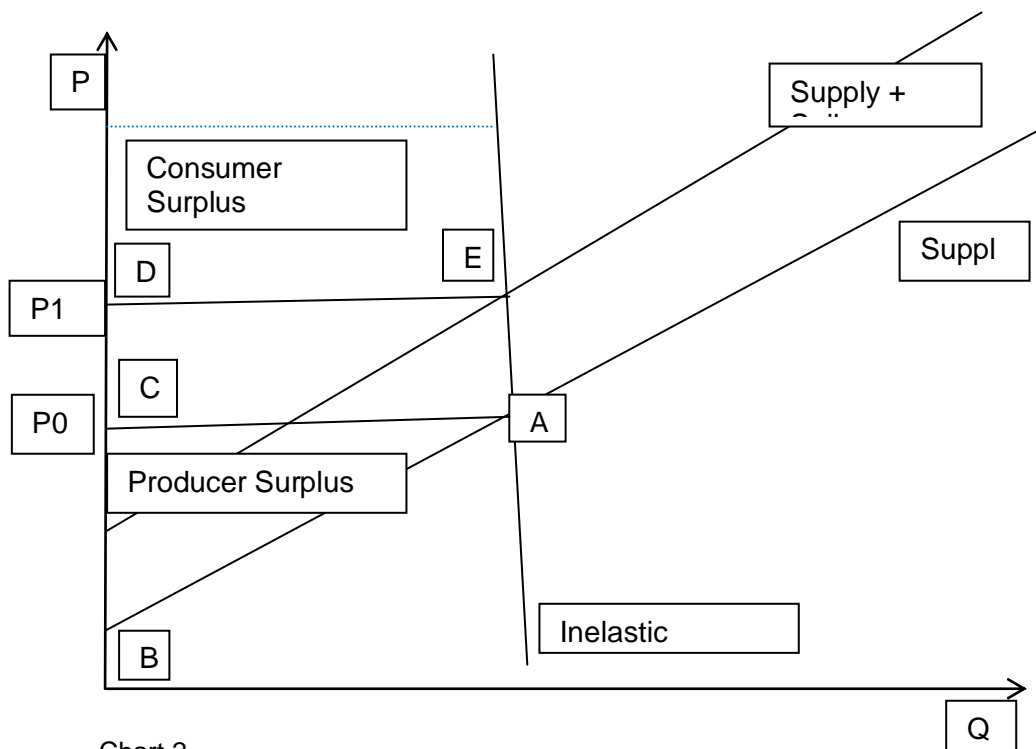


Chart 2

With initial equilibrium at P0, producer surplus is represented by the area ABC, with consumer surplus being a component of the trapezoidal section bounded by the Y axis, the demand curve and upwards from the line CA. With a spike in generator price, the supply curve moves up, with a new equilibrium price at P1. This means that the area, ACDE, is transferred from consumer surplus, to producer surplus, with a totally inelastic demand curve, there is no 'deadweight loss'. A spike in generator price results in a substantial transfer of consumer surplus to producer surplus, which we suggest is contrary to the market objective of functioning in the (long term) interests of consumers, and supports our belief that a price spike alone can be an indicator of the exercise of market power.

In the short run there is a substantial transfer of consumer surplus to produce a surplus in a short run increase in price. This is on top of the direct impact on electricity bills for customers who, as we have shown earlier, impacts most directly on low and modest income consumers.

Chart 2 posits longer run impacts of exercise of market power where we suggest that the energy supply curve again shifts upward, with a higher price for each quantity produced, but we suggest that over the longer run, consumer demand curves are somewhat more elastic than in the short run.

