



Australian Energy Markets Commission

**National Electricity Amendment
(Bidding in good faith) Rule 2014**

Reference Code ERC0166

Comments on the Draft Decision

Submission by

The Major Energy Users Inc

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**Assistance in preparing this submission by the Major Energy Users Inc (MEU)
was provided by Headberry Partners Pty Ltd**

**The content and conclusions reached in this submission are entirely the work
of the MEU and its consultants.**

1. Introduction

The Major Energy Users Inc (MEU) welcomes the opportunity to provide comments on the AEMC's Draft Decision issued as part of its assessment of the rule change proposed by the SA Government to address the observed use by generators of rebidding as a tool for increasing their prices when market conditions do not warrant such an increase in price. The SA Government rule change proposal is strongly supported by the MEU.

The MEU has noted that the AEMC has, over the past three years, addressed three rule changes proposed to limit the exercise of market power by generators - the first by the MEU, the second by the AER and the third by the SA Government. In each case, the AEMC has approached the requests for the changes based on the premise that:

"... that the resulting price outcomes may also be a function of market structure. The Commission considers that rules are not an effective means to compensate for a non-competitive industry structure."¹

The MEU has seen observations similar to this made in the AEMC decisions on the other two generator market power rule change proposals. The clear implication is that the AEMC would prefer to allow generators to exercise their market power unchallenged rather than address the lessening of competition occurring in the market arising from structural issues.

The MEU observes that the process of transitioning from vertically integrated state based structures to a competitive market must reflect that the structure of the generation portfolios will result in a less competitive structure than the ideal where all generators have a number of strong competitors in each type of generation in every region. The increase in the capacity of inter-regional connection provides some leavening of the inherited non-competitive industry structures in each region but the ability to transfer electricity between regions is quite constrained as the cost to provide unlimited power transfer would be too great. As a result, the NEM is in reality a series of connected regions rather than a national market².

The MEU also accepts that the AEMC has no ability to force the divestiture of generation assets to address the non-competitive industry structure and neither do governments have this ability. This means that the NEM has to operate under the structure it has. If the AEMC is not inclined to institute rules to redress clear imbalances in market power, then there is little hope that the long term interests of consumers can ever be achieved where generators are able to exercise their market power whenever conditions suit and they elect to do so.

¹ AEMC Draft Decision National Electricity Amendment (Bidding in good faith) Rule 2015, page iii

² This view has been supported by a number of assessments made by the ACCC, most recently in its recent decision not to approve the sale of Macquarie Generation to AGL.

1.1 Competition

The final decision made by the AEMC in regard to the MEU rule change proposal on generator market power reflected that generators should be permitted to exercise their market power unchecked providing that the exercise of the market power did not drive the average annual regional spot price above the price a new entrant generator might require. To support this decision, the AEMC recommended government make a change in the National Electricity Law (NEL) to provide the AER with greater market monitoring powers to assess whether generators were exercising their market power at unreasonable levels of wealth transfer from consumers to generators.

The MEU sought advice from the internationally renowned consultant Poyry Management Consulting as to its view of the AEMC final decision on the MEU rule change proposal and this report is attached as appendix A.

In the report, Poyry comments (page 2)

"The AEMC concluded that the proposed rule change would not contribute to achievement of the National Electricity Objective (NEO), namely, 'the promotion of efficient investment in, and efficient operation of, electricity services for the long term interests of consumers with respect to price and reliability'.

This conclusion is essentially based on four key assertions.

- The relevant definition of market power is 'substantial market power' and focuses on long-term, sustained increases in annual average prices above a benchmark measure of a long-run cost of entry (the long run marginal cost (LRMC)).
- There is no evidence of substantial market power – that is, with the possible exception of South Australia, there is no evidence that there is or has been the exercise of substantial market power ... in any region of the NEM.
- Even if there is potential market power, there is little scope for its exercise given current market conditions.
- The precise form of the proposed rule would reduce the efficiency of wholesale price signals in a manner that would be detrimental to future investment decisions with possible adverse consequences on reliability and security of supply."

Poyry then goes on to comment on each of these four assertions made by the AEMC, and disputes each of them.

The MEU considers that not only does the Poyry report provide arguments disputing the AEMC approach to the MEU proposed rule change, but they also apply, to some extent, to the AEMC final decision on the AER proposed rule change (on ramp rates) and to the current draft decision on the SA government proposed rule change.

Each of the proposed rule changes is focused on ensuring that generators do not use the market power they hold, and would be required to operate as if the market was fully competitive at all times.

- The MEU proposed rule change was to limit the ability of pivotal³ generators to set the market price at whatever they wished when they have no competition in a region
- The AER proposed rule change was to limit the ability of some generators to use their offered ramp rates to set the market spot price when they have no competition
- The SA government proposed rule change is to limit the ability of some generators to use the timing of their bids to set the market price so they limit competition.

To reduce the AEMC approach on the exercise of generator market power to simplistic terms, the AEMC appears to consider that:

- The wealth transfer from consumers to generators when generators exercise market power is acceptable providing that it does not exceed that coming from prices which might be set by a new entrant generator
- The NEO places primacy of future investment (generation or network) over all other considerations, including the interests of current consumers. This means that any rule change proposal that might limit future investment is not accepted.
- Equity between Market Participants (eg technical differences between generators - a core issue in the ramp rate rule change proposal) must take primacy over the interests of current and future consumers and even the needs of the market to ensure security.

