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Potential Generator Market Power in the NEM

RE: AEMC Consultation "ERC0123".

EAG Submission on the AEMC Directions Paper on the AEMC Generator Market Power

This submission has been prepared 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 reflects the disappointment that Energy Action Group feels in the position taken by the AEMC in the Directions paper. We believe that the paper fails to address a number of specific issues relating to market power and equally importantly fails to address the effects/impact of several of the other Rule changes before the Commission, particularly those relating to transmission and transmission investment that can influence market power outcomes. We are also disappointed that AEMO empirical evidence of the timing of both regional and inter-regional network investment and the management of constraint equations has been completely ignored. The AEMO ANTS reports along with the various jurisdictional planning documents give a strong indication as to how long some gentailers may be able to exercise market power.

The MEU in its application for the Rule change and their various submissions to this consultation has illustrated the impact on South Australian consumers after the sale of Torrens Island Power Station (TIPS) by International Power to AGL. How long can South Australian consumers expect this behaviour to continue? What mechanism is available under the current Rules to reduce the ability of TIPS to set the price in the short term? Currently the only effective way to change the South Australian NEM region or any of the other NEM regions has to be a Rule change. The other alternative is to change the physical infrastructure with a transmission investment or possibly a new entrant generator. The change in infrastructure option is several years off and the Directions paper offers no solace to consumers across the NEM. It is important to point out that the TIPS behaviour appears to be legal under the current Rules and that the operator therefore has every right to continue this behaviour until the circumstances change by either a successful prosecution or a Rule change.

The exercise of monopoly power is a complex issue in a merit order dispatch gross pool market, particularly when the observer or regulator has about 1/3rd of the information required to analyse this issue to start an effective prosecution. This stacks the odds in favour of the perpetrator!

Given the relatively low average weighted pool prices across the NEM, the exercise of monopoly power or even strategic behaviour has the ability to significantly increase prices paid for by consumers. A weakly written Rule change based on a superficial examination of monopoly power issues, like the NERA consultant report used by the AEMC in the process of developing the directions paper, does not inspire confidence in the Rule change process.

To its credit the MEU has used the limited resources available to it to raise a number of issues that consumers have serious concerns about relating to the monopoly power issue.

There are a number of current specific issues and associated challenges facing the electricity industry. These issues include the relatively long lead times to address changing patterns of gas and electricity consumption across the NEM.

The current transfer capacity of the transmission infrastructure along with the associated constraint equations can have a direct influence on the ability of a significant generator to affect any regional market. The addition of significant quantities of renewable and embedded generation will impact on networks and the existing generation mix well into the future. Incumbent generators have considerable protection from market competition due to the long lead times associated with transmission investment. The issue of the length of time required to augment the transmission system is highlighted in documents like the AEMO, Interconnector Limit Forecasts for MT PASA in (2009), or the recent Report by the Tasmanian Renewable Energy Industry Taskforce (August 2011), which indicated that a duplication of Basslink may be required just before 2020. The ElectraNet, South Australia Interconnector Feasibility Study (February 2011) indicated a 2000 MW upgrade from the Eyre Peninsular by 2015 and more importantly major interconnector upgrades by 2024. This is a long time for a significant generator to exercise market power without major alternative sources of generation being able to access either the South Australian or Tasmanian NEM regions.

There are a number of examples from both South Australia and Tasmania where the dominant generator and/or the dominant retailer appear to have indulged in **strategic behaviour**. We have great difficulty in accepting the position put in the Directions Paper that the history of the exercise of market power has little impact on the market and that a reaction by the AEMC is not warranted.

We note that the ACCC and the AER have had a poor track record before the Australian Competition Tribunal. This has in part been caused by poorly drafted legislation.

Further the issue of monopoly power is further complicated because there appears to be little correlation between price and load over time, This issue can be simply illustrated by constructing a scatter diagram for any NEM region. A scatter diagram plots the ½ hourly pool prices against load in MW.

A dominant generator can significantly increase their revenue stream in two ways. The first contribution is from uncontracted energy sold to the pool at the pool price above SRMC. The second is the increased revenue due to the flow on effects of increased regional contract prices.

The Energy Action Group notes that the three largest retailers in the NEM, Origin, AGL and TRU Energy, along with the fastest growing retailer in the NEM, ERM, are all gentailers. This arrangement along with the limited competition in Tasmania has the potential for a strategically placed company to exploit the regional market price.

There are a number of other adverse outcomes that are associated with an uncontracted dominant generator that include the reduction of retail competition, the increase in peak load hedge cover and increased market aggregation. All of these outcomes are already present in one or other regions across the NEM already. A failure of the AEMC to promote an effective rule change will only continue the problem.

The major emphasis of market price monitoring by the AER appears to be high price events when prices move over \$ 5000/MWh. This approach has the effect of minimising the AER's ability to monitor **sustained market power**. It also minimises the organisation's ability to monitor **transient market power** as a dominant generator can also influence the size of the price spike by the way it constructs its bid strategy. EAG recognises that something like 20% of the NEM generation capacity is bid into the market at prices above \$300/MWh and a significant proportion of this percentage is bid in just under \$ 12500/MWh.

