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Mr. Gavin Fox
Acting General Manager, Wholesale Markets
Australian Energy Regulator
GPO Box 3131
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AER Reference: 60382-D171/119027

Submission via wholesaleperformance@aer.gov.au

Dear Mr. Fox,

Approach to electricity wholesale market performance monitoring - Discussion Paper

AGL welcomes the opportunity to make a submission to the Australian Energy Regulator's (AER) *Approach to electricity wholesale market performance monitoring, Discussion Paper, August 2017* (Discussion Paper).

AGL is one of Australia's leading integrated energy companies and the largest ASX listed owner, operator, and developer of renewable generation. Our diverse power generation portfolio includes base, peaking and intermediate generation plants, spread across traditional generation fuel sources as well as renewable sources. AGL is also a significant retailer of energy, providing energy solutions to over 3.6 million electricity and gas customers throughout Australia.

The AER has been given a considerable task in establishing an effective wholesale market monitoring framework, and AGL appreciates the breadth of issues raised for comment in the Discussion Paper. AGL has not answered all the AER's questions, but has endeavoured to respond to the matters where its considerable market experience is best applied.

Material to consider

The Discussion Paper references several materials and experiences the AER can draw on in developing its approach. AGL suggests that the Federal Court decision on AGL's acquisition of Loy Yang A (AGL v ACCC (No 3)),¹ and the Australian Competition Tribunal's decision on AGL's application for authorisation of acquisition of Macquarie Generation in 2014, each provide useful insights for the AER's current consultation.

¹ *Australian Gas Light Company v Australian Competition & Consumer Commission* (No 3) (2003) 137 FCR 317



Relevant markets

Spot market products

Power systems require frequency control to ensure operational stability and reliability. A Frequency Control Ancillary Service (FCAS) is a regulatory construct, and in electrical engineering terms merely a characteristic of the output of the activity of power generation. In economic terms, there is perfect supply side substitution between energy and FCAS. The fact that not all generators produce all forms of FCAS does not change the supply side substitution opportunities available to most registered generators. As such, AGL does not agree that FCAS should be examined as a separate market from energy.

Derivative markets

As with FCAS, AGL does not agree that supply of energy and derivatives occurs in separate markets. As the Federal Court determined in *AGL v ACCC (No 3)*, the key technique for market definition in industrial economics is the “hypothetical monopolist test”. Applying this test to a putative “derivatives market” involves asking whether a hypothetical monopolist can “profitably” raise the price of derivatives above competitive levels. The answer to this question is demonstrably no. If derivative prices rise above competitive levels, retailers buy less and take on spot exposure – thus making the price rise “unprofitable” for the hypothetical monopolist.

As Justice French stated in that case:

The generators and retailers operate in a kind of “virtual reality” of sale and purchase whose rules are defined by the bidding, spot pricing and dispatching mechanisms and the derivative contract arrangements which are an essential aspect of the relationship between the participants. There is also a degree of unreality involved in separating out and identifying separate markets for the sale of electricity and the provision of derivative contracts. Although there are some loose, but not entirely appropriate, analogies between the derivative contract and a form of insurance in my opinion, for present purposes, the derivative contracts ought to be regarded as an integral part of the pricing and payment arrangements between generators and retailers in relation to the underlying product, which is electrical energy, and which they deal with “as if” it had been sold from supplier to retailer. In so saying, I have regard to the fact that the great bulk of derivative contracts are entered into on an over-the-counter basis. In the end, even if one were to define the separate markets for which the ACCC contends it would not seem materially to affect the outcome of this case having regard to the way in which the ACCC contends that the proposed acquisition would be likely to have the effect of substantially lessening competition in the market. [381], [382]²

Interregional settlement residue rights

² *Australian Gas Light Company v Australian Competition & Consumer Commission (No 3)* (2003) 137 FCR 317 [382] (French J)



Interregional settlement residue rights (IRSRs) are effective substitutes for derivative and other forms of insurance contracts. No instrument is a “perfect” hedge for the exposure a retailer faces to the spot market; for example:

- Cap contracts provide a “hedge” above the cap.
- Swaps are generally fixed volume and the retailer is taking “volume risk” because it is impossible to forecast demand with perfection.
- Insurance products are contingent on an event – generally weather conditions.

As such, AGL considers that it is artificial to separate IRSRs from other tools for managing pool price exposure.

Geographic considerations

AGL acknowledges that the Australian Energy Market Commission (AEMC) has previously adopted a region based market definition, however AGL respectfully disagrees. AGL supports the AER’s consideration of alternative views on this matter.

AGL does not consider that the wholesale market should be segmented by region, and presents three key reasons for this view.

Firstly, in relation to the spot market, for the clear majority of settlement periods the interconnectors are not constrained. This is demonstrated by the frequency of the marginal generator in a region (setting the regional settlement price), being a generator located outside that region.

Secondly, there is extensive evidence of firms using generation in one region to cover exposure in another region. Additionally, there is clear evidence of Queensland (QLD) generators not only offering derivatives settled against the New South Wales (NSW) nodal price, but QLD generators are also competing for large industrial customers in NSW.