What is absent from any of the assessments made by the AEMC in relation to these rule change proposals, is any evidence that the interests of future consumers will be achieved by the application of these AEMC considerations. The AEMC considers that as long as new investment is not likely to be deterred, then the interests of future consumers will be served.

In contrast to the AEMC approach, regulators and rule makers for most other competitive electricity markets (whether energy only or capacity markets⁴) consider

³ A pivotal generator is one where at some level of regional demand, the generator must be dispatched to ensure there is supply within the region

that the exercise of market power is unacceptable in any guise as it delivers an outcome that does not reflect competition. The views of other regulators and rule makers is that it is competition that provides for the long term interests of consumers and market rules to limit abuse of market power are appropriate.

In contrast, the AEMC has persisted in asserting that as long as the electricity market reflects "workable competition" then abuse of market power is acceptable:

"The Commission considers 'workable competition' is the appropriate benchmark against which to test market outcomes in the wholesale electricity market, rather than 'perfect competition'." ⁵

What is missing from the AEMC assessment on "workable competition" is that this is not defined by the AEMC or more generally in economic literature. So "workable competition" is whatever the user of the term decides. In contrast to the AEMC approach, regulators and rule makers in other competitive markets have decided that the ability to exercise market power should be constrained, clearly implying that their view of competition (whether "workable" or "perfect") excludes the exercise of market power.

1.2 Investment is the AEMC prime driver

The MEU accepts that the NEO makes reference to "...efficient investment ... for the long term interests of consumers..." but it also refers to the price of electricity. The second reading speech⁶ introducing the NEO makes clear reference to competition being the driving force to achieve the long term interests of consumers.

"Applying an objective of economic efficiency recognises that, in a general sense, the national electricity market should be competitive ..."

Being able to exercise market power clearly is not an outcome of competition. The AEMC has a responsibility to maximise the level of competition in electricity markets, yet its decisions on rule changes to prevent the exercise of market power have permitted the practice to continue, whether through economic withdrawal of capacity, the bidding of ramp rates to introduce or maintain high prices, or by late rebidding. To defend its position, the AEMC argues that it needs to focus on "efficient investment in" the electricity market as:

⁴ The AEMC persists in excluding experiences of exercise of market power in capacity markets on the assumption that anti-competitive behaviour in bidding practices in capacity markets is significantly different to anti-competitive bidding practices in energy only markets - in this regard the AEMC appears to be a lone voice in the world of competitive electricity market regulators

⁵ See AEMC FINAL RULE DETERMINATION Potential Generator Market Power in the NEM, 26 April 2013, page 19

⁶ Hansard, SA House of Assembly, 9 February 2005 page 1451

"... too much weight on productive and dynamic efficiency will weaken incentives to invest"⁷

The clear import of this AEMC assessment criterion is that the need for investment over-rides all other considerations.

The MEU considers that the AEMC decision to place future investment as the major determinant in rule making is not what the NEO is intended to deliver.

1.3 What are the "long term interests of consumers"

What the AEMC has also overlooked is that the pattern of demand has seen a seismic shift in recent years, from being a continual increase in demand and consumption to one driven by national economic issues (leading to closures of facilities using large amounts of electricity), new technology (leading to massive investments in roof top solar and a reduction in consumption) and high prices (leading to consumers to be more efficient in energy use and seeking alternatives). These moves by current consumers have led to significant challenges to the supply side of the electricity market.

By focusing on future investments in the electricity supply chain, the AEMC has excluded the impacts of the abuse of market power on current consumers. This then excludes the outcomes from the actions that current consumers might have on future consumers, such as what current consumers will do to insulate themselves from, amongst other things, from anti-competitive behaviour by generators which have contributed to higher prices than would come from a competitive market. The MEU has seen actions of this sort first hand where some consumers have elected to reduce their activities and others have installed their own generating plant to insulate themselves from the electricity market.

By the AEMC focusing on what actions support future investment in the supply side of the electricity market, it has failed to integrate into its assessments of the actions that the demand side might institute. The falling demand and consumption of electricity both in terms of total regional usage and on a per customer basis from efficiency gains, current consumers have shown they are prepared to take actions to limit their exposure to anti-competitive activities - indeed, the AEMC report on "Power of Choice" seeks to deliver this outcome! What is important to note, is that the decisions of current consumers have a very large bearing on what future consumers will be exposed to.

Yet in none of the AEMC assessments on the three rule change proposals has the AEMC assessed what the impacts of the rule change will have on current consumers and to assess the impacts of changes current consumers might make which will

⁷ AEMC Draft decision on rebidding page 6

impact on future consumers. In fact, the only assessment has been on the impact on future generation investment!

In this regard it is pertinent to note the AEMC approach to changing the rules on network investment. In 2006, the AEMC stated that the rules for network regulation needed to incentivise network investment. The outcome of that decision is that since then there has been considerable over-investment in network capacity and increasing amounts of redundant network assets. The network rules provide for future consumers (as well as current consumers) to pay for these assets that might never be needed. Even as late as the 2012 network rule changes, the AEMC decided not to accept a rule change proposal for network asset bases to be optimised on the basis that this would deter investment in networks. Since that time, there have been many views provided referring to the "Death Spiral" where more consumers are leaving the electricity market and imposing the carrying of an ever increasing asset base by the reducing number of consumers remaining, and leaving the future consumers to pay for oversized and/or redundant assets. Clearly the decision to implement rules which incentivise network investments, has resulted in an outcome that is not in the long term interests of consumers.