The Energy Action Group is concerned with the Directions Paper distinguishing between **transient market power** and **substantial market power** when the fundamental issue raised by the Major Energy users was addressing a structural issue. This is the ability of and the incentives on a few dominant generators to unilaterally set the wholesale pool price without any significant countervailing pressures from other generators. In fact the massive asymmetric risks associated with the market price cap and the "normal" bid strategies of most open cycle gas turbine and some hydro generators to park their plant at high prices would seem to exacerbate this problem, as they will only be dispatched for short periods leaving the strategically placed generator/company to sustain its market power.

In the industry and academic literature there a number of international examples of generation companies exhibiting market power in a wide range of jurisdictions including California, Texas, New England, Spain, PJM along with Colombia, Norway and Chile. It is unfortunate that the work done by the AEMC on the MEU's proposal fails to look effectively at the international experience on this issue.

The Energy Action Group is of the view that at worst a generator exercising market power would gain at least a 2 year window to exceed the LRMC given the various impediments existing against new entrant generators. Further given that the majority of new generation in the past 3 years has come from either renewable generation or open cycle gas turbines a careful generator with market power would bid to get dispatched just below new entrant LRMC. The youngest significant base load station was built 8 years ago and new entrant prices have increased since then in both nominal and real terms.

Another issue not effectively developed or discussed in the AEMC/NERA analysis in the consultation process to date is the problem created by a new entrant generator dropping the pool price lower than SRMC. This leads to a period of loss making for all uncontracted market participants. It is possible to argue that several NEM regions have had unsustainably low pool prices since the market start, particularly Victoria. The usual criteria relating to new significant generation capacity or refinancing existing generator debt are based on the need for the financial underwriters to require financial contracts for energy to be written so as to cover the underwriters' exposure to the generator investment. Under most normal circumstances unless the new entrant is able to gain adequate finance to cover investment, then the new investment won't happen. Another variation

on pricing to exclude new entrant generators is for the incumbent price leading generators to set their long term prices just below new entrant LRMC. This strategy is particularly effective in a low energy growth scenario like a number of the current NEM regions as it has the potential to exclude new entrants for a number of years..

There are some further comments in relation to the AEMC's proposal to define "**Substantial market power**".

We strongly agree with Gans and King in their peer review of the NERA paper when they commented on NERA's failure to address the issue that different forms of generation have different LRMC's. So, for instance, a wind generator has a different LRMC to a hydro plant or various gas or coal fired generation plants. Both consultant contributions to the AEMC process fail to address the fact that historically derived plants like the existing aged generation stock are at least half depreciated and have a different basis for LRMC than new entrant generators. It also worth recognising that the existing generation stock has better transmission access to the major load centres than most new entrant plant which may add to the new entrant capital costs. This point relates to our earlier comments in relation to other AEMC Rule change proposals.

So the definition of market power must include a clause relating to the ability of a large generator to consistently set high prices in a NEM region.

The issue of market power in the NEM is not a simple issue as indicated in the Directions paper. The proposition put forward by the AEMC in regards to the incentives on the exercise of substantial market power (p. 18) illustrates this point. One scenario for instance not contemplated by the AEMC in the Directions Paper is case of a highly contracted generator buying extra financial contracts from another generator so that they further benefit from higher pool prices. This enables them to sell more energy at a higher price than they have contracted for. We should also add that this approach can provide a reasonable financial trading arrangement as it can provide an effective hedge strategy against plant failure.

Further, the Energy Action Group has some difficulty with the AEMC observation relating to capacity markets. We were of the belief that the theoretical design of capacity markets was to assist new entrant generators overcome "the barriers to entry" created by a market operating with a long term price around SRMC. (The NEM with some significant exception has been operating at or below new entrant LRMC since its inception.) The capacity payment was designed to help generators to receive a price close to LRMC and to keep the market competitive by lowering the costs to a new entrant. Why would a new entrant invest in a capital intensive industry when they were only going to get SRMC for a long period of time?

There are a number of systemic issues that NECA and now the AEMC have been grappling with since before market start. One example is, how to provide adequate generation capacity to meet the 1 in 10 year projected maximum regional demand. This is one indicator to us that not enough peaking generation is being built to meet STPASA forecasts. We note that the Reliability Panel is looking again at the perennial issue Reserve Trader arrangements or what used to be the Reserve Trader arrangements. The second issue that we find interesting is that on the occasions that the Cumulative Price Cap has been invoked minimal new AEMO dispatched generation has been built. These two points indicate that market exposure to the potential of high prices doesn't result in

sufficient demand response or new generation. So with minimal base load plant being built and insufficient peaking plant being built to meet the changing load structure, generators with monopoly power can continue to benefit from the market arrangements.

In conclusion, the Energy Action Group believes that the AEMC Direction paper fails to address the MEU and our concerns in relation to market power issues. We believe that the MEU has made a strong case that the market power clauses in the Rules need substantially strengthening and that the Commission should have spent considerably more time, resources and effort in trying to understand the issues around market power in the NEM, which in turn, should have resulted in a Rule change proposal that would have addressed problems around generator market power.

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