IPRA Submission to Directions Paper on "Potential Generator Market Power in the NEM"

(AEMC Reference ERC0123)

17 November 2011

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1 Introduction

International Power-GDF Suez Australia (IPRA) appreciates the opportunity to comment on the consultation the AEMC is conducting on Potential Generator Market Power in the NEM.

International Power entered the Australian energy industry in 1996 and has grown to become the country's largest private energy generator, with assets in Victoria, South Australia and Western Australia. International Power also includes Simply Energy, a gas and electricity retail business.

In February 2011, International Power combined with GDF SUEZ's energy assets to form a world leader in independent power generation, with more than 72,360 MW of power generation worldwide and further 15,503 GW under construction.

2 Summary

The AEMC have proposed an approach for the definition of market power in the NEM which contains two tests:

- sustained annual average wholesale prices exceeding an assessed Long Run Marginal Cost (LRMC), and
- presence of significant barriers to entry.

The presence of significant barriers to entry is therefore a threshold issue. If substantial barriers to entry are not identified then the case for the NER change falls away. IPRA contend that no evidence of significant barriers to entry exists. Hence there is no basis to support a conclusion that substantial market power needs to be addressed. Perversely, the potential restriction on generator revenue resulting from the proposed NER change could introduce a barrier to entry. Our arguments in support of these views are detailed in section 3 of this submission.

If, despite the lack of significant barriers to entry further consideration is deemed appropriate, the next issue for consideration is the extent of the relevant market.

While some degree of network congestion is expected to give occasional divergences between prices in market regions, IPRA believe that the NEM should generally be a single market. As detailed in our submission to the Transmission Frameworks Review, IPRA believe that current network planning arrangements are not adequate to give the required interconnector capability to ensure a generally integrated market.

Should investigations suggest that the relevant market for the purpose of investigating market power is less than the whole NEM, then this would raise the issue of whether this reveals an inherent separation in the market or alternatively a temporary situation brought about by a gap in the transmission planning arrangements. In the latter case the solution is to consider changes to network planning, and not to address potential market power. These issues are discussed further in section 4 of this submission.

If, despite these considerations, the investigation proceeds to consider average wholesale prices in relation to an assessed LRMC, then the proposed costs assessment should be modified to better align it with an LRMC assessment that a potential investor would make. These issues are discussed further in section 5 of this submission.

Section 6 contains a discussion on the problems introduced into the market through over regulation, and makes the point that the Major Energy Users (MEU) proposed Rule change is an example of such over regulation.

We have included discussion in section 7 on retail price increases and electricity affordability in the NEM, noting that the key drivers to date have been distribution and transmission cost increases, and not wholesale energy market prices.

In summary, the key points of our submission are as follows:

- Barriers to entry is a threshold issue and without it a case for a NER change cannot be made
- Consideration of the relevant market is important, and the NEM should be a single market with limited amount of congestion. However the current network planning arrangements are not adequate to deliver such an outcome
- New measures to determine the exercise of market power, and which differ from the Competition and Consumer Act (CCA) 2010, will result in additional regulatory uncertainty and introduce barriers to entry
- The proposed approach as outlined is considered unworkable in determining the LRMC considered from an investors perspective
- In the case that generator prices were further limited under the NER, we consider it would be essential to change the market design to include generator capacity payments (but not capacity markets).

Finally, IPRA note the AEMC responses to previous submissions relating to whether it is appropriate or necessary for the AEMC to introduce new provisions in the Rules relating to competition, which is currently regulated by the CCA. However, IPRA remains concerned regarding the legal aspects of the proposed Rule change, and will raise these concerns with the AEMC in a supplementary submission.

3 Barriers to entry

The Commission has highlighted the issue of barriers to entry as an important dimension in relation to the issue of substantial market power. The NEM trading arrangements are based on an open transmission access regime with low barriers to entry. Under the current arrangements generators pay shallow connection costs and it is relatively easy to connect to the grid provided technical standards are met.

The NEM energy-only market will be sustainable only if adequate investment occurs to meet increasing demand, and to replace aging assets in a timely manner. Investors in turn must have a reasonable prospect of delivering adequate returns before they can secure project funding. In addition, the electricity sector competes against other sectors of the economy as well as internationally for capital.