The continuing failure of the AEMC to assess the impacts of likely demand side responses on future consumers is of great concern.

1.4 Inconsistencies

In the decision to not make a rule change in response to the MEU proposed rule change, the AEMC commented that spot prices should not exceed, over the long term, prices that might be offered by a new entrant generator. Yet in its analysis of the SA government rule change proposal, the AEMC has observed (page ii):

"Over the longer-term, spot prices which do not reflect underlying conditions of supply and demand will tend to reduce their effectiveness as production, consumption and investment signals."

The MEU agrees with these sentiments yet, with economic withdrawal, which was the focus of the MEU proposed rule, prices offered by the generators with market power did exactly this - they drove prices well above spot prices which would otherwise have reflected the underlying conditions of supply and demand. When this did occur, the MEU commented that production, consumption and investment signals were significantly distorted, yet in the MEU proposed rule change, the AEMC considered that such distortion was acceptable provided that the average annual spot price did not exceed the new entrant price.

At least in the rebidding rule change assessment, the AEMC is proposing some change, as distinct from the AEMC analysis for the MEU proposed rule change.

1.5 Conclusions

The AEMC has consistently observed the electricity market has a less than competitive structure and that rules are not the way to redress this imbalance.

Consumers point out that the structure is what it is and the rules have to be modified to deliver an outcome that manages the inefficient structure. As the structure is relatively fixed, this requires the AEMC to create rules that deliver the best outcome for consumers, even if this becomes a "least worst" outcome for consumers. For the AEMC to continue its current approach of considering that the rules should not be used to provide a competitive market does not help achieve the market Objective.

Overall, the MEU considers that the AEMC assessments of the three proposed rule changes to limit the abuse of market power have resulted in little change to the market and have provided generators with a high level of comfort that they can continue to use the lack of constraint on abuse of market power to maximise their profitability.

2. The Draft Determination

The AEMC proposes that in lieu of the SA Government proposed rule, it sees that there is a need for change and proposes a "more preferable rule" which determines that:

- "the current requirement that offers be made in good faith would be replaced by a prohibition against making false or misleading offers;
- the obligation not to mislead the market would need to be met by generators on an ongoing basis through a requirement that any variations to offers be made as soon as practicable; and
- additional reporting requirements would be imposed on variations to offers made close to dispatch." (page i)

The AEMC considers that these

"... revised requirements would be likely to lead to more efficient wholesale price outcomes in the short term, and create investment signals that better reflect underlying conditions of supply and demand, in the long term interests of consumers." ⁸ (page i)

The MEU sees that the more preferable rule is better than the existing rules and therefore considers that the AEMC draft determination should be supported, although the MEU would have preferred the SA government rule change proposal to have been implemented.

2.1 The prime MEU concern with the draft preferred rule

The MEU considers that the AEMC has proposed a "watered down" rule change which misses a core element sought by the rule change proponent. In this, the MEU observes that the AEMC has again minimised the ability of the rule change to meet the intended purpose as envisaged by the rule change proponent, just as it did with the MEU and AER proposed rule changes.

The proposed rule sought to impose a requirement that only significant changes in the market should constitute reasons to allow a re-bid. Instead, the AEMC considers that generators might have a reason to rebid based on their expectations and even their expectations of other generator expectations, and that these expectations provide an acceptable reason to change bids. On this basis the AEMC has watered down considerably the SA Government proposal. What concerns the MEU is that a generator's prime expectation is to maximise its profitability. This means that under

⁸ The MEU notes that again the AEMC considers that investment addresses the "long term interests of consumers" and excludes the impacts on current consumers and what actions they might institute

the more preferred rule, any generator making a rebid can do so on the expectation that it will improve its profitability. A generator can reasonably state that it is making a rebid in good faith because this will improve its profitability and that its earlier bids were not false or misleading - they just did not deliver the profitability the generator was seeking.

It is important to understand that a generator might well make a bid (or rebid) at a point in time and be prepared to accept the outcomes of that bid - ie that it would have honoured its dispatch at that price. If, however, the generator has an opportunity to rebid with a view to making a higher priced bid because it sees that it could improve its profitability if the higher price is accepted, the MEU considers that this would have to be accepted as a legitimate rebid, because it is equally prepared to honour that rebid because it would achieve a higher profitability. The MEU sees that such action would not be false or misleading and therefore would have to be accepted.

In contrast, the SA Government rule change proposal would not allow this rebid to occur because the focus of the proposal is that there has to be a trigger external to the generator making the rebid for the rebid to be acceptable. Further, the SA Government proposal requires the rebid to be made closely after the change in the market whereas a rebid to improve profitability can be made at any time.

2.2 A concern with both the proposed rule and the more preferred rule

The MEU notes that both the proposed rule and the preferred rule will permit rebidding; the proposed rule requires an external trigger and the more preferred rule increases the reasons for which an acceptable rebid can be made.

However, the MEU notes that under both proposals, they both still permit generators to exercise their market power to the detriment of consumers.