Finally, in 2014, the wholesale market was considered a national market by the Australian Competition Tribunal:

The Tribunal does not consider that the periods of price separation between NSW and other NEM regions occur with sufficient frequency, duration or predictability for it to conclude that there is a separate NSW wholesale market in which the competitive effects of the Proposed Acquisition should be considered. [280]³

Significance of vertical integration

AGL is a vertically integrated “gentailer” with a large retail customer base. For AGL, vertical integration is an appropriate risk management strategy for dealing with exposure to pool prices during high price periods; that is, vertical integration largely acts as a substitute to financial hedging. Vertical integration also provides AGL with a compelling incentive to ensure its retail load is covered. This arrangement is common, and AGL is only one of several retailers in the National Electricity Market (NEM) with various degrees of vertical integration.

³ Application for Authorisation of Acquisition of Macquarie Generation by AGL Energy Limited [2014] ACompT 1 [280]



The AER has raised the possibility that vertical integration may present barriers to entry and lead to reduced liquidity of futures markets. AGL recognises these concerns, but strongly asserts that they are unfounded, and that the NEM is operating as intended with the appropriate competitive tension.

To illustrate this, AGL highlights that the number of retailers in the NEM has continued to increase in recent years. From 2014 to 2017, the number of retailers in Victoria has increased from 16 to 22. Even in South Australia (SA) where the contract liquidity ratio has been lower than elsewhere in the NEM, the number of active retailers has increased from 13 to 16 over the same period. This suggests that entering the market is possible, and that these newer retailers have been able to acquire hedge cover appropriate to their continued business needs.

Importantly, vertical integration in the NEM does not cause an overall change in the contracting level, as all that alters is the composition of financial and physical hedges. The Australian Competition Tribunal observed this when it considered AGL's acquisition of Macquarie Generation in 2014.⁴

A recently stated concern with vertical integration in the wholesale market is that there is potential for withholding of capacity in and consequential increases in spot prices. The NEM simply does not incentivise a firm to engage in such conduct. Firstly, having a customer load to cover mitigates any motivation on a vertically integrated retailer to engage in withholding. AGL itself is a net seller of financial contracts, excluding Queensland where it does not own any generation assets.

Secondly, there is no evidence that vertical integration has driven up wholesale prices. In fact, analysis shows the opposite occurs with generators offering more capacity to the market at lower prices when compared to other non-vertically integrated generators.⁵ The Competition & Markets Authority (CMA) in the United Kingdom (UK) concluded its energy market investigation in 2016 and found that:

Overall, we have not identified any areas in which vertical integration is likely to have a detrimental impact on competition for independent suppliers and generators. In addition, we consider that there may be some efficiencies resulting from vertical integration, which may be passed through to customers.⁶

Broader studies of vertical integration in markets beyond just energy have also shown it to be efficient for both the firm and the consumer.⁷

Finally, vertical integration provides a broader benefit as the key to investment in new generation. The fixed and sunk costs of investing in generation are very high, but vertical integration reduces the risks associated with that investment. A generator has more confidence in its decision to invest when it can assume that the generation can in part be sold through its retail business.

⁴ Application for Authorisation of Acquisition of Macquarie Generation by AGL Energy Limited [2014] ACompT 1 [331]

⁵ Frontier Economics, Effects of vertical integration on wholesale electricity prices, July 2017, p. 5.

⁶ Competition & Markets Authority, Energy market investigation summary of final report, 24 June 2016, para. 90.

⁷ Lafontaine, F. and Slade, M., Vertical Integration and Firm Boundaries: The Evidence, *JEL* L22, L24, p. 63.



Measures of effective competition

In AGL's experience, a generator raising the price above short run marginal costs and/or reducing output to the market, is not determinative of the exercise of market power in a workably competitive market. AGL cautions that considering a generator's costs in isolation may give rise to unrealistic expectations regarding subsequent bidding behaviour. This is because many other factors influence the bidding of a power station into the NEM.

For example, a hydro generator faces a challenging decision in determining when to use its limited fuel source. The generator does not "pay" for the rainfall that fills its dams, however when the generator chooses to run impacts the "costs" it incurs. The same can be said for battery storage, as there are "costs" incurred by the generator both when it chooses to fill and discharge the battery.

Further, price volatility is an inherent feature in the NEM's energy-only market design, and occasional periods of higher prices are intended to send signals for efficient investment in new generation and can provide opportunities for long run marginal costs to be recovered over the life of an asset.

AGL considers the most important contributor to a change in bidding behaviour that causes prices to rise is the declining quantity of reserve generation capacity in the NEM. Misdiagnosing a market power problem has the potential to stifle investment or drive the cost of that investment higher than it should be, as equity and debt markets will require higher returns to compensate for the increased risk that regulation will prohibit or penalise pricing above the marginal costs of operation.

AGL thanks the AER for the opportunity to contribute to this consultation process. Should you have any questions in relation to this submission, please contact Kate Stoeckel, Senior Manager Regulatory Strategy, at kstoeckel@agl.com.au or (03) 8633 7816.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Elizabeth Molyneux', written in a cursive style.

Elizabeth Molyneux

Head of Energy Market Regulation