



17 November 2011

Mr John Pierce  
Chairman  
Australian Energy Market Commission  
PO Box A2449  
SOUTH SYDNEY NSW 1235

Dear Mr Pierce

**ERCO123: DIRECTIONS PAPER POTENTIAL GENERATOR MARKET POWER IN THE NEM**

Origin Energy Limited (Origin) welcomes the opportunity to contribute to the Australian Energy Market Commission's (AEMC) review into potential generator market power that has been triggered by a Rule change proposal from the Major Energy Users (MEU).

In the absence of any material evidence to the contrary, Origin maintains that the MEU's concerns lack substance, and that the implementation of its proposed Rule (or any similar mechanism) will have an adverse impact on market efficiency and investment. Nevertheless, we acknowledge the AEMC's obligation to assess each Rule change request on its merits and it is our expectation that at the conclusion of this comprehensive process, concerns surrounding generator market power will be put to rest. It should be noted that the ongoing uncertainty surrounding the prospect of regulatory intervention increases the perception of regulatory risk and is not conducive to investment.

Generally, Origin supports the AEMC's approach in first defining market power in the context of the National Electricity Market (NEM) and then seeking to determine if it is a problem that diminishes the achievement of the National Electricity Objective (NEO). We however caution against the reliance on a 'one stop' test to provide all the answers and consider that a holistic appraisal of the market will reveal that any exercise of market is not an issue that warrants regulatory intervention.

Our detailed comments on the AEMC's Directions Paper are outlined in the attached submission.

If you wish to discuss any of these issues further please do not hesitate to contact me on (02) 8345 5250 or Steve Reid on (02) 8345 5132.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Tim O'Grady".

**Tim O'Grady**  
**Head of Public Policy**

## **1. EXECUTIVE SUMMARY**

The driving force behind the MEU's proposal has been the occurrence of a few high spot price events - most notably in South Australia. However, if it is agreed that volatility and occasional price spikes are innate features of the market, it becomes clear that in the absence of sustained high prices, the MEU's proposal amounts to nothing more than a risk management mechanism. Given that such mechanisms already exist, and that where there is no problem regulatory intervention impedes rather than advances the NEO - the MEU's or any similar proposals should be rejected.

Origin has carefully examined the contents of the AEMC's Directions Paper under the following headings:

### **Defining market power**

- Generally Origin is supportive of the AEMC's definition of the concept of substantial market power. In particular we welcome the distinction between a perfectly competitive market and the more realistic and NEM-reflective workable competition; and the recognition that transient price spikes are an inherent part of how the market works.
- Conceptually, we agree that an examination of average annual prices against LRMC can help inform whether market power is a problem, but note that such analysis is not without a number of practical limitations. This is likely to restrict its usefulness as a decision making tool to justify regulatory intervention.

### **The assessment process**

- Any assessment of market power should seek to examine the robustness of the NEM in a holistic manner. The rationale being that if generator market power is a problem that warrants regulatory intervention it would be evident in a number of market outcomes, particularly as it relates to the impact on consumers.
- No one test can provide all the answers and this holistic approach where the LRMC/average price analysis is but one facet of the overall assessment framework, is in our view more appropriate.
- Regarding the LRMC/average price analysis:
  - Flexibility will be required when determining over what period of time average prices would need to be above LRMC for it to be symptomatic of a problem.
  - There are limitations to both backward looking and forward looking analysis that are likely to curtail their usefulness as a decision making tool to justify regulatory intervention.
  - The Directions Paper is not clear on the materiality threshold under which intervention would be contemplated. To the extent that the AEMC's analysis unearths evidence of inefficient high prices, consideration should also be given to whether this is systemic or confined to specific areas.

### **Determining the relevant market**

- The NEM should be viewed as single market irrespective of the outcomes of the SSNIP test given that this was the intent at market start.
- If the ability to exercise substantial market power is one symptom of market separation, it is sub-optimal to introduce market power mitigation measures

given the associated negative externalities. Instead any impediments to a unified market should be addressed directly.

#### **No evidence of the exercise of substantial market power**

- The NEM's history of new entry in response to price spikes and the continual meeting of reliability is indicative of a market that is free of significant barriers to entry. Given that the existence of such barriers is a precondition for the exercise of substantial market power, we can infer that market power is not a problem in the NEM.
- The AEMC's decision in 2009 to increase the market price cap (MPC) is at odds with the MEU's assertion that prices have been inefficiently high, given that the express purpose of this increase is to ensure that prices are high enough to stimulate investment.
- The current trend of declining spot prices highlights the difficulty of justifying regulatory intervention to address inefficient high prices when the current market landscape is not reflective of such prices.
- The recent retail price shocks have not been driven by wholesale costs, which we would expect to be the case if generators were exercising substantial market power.
- The extent to which retail load and generation are unmatched means that vertically integrated entities will need to source hedge cover which limits any incentive to upwardly influence spot price outcomes.

