



COMMONWEALTH OF AUSTRALIA

COMPETITION AND CONSUMER ACT 2010

IN THE AUSTRALIAN COMPETITION TRIBUNAL

File No. 1 of 2014

RE: Proposed acquisition of Macquarie Generation

BY: AGL Energy Limited

Applicant

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1. EXECUTIVE SUMMARY

- 1.1. In order to authorise a proposed acquisition, the Tribunal must be satisfied in all the circumstances that the proposed acquisition would result, or be likely to result, in such a benefit to the public that the acquisition should be allowed to occur. This requires the Tribunal to conduct a balancing exercise to weigh the public benefits that are likely to result from the proposed acquisition against the detriment arising from any lessening of competition. If there is significant detriment, the Tribunal would need to find that it is likely that substantial public benefits will result from the proposed acquisition that outweighs this detriment, and consequently, if the benefits are small, or if there is insufficient evidence to establish that the claimed benefits are likely to result from the proposed acquisition, then authorisation should not be granted.
- 1.2. The ACCC considers that the proposed acquisition of the assets of Macquarie Generation (Macquarie Generation) by AGL Energy Limited (AGL) would result, or be likely to result, in a small public benefit. Against this, the ACCC considers that the proposed acquisition would result, or be likely to result, in substantial public detriment constituted by a lessening of competition, due to raised barriers to entry and expansion for smaller electricity retailers in NSW and a material risk of increased generator market power. As a result of this likely lessening of competition, the proposed acquisition is likely to mean that consumers will pay more for electricity, receive lower quality service and be offered less choice.
- 1.3. In assessing and weighing the public benefits against the public detriments that are likely to result from the proposed acquisition, it is relevant for the Tribunal to take into account that authorisation of the proposed acquisition will lead to a permanent structural change in the relevant markets that cannot be reversed and which, in the ACCC's view, cannot be addressed by short term behavioural conditions being imposed on AGL.

Small public benefit

- 1.4. The ACCC is of the view that the public benefits that are likely to result from the proposed acquisition are small. The benefits that are likely to be achieved would largely accrue to AGL and are extremely unlikely to be shared with the broader community. As a result, it may be appropriate that limited weight should be accorded to these benefits.
- 1.5. AGL's approach to assessing the public benefits from the proposed acquisition has three key shortcomings. First, AGL has not adequately taken into consideration what is likely to occur in the absence of the proposed acquisition. Second, AGL has not adequately taken into consideration the costs of achieving its claimed public benefits. Third, AGL has, in most cases, failed to demonstrate that the claimed public benefits are likely to be material.

- [REDACTED]
- 1.6. These shortcomings have resulted in AGL claiming the proposed acquisition will result in public benefits that the ACCC considers are either unlikely to occur; are likely to result in minimal benefit if they do occur; or are likely to occur in any event.
 - 1.7. AGL's claimed public benefits fall into the following three broad categories:
 - a. More reliable, long term base load electricity supply into the NEM, at lower cost and with reduced environmental impact;
 - b. Lower costs in the generation and wholesale supply of electricity and lower costs in the retail supply of electricity to end users as a result of efficiencies from vertical integration; and
 - c. Increased prospects of useful public infrastructure being developed in NSW, and/or lower costs of funding such infrastructure.

AGL's claims that it will generate public benefits by improving the operation of Macquarie Generation are not well founded

- 1.8. AGL claims that by investing an additional \$345 million in maintenance and capital expenditure; applying of 'whole-of-life' planning principles; and achieving savings in labour costs it will deliver more reliable baseload electricity at a lower cost.
- 1.9. The ACCC considers if the \$345 million of additional expenditure is likely to generate benefits significantly in excess of the cost (as AGL appears to claim), any prudent owner of Macquarie Generation (including the State of NSW if it retains ownership) is likely to make the same or similar investments. Therefore there is no benefit relative to the future without the proposed acquisition.
- 1.10. If there were to be a difference in the level of investment, the basis for, and the increment of, this difference are uncertain and so are the benefits flowing from it. AGL have not put forward any evidence to suggest that its estimates of additional expenditure are likely to result in public benefits or that it is likely to be able to achieve more reliable long-term electricity supply or lower wholesale or retail prices. Therefore in any event, it is sensible to surmise that the benefits of the additional expenditure are either minimal or they will occur in any case.
- 1.11. AGL's assessment of necessary maintenance and capital expenditure places significant weight on its own technical capacity and expertise in operating the Bayswater and Liddell plants – implying the expertise is superior to that of Macquarie Generation. This claim is unsupported and dubious, particularly in light of the limited time and information AGL has had to assess the plants, in comparison to Macquarie Generation's fully informed assessment.
- 1.12. AGL places significant weight on [REDACTED]
[REDACTED]
Evidence provided by Macquarie Generation contradicts this assertion.

- 1.13. The labour cost savings, to the extent they will be realised, are minimal

- 1.14. The ACCC is of the view that AGL's claims that it will improve the operation of Macquarie Generation are, in the main, not well founded (as the improvements will occur in any event). To the extent that some benefits, in the form of labour cost savings, will result from AGL's operation of Macquarie Generation, they will be minimal and will largely accrue to AGL.

Vertical integration will not result in lower electricity prices as claimed by AGL

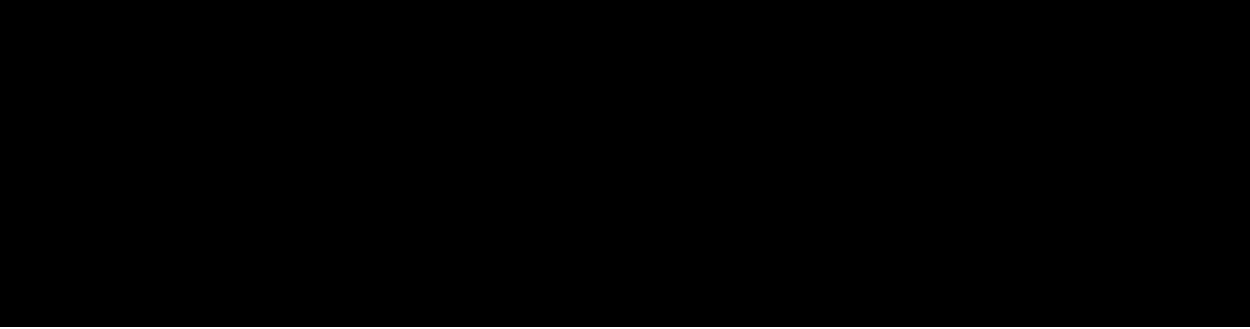
- 1.15. The ACCC is of the view that the proposed acquisition will likely enable AGL to manage the volume and price risks it faces in the wholesale electricity market in a more comprehensive and cost effective manner.
- 1.16. There is little likelihood that any of the efficiencies AGL will likely achieve from vertical integration will result, or are likely to result, in lower wholesale or retail electricity prices. Rather, the increase in vertical integration will, or is likely to, reduce competitive rivalry in the NSW retail electricity market enabling AGL to retain any benefits it is likely to achieve. Given the lack of evidence to the contrary and given the benefits will likely largely accrue to AGL, the ACCC is of the view that the public benefits from vertical integration efficiencies can best be characterised as small.

AGL's claimed benefits to the State of NSW of the proposed acquisition fails to recognise the State is giving up a valuable asset

- 1.17. AGL claims that the public will benefit from an additional \$1 billion (being the net sale proceeds) of investment in NSW public infrastructure resulting from the proposed acquisition.
- 1.18. AGL ignores the fact that Macquarie Generation is an income-producing asset. If the State of NSW retains ownership of Macquarie Generation it will receive an on-going income stream. Taking the value of this income into account, it is likely that the proposed acquisition will result in a financial benefit to the State of NSW that is a small fraction of \$1 billion. Given the likely size of the financial benefit, and having regard to the State of NSW's finances, the proposed acquisition is unlikely to have a material effect on the ability of the State of NSW to fund investments in public infrastructure, or the cost of it doing so.

Significant public detriment

- 1.19. The ACCC considers that the proposed acquisition is likely to lead to significant public detriment as a result of a lessening of competition. The ACCC considers that this detriment is likely to manifest in two markets:

- 
- a. the market for the retail supply of electricity to end users in NSW; and
 - b. the market for the wholesale supply of electricity in the National Electricity Market (**NEM**).
- 1.20. The ACCC considers that the three large retailers – AGL, Origin and EnergyAustralia – are increasingly dominating the market for the retail supply of electricity in NSW and the NEM more broadly and are increasingly becoming vertically integrated across the NEM. AGL, Origin and EnergyAustralia supply over 96% of small retail electricity customers in NSW and approximately 70% across the NEM. If the proposed acquisition proceeds, AGL, Origin and Energy Australia will also own approximately 70% of generation capacity and account for approximately 80% of output in NSW, along with approximately 40% of generation capacity across the NEM. The consolidation reflected in these market shares has been continuing for many years, as these three large vertically integrated generators and retailers ('gentailers') have purchased the majority of assets being privatised by governments, acquired smaller market participants and built generation capacity.
- 1.21. The proposed acquisition is a significant step change in this pattern of consolidation that cannot be reversed. Macquarie Generation is the largest generator in the largest region of the NEM. Its future is a critical determinant of the level of future competition and the height of barriers to entry in NSW, and the NEM more broadly.
- 1.22. As the 'gentailer' model becomes more prevalent, the ACCC considers it is critical to protect vigorous competition in retailing and generation and to ensure barriers to entry and expansion are not increased. The proposed acquisition is likely to entrench the position of the three large 'gentailers'. It is likely that it will raise barriers to entry, cause foreclosure of smaller players and place a ceiling on their growth, and deny others the scale in generation required to become a vigorous competitor.
- 1.23. The ACCC considers that following the proposed acquisition, the NSW retail market structure will be forever dominated by the three 'gentailers'. This will be a permanent structural change, with ongoing consequences for competition in that market and ultimately for consumers. However, without the acquisition, the likely market structure is a competitive market comprising two large vertically integrated retailers, a large non-integrated retailer (AGL) and a second tier of retailers that is capable of significant expansion, supported in part by hedge contracts supplied by the largest independent generator in NSW (Macquarie Generation).

The proposed acquisition will lessen competition in retail supply of electricity in NSW resulting in higher prices for consumers

- 1.24. Electricity markets such as the NEM are unique. Prices can vary widely from one five-minute dispatch interval to the next, from negative \$1000/MWh, to the typical range around \$50/MWh, and up to a maximum of \$13,100/MWh. This extreme variability in price results from the fact that electricity cannot be economically

stored, except to a very limited extent, and supply must always precisely match demand.