The Commission's definition of substantial market power requires that prices are able to be held at unnaturally high levels due to the presence of significant barriers to entry:

> *"Substantial market power in the context of the NEM is the ability of a generator to increase annual average wholesale prices to a level that exceeds long run marginal cost (LRMC), and sustain prices at that level due to the presence of significant barriers to entry."*

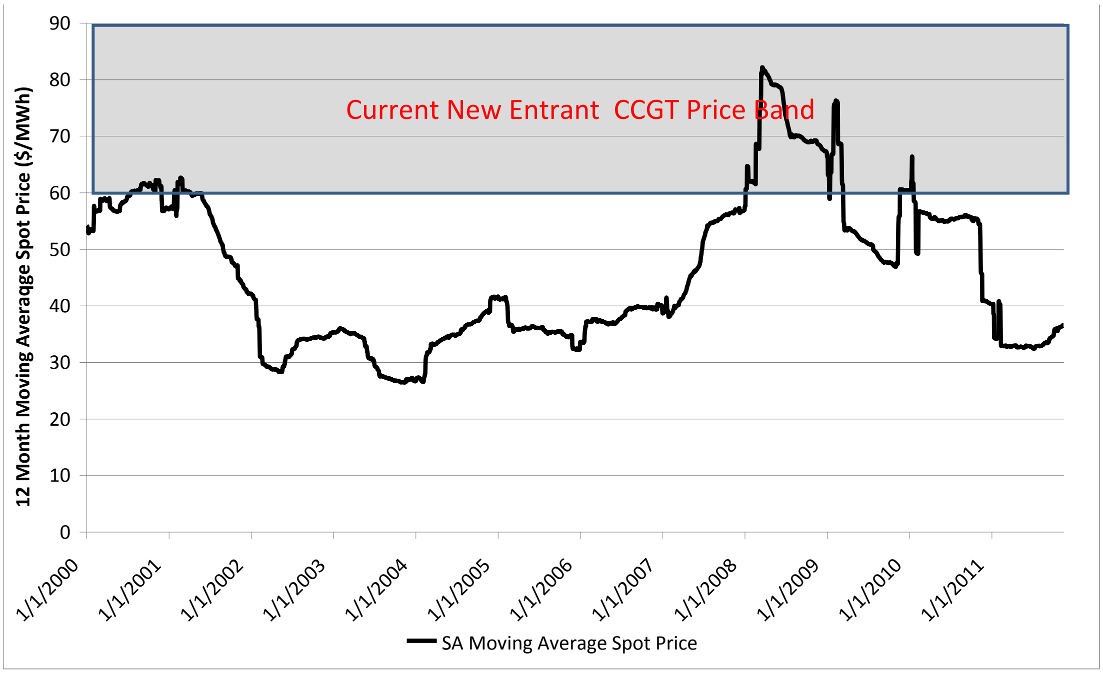
This emphasis on significant barriers to entry is again re-stated in the Commission's proposed definition of the exercise of substantial market power:

> *"A generator exercises substantial market power where it engages in conduct that has the effect of increasing annual average wholesale prices to a level that exceeds LRMC, and the generator is able (or is likely to be able) to sustain prices at that level due to the presence of significant barriers to entry.* "

The Commission has acknowledged the temporal dimension in their definitions on substantial market power. They acknowledge that unnaturally high prices arising from substantial market power would need to be "be sustainable due to the existence of significant barriers to entry, which will ensure that longer term substitution possibilities over at least two to three years are also considered."

Figure 1 shows that since 2000, the wholesale price of electricity in South Australia has risen and fallen. While at times it has drifted into the band of prices that would justify new investment in a combined cycle gas turbine (CCGT) if has never remained there for more than one year let alone the two to three nominated by the Commission.

Figure 1: South Australian 12 month moving average spot price and current new entrant CCGT price (Source: IPRA)



3.1 No Evidence of Strategic Barriers to Entry

The Commission has challenged interested parties to provide evidence of strategic barriers to entry in the NEM. In the Commission's own words "the absence of significant barriers to entry, the threat of new entry or expansion would be expected to prevent existing generators sustaining above-LRMC prices and therefore generators would not be likely to exercise substantial market power."

IPRA agrees with the Commission that in the absence of significant barriers to entry, market forces will prevent existing and new generators from exercising substantial market power over a protracted period of time.

Large customers are sophisticated buyers of electricity. If these sophisticated customers believe that the price offers they receive are simply too high then they are able to contract with generators directly, or can sponsor new entry via contractual arrangements. One could argue that they would have a direct incentive to do so if this would lead to a lower cost supply of electricity than the market currently provides.

Electricity supply is inherently capital intensive, not only for generation plant but also for fuel supply and transport to market. This should be regarded as the nature of the product and not a barrier to entry.

We do not believe that material barriers to entry exist to support a conclusion that potential market power needs to be addressed. In the following sections we provide specific comments to argue that there is little or no evidence of the existence of material barriers to entry in the NEM.

3.2 Open Access Regime

Although not explicitly defined, the NER have been written based on a principle of open access in relation to transmission. This is the antithesis of a market with high barriers to entry. Generators are free to seek connection to the network and pay only shallow connection costs.

In Victoria, under the "Victorian Connections Initiative" program, AEMO is currently pursuing connection policies that seek to facilitate multiple connections and to coordinate these between competing interests to the extent that they encourage new connection sites to cater for expansion and hence facilitate access of not only a prospective generator, but their prospective competitors as well. Key elements of this are expected to be an input into the AEMC Transmission Frameworks Review.