For example, bids could have been provided to the market operator on the expectation that there is a competitive market and interconnectors have spare capacity. As demand rises, the interconnectors reach capacity but no further increases in demand are forecast. At this point of equilibrium, regional demand has reached a level where one (or more) generators must be dispatched to ensure continuing supply. Under the proposed rule, nothing has really changed other than the interconnector reaching its capacity. There are a couple of scenarios that can now be contemplated with different outcomes

- There is no increase in demand but the pivotal generator could economically withdraw capacity (ie rebid) driving up the regional price because the interconnector would be constrained if the capacity was withdrawn. Under the SA government proposed rule, this would not be permitted but would be

allowed under the more preferred rule. The more preferred rule would impose a penalty on consumers that the proponent's rule would not.

- If there was a further increase in demand, then the pivotal generator could withdraw capacity by rebidding and this would be allowed by both the proposed rule changes and the more preferred rule change causing consumers harm out of proportion to the change in the market.

The MEU is concerned that the weakening proposed by the more preferred rule can impose unnecessary costs on consumers and even the SA government proposed rule still allows for the exercise of market power.

2.3 A possible outcome if external triggers were mandated

The AEMC has opined that it is not only external triggers that lead to a generator making a rebid, but expectations of what might occur and even the expectation of what another Market Participant might be expected to do. On this basis the AEMC concluded that less limitation on rebidding is preferable to an external trigger being the only acceptable reason to make a rebid.

The MEU disagrees. If there were no other allowable reasons to rebid than an external trigger, in the first instance, there maybe a risk that a lower price might not eventuate for consumers. Interestingly, the cost to consumers of not experiencing a lower price is much less than the cost to consumers of having a higher price imposed. The median price of electricity in the NEM lies in the \$30-\$40/MWh range with the average time weighted price lying in the \$40-\$50/MWh range. That there is such a significant difference between mean and median prices reflects that there is an overall trend that rebidding tends to increase prices rather than reduce them.

The ability to reduce prices is quite constrained as generators seek to have positive prices, but the ability to increase prices is massive by a factor of over thirty times from the median, up to \$13,000/MWh. So for the AEMC to argue that great care is needed to ensure that consumers benefit from both increases and decreases in rebids is somewhat disingenuous and misleading. It was on this basis that the AEMC asserts that an efficient market would allow rebids based on both external market changes **and** expectations of generators and their expectations of what others might expect to do.

The MEU considers that with rebidding limited to just external changes in the market, generators would have to become more careful in their bidding practices overall because to make an initial bid too high could result in them not being dispatched and therefore receive no revenue or, not being dispatched, therefore face the risk of not being able match their hedges for their contracted volumes. The MEU considers that over time, generators would tend to bid at prices that are closer to their short run marginal cost (which is what the market is supposed to reflect) rather than face the

risk of not being dispatched which they do now by using higher prices which they can later reduce.

2.4 Gate closures

The MEU notes that the proposed rule did not address gate closures for rebids but this aspect became increasingly more important during the discussions on the proposed rule change.

The discussions on gate closure ranged from sufficient time ahead for consumers to be able to adjust their demand through to the views of generators who consider no gate closure is necessary. In this regard, the MEU notes that most competitive electricity markets have a gate closure arrangement on rebidding and that this is seen as a "least worst" position as no gate closure allows the exercise of market power which is generally condemned (except in the NEM).

The MEU considers that the more preferable rule does not limit when rebidding is no longer permitted ie there is no gate closure in the more preferable rule. All that is provided for is additional reporting that must be provided at the time of the decision to rebid but not when the rebid is made. Whilst this does impose some constraint on the practice of rebidding, it still allows the generator to make a rebid up to the moment of the start of the dispatch interval.

The MEU observes that consumers are still exposed to the higher price that could come from the exercise of market power but the AEMC considers that the additional reporting and ex post review of rebidding will change the practices of generators over time. Rebidding outside of the 15 minute lead in time is permitted without penalty.

The MEU considers that 15 minutes is not sufficient time for the demand side to be able to respond to the change in prices. The MEU notes that most of the responses to the Discussion Paper considered that at least 30 minutes is the minimum time needed by the demand side to respond to a price change and probably even longer could be needed. The Oakley Greenwood report confirms this, stating that with 15 minutes notice perhaps 10% of the demand side response might be able to contribute to the market. Clearly, 15 minutes notice is insufficient for a substantial demand side response.

The more preferable rule will effectively prevent most demand side responsiveness, even if the generators are exposed to investigation of rebids made with 15 minutes of a dispatch interval.

2.5 Additional reporting

The MEU supports the requirement for additional reporting. Its only concern is whether the extent of the additional reporting will provide the AER with sufficient information for them to carry out their tasks.

The MEU considers that the AEMC should consult with the AER about the extent of the reporting requirements the AER considers would be needed.

2.6 Penalties

The MEU notes that the penalty for a breach of the rebidding civil penalty provision is an amount of \$1,000,000 followed by \$50,000 per day for which the breach continues. What is absent from the AEMC discussion on its draft more preferable rule is whether this penalty will exceed the benefit a generator might accrue from breach of the provision. At a pragmatic level, if a generator increases its revenue by more than \$1,000,000 then it becomes a commercial decision to implement the breach and even to continue to breach the new rule.

The MEU considers that the AEMC draft decision is deficient in not addressing this pertinent issue.

2.7 Conclusions

The MEU accepts that the more preferred rule is better than what currently applies.

Even so, the MEU considers the more preferable rule does not provide adequate protection for consumers.