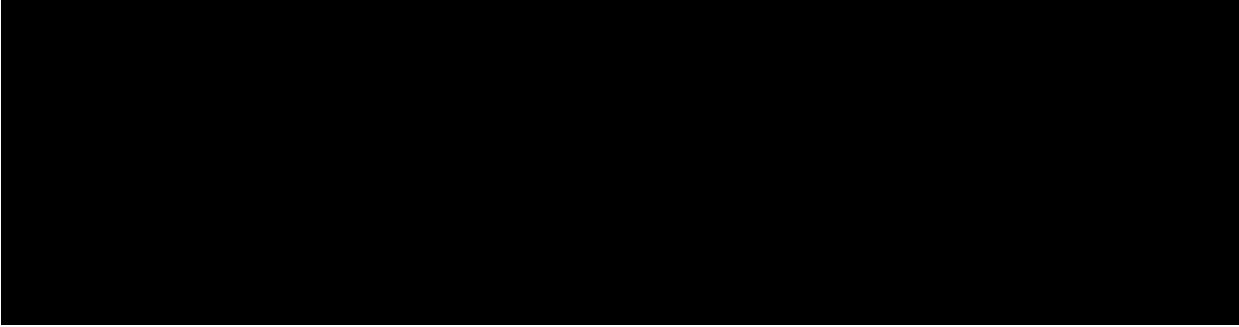
- 1.25. In the absence of hedge cover, retailers face a highly variable wholesale spot price to acquire electricity for their retail customers. Customers on the other hand, generally pay retailers a flat or fixed price. It is therefore essential that retailers hedge their exposure to the risk of high wholesale spot prices. Vertically integrated retailers can manage their exposure through owning generation (when the price is high the generation side of the business receives a high price while the retail side of the business pays the same high price), but for non-vertically integrated retailers, competitively priced and customised hedge contracts are a necessary input to their participation in the market.
- 1.26. Further, to effectively compete in the NSW retail electricity market, retailers fundamentally require hedge contracts referenced to the NSW spot price because these are the only type of contracts which can be relied on to provide firm hedge coverage. The ACCC considers that a reduction in the availability, a deterioration in the terms of supply or an increase in the price of these contracts would represent a substantial increase in barriers to entry and expansion in the NSW retail electricity market.
- 1.27. The ACCC considers that sources of hedge contracts, other than Macquarie Generation, that reference the NSW spot price are insufficient to meet the hedging requirements of non-vertically integrated retailers in NSW. Further, these alternatives are unlikely to provide a firm and reliable source of hedge contracts necessary to support the entry and expansion of independent and second tier retailers in NSW.
- 1.28. Macquarie Generation, as the largest base load generator in NSW, is a large potential supplier of hedge contracts and if Macquarie Generation did not supply such contracts, or did not do so on competitive terms, there would be a material shortfall in relation to the quantity of such contracts that is required to meet the hedging requirements of the other retailers in NSW. Therefore, the ACCC considers that AGL would be likely to have the ability to effectively foreclose the supply of such hedge contracts from competing retailers in NSW.
- 1.29. The ACCC also considers that as a large retailer in NSW, AGL's incentive to grow its retail business would outweigh its incentive to supply hedge contracts to other retailers on competitive terms. Thus, the ACCC considers that the proposed acquisition is likely to result in a material reduction in the quantity of hedge contracts that would be supplied by Macquarie Generation, as AGL is likely to act in a manner consistent with a strong incentive to grow its retail business.
- 1.30. The ACCC also considers that the proposed acquisition is likely to result in a substantial reduction in the liquidity of trading in hedge contracts that reference the NSW spot price. This likely reduction would primarily result from the 'natural hedge' that would occur as AGL vertically integrates with Macquarie Generation. This will remove the largest natural supplier of hedge contracts and the largest existing

purchaser of hedge contracts in NSW from the active trading of hedge contracts. The direct reduction in traded contracts has the potential to cause a multiplier effect on overall liquidity by increasing the risks of hedge contract trading faced by financial intermediaries in NSW. The resulting reduction in liquidity in the trading of hedge contracts would make it more difficult for retailers in NSW to obtain the types of hedge contracts they need on the terms they require to effectively compete in the market for the retail supply of electricity to end users in NSW.

- 1.31. Given this likely increase in barriers to entry and expansion in NSW for retailers that are reliant on access to hedge contracts, in particular the non-vertically-integrated second tier retailers, the ACCC considers that the retail electricity market structure that would be likely to arise and be entrenched in NSW following the proposed acquisition is one that would be dominated by three large vertically integrated 'gentailers' – AGL, Origin and EnergyAustralia. The ACCC considers that competition between these three large vertically integrated 'gentailers' is likely to become muted over time without the existence or threat of competition from other strong and emerging retailers. The ACCC considers that independent and second tier retailers provide an important competitive constraint on the pricing behaviour of the larger firms and contribute to the development of innovative products and services for customers in the market. The ACCC considers that the threat of entry or expansion by such firms represents a dynamic source of competition and that the proposed acquisition would be likely to prevent or hinder this source of competition.
- 1.32. The ACCC also notes the experience of other electricity markets internationally, particularly New Zealand and the United Kingdom, where high degrees of vertical integration and low levels of liquidity in the trading of hedge contracts led to adverse market outcomes and regulatory interventions. The ACCC considers that these market experiences demonstrate the negative consequences of a significantly vertically integrated market structure with high barriers to entry and expansion by other retailers, and the difficulties in addressing such negative consequences through regulatory intervention. The ACCC considers that while some level of vertical integration in electricity markets is unlikely to lead to anti-competitive outcomes, when the only major market participants are vertically integrated, this results in high barriers to entry which stifles potential competition.

The proposed acquisition may increase AGL's market power in the wholesale supply of electricity creating the prospect of higher wholesale prices

- 1.33. The ACCC considers that there is a material risk that the proposed acquisition would cause adverse market outcomes in the relevant market or markets for the wholesale supply of electricity. The proposed acquisition would result in AGL becoming the largest generating entity in the NEM by a significant margin, and the largest generator in each of South Australia, Victoria and NSW.
- 1.34. The ACCC considers that should NEM market conditions in the future return to a supply and demand balance as experienced only a few years ago, it is likely that AGL would be in a position to increase wholesale electricity prices to a material degree. Recognising the difficulties of forecasting electricity demand over the long



term with any significant degree of accuracy, and a number of factors which could push the supply and demand balance back towards historical levels, the ACCC considers that the risk of these market conditions arising is material.

The proposed conditions of authorisation cannot address the long-term structural problem created by the proposed acquisition

- 1.35. AGL has proposed conditions of authorisation which are intended to address the competitive detriments arising from the proposed acquisition in the retail market by imposing a constraint on AGL's conduct in entering into hedge contracts with other retailers.
- 1.36. The ACCC considers that the proposed conditions, or any similar behavioural commitments, are not capable of addressing the long-term structural problem created by the proposed acquisition. The proposed acquisition will result in a permanent structural change that is likely to lead to significant long-term detriments. It is not possible to remedy the detriments with static, limited term, behavioural conditions that attempt to deal with complex issues related to derivative transactions and dynamic trading markets.
- 1.37. The ACCC considers that even if such conditions could address the structural problems, it faces insurmountable circumvention risks. For instance, there is nothing to prevent AGL from entering into separate transactions which have an offsetting effect to the undertaking, and there is no ability for such transactions to be effectively monitored.

Weighing up the public benefits and public detriments from the proposed acquisition

- 1.38. The Tribunal is required to conduct a balancing exercise to weigh the public benefits and detriments that are likely to result from the proposed acquisition. The ACCC considers that some small public benefits are likely to result from the proposed acquisition, in the form of labour cost savings and vertical integration efficiencies, both of which will accrue largely to AGL. In the ACCC's view, it is not likely that any of the benefits claimed by AGL will result in lower wholesale or retail electricity prices or flow through to the broader community more generally. As a result, limited weight should be accorded to these benefits. These small benefits need to be weighed against the significant public detriment that is likely to result from a lessening of competition in the market for the retail supply of electricity in NSW and the wholesale supply of electricity.

2. APPLICATION AND ACCC REPORT

- 2.1. On 24 March 2014, AGL Energy Limited (**AGL**) filed an application with the Australian Competition Tribunal (**Tribunal**) under section 95AU of the Competition and Consumer Act 2010 (**the Act**) for conditional merger authorisation of its proposed acquisition of the assets of Macquarie Generation (**Macquarie Generation**), (the **proposed acquisition**) (the **application**).¹
- 2.2. The Tribunal directed the Australian Competition and Consumer Commission (**ACCC**) to prepare a report identifying and discussing the key issues the Tribunal may need to consider in making its merger authorisation determination in respect of the application (**Issues List**).² The Issues List was filed on 7 April 2014. Interested parties were invited by the Tribunal to provide submissions by 28 April 2014.
- 2.3. The Tribunal directed the ACCC to provide a report pursuant to section 95AZE of the Act by 16 May 2014.
- 2.4. This report takes into account, to the greatest extent possible in the time available, the information provided to the Tribunal (and which was available to the ACCC) as part of the merger authorisation process by AGL, the State of NSW, and interested parties. Accordingly, this report does not include any discussion of information, data, or documents produced to the Tribunal in response to its recent information requests to market participants as this material was still with the Tribunal for consideration on the appropriate confidentiality regime prior to disclosure.

3. INDUSTRY BACKGROUND

- 3.1. Extensive factual information regarding the National Electricity Market (**NEM**) has been outlined in the Frontier Economics' (**Frontier**) General Industry Report (**Frontier (Industry) Report**). However, there is some additional background information which the ACCC considers it would be useful for the Tribunal to consider. A glossary of terms is also available at Annexure A to this report.

Market share information

- 3.2. **Table 1** and **Table 2** – NSW generator capacity, output and market shares outline the market shares of generators in the NEM and NSW by summer rating capacity and output. The ACCC notes that in FY2013, there were also 6.85TWh of net imports to NSW (not in table).
- 3.3. **Figure 1** outlines CY2013 retail market shares in the NEM by jurisdiction based on small retail customer numbers.

¹ Available on the Tribunal's website: <http://www.competitiontribunal.gov.au/authorisations>. The document 'Form S' – Application by Murray Goulburn for Merger Authorisation is referred to below as 'Form S'.

² Available on the Tribunal's website: <http://www.competitiontribunal.gov.au/authorisations>.

Table 1 – NEM generator capacity, output and market shares³

Plant Operator	Generator	State	Type	Summer Rating Capacity		Output (FY2012-13)	
				(MW)	(%)	(TWh)	(%)
Origin Energy	Darling Downs	QLD	Intermediate	580	12.5%	18.35	9.3%
	Mt. Stuart, Roma	QLD	Peak	433			
	Eraring	NSW	Base	2,880			
	Shoalhaven	NSW	Intermediate	240			
	Uranquinty	NSW	Peak	640			
	Mortlake	VIC	Peak	518			
	Ladbroke Grove	SA	Intermediate	70			
	Osborne	SA	Base	175			
Quarantine	SA	Peak	186				
AGL Energy	Oakey	QLD	Peak	282	12.0%	22.01	11.1%
	Yabulu	QLD	Intermediate	235			
	Somerton, Dartmouth, Eildon, McKay	VIC	Peak	785			
	Macarthur, Oaklands	VIC	Renewable	470			
	Loy Yang A	VIC	Base	2,190			
	Bluff, Hallett 1 & 2, North Brown Hill	SA	Renewable	263			
	Torrens Island	SA	Intermediate	1,260			
Macquarie Generation	Bayswater	NSW	Base	2,720	10.5%	23.34	11.8%
	Hunter Valley	NSW	Peak	44			
	Liddell	NSW	Base	2,020			
Snowy Hydro (NSW/Vic/Cth Govt)	Tumut, Upper Tumut, Guthega, Blowering	NSW	Intermediate	2,492	10.0%	5.21	2.6%
	Murray	VIC	Intermediate	1,513			
	Laverton North Valley Power	VIC	Peak	570			
EnergyAustralia	Mt. Piper	NSW	Base	1,340	9.8%	25.54	12.9%
	Tallawarra	NSW	Intermediate	415			
	Wallerawang	NSW	Base	1,000			
	Yallourn	VIC	Base	1,400			
	Hallett	SA	Peak	198			
	Waterloo	SA	Renewable	111			
CS Energy (Qld Govt)	Callide B	QLD	Base	700	7.9%	15.95	8.0%
	Gladstone	QLD	Base	1,680			
	Kogan Creek	QLD	Base	730			
	Wivenhoe	QLD	Intermediate	500			

³ Derived from public AEMO NEM data by the AER.