The low barrier to entry in relation to transmission access is also highlighted by an absence of defined rights to partial or full transmission access. This has led to examples where new generators at times constrain transmission access for existing generators without any real consequence.

3.3 No power of veto over market entry by competitors

No incumbent generator has a veto power over potential new entrant generators. The only power of veto over market entry resides with Government agencies and regulators (for example nuclear energy policy in Australia). Furthermore, the NER are currently structured around the principle of technical neutrality such that they apply equally to all forms of energy production.

This is in direct contrast to other planning processes such as in domestic and commercial construction where an application to develop or construct at a residential or commercial site can be vigorously contested at a local government level or State tribunal level by affected objectors.

3.4 Reasonable technical requirements for market entry

While there are technical requirements governing connection, these are well defined and understood, and are required to ensure safe connection and ongoing operation of the power system. These requirements have been developed through an industry consultative process.

3.5 New investment is occurring

There is a significant pipeline of new investment projects in the NEM. AEMO's 2011 Electricity Statement of Opportunities (ESOO) shows that there is 1330 MW of committed and advanced new generation projects seeking market access in addition to the installed NEM generation of 48,483MW.

This pipeline of forecast investment represents 2.7 per cent of the total installed capacity. In a market where NEM energy is forecast to grow at 2.3 per cent and summer maximum demand at 2.6 per cent this is a proportionate supply-side response to increasing demand.

3.6 Conclusion on barriers to entry

A dynamic market which moves through cycles of higher prices that attract new entrant generation which in turn reduce price until the cycle repeats is a preferable arrangement to a market that is hamstrung by unnecessary regulation.

The Commission cited the work of Professor Severin Borenstein as part of their research in defining substantial market power. Professor Borenstein has done significant work in considering the nature of market power in wholesale electricity markets and also costs and benefits of intervention. His conclusions in his paper titled "Understanding Competitive Pricing and Market Power in Wholesale Electricity Markets[1]" fit perfectly with IPRA's view:

> *"In markets with low barriers to entry, market power is likely to be quite transitory. The profits from market power are likely to attract new entrants into the market or encourage incumbents to expand in order to gain market share. In that case,* ***the best government policy***[2] *may be to let these forces do their work undermining the existing market power. On the other hand, if entry is likely to be slow, due to institutional, regulatory or other barriers, more active public policy may be wise.*

[1] See working Paper No. CPC99-08, "Understanding Competitive Pricing and Market Power in Wholesale Electricity Markets", Severin Borenstein, University of Berkeley, University of California Energy Institute, and NBER, August 1999.

[2] Emphasis added.

> *Government intervention, however, is likely to have its own formidable costs. History teaches us that regulators have a difficult time figuring out the best prices, technologies, or levels of investment in an industry. Regulators also are susceptible to the influences of private parties who encourage them to take actions that do not benefit the general public. And, of course, it is very difficult for regulators to limit the returns that firms can earn without dampening their incentives for efficiency and innovation. Thus, it is clear that some degree of market power in an industry is preferable to heavy-handed regulation, with all of the inefficiencies that accompany such regulation."*

In the absence of evidence supporting significant barriers to entry there is no existence of substantial market power or the exercise of substantial market power as defined by the Commission.

Therefore, IPRA does not believe that the Commission can conclude that substantial market power is a problem in the NEM.

4 Definition of the Relevant Market

If, contrary to our view, the consideration of potential market power moves beyond a consideration of barriers to entry, the next question that will need to be addressed is the definition of the extent of the market to be evaluated.

One component of this is to identify the geographical extent of the relevant market. We note that the Commission is intending to apply an economic test for this purpose.

We wish to comment not on the test process itself, but rather on the interpretation of results.

In our view the NEM is by intention a single market, despite the expectation that occasionally the impact of network congestion will lead to price separation between regions. On this view one of the roles of the NER is to ensure that this characteristic is maintained.

Hence we see a need for caution in interpreting the results of any test of the extent of the relevant market. There is a risk that evidence of a limited market extent might be interpreted as an ongoing and essential feature of the market.

In our view the appropriate interpretation of such an outcome would be to conclude that there was concrete evidence the transmission network planning under the NER has not fully satisfied an underlying aim of the market, and that revisions to the planning process should be considered.

In other words, we suggest that a finding that a region needed to be treated separately in an investigation of potential market power would be prima facie evidence of insufficient inter-connector capacity provision.

In this regard it is necessary to be clear on the influences that control interconnector capacity.

A simplistic view would see an interconnector as the set of transmission lines that cross the boundary between regions, and this view would include an expectation that these lines would have a well-defined capacity to transmit power in each direction.

However, in reality an interconnector cannot be understood in isolation from those transmission assets within each connected region that link the point of interconnection to major loads and generators. The capacity of an interconnector to carry power flows is commonly limited not by the transmission lines crossing the boundary, but by a transmission limit embedded deeply within one of the regions. In other cases an interconnector flow may be limited by network stability considerations that relate to a variety of circumstances existing over a large part of the national grid.