#### **Barriers to entry**

- In considering barriers to entry in the NEM it will be important to make the distinction between those impediments that solely impact new entrants, as opposed to those that affect both new and existing players.
- Contract market liquidity is not a barrier to entry in the NEM. Generally, hedge markets have consistently exhibited an increase in liquidity, with annual turnover and trading volumes all increasing over the past few years - despite the dampening effect of the uncertainty surrounding the carbon price.
- In our view there is no evidence of the existence of strategic barriers to entry in the NEM, and we question whether this is yet another example of a theoretical concept that has no grounding in reality.

## **2. Defining market power**

Appropriately defining market power (in the context of the NEM's energy only framework) is crucial in determining whether the exercise of market power is cause for concern. The AEMC has proposed that it is the concept of substantial market power that is of most relevance to the NEM and has defined this as:

*'...the ability of a generator to increase annual wholesale prices to a level that exceeds long run marginal cost, and sustain prices at that level due to the presence of significant barriers to entry'<sup>1</sup>.*

Generally, Origin is supportive of the above definition particularly as it relates to the:

- Distinction between a perfectly competitive market where participants sell their output at SRMC in the absence of sunk costs, and the more realistic and NEM-reflective workable competitive setting where firms incur fixed costs which need to be recovered in the long term; and
- Recognition that transient price spikes are not in themselves inefficient and that only where these prices prove to be enduring over time are they likely to diminish the achievement of the NEO.

Conceptually, we agree that the examination of annual average spot and contract prices, against LRMC, is a reasonable means of helping to indicate if market power is a problem. It should be noted, however, that practically this analysis is not without its challenges and limitations, (outlined later in this submission). As such, we strongly caution against the adoption of a purely mechanical process whereby the ensuing modelling outcomes are blindly used as the basis for formulating policy. Any LRMC / pricing analysis should not be the sole determining factor when considering if there has been, or likely to be, an exercise of substantial market power. Instead, this work should form part of a broader more holistic examination of all relevant market indicators. This in our view will lead to the conclusion that substantial market power is not an issue for the NEM.

We provide more detailed comments on the prospective assessment process below.

## **3. The assessment process**

Any assessment of substantial market power should take a complete view of the NEM where the starting point is an examination of the overall robustness of the market. The rationale for this approach is that if generator market power is a problem that warrants regulatory intervention it would be evident in market outcomes, particularly as it relates to the impact on consumers. Reliability and retail pricing outcomes are two tangible indicators that warrant examination. The Directions Paper seems to indicate that the LRMC analysis will be the primary means of testing and is silent on what role other market indicators will play in the overall assessment process. In section 5 we provide further commentary on some of these other indicators, and explain how they demonstrate the absence of any adverse impacts due to the exercise of market power. No one test can provide all the answers and this holistic approach where the LRMC /

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<sup>1</sup> AEMC 2011: Directions Paper - Potential Generator Market Power in the NEM, September 2011, Executive Summary, pg i

average pricing analysis is but one facet of the overall assessment framework, is in our view an appropriate means of proceeding.

It is our understanding that the AEMC will publish a technical paper at the end of the year outlining its proposed LRM methodology and core assumptions. We will therefore reserve our specific comments on these matters until then. There are, however, a number of issues that require further contemplation now. These are set out below:

### *3.1 Appropriate time frame*

Origin supports the AEMC's intent to focus on average annual prices as this recognises that it is the overall trend in prices that is important and not the inevitable price spikes that are an innate feature of an energy only market. As noted in the Directions Paper:

*'...regulatory intervention to constrain or remove transient pricing power is likely to deny at least some generators the opportunity to recover their efficient fixed cost. If generators are unable to recover their efficient costs, then investment will be severely impacted.'*<sup>2</sup>

The above statement highlights that a critical aspect of the assessment process is making the appropriate distinction between transient price spikes and high prices that are enduring - i.e. determining over what period of time prices would need to be above LRM for it to be considered problematic. We note that the AEMC proposes that two to three years of above LRM prices is symptomatic of a market power problem - the rationale being that this is the time it would take for new entry or an interconnector upgrade, in the absence of significant barriers to entry. However in many instances it could take more than three years to effect transmission build given the required time to undertake the Regulatory Investment Test (up to two years) plus the actual construction. Similarly, it may require in excess of three years from when a generation project is first contemplated (observation of an investment signal) to commissioning. Instead of proposing an alternative time period we recommend that the AEMC exercise a degree of flexibility in its observations of high price events, and bear in mind that in some instances efficient new entry is likely to take longer than three years.

### *3.2 Retrospective and forward looking analysis*

There are limitations to both retrospective and forward looking analysis. For example if it is determined that a generator has exercised substantial market power in the past, this is not necessarily indicative of future behaviour. The materiality of such behaviour i.e. whether it is widespread and enduring as opposed to localised and transitory would be a key factor in determining if intervention is warranted.

Determining the likely exercise of substantial market power in the future seems particularly complex and it should be noted that where a generator has some degree of market power it is not inevitable that this will be exercised to the point where it contravenes the NEO.