Plant Operator	Generator	State	Type	Summer Rating Capacity		Output (FY2012-13)	
GDF Suez	Hazelwood	VIC	Base	1,600	7.2%	23.10	11.6%
	Loy Yang B	VIC	Base	965			
	Dry Creek, Mintaro, Port Lincoln, Snuggery	SA	Peak	258			
	Pelican Point	SA	Intermediate	448			
Stanwell Corporation (Qld Govt)	Barron Gorge, Kareeya, Swanbank	QLD	Intermediate	504	6.9%	18.43	9.3%
	Mackay	QLD	Peak	34			
	Stanwell	QLD	Base	1,460			
	Tarong	QLD	Base	700			
	Tarong North	QLD	Base	443			
Hydro Tasmania (Tas Govt)	Various hydro assets	TAS	Intermediate	2,382	5.6%	11.16	5.6%
	Musselroe	TAS	Renewable	168			
Delta Electricity (NSW Govt)	Colongra	NSW	Peak	724	4.5%	7.55	3.8%
	Vales Point	NSW	Base	1,320			
Other	Various			6,074	13.3%	27.72	14.0%
			Total	45,720	100.0%	198.36	100.0%

Table 2 – NSW generator capacity, output and market shares⁴

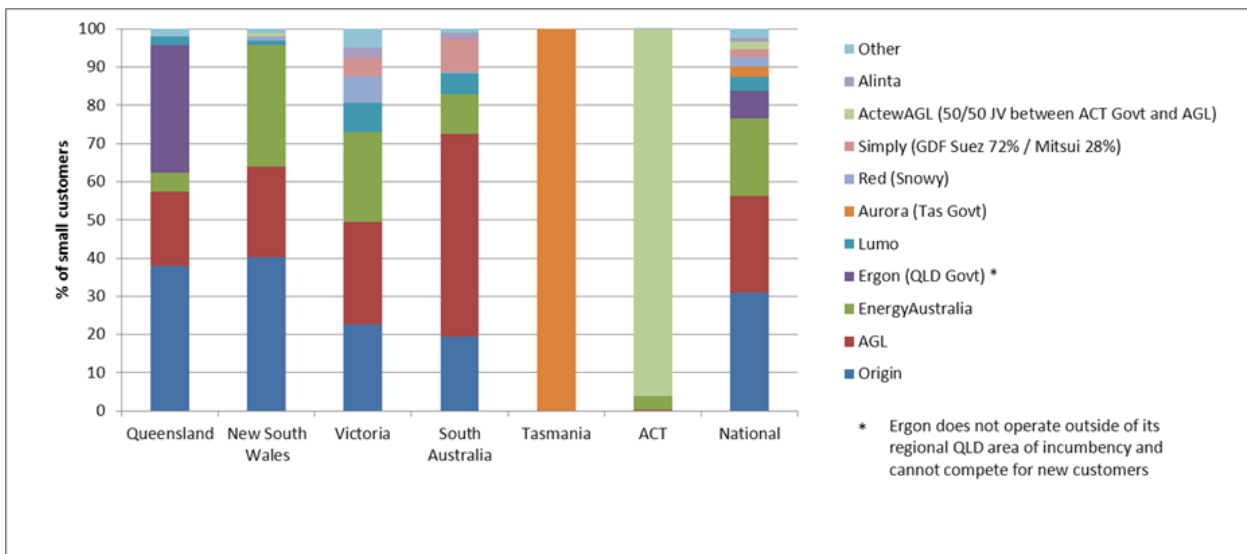
Plant Operator	Generator	Type	Registered Capacity (2013) (MW)	Summer Rating Capacity (MW) (2013-14)	Summer Rating Capacity Share (%)	Output (GWh) (FY2012-2013)	Output Share (%)
Macquarie Generation	Bayswater	Base	2,640	4,824	29.3	23,340	35.7
	Liddell	Base	2,000				
Origin	Eraring	Base	2,880	3,760	22.8	12,106	18.5
	Shoalhaven	Hydro	240				
	Bendeela, Kangaroo Valley	Hydro	480				
	Uranquinty	Peak	664				
EnergyAustralia	Mt Piper	Base	1,400	2,905	17.6	16,657	25.5
	Wallerawang	Base	1,000				
	Tallawarra	Peak	460				
Snowy Hydro	Blowering, Guthega, Tumut	Hydro	2,246	2,564	15.6	2,849	4.4
Delta Electricity	Vales Point	Base	1,320	1,988	12.1	7,545	11.5
	Colongra	Peak	724				

⁴ Derived from public AEMO NEM data by the AER.



Other (Marubeni, Redbank, Green State Power)	Smithfield, Redbank, Hume, Woodlawn, Gunning	Peak, intermediate, wind, hydro	434	436	2.6	2,921	4.5
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Figure 1 – Retail market shares (small customers), by jurisdiction, August 2013⁵



3.4. **Table 3** presents the average customer load in 2013 for the four largest retailers in the NSW region of the NEM, and the average load of all other retailers. The data in this table only includes customers with a retail licence, therefore it excludes direct transmission loads such as the Tomago smelter and certain other specialty loads (e.g. traffic lights). This data has been sourced from AEMO and is derived from half-hourly market customer energy used in the settlement process administered by AEMO.

3.5. It is noted that the market share attributed to AGL in this table is materially higher than the estimate provided in the affidavit of Brett Redman of ‘approximately 15%’.⁶ The ACCC understands that this discrepancy is primarily attributable to the following three factors:

- a. The numbers provided by AEMO are for CY2013, whereas the figure provided by Brett Redman was for FY2012-13.
- b. The numbers provided by AEMO attribute the customers of Australian Power and Gas to AGL, as this entity was acquired by AGL in 2013.

⁵ AER, State of the Energy Market 2013, page 22. Available at <http://www.aer.gov.au/sites/default/files/Complete%20report%20A4.pdf> (accessed 11 May 2014). This is a reformatted diagram based on the data underlying the figure in that report.

⁶ Affidavit of Brett Alan Redman sworn on 23 March 2014, paragraph 146.

- c. AEMO attributes energy purchased by the AGL Hydro Partnerships to AGL in the below figures. AGL Hydro Partnerships is an entity that is 100% owned by AGL. The ACCC understands that energy purchased by this company is primarily used to supply customers of ActewAGL, a retailer in the ACT in which AGL has a 50% shareholding. AGL's hedge position in NSW is also used to support the retail business of ActewAGL, as it is obliged to supply that retailer.⁷

Table 3 – Retailer average share of NSW total load, CY2013, excluding direct transmission loads (e.g. Tomago)

Retailer	Average load (MW)	Market share
Origin		
EnergyAustralia		
AGL*		
ERM Power		
Others		
Total		

*Includes APG and AGL Hydro Partnerships

⁸

Development of electricity retail competition in NSW

- 3.6. Full retail contestability was introduced in the NSW electricity market in 2002, which allowed for contestability of retail customers by non-government suppliers.
- 3.7. EnergyAustralia was the incumbent government-owned electricity retailer and distributor for the largest (in terms of customer numbers) distribution network in NSW, including for most of Sydney and Newcastle. EnergyAustralia's retail operations were sold to TRUenergy in 2012, and TRUenergy subsequently adopted the EnergyAustralia name. TRUenergy had a large presence in Victorian electricity retailing and a small presence in NSW prior to acquiring EnergyAustralia's retail operations. Those operations were combined with the newly acquired NSW retail operations. The monopoly distribution business of the former EnergyAustralia entity, which remains government-owned, is now named AusGrid.
- 3.8. Integral Energy and Country Energy were the incumbent government-owned retailer/distributors for the two other major distribution networks in NSW. In December 2010, the retail operations for Integral Energy and Country Energy were sold to Origin. Prior to this acquisition, Origin had established a small electricity retail presence in NSW following deregulation and had a small retail customer

⁷ Affidavit of Anthony Garth Fowler affirmed on 23 March 2014, paragraphs 134 and 245.

⁸ AEMO.

market share of approximately 6% in 2010.⁹ Following the acquisition, Origin's share of small customers rose to almost 50%.¹⁰

3.9. AGL has a long historical presence in NSW as a result of it being the incumbent gas supplier. Following it not acquiring any electricity assets from the NSW government in 2010, AGL launched an 'aggressive sales and marketing campaign in NSW.'¹¹ AGL noted that it had a 'strong market presence in NSW with more than 1.1 million customer accounts (the majority of these were retail gas customers) and that it had elected to grow its electricity business in that state by 'leveraging its market position, its strong brand and its operational platform to drive organic customer growth in NSW.'¹² AGL noted in 2013 that its electricity retail growth in NSW since 1 January 2011 was 'Leveraged off strength of brand in NSW with 175 years of history and multiple acquisition channels.'¹³ The ACCC notes that 'many of the customer service costs are common' between AGL's retail electricity and gas business in NSW.¹⁴

3.10. Despite electricity retail contestability being introduced in 2002, competition from retailers other than AGL, Origin and EnergyAustralia has been limited and they accounted for over 96% of small residential customers in NSW at June 2013.¹⁵ The ACCC considers that a key contributing factor to this has, historically, been regulatory barriers. The ACCC agrees with Mark Brownfield, AGL's General Manager Marketing and Retail Sales, that:

In my experience, by comparison with the position in Victoria and South Australia, regulatory pricing decisions by regulators in New South Wales and Queensland have historically created significant market distortions.¹⁶

3.11. One such barrier was the Electricity Tariff and Equalisation Fund (**ETEF**),¹⁷ which closed in mid-2011. Another issue has been the regulatory uncertainty created by retail price regulation in the state. This was identified by the Australian Energy Market Commission (**AEMC**) in its recent review of retail competition in NSW:

⁹ Affidavit of Mark Troy Brownfield affirmed on 21 March 2014, Annexure MB5.

¹⁰ Affidavit of Brownfield, Annexure MB5.

¹¹ Media release, AGL launches new offer to NSW electricity customers, 8 March 2011, available at <http://www.agl.com.au/about-agl/media-centre/article-list/2011/mar/agl-launches-new-offer-to-nsw-electricity-customers>.

¹² Media release, Sale of NSW electricity assets, 13 December 2010, available at <http://www.agl.com.au/about-agl/media-centre/article-list/2010/dec/sale-of-nsw-electricity-assets>.

¹³ Media release, Market Update, 2 May 2013.

¹⁴ Affidavit of Redman, paragraph 28.

¹⁵ Affidavit of Brownfield, Annexure MB5.

¹⁶ Affidavit of Brownfield, paragraph 3.54.

¹⁷ As described in the AEMC, Review of Competition in the Retail Electricity and Natural Gas Markets in New South Wales, 3 October 2013, footnote 33: The ETEF provided government-owned retailers with a means to smooth wholesale electricity risk by requiring them to pay into a fund when wholesale prices were low and allowing them to draw from the fund when wholesale prices were high. Other retailers did not have access to this fund and consequently had relatively higher hedging costs.

A number of retailers suggested the greatest barrier to entering the NSW electricity market was the continuation of retail price regulation. Price regulation can create regulatory uncertainty, which can reduce a retailer's capacity and willingness to enter and/or expand in the market, partly because it can make it more difficult or costly to access finance.¹⁸

- 3.12. The AEMC recommended that these price controls be abolished to promote further retail competition in NSW. This recommendation was accepted by the NSW Government, which announced on 7 April 2014 that it would remove retail price regulation from 1 July 2014.¹⁹ The ACCC considers that deregulation is likely to promote further retail competition in NSW and notes that in Victoria, where retail prices were deregulated in 2009, smaller retail competitors accounted for approximately 25% of the small customer market in June 2013.²⁰

4. LEGAL FRAMEWORK

- 4.1. The Tribunal must not grant a merger authorisation unless it is satisfied in all the circumstances that the proposed acquisition would result, or be likely to result, in such a benefit to the public that the acquisition should be allowed to occur: section 95AZH(1). The Tribunal has determined the test to require it to identify and assess the public benefits and detriments likely to result from the proposed acquisition, and weigh the two.²¹ This test is known as the 'net public benefits test'.
- 4.2. In determining what amounts to a 'public benefit', the Tribunal must regard as benefits to the public (in addition to any other benefits to the public that may exist):²²
- a. a significant increase in the real value of exports;
 - b. a significant substitution of domestic products for imported goods; and
 - c. without limiting the matters that may be taken into account, all other relevant matters that relate to the international competitiveness of any Australian industry.²³

¹⁸ AEMC, Review of Competition in the Retail Electricity and Natural Gas Markets in New South Wales, 3 October 2013, page 21.