It is also important to note that these limitations arising from remote circumstances will, at times, do worse than simply reducing the capacity of an interconnector to accept economic power flows. These limitations can not only reduce this capacity to zero, but can force an uneconomic power flow that is in the reverse direction compared with the currently desirable flows.

There are a number of reasons, outside of this current context, to conclude that the planning of interconnector capacity needs to be re-considered. These include the following:

- Despite that fact that a national market, as distinct from a set of poorly connected regional markets, is dependent on sufficient interconnector capability, there is currently no specific accountability under the NER in relation to interconnector capabilities
- Under the current arrangements, TNSPs would be taking a significant risk of ineffective expenditure if they chose to increase or maintain interconnector capacity by augmentation within their region. This is because without coordinated investment in the adjoining region, limitations due to that region may prevent the expected additional capacity of the interconnector from being realised in practice
- The current TNSP cultures arise from an uninterrupted history of evolution from bodies with a prime focus on electricity supply and demand within a state, with any interconnection being for the purpose of marginal gains through reserve sharing or fuel cost minimisation. Their history does not appear to equip them to take the wider view that would support the planning of interconnector capacity in a manner suitable for a national market
- While it might be expected that the recent inclusion of a national planning function for transmission into the NEM might lead to improvements in this regard, there is little reason for optimism as yet. We note that there is no relevant explicit power under the NER that would allow national interconnector planning to be effective. We also note that the network analysis attempted on a national basis so far has not been at a level of detail that would allow the actual performance of interconnectors to be examined or planned. The fact that interconnector limiting factors are generally embedded within regions, rather than existing at the region boundaries also creates obstacles to the use of the current national transmission planning process for this purpose.

In summary, we say that any indication that the relevant market **should be considered as less that the full NEM should be considered as due to temporary circumstances, and hence not relevant to this investigation**. This indication would add to several other issues in suggesting a review of the planning of inter-connector capacity is needed.

We believe that any action in relation to perceived market power in such circumstances would risk treating the symptom rather than the cause.

5 LRMC considerations

Any consideration of cost of supply should commence with consideration of the pattern of demand against which costs will be evaluated. A steady load would call for a cost estimate based on base-load generation plant, whereas a peaky demand pattern would call for a cost estimate based on peak-load plant

In the AEMC document, the definitions of LRMC and LRAC (long run avoidable cost) imply a time weighted price. Therefore such a quantity would be applicable only to flat loads (i.e. 100% capacity factor), and typically loads in the NEM are not flat.

Loads with a peakier characteristic are more expensive to serve than flat loads since the assets utilisation will be lower. Consequently such a load based LRMC will be higher than a time weighted LRMC. This consideration doesn’t seem to have been contemplated in the NERA or the AEMC documentation.

5.1 NERA framework

In their paper for the AEMC, NERA define an LRMC on a market (i.e. electrical systems) basis and for an "optimal investment profile".

> *"LRMC is therefore the costs – both operating and capital costs – associated with undertaking that expansion sooner than would be otherwise be the case in response to the incremental change in demand, and the associated congestion costs."*

It appears that the NERA approach seeks to develop a metric from a system perspective, where other options apart from generators are also considered, for example demand side response or transmission augmentation. However the LRMC definition without further explanation is confusing and leads to numerous interpretations (e.g. discussion with NERA, report by ACIL Tasman for IPRA and IPRA analysis). The NERA approach also examines the system in a relatively short timeframe and without key uncertainties being considered. For example:

- System reserves are not considered for reliability purposes. Given that the electricity system is over-capacitated by design, the system based LRMC is likely to produce a negative value in relation to generation
- The process considers an optimal expansion profile which requires perfect foresight and fails to include numerous key uncertainties facing a potential investor. Such an approach is more applicable to a centrally planned model, not a market.

The failure of NERA's methods to consider the generation expansion from an investor's perspective makes such a measure all but irrelevant in the real world.

5.2 Conventional LRMC definition for generation

The conventional use of the LRMC term by the industry typically refers to a levelised cost of production for a particular generating technology (i.e. OCGT, CCGT, coal, etc.). In order to calculate the LRMC, a range of key parameters need to be selected and fixed for the life of the plant.

Typical variables and cost categories are as follows:

- Capital cost
- Transmission access – connection cost
- Fuel costs (time series, uncertain)
- CO_2 emission costs (time series, uncertain)
- Operating and maintenance costs
- Capacity factor (time series, uncertain)
- Return on investment – including a risk premium
- Ongoing transmission costs
- Technology risk (potentially stranding of assets/shortening asset life)

If these variables were held constant over an asset life, then the levelised cost of production (an average LRMC) could be calculated and expressed on $/MWh unit basis.