The MEU considers that the more preferable rule should be modified to:

- Impose a firm gate closure 30 minutes prior to a trading interval which will allow significant demand side responsiveness to the market. The MEU accepts that there might be significant external changes in the market occurring after this time.
- After gate closure, rebids resulting from significant external changes should be permitted and that the rebid must be accompanied by a report explaining why the significant external change has caused the need for a rebid
- There must be additional reporting of reasons for rebidding provided so that adequate ex post assessments can be made of the acceptability of the rebids.

GENERATOR MARKET POWER - A COMMENT ON THE AEMC FINAL RULE DETERMINATION

A note from Pöyry Management Consulting to Major Energy Users Inc.

8 April 2014

INTRODUCTION

This note has been prepared for the Major Energy Users' Inc. (MEU) in response to the Australian Energy Market Commission's (AEMC) Final Rule Determination¹ on the proposed rule change addressing Potential Generator Market Power in the National Electricity Market (NEM).²

In its Final Determination, the AEMC did not support the proposed rule change on the basis that it would not effectively address an exercise of substantial market power and, moreover, could have 'other significant adverse consequences'. However, the analytical framework adopted by AEMC for assessing the potential exercise of market power has limitations. It relies on the long run marginal cost (LRMC) metric. But there is no robust evidence to suggest that this is the appropriate competitive benchmark or that the price-cost mark-up observed is a justifiable scarcity rent as opposed to an abuse of market power.

Indeed, the AEMC did concede that 'the exercise of substantial market power is possible in the NEM' and that it would be important to establish a monitoring regime under the National Electricity Law (NEL) and National Electricity Rule (NER) framework to report on the functioning of the wholesale electricity market. As this was considered outside of the remit of the AEMC, a recommendation was made that the Standing Council on Energy and Resources (SCER) make changes to the NEL to facilitate the implementation of a market monitoring role for the Australian Energy Regulator (AER) in regard to the wholesale electricity market.

Together, these points indicate that other market monitoring and analysis approaches should be adopted, drawing on best practice from international markets, in order to develop a more robust framework for assessing potential exercise of market power in the NEM.

The purpose of this note is both to comment on the AEMC's conclusions in its Final Determination and provide some background on the role of market monitoring in other jurisdictions to inform the discussion on the scope and nature of the future market monitoring role for the AER.

¹ 'Final Rule Determination: Potential Market Power in the NEM'; AEMC, 26 April 2013

² 'Proposed rule change to enhance generator competition outcomes during high demand periods in the NEM', 23 November 2010

AEMC FINAL DETERMINATION

Summary of determination and justification

The AEMC concluded that the proposed rule change would not contribute to achievement of the National Electricity Objective (NEO), namely, ‘the promotion of efficient investment in, and efficient operation of, electricity services for the long term interests of consumers with respect to price and reliability’.

This conclusion is essentially based on four key assertions.

- The relevant definition of market power is ‘substantial market power’ and focuses on long-term, sustained increases in annual average prices above a benchmark measure of a long-run cost of entry (the long run marginal cost (LRMC)).
- There is no evidence of substantial market power – that is, with the possible exception of South Australia, there is no evidence that there is or has been the exercise of substantial market power (on the in any region of the NEM).
- Even if there is potential market power, there is little scope for its exercise given current market conditions.
- The precise form of the proposed rule would reduce the efficiency of wholesale price signals in a manner that would be detrimental to future investment decisions with possible adverse consequences on reliability and security of supply.

We comment on each of these assertions in turn, highlighting where the methodology and conclusions differ from the views expressed in our earlier note on the Draft Determination.³

AEMC definition of market power

The AEMC bases its assessment on the construct of substantial market power, which it defines as follows:

‘Substantial market power in the context of the NEM is the ability of a generator or group of generators 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.’ [Final Determination, p.20]

We have previously commented in detail on the fact that this definition is in contrast to the approach applied in several other jurisdictions where competitive electricity markets exist. Because of the unique characteristics of electricity markets – lack of demand-side responsiveness, lack of storability and delivery through an integrated network system – standard views of market power are less relevant in electricity markets. In particular, it is widely accepted that:

- market power can be exercised for short periods of time with similar impacts to a long lived exercise of market power in other markets; and
- traditional thresholds of unilateral market power and dominance do not apply because, as noted by the UK Office of Fair Trading, ‘there are circumstances where undertakings may have the ability substantially and consistently to influence prices,

³ Generator Market Power – Review of the AEMC Draft Rule Determination; Pöyry Management Consulting, July 2012

and therefore to act independently of customers and competitors, even though their market shares fall below normal thresholds for assessing dominance'.⁴

However, basing the assessment of market power on the LRMC metric has limitations. There is no robust evidence to suggest that this is the appropriate competitive benchmark or that the price-cost mark-up observed is a justifiable scarcity rent as opposed to an abuse of market power. Furthermore, use of LRMC as a metric can serve to conceal actions that may be of concern. On this theme, the AER notes the following:

'While the CEG report analyses barriers to entry, and indicates the possible existence of barriers to entry in South Australia, the report appears to down-play the barriers to entry on the basis of the price versus upper bound LRMC applied by NERA, which reflects a degree of circularity in the approach.'⁵

The AEMC definition essentially accepts that there may be short-term price spikes, or transitory market power, but concludes that short-term price spikes do not require monitoring for two reasons.