¹⁹ Media Release, Delivering Lower Electricity Prices for NSW Households, 7 April 2014. Available at http://www.resourcesandenergy.nsw.gov.au/_data/assets/pdf_file/0019/512614/Retail-price-deregulation-7-4-14.pdf (accessed 11 May 2014).

²⁰ Affidavit of Brownfield, Annexure MB5.

²¹ See, for example, *Re 7-Eleven Stores Pty Limited, Australian Association of Convenience Stores Incorporated and Queensland Newsagents Federation* (1994) ATPR 41-357 (**Re 7-Eleven**) at 42,654; *Re Australian Association of Pathology Practices Incorporated* (2004) 180 FLR 44 at [91]-[93]; *Re Qantas Airways Limited* (2004) ATPR 42-027 (**Re Qantas**) at [144]-[149]; *Re Application by Michael Jools, President of the NSW Taxi Drivers Association* [2006] ACompT 5 (**Re Jools**) at [6]-[8] and [22]. The threshold test in section 95AZH(1) is identical to the threshold test in section 90(8) in relation to authorisations of conduct that would otherwise breach certain provisions of Part IV of the Act.

²² Section 95AZH(2)(a).

- 4.3. The term ‘benefit to the public’ is not otherwise defined in the Act.
- 4.4. In the context of section 90, the term has been interpreted broadly. The Tribunal has observed that benefits to the public include anything of value to the community generally or any contribution to the aims pursued by society including as one of its principal elements (in the context of trade practices legislation) the achievement of the economic goals of efficiency and progress.²⁴
- 4.5. In order to be taken into account, benefits must be of substance and have durability.²⁵ Any estimates should be robust and commercially realistic. The assumptions underlying their calculation must be spelled out in such a way that they can be tested and verified. Appropriate weight must be accorded to benefits that are likely to be sustained, in contrast to those which may be eroded over time. Appropriate weighting will also be given to future benefits not achievable in any other less anti-competitive way, and so the options for achieving the claimed benefits must be explored and presented.²⁶
- 4.6. Where public benefits do not easily allow for quantification, a qualitative judgment of the relative weightings of tangible and intangible factors can be undertaken.²⁷ The weight that should be accorded to benefits may vary depending upon who takes advantage of them.²⁸ Any costs or detriments that are intrinsic to a public benefit must be taken into account.²⁹
- 4.7. ‘Public detriment’ is not referred to in section 95AZH, and is not defined in the Act. In the context of section 90, it has been given a broad interpretation. Public detriments have been held to encompass any impairment to the community generally, including any harm or damage to the aims pursued by society.³⁰ In many cases, the important detriments will be anticompetitive detriments. That is, the detriments that flow from the anticompetitive effect of the proposed acquisition. These latter detriments are assessed by reference to the markets in which the merger parties compete.

²³ Section 95AZH(2)(b).

²⁴ *Re Queensland Co-operative Milling Association Ltd and Defiance Holdings Ltd* (1976) 8 ALR 481 (**QCMA**) at 510. See also *Re Rural Traders Co-operative (WA) Ltd* (1979) 37 FLR 244 (**Re Rural Traders**) at 261-262; *Re 7-Eleven* at 42,677; *Re Australasian Performing Rights Association Ltd* (1998) ATPR 41-701 at 42,985, [294]; *Re Qantas* at [163]-[165]; *Re Medicines Australia Inc* (2007) ATPR 42-164 (**Re Medicines Australia**) at [107].

²⁵ *Re Qantas* at [205]; *Re Rural Traders* at 262-263.

²⁶ *Re Qantas* at [206].

²⁷ *Re Qantas* at [208]-[209]; *Re Howard Smith Industries Pty. Ltd. and Adelaide Steamship Industries Pty. Ltd* (1977) ATPR 40-023 (**Re Howard Smith**) at 17,334.

²⁸ *Re Howard Smith* at 17,334 and *Re Qantas* at [185]-[191]. See also *Re VFF Chicken Meat Growers’ Boycott Authorisation* (2006) ATPR ¶42-120 (**Re VFF Chicken Meat Growers**) at [75].

²⁹ See *Applications of Southern Cross Beverages Pty Ltd, Cadbury Schweppes Pty Ltd and Amatil Ltd* (1981) ATPR 40-200 (**Re Southern Cross Beverages**) at 42,763, [11.8] in respect of a s101A review by the Tribunal.

³⁰ See, for example, *Re 7-Eleven* at 42,683; *Re Qantas* at [150].

- 4.8. For a benefit or detriment to be taken into account, the Tribunal must be satisfied that there is a real chance, and not a mere possibility, of the benefit or detriment eventuating. While it is not necessary to show that the benefits or detriments are certain to occur, or that it is more probable than not that they will occur, claims that are purely speculative in nature should not be given any weight.³¹

5. LIKELY FUTURE WITH AND WITHOUT THE PROPOSED ACQUISITION

- 5.1. To assess the proposed acquisition for the purposes of the net public benefits test, the Tribunal has previously considered it useful to compare the likely future ‘with’ the proposed acquisition and separately, ‘without’ the proposed acquisition.
- 5.2. AGL considers that the relevant future without the proposed acquisition involves Macquarie Generation remaining owned and operated by the State of NSW.
- 5.3. ERM has stated that it maintains a strong and active interest in buying Macquarie Generation and will continue to pursue the acquisition while the State of NSW maintains an interest in selling the assets.³²
- 5.4. The ACCC considers that the future without the proposed acquisition would involve either Macquarie Generation:
- a. remaining owned and operated by the State of NSW; or
 - b. being sold to another purchaser (which does not have a significant retail base in NSW).
- 5.5. The ACCC notes that the Tribunal requested additional information from the State of NSW which may inform the likelihood of Macquarie Generation being sold to another purchaser. The ACCC has not been provided with this information, but notes that it will be relevant to a consideration of the likely future without the proposed acquisition. The ACCC’s Counsel have been given the opportunity to inspect this information and propose to make confidential submissions to the Tribunal on this information.
- 5.6. The ACCC also notes that the State of NSW is a willing seller,³³ increasing the likelihood that Macquarie Generation will be sold to another purchaser in the near to medium term.

³¹ *Re Qantas* at [156]. See also *Re Howard Smith* at 17,335; *Re Medicines Australia* at [109]; *Re Jools* at [48]; *Re VFF Chicken Meat Growers* at [83].

³² Affidavit of Derek McKay, paragraph 13.

³³ The Electricity Generator Assets (Authorised Transactions) Act 2012 (NSW) commenced 5 June 2012 and authorises the sale of the State-owned electricity generator assets (which includes Macquarie Generation). See the statements of the former treasurer,(now premier) Mike Baird:

5.7. AGL proposes that the Tribunal grant authorisation subject to the conditions set out in Annexure H of its application. The ACCC has taken this into account in assessing the public detriments likely to flow from the proposed acquisition. However, as noted under the heading conditions of authorisation, the ACCC does not consider that the proposed conditions are, or could be, effective in reducing the detriments in the future with the proposed acquisition.

5.8. This report proceeds on the basis that the likely future without the proposed acquisition is the status quo. Where the ACCC considers the public benefits or detriments differ materially if Macquarie Generation were to be sold to another purchaser, the ACCC has noted it in the relevant section of the report.

6. PUBLIC BENEFITS

6.1. AGL's public benefit claims are set out in its Form S application at paragraphs 21.1 to 21.45. Broadly these claims are:

- a. more reliable, long-term, baseload electricity supply into the NEM, at lower cost and with reduced environmental impact, as a result of increased maintenance and capital expenditure under the proposed acquisition;
- b. lower costs in the generation and wholesale supply of electricity and lower costs in the retail supply of electricity to end customers as a result of vertical integration efficiencies created by the proposed acquisition; and
- c. increased prospects of useful public infrastructure being developed in NSW (with a reduction in the need for NSW to consider alternative funding arrangements) as a result of the NSW Government receiving the sale proceeds from the proposed acquisition.

6.2. For each of the claimed public benefits it may assist the Tribunal to consider the following.

- a. What is the nature and extent of the claimed public benefit? Is it tangible, credible and real? Is it enduring and of substance?³⁴

'Macquarie Generation Sale Process begins', 30 July 2013, http://www.treasury.nsw.gov.au/__data/assets/pdf_file/0020/26039/30-7-13_Macquarie_Generation_EOI.pdf (accessed 12 May 2014); 'Final Stage of electricity reform underway', 10 December 2013 http://www.treasury.nsw.gov.au/__data/assets/pdf_file/0005/24188/Generator_Cobbora_Media_Release_151112.pdf (accessed 12 May 2014), and 'Green light for sale of NSW's electricity generators', 15 November 2012, http://www.treasury.nsw.gov.au/__data/assets/pdf_file/0011/27776/10-12-13_Final_stage_of_electricity_reform_underway.pdf (accessed 12 May 2014).

³⁴ *Re Qantas* at [202]; [205], [206].

- b. Is it distinct from other public benefits claimed or does it overlap with one or more of the other public benefits claimed?³⁵
- c. Does the claimed public benefit result from the proposed acquisition or is there a real chance that it would eventuate in the future without the proposed acquisition?³⁶
- d. Would the proposed acquirer or others incur costs in achieving the claimed benefit? If so, what is the magnitude of such costs?³⁷
- e. Has the claimed public benefit been quantified or is it readily capable of quantification? If the claimed public benefit has been quantified, are the methodology and assumptions that have been adopted reasonable?³⁸
- f. Who are the beneficiaries of the claimed public benefit? Will the benefits flow through to the broader community?³⁹
- g. Are there public detriments intrinsic to the claimed public benefit?⁴⁰
- h. The magnitude of the claimed public benefits.
- 6.3. The Tribunal may also wish to consider whether there are any other public benefits arising from the proposed acquisition. The ACCC has not identified any such benefits.
- 6.4. The ACCC considers that it is likely that small public benefits flow from the proposed acquisition. These benefits are in the form of **labour cost savings** and **vertical integration efficiencies** which will accrue largely to AGL. The labour cost savings are limited to being realised in the longer term, and are unlikely to be achieved in the next [REDACTED]. As a result, the labour cost savings are likely to result in minimal public benefits.
- 6.5. The vertical integration efficiencies are likely to enable AGL to manage the volume and price risks it faces in the wholesale electricity market in a more comprehensive and cost effective manner. The size of these efficiencies, and in turn the magnitude of the benefits generated, is unclear based on the evidence AGL has presented. Regardless of the magnitude, any benefits from vertical integration will likely be retained by AGL.

³⁵ *Re Qantas* at [206].

³⁶ *Re Qantas* at [154].

³⁷ See *Applications of Southern Cross Beverages Pty Ltd, Cadbury Schweppes Pty Ltd and Amatil Ltd* (1981) ATPR 40-200 (*Re Southern Cross Beverages*) at 42,763, [11.8] in respect of a s101A review by the Tribunal.

³⁸ *Re Qantas* at [204] – [211].