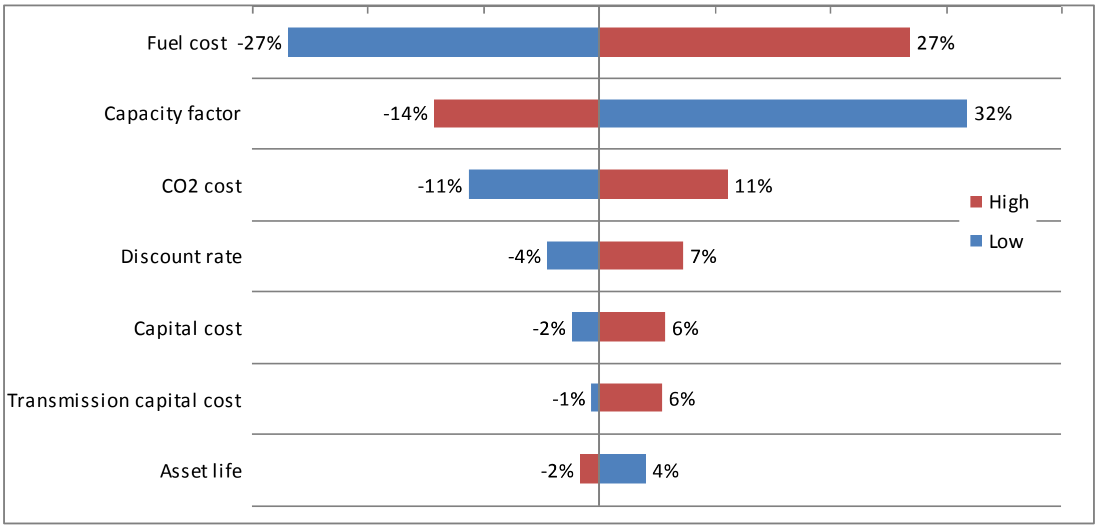
In reality, many of these parameters will be uncertain and change over time, and the return on investment criteria when applied over the entire asset life is most likely to be front loaded. In addition, generating plant cannot run at a loss for extended periods without becoming insolvent. Therefore it must earn adequate returns in the short to medium term, and not only over the life of the asset.

To achieve such an investment outcome in practice, all supply and off-take contracts would need to be in place for the life of an asset. This is possible in some regions of the world but only in the absence of a market and by using long term financing and off-take contracting (Power Purchase Agreement).

Such outcomes cannot be achieved in the Australian NEM, where assets are exposed to market and regulatory risks, and there are heightened uncertainties over climate change policies, fuel costs (LNG related prices) and cost of carbon.

The effect of these uncertainties on the LRMC for a new entrant has been examined. The tornado diagram in figure 2 summarises the results by indicating the percentage range of each key parameter above and below a reference level. It can be seen that fuel cost and capacity factor dominate the generating costs and in conjunction could easily account for more than a 50% increase of the LRMC.

Figure 2: Generator LRMC tornado diagram



Explanation of variables used in the tornado diagram (real 2011 dollars)

		Model	Scenarios: Reference	Low	High
Capital cost	k$/MW	1000	1000	900	1250
Asset life	y	25	25	15	40
Fuel cost	$/GJ	6	6	3	9
CO2 cost	$/tCO2	25	25	0	50
Discount rate	%/annum	10%	10%	8%	13%
Capacity factor	%	50%	50%	25%	90%
Transmission capital cost	k$/MW	20	20	0	200
Inflation	%/annum	0.0%	0.0%	0.0%	0.0%
Carbon Intensity	tCO2/MWh	0.4	0.4	0.4	0.4
Heat Rate	GJ/MWh	8	8	8	8
VO&M	$/MWh	2.7	2.7	2.7	2.7
FO&M	k$/MW	31.1	31.1	31.1	31.1
Installed Capacity	MW	400	400	400	400
Debt	%	40%	40%	40%	40%
Cost of Debt	%	8.5%	8.5%	8.5%	8.5%
Debt Term	Years	15	15	15	15

In the NEM context, generator project proponents need to address such risks, generally without a prospect of entering into long term contracts.

It is important to note that the uncertainties and risks increase over time. In the face of uncertainty, investors prefer to have their returns front loaded (i.e. high risks of partial or complete stranding of assets sometime in the future).

Clearly this approach by investors is not compatible with the currently contemplated average LRMC metric.

5.3 Relationship between theory and practice

In order to calculate the market LRMC, a model would need perfect foresight in terms of costs, competitors' actions and policy developments over a long period of time (typically over the life of a generating asset).

However this is impossible to achieve in practice where such risks are difficult to quantify and manage. Typically investors give preference to lower capital cost technologies, such as open and combined cycle gas turbines in order to reduce their exposure.

Therefore it can be expected that the LRMC costs in the NEM will be significantly higher than LRMC costs calculated based on an optimal plant mix. When plant mix is considered in conjunction with other uncertainties previously outlined in section 5.2, the actual costs could be more like 50-100% in excess of the costs determined using perfect foresight in a centrally planned system (utopia).

Load shape other than base load (i.e.100% capacity factor), would further increase the magnitude of the LRMC.