The myriad of assumptions that would need to be taken into account in modelling future spot prices is likely to limit the application of the ensuing output. In our experience, the results of any modelling exercise can vary significantly depending on the assumptions that are employed. For example two key factors that will have an uncertain impact on

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<sup>2</sup> AEMC 2011: Directions Paper - Potential Generator Market Power in the NEM, September 2011, pg 11

future spot pricing outcomes include the introduction of a carbon price (particularly after the fixed price period) and the entry of increasing amounts of wind (where the timing and quantum are uncertain). It therefore means that in the absence of evidence to support that market power is a problem for the market today, the justification of regulatory intervention on the basis of forward looking analysis would not be prudent.

Where backward looking analysis demonstrates that there has been no material exercise of substantial market power, this should be given a greater weighting than any forward looking analysis that seeks to determine if market power could be a problem in the future.

### *3.3 Interpreting the results*

Origin welcomes the AEMC's acknowledgement of the degree of subjectivity associated with calculating LPMC particularly as it relates to the methodology and underlying assumptions. We take this as recognition of the imprecise nature of this work; the need for flexibility in interpreting the results; and the limits to which it is relied upon in any decision making framework. In our view the output from any LPMC /average price study should help inform the AEMC's view on the exercise of substantial market, but not be sole determining factor.

One limitation of any LPMC/average price analysis is that it will not help in distinguishing between scarcity pricing and market power. High price events are not necessarily as a result of strategic bidding, but can also be reflective of supply scarcity brought on by network constraints and extreme weather events. For example a key factor in 2007 and 2008 was that drought conditions drove up wholesale energy prices<sup>3</sup>. Similarly rising fuel costs will have a direct impact on prices. It therefore means that merely observing whether average prices are above LPMC will not necessarily shed light on the exercise of substantial market power.

#### *3.3.1 Materiality threshold*

The Directions Paper is not clear on the materiality threshold under which intervention would be contemplated. To the extent that the AEMC's analysis unearths evidence of inefficient high prices, consideration should also be given to whether this is systemic or confined to a specific area. If for example, any exercise of substantial market power is confined to a particular generator, or region, it seems irrational to impose a regulatory prescription that would have implications for the entire market.

The above brings into question the broader issue of the perceived gains of regulatory intervention versus the associated distortionary impact. Regulatory intervention comes at a cost. It is our contention that any perceived gains from a market power mitigation mechanism would be outweighed by the associated adverse impacts particularly as it relates to investment - and ultimately reliability.

Much has been made of the significant amounts of generation that will be required to maintain reliability (in the face of rising peak demand) and to meet climate change objectives under a carbon price and the Renewable Energy Target. The AEMC notes in its *Strategic Priorities for Energy Market Development 2011* report that:

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<sup>3</sup> AER 2010: State of the Energy Market Report, 2010, pg 103

*'...since the global financial crisis (GFC) investors have become more sensitive to country/sector exposure and regulatory risk. The continued reduction of state government financing of additional generation capacity means that the importance of privately financed generation capacity is only likely to grow'.<sup>4</sup>*

Contemplation of market intervention as a means of curbing any perceived exercise of market power should take these issues into account.

#### **4. Determining the relevant market**

Origin notes that the AEMC intends to utilise the small but significant non transitory increase in price (SSNIP) test to determine the geographical boundaries of the market. At this point we are unable to comment on the suitability of the SSNIP for this task, given the lack of detail in the Directions Paper on how it would be applied. Notwithstanding this, we are of the view that the NEM should be viewed as one market, irrespective of the outcomes of the SSNIP test, given that:

- It was the intent at market start that the NEM should be a single market; to the extent that there is any inefficient separation and impediments to unity, these should be addressed directly. If the ability to exercise substantial market power is one symptom of market separation, it is sub-optimal to introduce market power mitigation measures given the associated negative externalities. A more appropriate response is dealing with the conditions that may have contributed to the exercise of market power in the first place. Deficiencies in the transmission planning and investment framework that prevent the timely building out of network constraints and expansion of interconnector capacity is potentially one such condition. The AEMC is currently undertaking a comprehensive review into the transmission framework (TFR). Though this is a separate process (and we are not suggesting that there be any formal linkage with this work stream), it would be useful if the outputs from the TFR could help inform any contemplation of how best to address market separation caused by transmission issues.
- Any regulatory intervention could not be efficiently confined to a regional market. If market power was found to be an issue in one particular region, intervention in that region alone will skew investment signals with prospective investors likely to migrate to other regions. Similarly, imposing a regulatory 'fix' on the entire market is equally inefficient as it will unfairly penalise participants in the non-problem regions.