³⁹ *Re Qantas* at [185].

⁴⁰ See *Applications of Southern Cross Beverages Pty Ltd, Cadbury Schweppes Pty Ltd and Amatil Ltd* (1981) ATPR 40-200 (*Re Southern Cross Beverages*) at 42,763, [11.8] in respect of a s101A review by the Tribunal.

- 6.6. The ACCC considers that the following claims by AGL are not likely to result in public benefits:
- a. **Additional capital expenditure and maintenance spend:** To the extent the additional maintenance and capital expenditure identified by AGL is prudent it is likely to occur with or without the proposed acquisition.
 - b. **The utilisation of whole of life management:** asset management strategies that take into account the entire life cycle of the Bayswater and Liddell plants are likely to be utilised with or without the proposed acquisition.
 - c. **Increased supply of hedge contracts:** the proposed acquisition is unlikely to result in an increased supply of hedge contracts to retailers.
 - d. **Increased prospects of public infrastructure:** while it is theoretically possible that the proposed acquisition will enable the State of NSW to fund investment in additional public infrastructure (or fund these investments more efficiently) there is considerable doubt as to whether any such benefits are likely to occur, or if they do whether they will be material.
- 6.7. While the ACCC considers that the level of **capital and maintenance expenditure** is unlikely to be materially different with or without the proposed acquisition, should the Tribunal consider that there is likely to be a material difference, the ACCC considers that this is likely to result in minimal public benefits in the short term.
- 6.8. In the longer term, AGL's estimates of such expenditure are subject to such uncertainty as to only give rise to potential (rather than likely) benefits.
- 6.9. The ACCC's views on AGL's public benefit claims are set out in more detail below.

I. Interested party submissions

- 6.10. The Tribunal invited interested parties to comment on the application, including the public benefits claimed by AGL. The ACCC has taken these submissions into account when preparing this report. The following interested parties made submissions addressing the claimed public benefits.
- 6.11. CHOICE submits that to the extent vertical integration results in efficiencies, it is not clear that the benefits of these efficiencies will be passed through to end users. CHOICE further submits that the proposed acquisition will not result in public benefits more broadly.⁴¹
- 6.12. Uniting Care Australia submits that while there is capacity for generation assets to become more efficient with appropriate investment, it is concerned that it is more likely to be in the best interests of a large and growing energy retailer to maximise

⁴¹ Choice, Submission to Tribunal, 28 April 2014.

its own future security by restricting access to their 'excess' generation or by reducing generation.

- 6.13. Uniting Care Australia further submits that increasing efficiency at the generator level does not necessarily equate to lower prices for consumers, particularly in oligopolistic markets. Rather, they can lead to increases in economic rents.⁴²
- 6.14. The Energy Users Association of Australia (**EUAA**) submits:⁴³
- a. That AGL's arguments relating to increased reliability and lower costs assume that the current management and operation of Macquarie Generation facilities is below industry standard. The EUAA notes that the Bayswater power station has returned an average availability factor of 88.4% and therefore that any improvement upon these figures is likely to be marginal and of doubtful benefit to electricity consumers given the reducing level of electricity demand and falling share of this reduced demand being supplied from black-coal fired power stations.
 - b. Lower cost are debatable given that AGL is claiming to invest \$345 million over and above the planned maintenance and Capex expenditure forecast by the current operators of Macquarie Generation.
 - c. Lower costs due to the efficiencies of vertical integration would return benefits to AGL shareholders and not electricity consumers.
 - d. The dividends received by the NSW Government from Macquarie Generation are significant and would need to be deducted from any claimed financial benefits to arrive at a net result.
 - e. In theory, privatisation may result in cost savings however this is a 'saving' that would flow from any private owner acquiring Macquarie Generation, not just AGL.
 - f. It is difficult to give any credence to the AGL claim of deferred investment in base load generation plant. Electricity demand has been in decline since reaching a peak in the 2007/08 period with the result that there is now an over-supply of base-load generation plant. This situation is compounded by the increased generation coming into the market from renewable energy sources driven by the Renewable Energy Target.

II. Increased availability and efficiency from AGL ownership of Bayswater and Liddell

- 6.15. AGL claims that following the proposed acquisition it will:

⁴² Uniting Care Australia, Submission to Tribunal, 28 April 2014.

⁴³ Energy Users Association of Australia, Submission to Tribunal, 28 April 2014, page 4.



- a. Invest approximately \$345 million in the maintenance of, and capital expenditure on, the Bayswater and Liddell power stations over the projected life of those assets, in addition to the planned levels of future investment in Bayswater and Liddell of current Macquarie Generation management;⁴⁴
- b. Apply whole of life planning principles and AGL's technical capability and expertise to the maintenance and operation of the Bayswater and Liddell power stations; and
- c. Capture annual savings in labour costs, and improve Macquarie Generation staff engagement to create value. AGL claims that it plans to [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

6.15A As a result of these increased efficiencies, AGL expects that there will be:⁴⁶

- a. Higher levels of likely availability of generation units. Bunyon claims that this is a result of [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]⁴⁸
- b. Lower risk of unplanned plant failure. Bunyon claims that a carefully planned 'whole of life approach' and the increased commitment to capital and maintenance expenditure over the life of the plants is likely to result in fewer unplanned or forced outages.⁴⁹
- c. A reduced requirement to have other higher cost generation plants on line but not generating at full capacity. Bunyon claims that due to having an increased confidence in the availability of Bayswater they will be able to reduce the extent to which it has generation units at Liddell running and operating at low output levels.⁵⁰
- d. Reduced instances of plant start-ups. Bunyon claims that this will be a consequence of fewer forced outages.⁵¹

⁴⁴ Form S, paragraph 21.1.

⁴⁵ Form S, paragraph 21.14.

⁴⁶ Form S, paragraph 21.19, 21.20.

⁴⁷ Affidavit of Ross Murdoch Bunyon sworn on 25 March 2014, paragraph 19.

⁴⁸ Affidavit of Bunyon, paragraph 19.

⁴⁹ Affidavit of Bunyon, paragraph 41.

⁵⁰ Affidavit of Bunyon, paragraph 44.

⁵¹ Affidavit of Bunyon, paragraph 46.



- e. Safer operation of plants. An increased risk of plant failure has the potential to [redacted] [redacted] [redacted]⁵²
- f. Reduced overall cost of maintenance, repair and capital investment⁵³. [redacted] [redacted] [redacted] [redacted]
- g. Increased prospect of extending the operating life of the Bayswater and Liddell plants. Bunyon claims that AGL’s proposed approach is likely to preserve more effectively the real option to extend the operational life of Bayswater beyond 2035.⁵⁵ Bunyon claims that this will be a result of a well-managed ‘whole of life’ approach delaying management decisions to ‘harvest’ an asset.⁵⁶
- h. Potential deferral of further investment in base load generation assets in NSW. Bunyon claims that maintaining and operating Bayswater at relatively high levels of availability, even in the near term, may signal to other operators that further investment in base load capacity is not required (at least for the time being).⁵⁷
- i. Reduced environmental impacts as a result of operating plants at higher efficiency levels, reducing incidence of start-up, and minimising the need for spinning reserve at less efficient plants.⁵⁸
- j. Reduced price volatility and lower prices in the wholesale supply of electricity. Bunyon claims this is a result of fewer forced outages.⁵⁹

6.16. AGL considers that this will result in public benefits in the form of more reliable, long-term, base load electricity supply into the NEM, at lower cost and with reduced environmental impact.⁶⁰

6.17. AGL also claims that, all else equal, higher levels of likely availability of the generation units at the Bayswater and Liddell power stations will result in increased supply of hedge contracts for electricity retailers.⁶¹ Bunyon claims that where a

⁵² Form S, paragraphs 21.19(b) and (f), and 21.20(b) and (e); [redacted]

⁵³ Form S, paragraph 21.1(b).

⁵⁴ [redacted]

⁵⁵ Affidavit of Bunyon, paragraph 51.

⁵⁶ Affidavit of Bunyon, paragraph 52.

⁵⁷ Affidavit of Bunyon, paragraph 53.

⁵⁸ Affidavit of Bunyon, paragraph 54.

⁵⁹ Affidavit of Bunyon, paragraph 56.

⁶⁰ Form S, paragraphs 21.19, 21.20.

⁶¹ Form S, paragraph 21.21.

generator has increased the reliability, and likely availability, of its generation capacity, the generator will incur less risk in selling hedge contracts.⁶² AGL considers it will have an [REDACTED]

[REDACTED]⁶³

- 6.18. AGL further claims that it will employ (or will retain contractors which, in turn, will employ) further technicians and other labour in the Hunter Valley region, in implementing its planned increased levels of capital and maintenance expenditure at Bayswater and Liddell.⁶⁴ Bunyon asserts that this is likely to occur through employment, both continued and new and a strong local contractor base as AGL undertakes the maintenance and other work implicit in the additional investment.⁶⁵
- 6.19. Many of AGL's claims in relation to public benefits flowing from increased availability and efficiency from its ownership of Bayswater and Liddell overlap. For example, fewer start-ups; reduced price volatility; reduced environmental impacts; and a reduced requirement to have other higher cost generation plants on line but not generating at full capacity are all the result of a lower risk of unplanned plant failure which is claimed as a separate benefit.
- 6.20. The ACCC considers that AGL's claimed benefits in relation to increased availability and efficiency flow from the following four categories:
- a. Additional maintenance and capital expenditure;
 - b. The implementation of whole of life management;
 - c. Labour cost savings; and
 - d. Increased supply of hedge contracts for electricity retailers.
- 6.21. The ACCC has considered AGL's claims in more detail under these headings below.
- 6.22. The ACCC has also considered how these claims flow through to electricity prices, employment in the Hunter Valley region, environmental impacts and the community more broadly.

Additional maintenance and capital expenditure

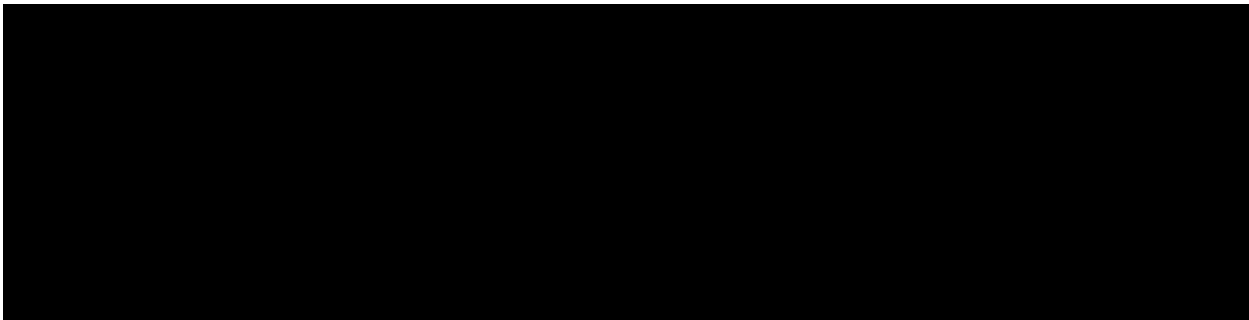
- 6.23. The ACCC considers that:

⁶² Affidavit of Bunyon, paragraphs 61 – 62.

⁶³ Form S, paragraph 21.22.

⁶⁴ Form S, paragraph 21.23.

⁶⁵ Affidavit of Bunyon, paragraph 67.



- a. to the extent the additional capital expenditure and maintenance identified by AGL is prudent it is likely to occur with or without the proposed acquisition;
- b. it is unclear whether it is likely that AGL will undertake all the proposed additional maintenance and capital expenditure; and
- c. AGL has not quantified the value of the benefits of the additional maintenance and capital expenditure, despite being in a position to do so. It is not clear whether the benefits claimed by AGL from additional maintenance and capital expenditure exceed the cost of achieving them.