The 2-3 year period is not a suitable timeframe over which to measure the market based prices. There may-be a range of factors contributing to a particular price outcome, for example:

- Rainfall levels
- Wind generation yield
- Transmission issues
- Gas supply impacts
- Bushfires
- Major plant failures
- Unusual temperature events.

To meet system reliability standards, 1 in 10 year events also need to be considered. It is not clear how the NERA LRMC metric copes with such events in a meaningful way.

5.4 Market design considerations

The current energy only market (NEM) is under pressure from climate change policy regulations impacting both the supply and demand side.

Capacity in the NEM isn't explicitly rewarded; instead the trading model relies on periods of high prices and volatility. It may not be possible for a generator to earn adequate revenues without some extreme market events.

Previous work by the Reliability Panel determined that the energy only market can be sustainable but only if "left alone".

Should there be any attempt to reduce generators potential revenue by limiting prices to a medium term LRMC (or average costs), then the market must be redesigned to include explicit and long term capacity payments.

It should also be noted that capacity markets would not be effective as they would essentially mirror the energy markets (i.e. highly correlated, both high or both low at the same time).

6 Dangers of over regulation

IPRA acknowledges that the current energy only market design in the NEM does have its challenges, but rather than endemically high barriers to new entry, it is the unintended consequences of over-regulation that create problems for market sustainability. Examples include retail price caps (excluding Victoria), renewable energy programs, feed in tariffs and energy efficiency targets.

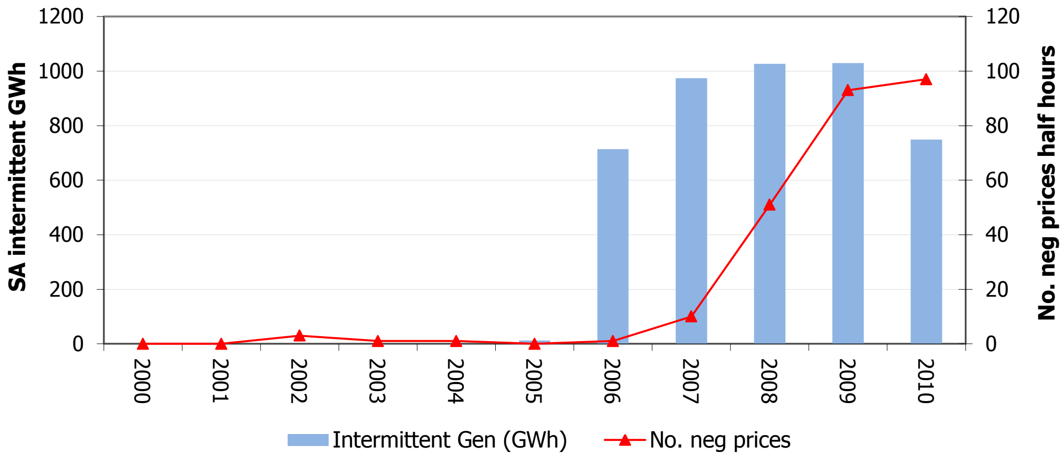
IPRA is concerned that regulatory measures such as the RET and climate change policies are already affecting wholesale market prices. This is particularly so in South Australia. IPRA also believes that introducing measures to further restrict competitive market behaviour, such as those proposed by the MEU will themselves act as a barrier to new investment.

Policy and regulatory uncertainty can form significant barriers to entry. The sustainability of the energy only market is already under strain from a range of regulated climate change measures. The prospect of additional measures to constrain generator earnings in the short to medium term is likely to be a major barrier to entry.

Measures such as the renewable energy target are actually sponsoring new generation investment, yet this generation is not responding to market signals but rather policy signals. An unintended consequence of this policy has been the impact that it has on suppressing spot market prices, especially during low-demand periods. This has been most evident in South Australia.

Figure 3 shows that as the amount of intermittent generation in South Australia has increased so too have the number of spot wholesale prices that have been negative. This is an example of a South Australian trend that is placing downward pressure on wholesale prices in South Australia (yet ironically upward pressure on retail prices). This in turn creates market risk for existing generators and potential new entrants.

Figure 3: South Australian intermittent generation and incidence of negative wholesale prices (Source: IPRA)



7 Electricity Affordability

The Commission has suggested in the Directions paper:

> *"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. Electricity is a vital input into most goods and services, and sustained high electricity prices can have a significant impact on the broader economy."*