#### **5. No evidence of the exercise of substantial market power**

##### **5.1 The NEM facilitates investment**

As we have demonstrated in our previous submission the NEM has a history of new entry following periods of price spikes and has successfully facilitated the required investment to meet the reliability standard. In its 2010 State of the Energy Market Report, the AER reveals that generation investment over the life of the market has generally kept pace

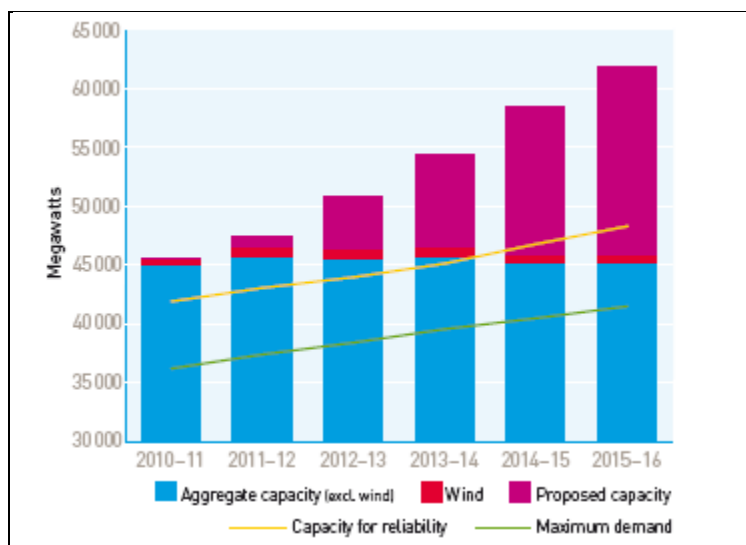
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<sup>4</sup> AEMC 2011: Strategic Priorities for Energy Market Development October 2011, pg 2

with rising demand and has also provided a safety capacity buffer to ensure the reliability of the power system<sup>5</sup>. This is informative in that, the exercise of substantial market power would require the existence of significant barriers to entry. The NEM's track record of comfortably meeting reliability by enabling the entry of new plant is indicative of a system that is free of such barriers. We discuss the issue of barriers to entry in more detail later in this submission.

Looking ahead there is nothing to suggest that this trend of new entry is likely to change. Figure 1 demonstrates that there is sufficient installed and committed capacity (excluding wind) to satisfy reliability up until 2013-14. After this time some portion of proposed projects will need to come on stream for the continual meeting of reliability. We are not suggesting that all the proposed projects will progress to market entry (or that this is required) but rather that the existence of a vast number of proposed projects is at least indicative of a willingness to contemplate investment in the NEM, which augurs well for the prolonged trend of new entry.

Figure 1 Electricity demand and supply outlook to 2015-16<sup>6</sup>



### 5.1.1 The market price cap (MPC)

The AEMC's decision in 2009 to accept the advice of the Reliability Panel to increase the MPC<sup>7</sup> indicates that prices in the NEM have not been inefficiently high. If the exercise of substantial market power was indeed a problem it would result in prices being consistently above what is required to facilitate new entry. If this was indeed the case, it would be illogical for the AEMC to increase the MPC - which is an explicit measure aimed at ensuring that prices are high enough to stimulate investment. The AEMC's comments in explaining its reasoning are informative:

<sup>5</sup> AER 2010: *State of the Energy Market Report 2010*, pg 43

<sup>6</sup> AER 2010: *State of the Energy Market report 2010*, pg 43

<sup>7</sup> In 2009 the MPC was increased from \$10,000/MWh to \$12,500/MWh

*'Increasing the MPC to \$12 500/MWh will promote efficient investment and that this will further the long term interests of consumers of electricity in terms of representing an efficient balance between the price and reliability of supply of electricity'.<sup>8</sup>*

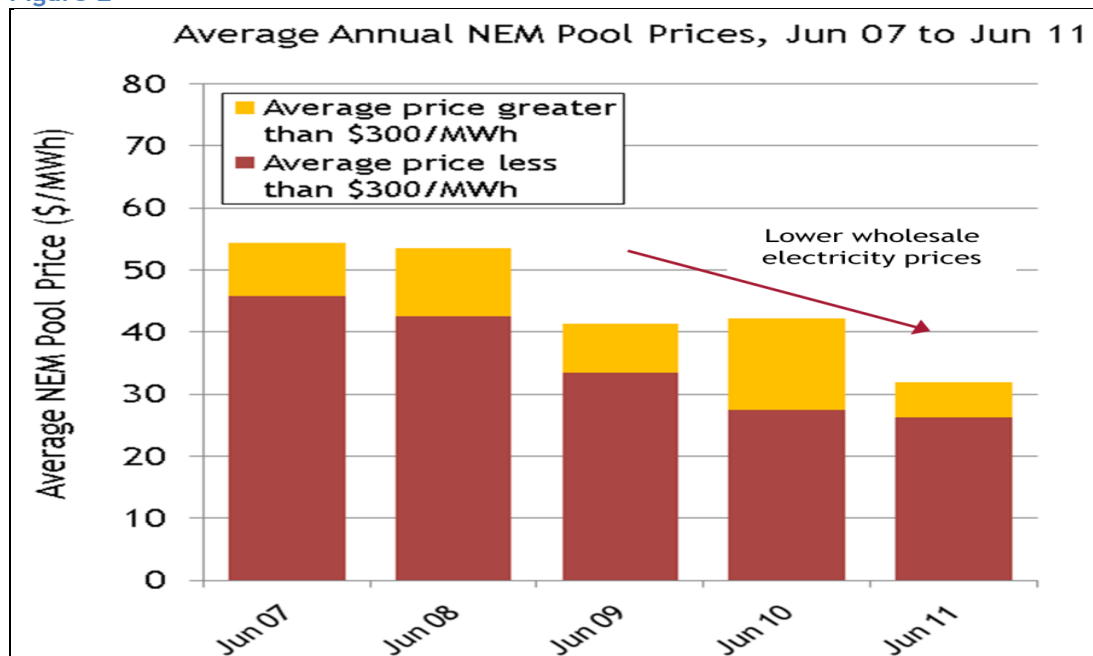
*'... a given level of NEM reliability - 0.002% USE in the case of the NEM - can best be targeted by raising the MPC, as this would expose retailers to additional risk and create incentives for greater levels of contracting'.<sup>9</sup>*