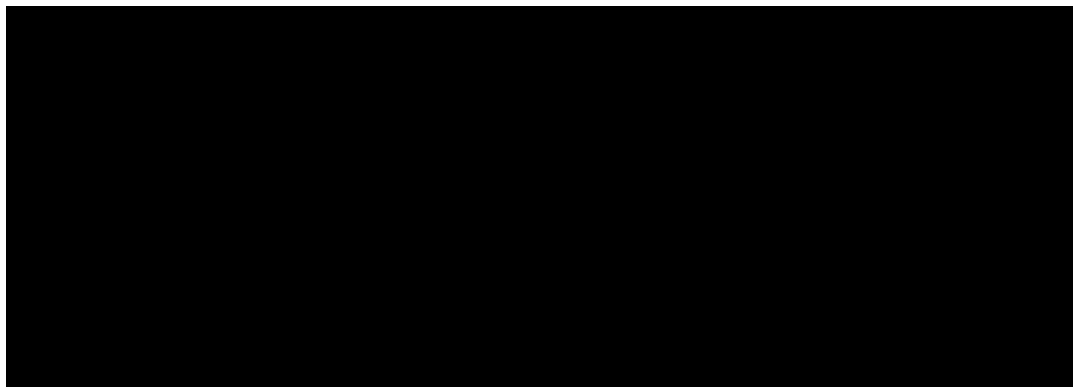
(a) Maintenance and capital expenditure identified by AGL as prudent is likely to occur with or without the proposed acquisition

6.24. The ACCC considers that it is likely, absent the proposed acquisition, that Macquarie Generation (or any other purchaser) will make similar capital expenditure and maintenance investments.

6.25. If AGL's additional capital and maintenance expenditure resulted in an increase to the efficiency of the Bayswater and Liddell plants then this may constitute a public benefit. However, the ACCC does not consider there is likely to be a meaningful difference in the capital and maintenance spend with or without the proposed acquisition in light of the following:

- a. The fact that any owner of the Bayswater and Liddell plants will have a strong incentive to periodically review capital and maintenance investments to determine if they increase the NPV of the assets.
- b. There is no evidence to suggest that AGL will have a greater incentive or ability than any other owner to make capital and maintenance investments.

c.



d.

⁶⁶ Affidavit of Glenn Schumacher sworn on 23 March 2014, Annexure GS18, page 6.

⁶⁷ Affidavit of Schumacher, paragraph 20.

⁶⁸ Affidavit of Schumacher, paragraph 20.

[REDACTED]

e. It is uncertain whether AGL is likely to undertake all the proposed additional maintenance and capital expenditure (as discussed below).

6.26. Some proportion (unspecified) of AGL's claimed capital expenditure and maintenance spend relates to a specific proposal to [REDACTED]
[REDACTED]
[REDACTED]⁶⁹

6.27. [REDACTED]

6.28. AGL claims that [REDACTED]
[REDACTED]
[REDACTED] AGL assert that [REDACTED]
[REDACTED]
[REDACTED]

6.29. There is no evidence which suggests that AGL has significant experience in the maintenance of coal fired power plants above that of Macquarie Generation, or any other owner. The ACCC notes:

- a. AGL only has one coal powered plant (Loy Yang A in Victoria).
- b. Prior to 2012, AGL was a minority owner of Loy Yang A plant and undertakings given by AGL to the Federal Court and the ACCC limited its involvement in the business.
- c. The Loy Yang A plant utilises brown coal whereas the Bayswater and Liddell plants use black coal. Coal is broadly separated into brown and black which have different uses, thermal properties, characteristics (such as moisture content, ash content and hardness⁷³, and as a result, each type of coal produces different energy content.⁷⁴

6.30. There is also an absence of evidence to suggest that Macquarie Generation or any other purchaser would be incapable of implementing, and would not have the same incentive to implement, a solution which achieves similar results. The ACCC notes:

⁶⁹ Affidavit of Schumacher, paragraphs 26 to 37.

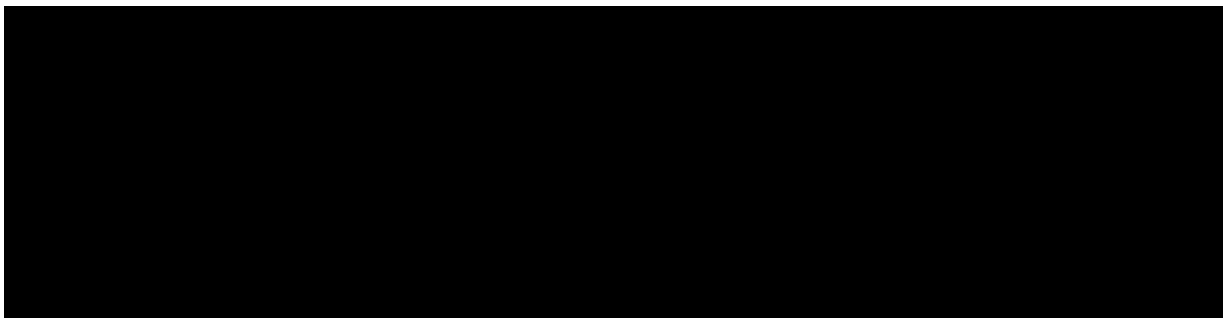
⁷⁰ Affidavit of Schumacher, paragraphs 22 – 26.

⁷¹ Affidavit of Schumacher, paragraph 36.

⁷² Affidavit of Schumacher, paragraph 32.

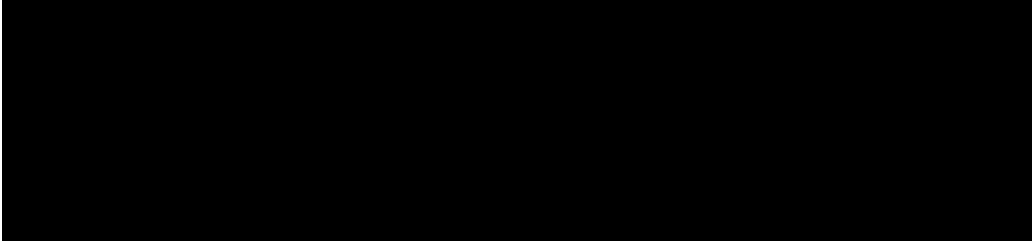
⁷³ Geoscience Australia, Coal Geology, <http://www.ga.gov.au/energy/province-sedimentary-basin-geology/coal-geology.html>, (accessed 12 May 2014).

⁷⁴ Geoscience Australia, Coal Geology, <http://www.ga.gov.au/energy/province-sedimentary-basin-geology/coal-geology.html>, (accessed 12 May 2014).

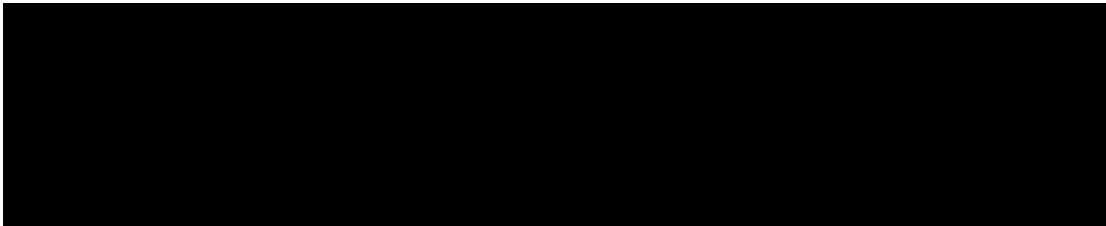


a.

b.



6.31.



6.32. The ACCC notes that AGL's assessment of the plants was limited to⁷⁹ the independent engineers report prepared by Worley Parsons, information from a data room established by Macquarie Generation and information obtained from briefings with Macquarie Generation on 2, 3, 4 and 17 December 2013 and 'Q&A' as part of the sale process.



6.33. It is not clear whether this is a sufficient basis to evaluate and design a solution to the problem. Indeed,



It is not clear whether these steps have occurred, or could occur prior to the proposed acquisition.

6.34.



There is no evidence presented as to how long it would take AGL to implement its proposed solution. It is also uncertain whether AGL's proposed solution would require some form of prototype trial or initial testing.

⁷⁵ Affidavit of Schumacher, Annexure GS9, page 30.

⁷⁶ Affidavit of Schumacher, paragraph 29; Annexure GS11; Annexure GS12; Annexure GS13.

⁷⁷ Affidavit of Schumacher, paragraph 36.


⁷⁸ [Redacted]

⁷⁹ Affidavit of Schumacher, paragraph 21.

⁸⁰ Affidavit of Schumacher, Annexure GS3, page 2.

⁸¹ Affidavit of Schumacher, Annexure GS9, page 33.

⁸² Affidavit of Schumacher, paragraph 31.





6.35. On this basis the ACCC does not consider that there is any evidence to suggest that AGL will have a greater ability or incentive than Macquarie Generation, or any other purchaser, to modify the Bayswater plant to more efficiently process the high ash content coal presently used at the plant.

(b) It is uncertain whether AGL will undertake all the proposed additional maintenance and capital expenditure

6.36. As discussed above, the ACCC considers that there is unlikely to be a meaningful difference in the capital and maintenance spend with or without the proposed acquisition. However, if the Tribunal was minded to consider that there was likely to be a difference in capital expenditure and maintenance under AGL ownership (as opposed to the State of NSW or another purchaser) then the ACCC considers that the increment of AGL's additional maintenance and capital expenditure is uncertain.

6.37. As previously noted, AGL's assessment of additional capital and maintenance expenditure does not appear to be fully informed, and may change once AGL begin operating the plant.

6.38. AGL proposes to invest approximately \$304 million in the maintenance of, and capital expenditure on, the Bayswater power station above Macquarie Generation's current estimates. 

 For the purposes of this report, the ACCC is referring to this as AGL's 'optimal spend'. The ACCC notes that these projected investments are spread over the life of the asset (i.e. until 2035).



⁸³ Affidavit of Schumacher, graph contained at paragraph 44.

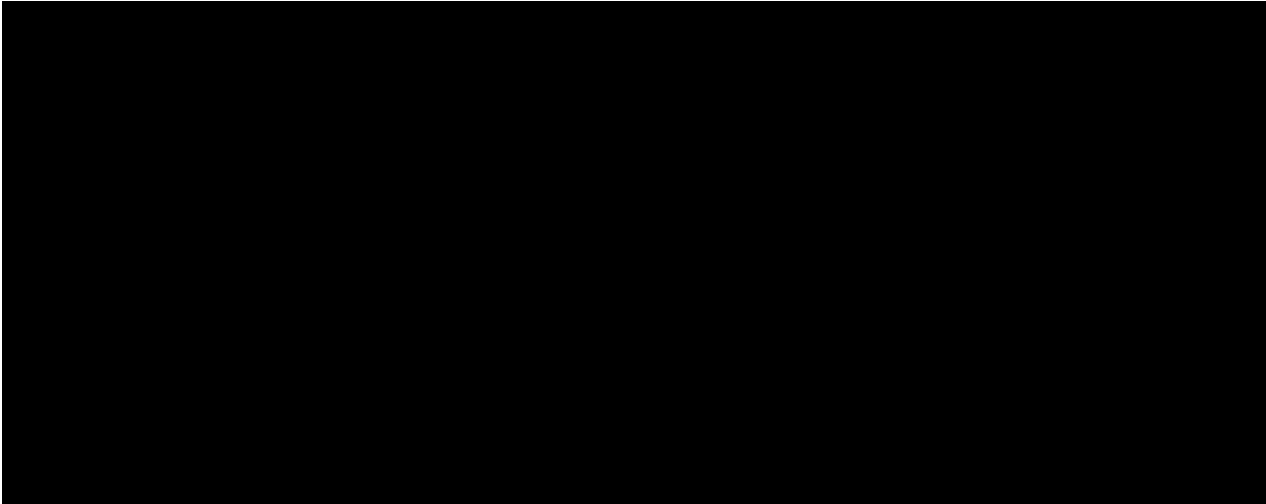
⁸⁴ Affidavit of Schumacher, graph contained at paragraph 42.