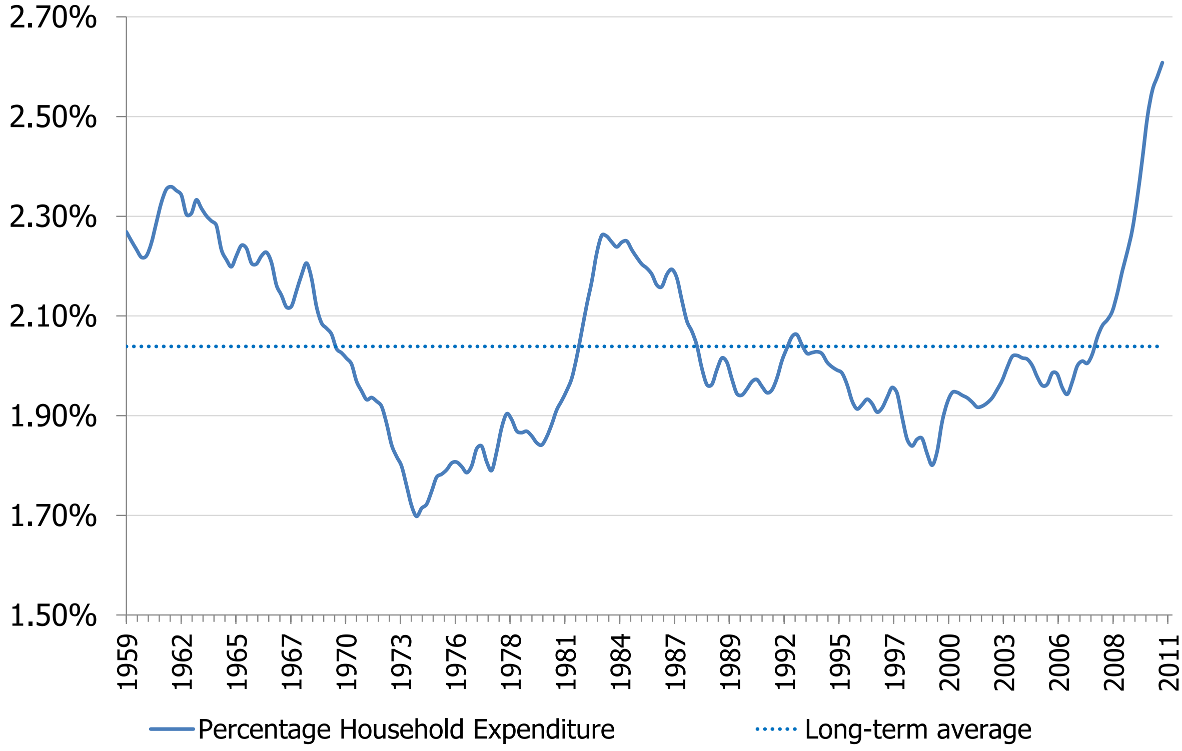
IPRA believes that the NER change proposal from the MEU has been designed to address concerns around rising retail electricity costs. This has been nominated as a key issue of concern in the wider community and as a result has received significant political attention.

IPRA does not see how regulatory intervention of the kind proposed by the MEU will reduce retail electricity costs. In fact, we believe that it is likely to reduce competition, reduce attractiveness for new entrant generators and further distort efficient market outcomes.

We suggest that the Commission does not seek to implement the proposed MEU NER change to address rising retail electricity costs, and we make the following observations on the drivers for recent electricity price rises.

Figure 4 shows that current household expenditure on energy is at the highest levels since 1959.

Figure 4: Percentage share of household final consumption expenditure on electricity, gas and other fuels 1959-2011 (Source ABS 5206, Table 8: Household Final Consumption Expenditure)



In July 2011 this year, IPART found a tripling of allowed network expenditure saw network cost pass through adding 10%, and changes to the RET scheme add 6%, to give a 17.6% average price increase to New South Wales households and small businesses on regulated tariffs on 1 July 2011[3].

The Commission itself published a report in June 2011 titled "Future Possible Retail Electricity Price Movements: 1 July 2010 to 30 June 2013" which examined possible future residential price rises in each State and nationally for the next three financial years (10/11, 11/12, 12/13)[4]. The report showed that across the country, prices are expected to rise by 19% over the three financial years in real terms. (This is the equivalent of about a 6% increase over and above CPI each year).

The reasons for the increases were given as:

- Increasing capital works on distribution and transmission networks
- Higher debt premiums on capital projects since the global financial crisis (GFC)
- Cost of inputs such as copper, aluminium and steel
- Real increases in labour costs
- Increasing natural gas prices

[3] See http://www.ipart.nsw.gov.au/files/Media%20Release%20-%20IPART%20concerned%20about%20rising%20electricity%20network%20and%20green%20scheme%20costs%20-%20June%202011%20-%20Website%20version.PDF