## 5.2 Declining wholesale prices

The impetus for this consultation process has been the MEU's concerns regarding a number of high price events in the wholesale market. In our previous submission we outlined the importance of high prices in signalling investment, and that price spikes are not automatically inefficient. Looking at recent spot price outcomes it is interesting to note that prices have actually been on a downward trajectory as illustrated in Figure 2 below. We raise this point not to intimate that this is automatically a good outcome because prices are lower, but to highlight that:

- Over any period of time, prices in an energy only market tend to fluctuate in response to a number of factors - changes in demand, weather conditions and transmission constraints. Knee jerk reactions in response to this inherent volatility such as the MEU's proposal are not prudent; and
- It is difficult to justify regulatory intervention to address the perceived exercise of market power (i.e. inefficient high prices) when the current market landscape is not reflective of this.

Figure 2



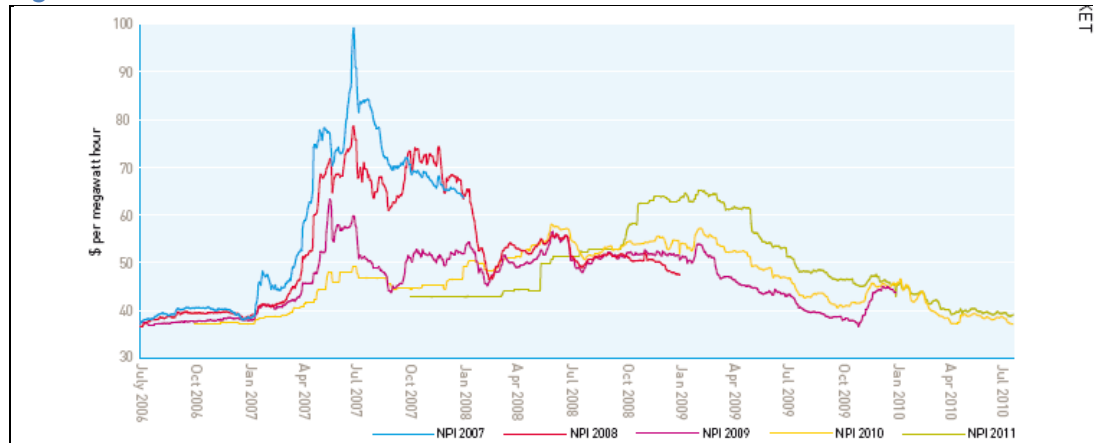
Source: AEMO and Origin Analysis

<sup>8</sup> AEMC 2009: Draft Report Reliability Standards and Settings, 23 Dec 2009, pg 8

<sup>9</sup> Ibid

This downward trajectory in prices is also reflected in the contracts market where the National Power Index (NPI)<sup>10</sup> has exhibited a similar trend.

**Figure 3 National Price Index**



Source: AER, State of the Energy Market Report, pg 35

### 5.3 Retail pricing outcomes

If the exercise of generator market power is a problem that threatens the achievement of the NEO we would expect that this would be evident in retail pricing outcomes. The AEMC states in the Directions Paper that:

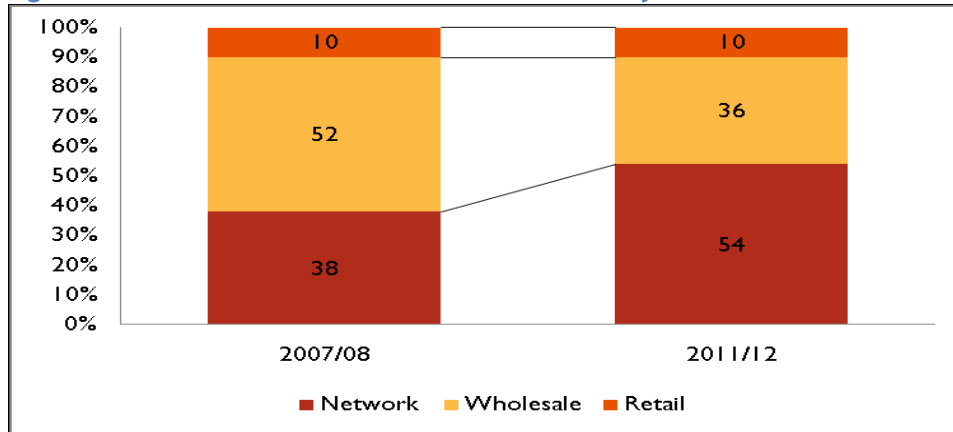
*'If a generator is able to sustain average wholesale spot or contract prices above a workably competitive level, those prices are likely to flow through to retail prices and increase the prices that users pay for electricity.'*<sup>11</sup>