⁸⁵ Affidavit of Schumacher, graph contained at paragraph 42.

⁸⁶ Affidavit of Schumacher, paragraph 44.

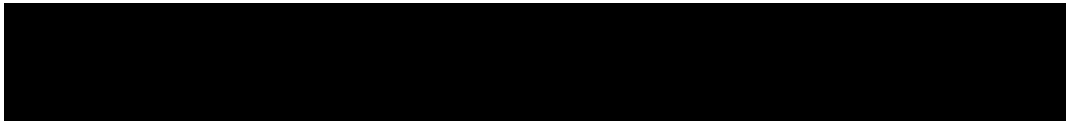
⁸⁷ Affidavit of Schumacher, graph contained at paragraph 42.

⁸⁸ Affidavit of Schumacher, graph contained at paragraph 42.

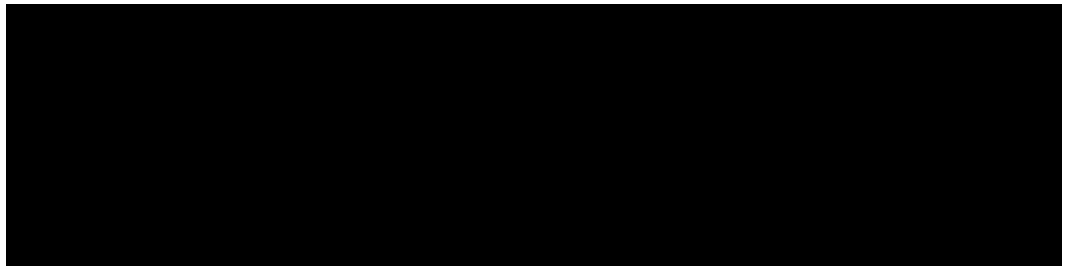


6.41. The ACCC considers that there is considerable uncertainty as to whether all the additional \$304 million is likely to be spent on maintenance and capital given:

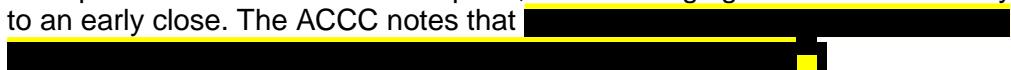
a.



b.



c. AGL may decide to 'harvest' the value of the Bayswater power station, saving on expenditure so as to maximise profit, while managing decline in availability to an early close. The ACCC notes that



6.42. AGL proposes to spend an additional \$41 million in the maintenance of, and capital expenditure on, the Liddell power station above Macquarie Generation's current estimates.⁹¹



6.43. The ACCC considers that there is considerable uncertainty as to whether the entire additional \$41 million will be spent on maintenance and capital expenditure given the following:

⁸⁹ Affidavit of Schumacher, paragraph 19.

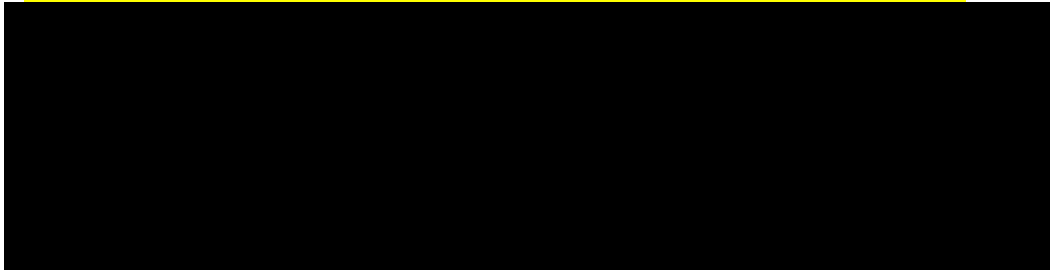
⁹⁰ Affidavit of Fowler, Annexure AF17, page 1.

⁹¹ Affidavit of Schumacher, paragraph 41.

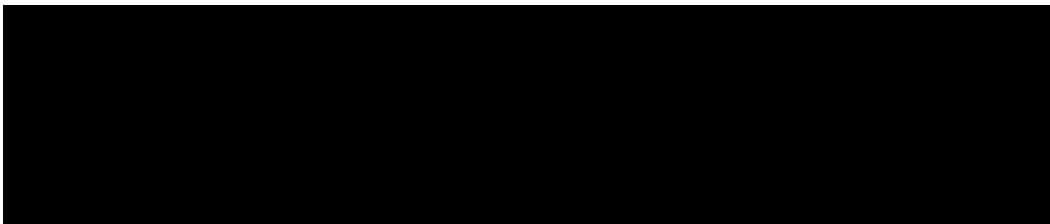
⁹² Affidavit of Schumacher, graph contained at paragraph 41.



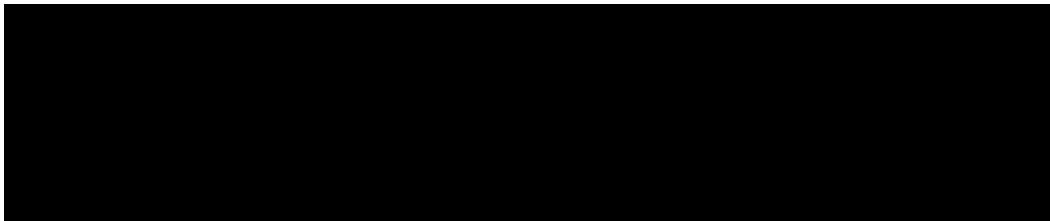
a.



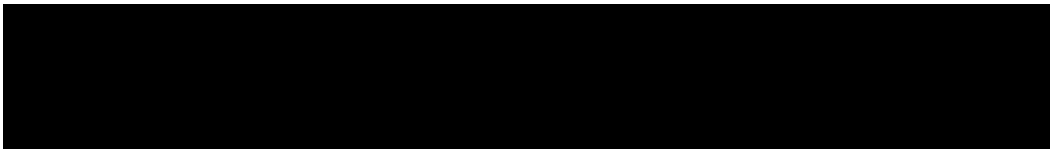
b.



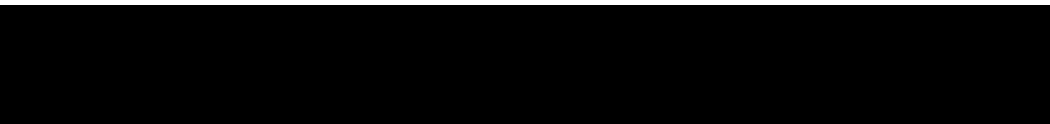
c.



d.



e.



6.44. On this basis, the ACCC considers that it is uncertain whether AGL is likely to undertake all the additional proposed capital expenditure and increased maintenance.

6.45. AGL's claims are, in part, based on achieving increased availability post 2028. In this regard, the ACCC notes the following.

⁹³ Affidavit of Fowler, paragraph 236(b).

⁹⁴ AGL response to notice to furnish information dated 2 May 2014.

⁹⁵ Affidavit of Fowler, Annexure AF21, page1.

⁹⁶ Affidavit of Redman, Annexure BAR16, page 4.

⁹⁷ Affidavit of Schumacher, paragraph 19.

⁹⁸ Affidavit of Fowler, paragraph 236(b).

⁹⁹ Affidavit of Fowler, paragraph 236(b).

¹⁰⁰ Affidavit of Fowler, paragraph 236(b).



- a. AGL concedes that [REDACTED]
- b. AGL's estimates of the expected volatility in the performance of the plant by only investing the 'recovery spend' are most consequential after 2028.
- c. [REDACTED] This creates an incentive for AGL to review investments in the Bayswater and Liddell plants once [REDACTED]

- 6.46. Given the dynamic nature of energy markets (including changes in demand characteristics, generation technology and legislative requirements) AGL may choose to defer investments depending on market conditions.
- 6.47. Importantly, if the proposed acquisition proceeds, AGL has no obligation to invest the additional capital expenditure and maintenance spend.
- 6.48. The ACCC considers that it is difficult to accurately forecast capital and maintenance expenditure over a twenty year period. This is because the timing of capital and maintenance expenditure is likely be driven by plant condition and may change over time.
- 6.49. In this regard, [REDACTED]
- 6.50. This difficulty in forecasting capital and maintenance expenditure adds further uncertainty to the difference between maintenance and capital expenditure under AGL ownership, against that of any other owner of the assets.
- 6.51. On this basis, should the Tribunal consider there was a likelihood of a meaningful difference in capital expenditure and maintenance under AGL ownership (as opposed to the State of NSW or another purchaser) the ACCC considers that:
 - a. the benefits flowing from the expenditure are likely to be minimal in the short term (in large part to the uncertainty, and the absence of any form of quantification), and

¹⁰¹ Affidavit of Schumacher, paragraph 42.
¹⁰² Affidavit of Redman, Annexure BAR16, page 6.
¹⁰³ Affidavit of Schumacher, Annexure GS6, page xiii.

- b. so uncertain in the long term so as to only give rise to a potential (rather than likely) benefit.

(c) Value of the claimed efficiencies

- 6.52. AGL has not attempted to quantify with any precision the claimed benefits flowing from additional maintenance and capital expenditure.
- 6.53. While the Act does not require AGL to quantify, in precise terms, the claimed public benefits, there must be a factual basis for concluding that the public benefits are likely to result.¹⁰⁴ The Tribunal has previously observed:
- ...the nature of public benefits needs to be defined with some precision, a degree of precision which lies somewhere between quantification in numerical terms at one end of the spectrum and general statements about possible or likely benefits at the other end of the spectrum.¹⁰⁵*
- 6.54. The Tribunal has also observed that:
- ...any estimates involved in benefit analysis should be robust and commercially realistic, in the sense of being both significant and tangible...assumptions underlying their calculation must be spelled out in such a way that they can be tested and verified.¹⁰⁶*
- ...public benefits are easy to assert, but are much harder to prove in advance of their creation, that does not deter us from demanding a high standard of commercial and social accountability in the estimates presented to us.¹⁰⁷*
- 6.55. In this case, the process of quantifying such benefits would shed greater light on which of the claimed efficiencies generate benefits over and above the cost of achieving those benefits, which claimed benefits are transfers between parties (and hence not an efficiency) and the assumptions underpinning the likely attainment of the efficiencies.
- 6.56. AGL provide estimates of the impact of spending less than its 'optimal' spend of \$345 million on the NPV of the assets. However in the absence of a baseline measure (the NPV of the assets using Macquarie Generation's projected spend) these calculations are largely unhelpful to assess the benefits flowing from the additional investments.
- 6.57. The ACCC notes that any calculation of the benefits flowing from the additional maintenance and capital expenditure needs to subtract the expenditure needed to achieve those gains. That is, the proposed \$345 million of additional maintenance and capital expenditure needs to be netted off any gain. As AGL has not substantiated its public benefits claims it is not possible to do this at this time. Absent these calculations, the ACCC considers:



¹⁰⁴ Re Qantas [201]

