

# Energy Action Group

541 Killiecrankie Rd  
Killiecrankie  
Tasmania 7255

Potential Generator Market Power in the NEM

RE: AEMC Consultation "ERC0123".

EAG Submission on the "Consultation on Rule Change proposal"

This submission has been prepared and submitted by the Energy Action Group, a 35 year old not for profit organisation interested in issues around less than 160 MWh consumers across the NEM.

The submission supports both the position along with the Rule change proposed by the Major Energy Users. The Energy Action Group shares the view that there has been systemic failure by the ACCC and now the AER to effectively enforce the issues of generator market power enacted in the NEM Rules and the Trade Practices Act. One of our members sat through part of the ACCC prosecution of a case against AGL relating to their purchase of part of Loy Yang A power station and was less than impressed with the ACCC's performance. This view was further reinforced by the ACCC decision to allow AGL to acquire the Torrens Island Power Station.

## Preamble

**The comments made in this preamble should be read in conjunction with the specific points made in addressing the issues raised by the AEMC Discussion Paper.**

It is disappointing to see that the Discussion paper doesn't systemically address the financial risks associated with the Australian NEM. The majority of these risks are underpinned by all electricity consumers with the possible exception of jurisdictions that have price caps for less than 160 MWh consumers<sup>1</sup>.

It is highly unlikely that any other market in the world has the same levels of volatility as the Australian National Electricity Market. Prices in the gross pool based on 5 minute dispatch and a 30 min settlement period vary from the floor price of -\$1000/MWh through to the Market Price Cap of \$12,500 MWh. The only market protection offered to retailers and pool exposed consumers is the Cumulative Price Threshold or switching off load during high priced periods.

The major retailers in the NEM AGL, Tru and Origin have all taken steps to reduce their pool exposure by building peak load generation capacity along with a number of other generators who hold retail licences like ERM, Momentum and Red Energy.

There are a number of examples of retailers being financially burnt by the failure to gain some form of financial derivative cover for high priced periods since market start. These examples include Energex Retail, Energy Australia, Origin Energy and AGL. To be fair, the losses incurred to date by these retailers have been lower than the companies' announced profits.

There are several other areas in the NEM where specific generators can exercise market power including the provision of Ancillary Service Payments, effects of transmission constraints at specific

points in the transmission network along with the increasing market penetration of renewable energy that has the potential to position certain generators so that they can access short term market power. Given the massive asymmetric financial risks associated with the market design it only takes a very short period of time for a generator exercising market power to dramatically increase its profit.

The generators in the NEM with market power also have some further protection from the capital intensive nature of many of the new generation plant options as well as the long lead times associated with the planning approval process, the length of time it takes to build a new competitive generation plant along with the time to gain approve and construct new transmission lines or augment existing transmission assets to alleviate constraints. These issues are compounded by the nature of the electricity industries economies of scale and the instantaneous nature of the system supply and demand balance.

The Australian energy market is not particularly large but in the case of base load generators the economy of size is between 500 and 700 MW /generating unit. Adding another large generating unit to all of the NEM jurisdictions means that the existing historically derived (heavily depreciated) generation plant should end up under bidding the new entrant generator. The generators and the gentailers across the NEM appear to have responded to the load changes in each of the regions by building open cycle gas turbines. However most open cycle gas turbines and the peaking hydro plant tends to be bid in and dispatched at high prices<sup>1</sup> along with some of capacity from un-contracted base load generators.

The NEM price floor /price cap arrangements along with a number of generator operators trading strategies can be likened to better than a 1 in 10 bet. Market volatility has been exacerbated by the AEMO Reliability Panel 0.002% Unserved Energy definition along with consumer behaviour, particularly those consumers who have temperature sensitive load.