It is therefore important to note that recent retail price shocks have not been driven by the wholesale cost of energy (WCE), but rather network costs. The below diagram shows the cost breakdown of a typical NSW residential retail customer; it reveals that between 2007/08 and 2010/11 wholesale costs as a proportion of an overall bill have declined. This supports our view that there has been no exercise of substantial market power, as this would be reflected wholesale costs contributing an increasing proportion of the retail price.

<sup>10</sup> The NPI is calculated as the national average price of d-cypha SFE electricity futures prices covering a calendar year. It represents a single national basket of electricity futures listed across the NSW, VIC, SA, QLD

<sup>11</sup> AEMC, 2011: Directions Paper - Potential Generator Market Power in the NEM, September 2011, pg ii

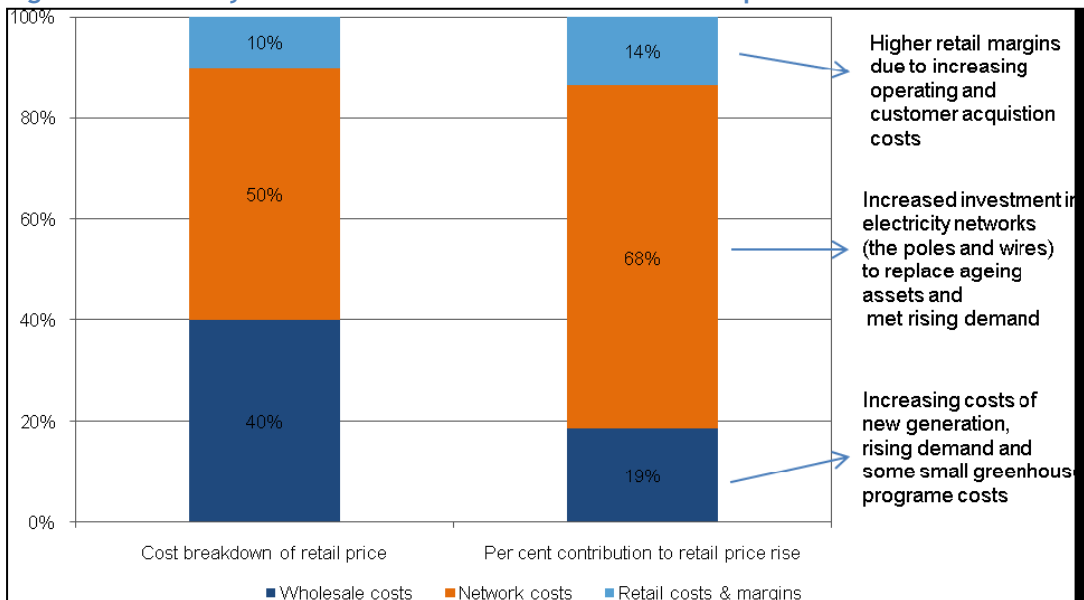
**Figure 4 Breakdown of a NSW Residential electricity bill**



Source: IPART and Origin analysis

As shown in Figure 5 below, the trend in NSW is also reflected nationally where the contribution of wholesale costs to the overall increase in retail prices was only 19 percent in 2009/10 compared to 69 percent for network costs. The breakdown of the wholesale costs is also telling as it reveals increases have largely been attributed to the higher cost of new generation (e.g. fuel costs) and greenhouse abatement schemes - not generator bidding behaviour.

**Figure 5 Electricity costs and their contribution to current price rises in 2010<sup>12</sup>**



#### 5.4 Impact of vertical integration

Origin notes that the MEU had previously stated that, the existence of vertical integration encourages the exercise of market power. The basis of this argument is that vertical integrated entities are less reliant on contracting and are more likely to ‘play’

<sup>12</sup> Garnaut Climate Change Review Update 2011: *Transforming the Electricity Sector - Update Paper 8*, pg 11

the spot market. There is no evidence to support this and we contend that the extent to which vertically integrated firms are contracted will act as a natural limitation to the exercise of market power. Vertical integrated players have a strong incentive to contract given the volatile nature of the market, the need for revenue certainty and the fact that load and generation will not be precisely matched.