- They have limited impact on 'the achievement of the NEO or the productivity of the wider economy' – this finding is contrary to that of many other regulators, and appears to rely on the assumption that the level and volatility of spot prices is less important than the annual average level of wholesale prices.
- Provided there are no 'enduring barriers to entry and expansion' then entry/exit will occur to ensure the long-term prices trend around a new entry cost – however, even with a largely contestable market with no barriers to entry, transitory market power could lead to price increases that raise the risk and costs for consumers exposed to the spot prices without materially changing the long-term investment signal. As such, the 'transitory' market power can persist even if there is contestability.

While the AEMC has arrived at this conclusion following consultation, the approach adopted does not appear to have been fully justified. Specifically, it has been asserted that transitory pricing behaviour has no material impact on achievement of the NEO, though no evidence has been provided to support such a conclusion.

As there has been no analysis of the behaviour of individual plant or generators, the extent to which additional costs have been imposed on consumers either directly (where they are exposed to spot price fluctuations) or indirectly (to the extent that forward and contract prices (including hedging costs) are influenced by spot market price levels and volatility) has not been quantified.

It also does not present any evidence, for example, through net revenue tests, that the bidding behaviour of plant is in line with, as opposed to above, their required returns.

In effect, the definition applied by AEMC presents an opportunity for generators that have transitory pricing power to exercise that power to the maximum extent, provided it does not result in a sustained rise in average wholesale prices. This can be expected to reduce efficiency of dispatch, increase overall system costs and may also distort long-term investment decisions (both in terms of the level of capacity investment (artificially pushing prices up close to LRMC may perversely lead to incentives for overinvestment) and the type of capacity (peak or baseload)).

⁴ 'Understanding Competition Law: Application in the Energy Sector', Office of Fair Trading, 2005

⁵ AER Submission on Draft Determination, 1 August 2012.

Lack of evidence for market power

The basis of the AEMC's conclusion that there is no substantial market power is principally based on a comparison of the annual average wholesale price to an estimate of the LRMC following analysis undertaken by its consultants, NERA⁶. This analysis is not sufficient to demonstrate whether or not there is potential market power:

- there is uncertainty over many of the variables that contribute to the estimates of LRMC and this can lead to a wide band of outcomes where it is hard to distinguish market power and normal activity – in most other jurisdictions, the acknowledgement of these limitations of a single measure mean that they employ a range of structural indicators (e.g. concentration indices, pivotal supplier or residual supply indices) alongside behavioural metrics (e.g. price-cost mark-ups or Lerner indices) and market modelling benchmarks in determining whether market power exists;
- a negative result (i.e. that prices are significantly above a benchmark of LRMC) indicates the *exercise* of market power not the *existence* of market power – it is quite possible that market power exists even if it is not exercised, or that it is exercised in such a way that it cannot easily be observed using the applied metric – this is of critical importance for electricity markets where, as already noted, transitory market power is prevalent; and
- the evidence presented by CEG in its report⁷ to the AEMC is not sufficient to conclude that the markets do not exhibit entry barriers and therefore that what may be considered transitory pricing power would not be sustained in the long-run.

Limited scope for exercise

Another aspect of the nature of the LRMC benchmark is that the evidence of market power is only whether prices are sustained above LRMC for a period of time, which it takes to imply entry barriers. It does not address any other situation – for example, where prices are at or above long-run marginal cost in periods where demand is fallen and capacity margins are increasing. In these circumstances, the ability to maintain a price around new entry could be interpreted as an exercise of market power since excess capacity in a market should not be able to earn a return and should be incentivised to leave.

The AEMC concludes that there is limited scope to exercise market power under current market conditions – falling or static demand and increasing deployment of renewable capacity. In fact, while it is correct to state that there is limited scope for prices to be above LRMC in this market environment, it does not necessarily imply there is less scope to exercise market power. In fact, the reverse may be true. Existing generators could maintain prices around LRMC levels to support current capacity, even if the market situation should indicate some plant closure or mothballing. In these circumstances, consumers would be adversely affected by being asked to support inefficiently high levels of capacity through their tariffs.

In this context, it is noteworthy that the AER makes statements in its 'State of the Energy Market 2013' report which point to evidence of market power being exercised:

⁶ 'Potential Generator Market Power in the NEM: A Report for the AEMC', NERA Economic Consulting, June 2011

⁷ 'Barriers to Entry in Electricity Generation: A report outline for the AEMC', CEG, June 2012

'High levels of market concentration and greater vertical integration between generators and retailers give rise to a market structure that may, in certain conditions, provide opportunities for the exercise of market power.' (Section 1.4.3).

'Bidding may also be affected by supply issues such as plant outages or constraints in the transmission network that limit transport capabilities. Some generators have market power in particular regions and periodically offer capacity at above competitive prices, knowing capacity must be dispatched if regional demand exceeds a certain level. This behaviour most commonly occurs at times of peak demand, often accompanied by generator outages or network constraints.' (Section 1.5).

Its concerns relating to market power are further evidenced by the AER's request in August 2013 for a rule change to address issues relating to 'congestion-related disorderly bidding' through requirements for ramp rates and dispatch inflexibility profiles to reflect technical capabilities⁸. This serves to highlight the difference in opinions held by AEMC and the AER in relation to market power in NEM. The AER has also highlighted metrics that it would consider in market power monitoring:

- structural indicators:
 - market share;
 - Herfindahl-Hirschman Index;
 - residual supply index;
- behavioural indicators:
 - relationship between capacity utilisation and spot prices

Precise form of rule

The AEMC suggests that the proposed rule would 'introduce a mechanism which would significantly interfere with the normal market bidding behaviour by generators in the NEM' [final determination, p64] by restricting bids to the administered price cap (APC) during periods when they were found to have market power. This intervention, it is claimed, could adversely affect investment incentives to the detriment of consumers in the long-term.