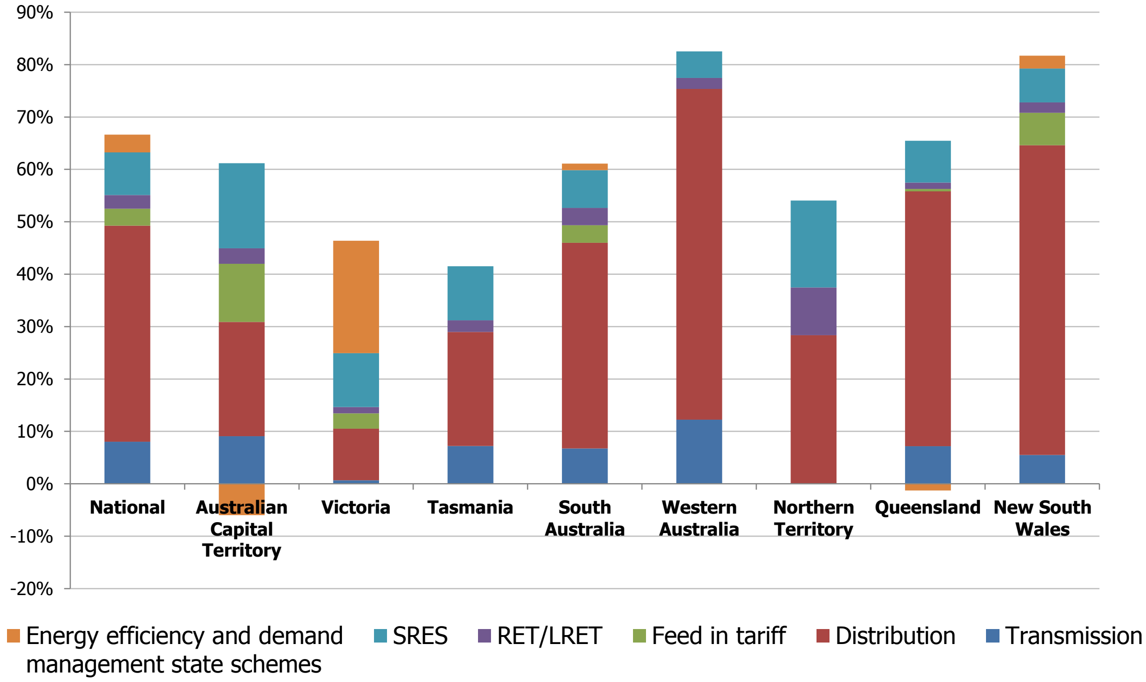
[4] See http://www.aemc.gov.au/Market-Reviews/Completed/Future-Possible-Retail-Electricity-Price-Movements-1-July-2010-to-30-June-2013.html

- Costs associated with renewable energy, feed in tariff, energy efficiency and demand management schemes. (In Victoria these costs alone represent 36% of the overall cost increases).

Using data published in the Commission's report, Figure 5 shows the contribution to retail price increases that are occurring because of State-based energy efficiency and demand management schemes, renewable energy obligations on retailers (SRES, LRET and the former RET), solar feed in tariffs and network investment in distribution and transmission nationally and for all States and Territories.

Figure 5 clearly shows that nationally, the dominant component of retail electricity prices rises is the cost of investment in distribution and transmission networks.

Figure 5: The contribution to future possible residential electricity price increases



IPRA notes that the Commission attributed less than one-fifth of the cost increases to wholesale energy costs on a national basis and that no mention was given to the issue of market power in the NEM contributing to retail price rises.

The Electricity Supply Association of Australia has also recently pointed out some distressing trends which will place further upward pressure on electricity prices[5]. These include:

- Declining utilisation of electricity networks, i.e. demand is continuing to be very peaky which drives the need to augment distribution and transmission networks
- The use of capital for low capacity factor plant is feeding into an overall decline in productivity within the electricity supply chain. (Productivity measures the total use of inputs i.e. labour and capital to produce energy output). In the electricity, gas and water sector, productivity peaked in about 1998/99 and has now declined to 1989/90 levels.

In addition, there are a range of factors which will further increase retail electricity prices which again have no relation to market power issues.

Electricity supply costs are also expected to increase due to a range of factors including:

[5] See http://www.esaa.com.au/Library/PageContentFiles/cef5404e-2cd2-403c-ab17-2f9752c6f03a/110902_DSPIssuesPaper_esaa_submission.pdf

- Shortened asset lives of coal fired plant under the Clean Energy Futures legislation
- Shortened plant lives of gas fired plant – transition technology on route to cleaner technologies in the near future
- Gas prices increasing due to LNG exports and subsequent linkage to international prices (also impacted by currency fluctuations)
- Should the $AUD decrease in value consistent with economic forecasts, the capital costs on new plant will rise
- Putting a price on CO2 will increase the costs of wholesale electricity (doubling by 2020, also supported by the recent Federal Treasury modelling)
- The wide range of policies, such as the Renewable Energy target (RET), numerous feed in tariffs, Residential Energy Efficiency Scheme (REES) are expected to increase electricity prices by some 40% when compared to the modelled BAU wholesale energy prices.

IPRA believes it is false to attempt to link community concern on rising retail electricity prices to the issue of market power in the NEM as suggested by the MEU. IPRA contends that the MEU proposal would inevitably lead to less efficient market outcomes by delaying or discouraging desirable generation investment. We further contend that energy market prices which would be influenced by the MEU proposal have not been a significant influence on increases in electricity retail prices.