In its assessment of the effectiveness of retail competition in South Australia the AEMC made the following comments in reference to the possible impact on the retail sector, of AGL's position in the wholesale market:

*'It is not realistic to assume that a vertically integrated generator will engage in less hedging by an amount that simply reflects the extent of its retail load. The ownership of one major, intermediate generator inevitably means that AGL's retail operation would need to enter into hedge contracts with other generators (say, for base load or peak output) that it cannot efficiently provide itself. TIPS would also need to enter into hedge contracts with other retailers in order to realise the greatest value from the intermediate output that it produces. The net effect of this activity may mean that, in seeking to raise its rivals hedging costs, AGL will also be raising its own hedging costs. The risk of increasing its own costs by at least as much as its rivals would seem to be significant for AGL, given its apparent position of having a much larger share of the retail market than it does of generation output'<sup>13</sup>.*

The above statement supports our assertion that the extent to which vertical integrated entities will also need to seek hedges to cover their retail load will limit any willingness to increase prices in the wholesale market.

Generally, where particular generators may be exposed to the spot market at a particular period in time - due to being 'long' in hedges, this is unlikely to be a long term position. In reference to this issue in its assessment of retail completion in South Australia the AEMC made the following statement:

*To the extent that AGL was "over hedged" at the time of acquiring TIPS, it is unlikely to be a sustainable commercial position'<sup>14</sup>.*

## **6. Barriers to entry**

A barrier to entry refers to any market characteristic or condition that places an efficient potential new entrant at a disadvantage relative to an established business<sup>15</sup>. In considering barriers to entry in the NEM it will be important to make the distinction between those impediments that solely impact new entrants, as opposed to those that affect both new and existing players. Origin is aware that there is some talk of the possible existence of barriers for new entrants - particularly in South Australia. In our view many of these so called barriers reflect the current realities of doing business in the South Australian market and are likely to have an adverse impact on both prospective entrants and incumbents.

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<sup>13</sup> AEMC 2008: Review of the Effectiveness of Competition in Electricity and Gas Markets in South Australia - First Final Report, September 2008, Appendix E, pg 147-48

<sup>14</sup> *Ibid* pg, 145

<sup>15</sup> *Ibid* pg, 135

The combination of South Australia's demand profile (low load factor due to high peak demand), transmission constraints and ever increasing wind penetration is often cited as a barrier for entry, particularly for new baseload plant. It should be noted however, that these conditions do not give incumbents any added advantage compared to new entrants. The prospects of being constrained off the network at times of high wind output and the uncertainty of recovering costs in the long run due to declining pool prices as a result of again high wind penetration and low demand, pose serious problems for existing plant. It will be important to gauge what overall impact this is likely to have on the ability of generators to recover the full cost of their investment over the life of their plant, which relates directly to any exercise of market power.

#### *6.1 The NEM's history of new entry is indicative of the absence of significant barriers to entry*

As we have outlined earlier in this submission the market's track record of satisfying demand, by enabling the timely entry of new plant indicates that there are no significant barriers to entry. The AEMC espoused a similar position in its *Review of the Effectiveness of Competition in Electricity and Gas Markets in South Australia* where it stated that: *'New generation projects have also been committed in the South Australian region including a 120MW expansion at the Quarantine Power Station due to come online in 2008/2009 and more than 300MW of wind generation projects. This suggests that the market conditions have not deterred new investment. These observations provide support for the view that the supply of generation capacity in the electricity wholesale market is continuing to respond to competitive price signals in the spot and contract markets but may do so with a lag. Consistent with the behaviour of other commodity markets, there can be periods of relatively high prices, reflecting a tightening of the supply/demand balance, followed by investment responses and the potential for periods of excess capacity and lower prices'*<sup>16</sup>.

#### *6.2 Contract market liquidity*

We note that much has been made of contract market liquidity and the prospect of crowding out due to vertical integration. Vertically integrated entities still need to source contracts given that it is unlikely that load and generation will be exactly matched and where for example the firm owns a peaking plant it may still require baseload hedges. It therefore means that vertically integrated entities are motivated to participate in the hedge market and have an interest in ensuring that it is efficient and liquid. We note that the AEMC has previously reinforced this point:

*'Vertical integration may therefore increase the risk management options available to a retailer. However, it would be unlikely to eliminate the requirement for the integrated business to enter into hedge contracts. It is not commercially realistic to assume that a vertically integrated generator will engage in less hedging by an amount that simply reflects the extent of its retail load. Retailers typically rely on a portfolio of risk management tools which would include contracts with base load, intermediate and peaking generators. Being vertically integrated would still require a party to enter into contracts for the type of hedges that it cannot efficiently provide to itself'*<sup>17</sup>.