Our original review of the Draft Determination did not assess the proposed rule, focussing on the definition of market power that was being used to determine whether any rule change could be supported. However, we would raise the following issues with the interpretation of the rule change applied by the AEMC:

- though we would agree that intervention to cap prices during the *normal* operation of the market may introduce inefficiencies in operation and investment, the application of the proposed rule change would, by definition, occur during periods when *normal market conditions were not present*;
- the AEMC takes as its 'starting point' that the NEM is an 'energy only' market (which implies there is no explicit mechanism for recovering the fixed costs of operation, a capacity payment) and therefore the wholesale price must recover the operating and capital costs of the plant. This does imply that 'spot price volatility is an inherent and necessary feature of a market with the characteristics of the NEM' (p13 Final

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<http://www.aer.gov.au/sites/default/files/20130821%20Letter%20to%20AEMC%20accompanying%20rule%20change%20proposal.pdf>

Determination). However, it does not mean that any or all observed volatility should be considered reasonable and that, any price-cost mark-up observed is a justifiable scarcity rent as opposed to an abuse of market power; and

- there are approaches applied in other jurisdictions that explicitly recognise the conflict between incentivising electricity investment or conservation activities and potential abuse of market power and apply rules that reflect this – for example, in California, the ISO uses a residual supply index threshold as a benchmark for when bidding may be considered to be more likely to reflect anti-competitive behaviour.

Critically, normal market operation would not be affected by the MEU proposed rule and it would only bind in cases where market operation deviates from normal when there is the potential for exercise of market power. In other words, it applies in conditions that are the exception rather than the rule. Therefore, enforcement of the rule only becomes relevant when specified pre-conditions exist that given rise to potential exercise of market power.

MARKET MONITORING ROLE FOR THE AER

Giving the AER more market monitoring powers, as proposed by the AEMC, may help to identify potential instances of market power and enable enforcement action to be taken, if required. The effectiveness of these greater monitoring powers will be influenced by:

- the nature of the market monitoring undertaken; and
- the enforcement options available.

Market monitoring and enforcement activities are undertaken in other electricity markets and are becoming a more integral part of the regulatory infrastructure. This includes European markets, such as GB and the Single Electricity Market (SEM) in Ireland, and markets in North America, such as PJM and Ontario. Considering how these activities are undertaken in jurisdictions such as those listed above could help to inform the nature of the roles and responsibilities to be assigned to the AER. In what follows, we focus solely on the four markets mentioned above.

Who undertakes market monitoring?

The responsibility for market monitoring varies as follows:

- **regulator:** GB, SEM;
- **independent market monitor:** PJM; and
- **regulator supported by independent system operator:** Ontario.

In GB, staff within the regulator, Ofgem, undertake market surveillance analysis on an ongoing basis. For the SEM, a Market Monitoring Unit (MMU), jointly staffed by members of the regulatory authorities in the Republic of Ireland and Northern Ireland, conducts regular monitoring. The approach differs in the PJM, where market monitoring is contracted externally to Monitoring Analytics LLC, who acts as an Independent Market Monitor (IMM).

In Ontario, a hybrid approach operates. The Ontario Energy Board (OEB) regulates the market and its Market Surveillance Panel (MSP) monitors, investigates and reports on activities and behaviour in the Ontario electricity sector. The MSP relies on the Independent Electricity System Operator's (IESO) Market Assessment Unit (MAU) to monitor the market on a daily basis in order to identify inappropriate or anomalous conduct by market participants, or other activities having an adverse impact on market efficiency or effective competition.

What is being monitored?

The focus of market monitoring activities is influenced by factors such as the underlying design of the electricity market and specific issues within the market.

The SEM is characterised by a mandatory, gross day-ahead pool and capacity payments. Generators are required under a condition of their generation licences to bid into the pool at short-run marginal cost (SRMC) in accordance with a Bidding Code of Practice (BCoP). A specific focus of the MMU is, therefore, to monitor all bids into the pool to determine whether market participants are bidding at SRMC, as required.

In GB, a specific market power concern at present relates to the potential for market participants to exploit transmission constraints, which place a physical limit on north-south flows between south Scotland/northern England and areas to the south. To mitigate the potential for market participants to exploit the physical system constraint, Ofgem introduced the Transmission Constraint Licence Condition (TCLC). The TCLC is intended to prevent generators from exploiting periods of transmission constraints to 'profit unfairly'. Of particular relevance, it seeks to limit the ability for generators to take self-dispatch decisions that would not normally be economic and which serve to exacerbate or create a constraint (i.e. the purpose is to block non-economic self-dispatch decisions). To assess compliance with TCLC, Ofgem monitors whether more economic options are available to market participants relative to their own self-dispatch decisions.

The focus on anti-competitive conduct in Ontario is on exclusionary practices (such as withholding transmission rights for interconnection), collusion and predatory pricing. To develop an assessment of the possible anti-competitive behaviour, the IESO focuses on issues such as changes in offer and bid strategies, both to price and volume, the impact of forced and extended planned outages and the relationship between market outcomes in Ontario and those in neighbouring jurisdictions. A 'Market Surveillance Data Catalogue' developed in consultation with market participants, lists the types of data that market participants are required by the IESO's Market Rules to submit in order to allow surveillance to occur.