The very lumpy nature of electricity industry investment along with the extremely capital intensive nature of the industry coupled with long life of the assets can significantly distort any economic analysis using “dynamic”, “allocative” and “productive” efficiency (either singly, doubly or in concert together) as a basis for decision making or even determining market power arrangements. An example of this was the decision by Victoria to move to a 220/500KV transmission system some 30 years before it became optimal. Other jurisdictions, particularly NSW and Qld, are in the process of making this move and once they have completed the move some of the assets will be under utilised if the projected load growth fails to materialise.

One further point relating to the analytical failure of “dynamic”, “allocative” and “productive” efficiency has been the systemic failure by the market to address the significant deterioration in the NEM regional load factors over a 25 year period.

There is a massive information asymmetry issue between the market participant generators, regulators (including the AER Price Surveillance Unit), the independent system operator (AEMO high price reporting obligations) and consumers. AER Commissioner Willets has made commentary on market power issues, but no prosecution has been initiated to date. It is worth noting that both

---

<sup>1</sup> At one stage around 15 to 20% of the generation capacity was bid in at over \$1000/MWh.

AEMO and the AER have to reverse engineer their answers and their assessment of many issues. The issue of information asymmetry is a significant deficiency in both the NEL and CCA making the prosecution of a market power case extremely problematic. The issue of access to information must be part of the rule change proposal should address this issue. If not then the AEMC should draw the MCE's attention to this deficiency in the legal settings so that they can address the issue in changes to the NEL and the CCA.

EAG recognises that the generators contract<sup>2</sup> position also acts as a behavioural driver! The other issue that the organisation has concerns the non transparent nature of the Ancillary Service Payment markets and the AEMO security and market directions for most energy consumers under the market user/ causer principle.

One further issue of concern to EAG, that may be covered under this proposed Rule Change is the generator who is able to add a small annual or semi annual increment (of say \$5 or 10/MWh) to the regional pool price due to the lack of a competitive market in a specific NEM region.

## **Comments on the specific Questions asked by the AEMC discussion paper**

### **Question 1. What is market power in the context of the NEM?**

#### ***1.1 What is an appropriate definition for the relevant market in which to examine whether market power is being exercised?***

EAG believe that the MEU has addressed most of this issue in its application for this Rule change, however the issue of information asymmetry needs to be addressed

#### ***What are the relevant product, functional, geographic and temporal dimensions?***

One of the major drivers of generator behaviour is their contract obligations. It is clear that the base load generators have dramatically improved their performance in relation to outages and ramp rates. EAG understands that any generator who may be in a position to have market power also has a very good understanding of the transmission constraint equations. The uncapped Ancillary Service Payment market also provides generator gaming opportunities. It is also possible that large scale market penetration of renewable energy projects may also favour some generators so that they may be able to exercise "market power" in the NEM.

There are a set of inter related issues around access and who pays for transmission extension and augmentation!

#### ***1.2 How should market power be defined in the context of the NEM?***

The MEU Rule change proposal and submission with the attachments from Mr Alex Henney and Dr Terry Dwyer provided a useful basis to start the Rule change process.

#### ***1.3 Do barriers to entry in the market exist such that the exercise of market power would not be constrained by potential entrants?***

---

<sup>2</sup> The amount of energy covered by bilateral over the counter contracts along with caps collars and futures covered by the generators trading book!

Long lead times coupled with barriers to entry and relatively low long term profit margins for some generator technology leave incumbent generators in a position to exercise market power.

## **Question 2. What is 'exercise' of market power in the context of the NEM?**

***2.1 Are the existing competition law tests for 'taking advantage' or 'abuse' of market power an appropriate test in the context of this Rule change request?***

No- not to our knowledge! Clearly if the current laws were adequate then one of the regulators would have initiated an action on the issue.

***2.2 Alternatively, should the Commission develop a different test for assessing whether market power has been exercised in the context of generation in the NEM? If so, what elements might it contain? For example, should it contain the concepts of sustained price rises above the competitive level and/or profitability?***

Yes! Given the dynamic nature of the market and the inability of both AEMO and the market monitoring unit to identify many issues around generator market power, EAG is not in position at this point in time to offer constructive comments without more research!