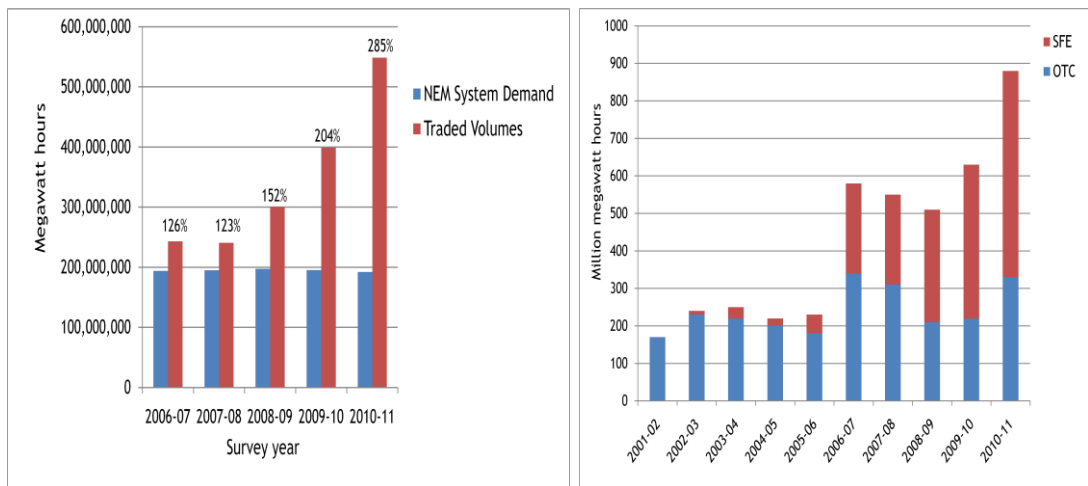
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<sup>16</sup> Review of the Effectiveness of Competition in Electricity and Gas Markets in South Australia - First Final Report, Appendix E, pg 145, 19 September 2008

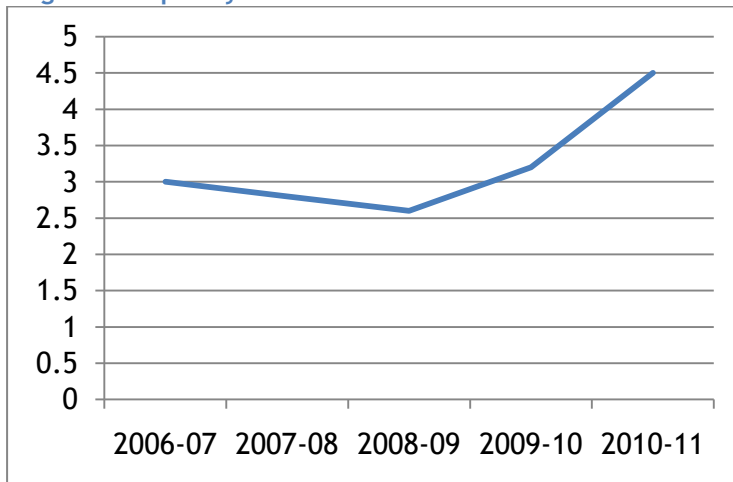
<sup>17</sup> Review of the Effectiveness of Competition in Electricity and Gas Markets in South Australia - First Final Report, Appendix E, pg 142

Generally, hedge markets have consistently exhibited an increase in liquidity, with annual turnover and trading volumes all increasing over the past few years - despite the dampening effect of the uncertainty surrounding the carbon price. As illustrated in Figure 7 in 2010 overall turnover was 620 TWh, or 3.2 times NEM demand, up from 2.6 the previous year. Similarly, as shown in Figure 6 traded volumes have steadily increased reaching 549 TWh last year or 285 percent of underlying NEM system demand. Intermediaries also play a key role in stimulating liquidity and as noted in AFMA's 2011 Financial report the entry of several new intermediaries led to a significant increase in turnover for that category (35.4%)<sup>18</sup>. Figure 8 shows the overall trend in liquidity as measure by AFMA's liquidity ratio.

**Figure 6 Traded volume and NEM system demand** **Figure 7 Annual turnover**



**Figure 8 Liquidity ratio**



<sup>18</sup> AFMA 201: Australian Financial Markets Report, pg 50

Admittedly, the outlook for liquidity in South Australia is not as favourable as in the rest of the NEM. In our view the key limiting factor there is the size of the market relative to other NEM jurisdictions exacerbated by interconnector constraints and the need to increase the size of the interconnector. The extent to which there are deficiencies in the transmission planning and investment framework that do not allow for this to occur in a timely manner - this should be addressed directly.

### *6.3 Strategic barriers to entry*

The AEMC has defined strategic barriers as a situation where a generator with substantial market power seeks to deter new entry by engaging in conduct that reduces a potential competitor's confidence that it will be able to operate profitably once it has entered the market. Presumably this occurs where potential entrants perceive that high prices are the product of artificial scarcity created by the incumbent.

In our view there is no evidence of the existence of strategic barriers to entry in the NEM, and we question whether this is yet another example of a theoretical concept that has no grounding in reality. It seems impractical that an incumbent generator would be able to engage in this behaviour long enough to give a prospective entrant a false indicator as to the viability of entering the market. Prospective generators consider a number of factors when contemplating a potential investment such as the outlook for demand, transmission constraints, fuel supply and cost and the accessibility of credit. Short term fluctuations in the spot price would not be the determining factor in deciding whether or not to enter the market.