The IMM in PJM is tasked by the Federal Energy Regulatory Commission (FERC) with monitoring:

- compliance with market rules;
- actual or potential market design flaws;
- structural problems that may inhibit a robust and competitive market; and
- the actual or potential exercise of market power or violation of market rules.

Therefore, assessment of potential market power forms an important element of market monitoring activities, with the specific focus tailored to the particular market in question.

What analysis is conducted?

The types of analysis conducted by the different market monitoring bodies vary. Some examples are listed below:

- SEM:
 - **Residual Supply Index (RSI)** to measure the extent to which a generator's capacity is necessary for meeting demand after taking into account the capacity held by other suppliers, where $RSI = (Total\ Installed\ Capacity - Firm's\ Installed\ Capacity) / Total\ Demand$
- GB:
 - **Avoidable costs** to compare bids accepted to manage export transmission constraints to estimates of avoidable costs. Avoidable costs can be defined as short-run marginal costs (SRMC) plus additional maintenance and ramping down costs.
 - **Comparable generator benchmarks** to assess how accepted bids behind an export constraint compare with those charged by any comparable generators, on the other side of a constraint.
- PJM:
 - **Three Pivotal Supplier (TPS)** test which accounts for both the ownership of assets and the relationship between ownership among multiple entities and the market demand and it does so using actual market conditions reflecting both temporal and geographic granularity.
 - **Mark-up index** to measure of participant offer behaviour for individual marginal units. The mark-up index for each marginal unit is calculated as $(Price - Cost) / Price$.
- Ontario:
 - **Withholding or Pricing-up** assessment by employing three tests:
 - **Conduct:** withholding or pricing-up has occurred;
 - **Price effect:** the Market Clearing Price (MCP) or Hourly Ontario Energy Price (HOEP) has been increased materially; and
 - **Benefit to the participant:** the market participant involved has profited or otherwise benefited from the conduct.

The use of RSI in the SEM and TPS in PJM are particularly relevant in the Australian context. RSI was developed by the Californian Independent System Operator (CAISO) as a means of monitoring potential market power in the day-ahead and real time markets as well as in relation to transmission constraints. TPS is used in PJM to test local market structure, indicate the existence of market power in local markets created by transmission constraints. Both types of analysis are relevant in the Australian context; RSI has a particular focus on potential transient market power while TPS takes into account transmission constraints between interconnected regions. These methods, as well as others used internationally, could be valuable tools for the AER. Indeed, the AER has already flagged the potential role of RSI in its monitoring, as discussed above.

What are the enforcement arrangements?

In cases where market monitoring and supporting analysis highlights cases of potential market abuse and indicates that enforcement action is required, several avenues are available.

Where regulators are directly involved in market monitoring activities (as in GB, SEM and Ontario), they also provide the initial route for enforcement. For PJM, the IMM has no enforcement authority. It notifies FERC if it identifies a significant market problem or market violation and FERC then takes on the enforcement role.

There is some commonality between options available to the regulators. Typically, a regulator can act by:

- issuing guidance on behaviour and/or interpretation of licence conditions;
- directing remedial/corrective action in accordance with the licence;
- imposing financial penalties; and
- revoking licences.

There are then, typically, options for appeal within the relevant legal system to challenge regulatory decisions.

Recent developments

Recent experience in GB provides additional insight into the development of enforcement options and also the initiation of a competition investigation in the electricity sector due to concerns about the competitiveness of the market.

Development of enforcement

In March 2014, Ofgem launched a consultation⁹ in relation to its approach to enforcement, accompanied by a new policy statement on imposing financial penalties and making consumer redress orders¹⁰. The new policy statement emphasises the central role of penalties and redress in securing fair outcomes for consumers and deterring non-compliance. This may provide a useful reference for the development of enforcement powers for AER.

⁹ <https://www.ofgem.gov.uk/ofgem-publications/86948/penaltiesandredresspolicystatementconsultationletter31march2014.pdf>

¹⁰ <https://www.ofgem.gov.uk/ofgem-publications/86949/penaltiesandredresspolicystatement31march2014.pdf>

Sector investigation

March 2014 also saw the launch of an electricity sector investigation in GB¹¹. This was in response to persistent concerns regarding the effectiveness of competition in the market, particularly in relation to the retail segment but the wholesale market is also affected. The high degree of vertical integration between generation and supply is an important backdrop to the investigation. The six larger suppliers are all vertically integrated with generation businesses, with independent suppliers only accounting for around 5% of the market.

In launching the review, Ofgem highlighted the following specific concerns:

- weak customer response, evidenced by reduced switching;
- continued evidence of incumbency advantages;
- possible tacit coordination in retail pricing
- vertical integration and barriers to entry
- increased supplier profits

The investigation now sits with the Competition and Markets Authority (CMA), which is the UK's new competition and consumer agency. The investigation may take two years to run its course, but the analysis undertaken during the process and the recommendations reached by the end may be relevant in the Australian context too given the presence of vertically integrated businesses in NEM. This could be an important development in electricity sector competition analysis and so is a process to monitor going forward.

¹¹ <https://www.ofgem.gov.uk/ofgem-publications/86807/consultationpublish.pdf>

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