## **Question 3. What impact is the exercise of market power likely to have on efficiency?**

***3.1 How might the exercise of market power impact on "allocative" efficiency in the NEM?***

Base load power stations and transmission assets are characterised by long lead times and are rather capital intensive in nature. At high load factors they produce power at cheap unit cost depending on their fuel price, maintenance costs and their outage rates. In contrast peak load gas fired plant is cheap to build but can be expensive to run depending on the gas market arrangements and the price and availability of gas or the cost of alternative fuels.

EAG believes that the systemic failure by market participants<sup>3</sup> and governments to address the growth of summer peak loads across most of Qld, NSW, Victoria and South Australia, leading to massive investment in transmission and distribution system augmentation along with the installation of a number of open cycle gas turbines to meet load for less than 5% of the time demonstrates the failure of a section of the market or governments<sup>4</sup> to deliver an efficient "allocative" outcome!

***3.2 How might the exercise of market power impact on productive efficiency in the NEM?***

EAG has not been closely monitoring market prices recently nor has the organisation assessed the regular AER and AEMO reports on the state of the market and market prices.

EAG does however recognise that the market has already delivered substantial increases in generation plant performances for base load generators across the NEM and that the increase in productive efficiency even though most of this plant is well over 20 years old. This performance increase has affected the average regional price in the Victorian, Queensland NEM Regions where competition exists. In the case of outcomes in

---

<sup>3</sup> Most market participants appear to be benefiting from the deterioration of the load factor and the growth of peak load (MW's) at twice the rate of energy consumption (MWh's). The industry invests in MW's and cost recovers in MWh's. The network businesses get a regulated rate of return on every \$ approved by the regulator, While generators can get a price up to \$ 12,500 /MWh, depending on the pool price on the day for every MWh they produce that is "un-contracted" into the market on high price days.

<sup>4</sup> Government's across the NEM appear to have resorted to the use of either price caps or subsidies (Community Service Obligations) or a combination of both. to protect most residential consumers and particularly those consumer who are seen as "vulnerable".

South Australia, Tasmania and New South Wales the impact of the increase in performance benefits is less clear. One explanation of the poorer outcomes in these jurisdictions could be the use of “market power”.

EAG also recognises that given the substantial increase in productive efficiency it is unlikely there will be any further dramatic increases in productive efficiency as most of the easy gains have been made. So that the exercise of market power is likely to have a minimal impact on productive efficiency!

### **3.3 How might the exercise of market power impact on dynamic efficiency in the NEM?**

EAG is prepared to suggest that the market has responded to the changing load pattern with the substantial increase in the number of open cycle gas turbines and the increased performance of the base load generators who have learnt how to increase their ramp rates to respond chances in load.

### **3.4 What other impacts might the exercise of market power have on efficiency and/or the long term interests of consumers?**

Consumers underwrite the market! Much inefficiency, (but not all, by any means) is paid for by consumers. However several risks are also born by retailers, particularly in relation to the less than 160 MWh consumers covered by price caps<sup>5</sup>. It is also worth noting that consumers are also paying for the prudential guarantees paid by retailers along with a risk premium to cover price volatility. The other retailer issue of some moment is the shortfall of peak load summer contracts with the generators in a NEM region

## **Question 4. Is there evidence of the exercise of market power by generators?**

### **4.2 Do you agree with the Proponent that the conduct referred to in the Rule change request constitutes an exercise of market power? If so, do you consider that this conduct is currently continuing and is likely to continue in the future?**

Yes, and unless a successful prosecution occurs then those generators who have indulged in market power activities will continue to do so!

### **4.3 Do you consider that the CCA adequately addresses the exercise of market power by generators, or do you consider that specific Rules provisions are required to supplement the CCA provisions?**

No, the CCA was not written with huge price volatility associated with the NEM in mind!