Longer Run Impacts of the Exercise of Generator Market Power

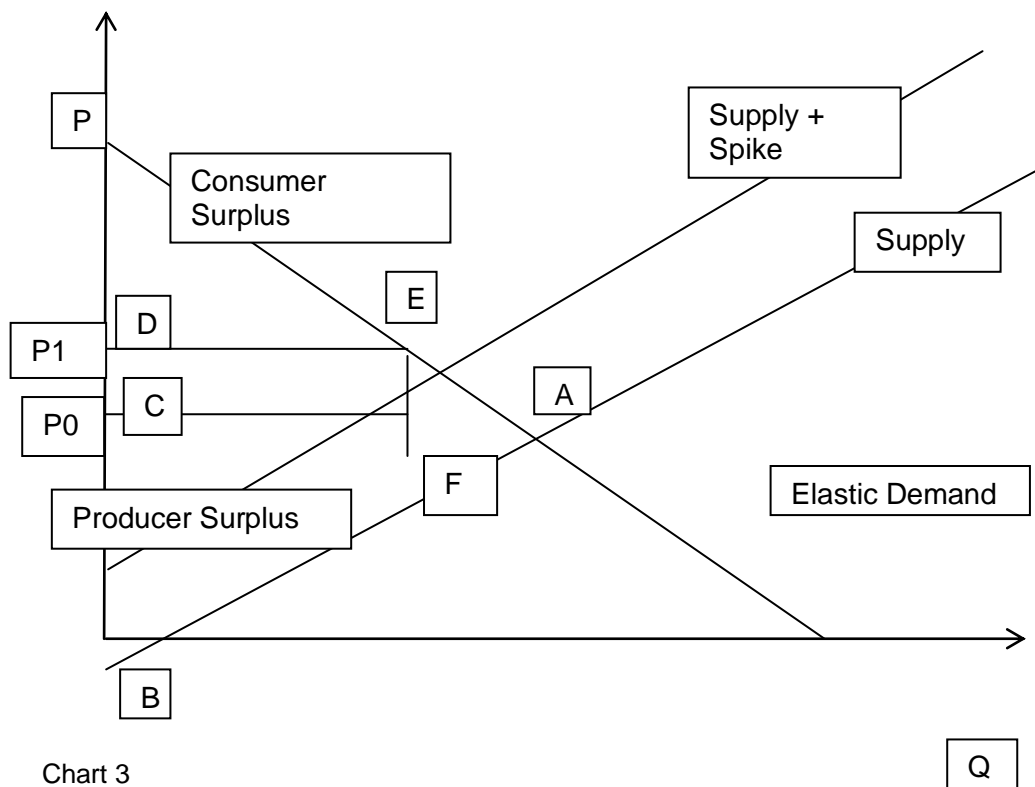


Chart 3

The impact of a price increase over the long run is twofold. First of all, we suggest that, as in the short run case there is a significant transference of consumer surplus to producer surplus, represented by the area ACDE, but also there is a dead weight loss, the loss to the economy overall and represented by the area AEF.

The OECD defines deadweight loss as:

*“The deadweight welfare loss is a measure of the dollar value of consumers' surplus lost (but not transferred to producers) as a consequence of a price increase.”*

Deadweight loss is generally understood to be a measure of inefficiency caused by exercise of market power, as in this case, or taxation.

We conclude that exercise of market power has adverse consumer impacts, both in terms of increase in prices paid by small residential consumers as well as loss of consumer surplus, which is forgone to producer surplus in both short and long run cases. This leads us to conclude unequivocally that increases in prices for example through application of generator market power has direct as well as indirect cost impacts on all consumers, in particular to our concern, small residential consumers.

**Other market power issues**

We suggest that as a simple understanding, any price increase greater than competitive level prices need to be regarded as market power issues. We also suggest that there is merit in considering a range of “bounds of reasonableness” and note the Ofgem proposals

from the UK where they proposed the following 3 indicators of potential market power in practice:

- 5% or more for a duration of more than 30 days in any one year period
  - 15% increase over 10 days in a 1 yr period or
  - 45% over 160 half hours
- which all result in approximately a 1% increase in any one year.

All are reasonable benchmarks to consider “bounds of reasonableness” in exercises of market power, as opposed to what might be regarded as reasonable adjustments to the dynamics of the electricity market. We suggest there is real merit in further consideration of this range of price increase and duration considerations from Ofgem.

Finally, we conclude that the proposals for substantial market power to be the core consideration from the AEMC directions paper to be contrary to the views that we have expressed above.

### **Observation 3**

There are sound theoretical reasons and supporting evidence for our view that electricity markets may be unusually susceptible at times to the exercise of market power compared to other markets (see a review of the monitoring of market power by Paul Toomey, Richard Green, Carsten Neuhoff and David Newberry), March 2005

### **Observation 4**

This observation relates directly to the core question from the rule change proposal which is about definitions of market power or whether we should be talking about substantial market power.

UnitingCare Australia does not support the AEMC proposal to define market power in terms of substantial market power. We note that the EU defines substantial market power as equivalent to the concept of dominance. Dominance in this or any market for that matter is simply not in the best interest of consumers.

We suggest that market power needs to be considered as something akin to pregnancy or death. There is market power or there is not, there can't be partial market power just as a woman cannot be a little bit pregnant, or a person cannot be partially dead!

## **Gentailers**

In its submission to the AEMC Review of Effectiveness of retail Competition in SA... UCWA quoted Professor Stephen Thomas, professor of energy studies of Greenwich Uni. The submission said: “What Thomas is effectively stating is that a theoretically competitive retail market cannot provide security for consumers, as retail without generation is extremely risky and can leave both consumers and generators financially exposed. Equally retail with generation reduces competition by bypassing the wholesale market.:

UCW Adelaide also said to this review: “in SA ...as it is clear that this combination (of dominant retailer with dominant generator) has the ability to change the dynamics of retail competition in SA from the situation that historically applied.”

The existence of, and we suggest power of, gentailers increases the opportunity for large companies, with both generation and retail functions, to behave ‘strategically’ to increase net profit, by potentially cost shifting between functions. For example, the capacity to ‘price spike’ will almost certainly, when practiced, lead to increases in prices for hedge contracts, for both regulated and unregulated retail offers. Increased hedge prices increases the risk



premium which in turn is completely passed onto consumers, who in turn bear the cost in a highly regressive manner.

So potentially, a higher price is seen to be borne by retailers, passed on to customers, with benefits through increased hedge prices garnered by the wholesaler. So for a gentailer, the net outcome in increased revenue, above what an efficient market equilibrium would deliver, is fully paid for by consumers. Again, this outcome contradicts the national electricity objective.

The MEU rule change, as we understand it, includes the following proposals:

- ▶ The dominant generator(s) in each National Electricity Market (NEM) region is declared as a dominant generator(s).
- ▶ Regional demand reaches or exceeds the value set by the AER re dominant generator(s), AEMO shall “call” on the dominant generator to dispatch all of its available capacity at the maximum price set for a dominant generator(s).
- ▶ the dominant generator(s) is constrained to bid up to a maximum price, the Administered Price Cap, currently \$300/MWh

The intent of these proposals is strongly supported by Uniting Care Australia, though we do not have the specialist expertise to definitively conclude whether the proposed mechanisms are the best to achieve the consumer outcomes that are needed and intended.

## **Other**

We note that the detail behind this rule change proposal is complex, and difficult for consumer participation at the level that the industry is able to participate. This information asymmetry continues to be of concern for small consumer groups.

## **Recommendation**

Based on the observations and conclusions outlined above, Uniting Care Australia recommends that the AEMC proceed to the next stage of the rule change process. We conclude that the proposals put by the MEU, the rule change proponents, are significant and so the AEMC should proceed to the next stage of the rule change process, namely development of a Draft Rule determination.