## **Question 5. Will the proposed Rule effectively address the exercise of market power?**

### **5.1 Do you consider that the proposed Rule is likely to prevent or constrain the ability of generators to exercise market power in a manner that reduces efficiency in the NEM and adversely affects the long term interests of consumers (if there is evidence of any such exercise of market power)?**

The MEU Rule change proposal will significantly strengthen the current iteration of the National Electricity Rules and if some generators behaviour doesn't change then it may lead to the AER or ACCC prosecution.

### **5.2 How are other generators that are not declared to be a 'dominant generator' likely to change their behaviour if the proposed Rule is made?**

EAG is unsure as to the long term change in “dominant generator” behaviour, but this issue can be addressed by a review clause. It is also clear that increased market penetration of renewable energy will also have an effect on different generators and there is a question as to how this Rule change will affect behaviour.

---

<sup>5</sup> Many of the jurisdictional less than 160 MWh retail pricing determinations are based on retail profit margins of 5% on retailer energy revenue. Pool exposure at \$ 12,000 /MWh rapidly devours a regulated margin of \$ 2 or 3 /MWh profit on a allowed energy price of \$ 60/MWh.

**5.3 Should any Rule change that seeks to address the exercise of market power by generators also address tacit collusion or parallel behaviour by generators, or is it appropriate to limit the Rule change to the unilateral exercise of market power?**

Yes the Rule change should also attempt to address tacit collusion and parallel behaviour, but it is worth noting that the regulatory record in Australia is not good on prosecuting tacit collusion and parallel behaviour without access to a whistle blower and the appropriate documentation.

**Question 6. What other options could effectively address the exercise of market power?**

**6.1 Do you consider that there are other options that could prevent or constrain the ability of generators to exercise market power in a manner that reduces efficiency in the NEM and adversely affects the long term interests of consumers (if there is evidence of any such exercise of market power)?**

No, at this stage of the consultation process! However it is worth mentioning that consumer groups working with the NEM do not have the resources to mount a legal challenge. The recent example of the Consumer Utility Advocacy Centre and Consumer Action is a useful example of this issue.

**6.2 If so, are those options likely to better contribute to the achievement of the NEO than the proposed Rule, and why?**

EAG currently believes that the MEU Rule change offers the best alternatives for consumers under the NEO.

**Question 7. What are the likely impacts of the proposed Rule on the achievement of the NEO?**

**7.1 What impact is the proposed Rule likely to have on wholesale electricity prices?**

The MEU rule change should help to reduce the impact of “generator market” power on NEM energy prices.

**7.2 What impact is the proposed Rule likely to have on efficient investment in generation, in particular incentives for efficient entry of new generation?**

The Reliability Panel Reserve Trader along with the generous 0.002 % Unserved Energy arrangements highlight that the market may have already failed to deliver generation capacity to cover some of the AEMO (SOO) Statements Of Opportunities perceived future regional generation shortfalls.

**7.2 What impact is the proposed Rule likely to have on the efficient operation of the wholesale electricity market?**

EAG can see little impact on efficient market operations at this time!

**7.3 What impact is the proposed Rule likely to have on the efficient use of electricity services?**

EAG believes that the proposed ge will have minimal impact on the efficient use of electricity services.

**7.4 What impact, if any, is the proposed Rule likely to have on the market for electricity derivative products and/or the retail electricity market?**

EAG believes that the availability of adequate electrical derivative products is fundamental for long term survival of the NEM. It is possible for a generator to increase the impact of its monopoly power position by ensuring that retailers have exposure to the market at high priced periods.

**7.5 Do you consider that the proposed Rule is likely to have any other impact on the achievement of the NEO?**

No, not as EAG understand the proposed Rule change!

John Dick

President

[johnld@melbpc.org.au](mailto:johnld@melbpc.org.au)

Mob 0419560966

25<sup>th</sup> May 2011

---