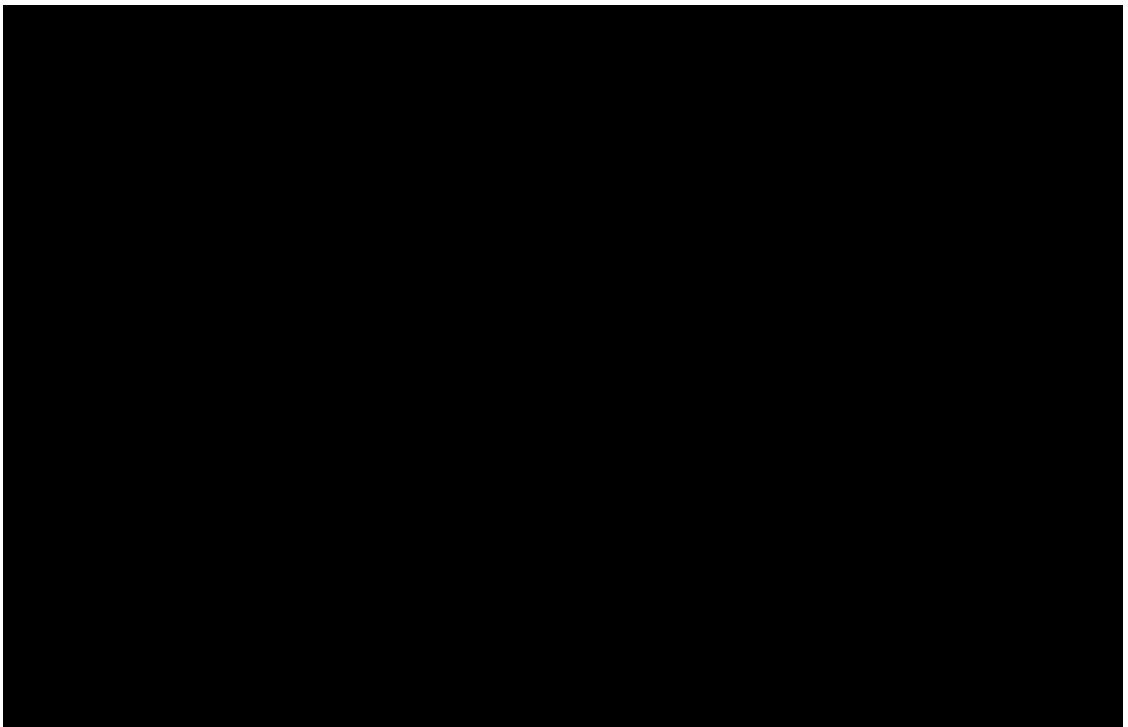
¹⁰⁵ Re Qantas [204]

¹⁰⁶ Re Qantas [204] – [206]

¹⁰⁷ Re Qantas [207]

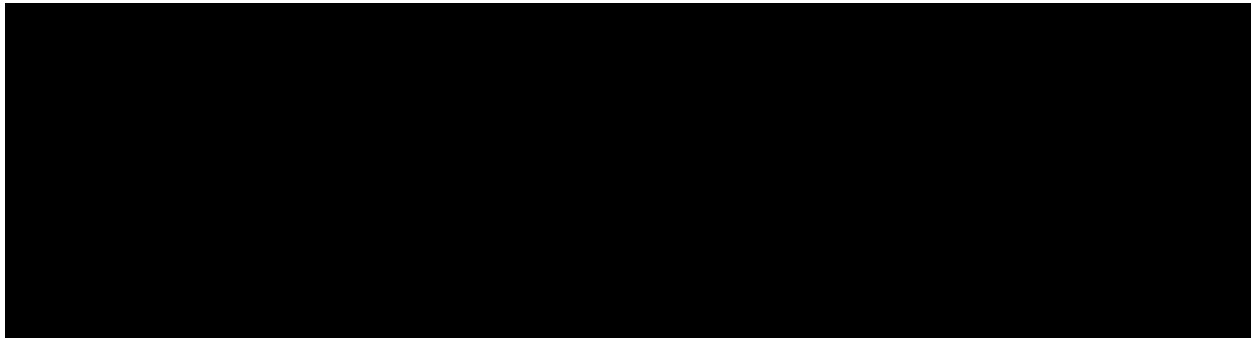


- a. If the NPV is significant it is likely that any other purchaser will have an incentive to make similar investments.
 - b. If the NPV is not significant, it is likely that the additional investments result in minimal benefits.
- 6.58. On 2 May 2014, the Tribunal issued a notice to AGL to furnish information including its estimations of the NPV with and without the additional maintenance and capital expenditure. The Tribunal also requested information relating to 

- 6.59. This information is relevant to assessing the likelihood and extent of public benefits resulting from the additional \$345 million of capital and maintenance expenditure AGL claims it will spend on the Bayswater and Liddell plants post-acquisition.
- 6.60. In response to the notice AGL stated the following:¹⁰⁸

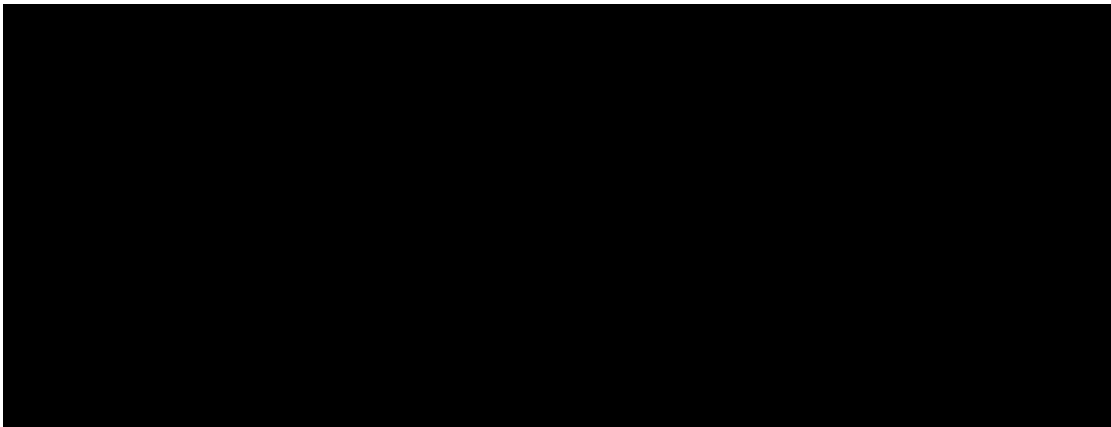


- 6.61. AGL instead provided the financial model incorporating details of the NPV analysis undertaken by AGL for the Macquarie Generation business as a whole, and based on AGL's maintenance and capital expenditure program.

¹⁰⁸ AGL response to notice to furnish information dated 2 May 2014; Explanatory note to AGL response to notice to furnish information dated 2 May 2014.



- 6.62. The ACCC notes that without a baseline measurement of the NPV, in the absence of additional investment, AGL's model is unhelpful in quantifying the size of the potential benefit.
- 6.63. In the limited period of time the ACCC had to examine AGL's model, the ACCC was able to make the following observations:



- 6.64. AGL documents indicate that large changes in the projected maintenance spend



- 6.65. The ACCC notes that AGL's assumed additional spend is projected against Macquarie Generation's current forecasts. As discussed previously, [redacted]
[redacted]
[redacted] Any calculation of the additional AGL spend may need to be adjusted to take this into account.

- 6.66. The above discussion focuses on NPV as a methodology for quantifying benefits. This reflects the fact that the only evidence AGL has put forward to substantiate its claims relating to increased availability are its own estimates of incremental changes to NPV resulting from varying amounts of additional spend. The focus on NPV is not to suggest that the calculation of the NPV of the assets with and without the additional maintenance spend will give certainty to the magnitude of the benefits.

- 6.67. While the NPV calculations may provide some indication of the magnitude of the claimed efficiencies, any NPV calculations covering a period until 2035 will likely involve forecasting wholesale electricity demand; wholesale electricity prices; plant

¹⁰⁹ Affidavit of Redman, Annexure BAR20, slide 11.
¹¹⁰ Affidavit of Redman, Annexure BAR20, slide 11.
¹¹¹ Affidavit of Redman, Annexure BAR20, slide 12.
¹¹² Affidavit of Schumacher, Annexure GS6, page xiii.

reliability and operation; and capital costs and operating costs over a twenty year period. As a result, such NPV calculations are likely to be subject to significant error and uncertainty.

6.68. Moreover, any modelling of NPV will only be useful to the extent that the underlying assumptions are clearly spelled out and the estimates are wholly transparent.

6.69. AGL's claims relating to more reliable long term baseload supply are dependent on it achieving higher levels of availability at the Bayswater and Liddell plants. As previously noted, [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] AGL has not presented any evidence which suggests that its commercial strategy for managing the Macquarie Generation assets will result in availability factors that are higher than could be achieved by any other owner of the asset.

The implementation of whole of life management

6.70. There is considerable overlap between AGL's claims of utilising whole of life management principles for the Bayswater and Liddell plants and the additional maintenance and capital expenditure claims above. The additional maintenance and capital expenditure account for AGL's consideration of managing the assets over the duration of their life cycle.

6.71. The ACCC considers that asset management strategies that take into account the entire life cycle of the Bayswater and Liddell plants are likely to be utilised with or without the proposed acquisition.

6.72. Many of AGL's efficiency claims are based on [REDACTED]
[REDACTED]
[REDACTED]

6.73. [REDACTED]

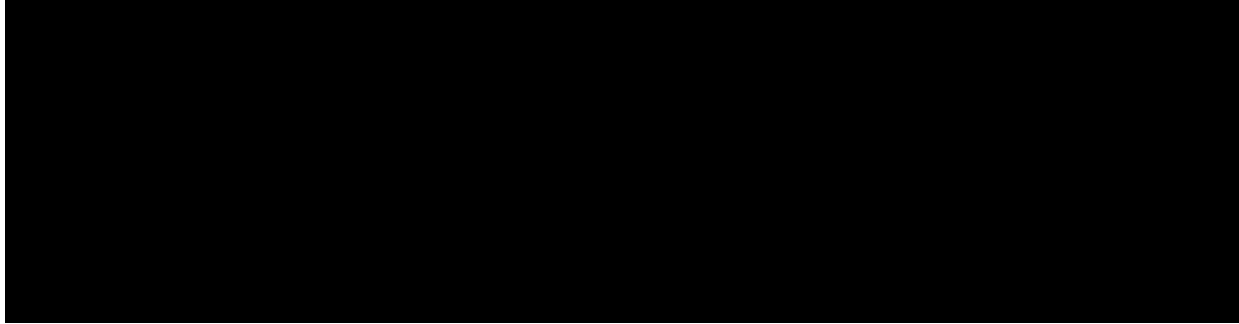
6.74. [REDACTED]

¹¹³ Affidavit of Schumacher, paragraph 19.

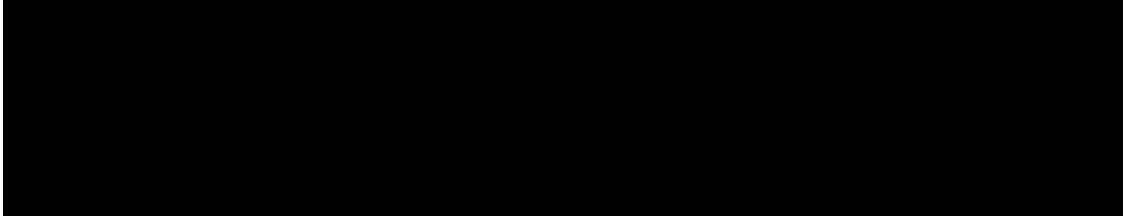
¹¹⁴ Affidavit of Schumacher, paragraph 40.

¹¹⁵ Submissions of the State of New South Wales and Macquarie Generation on the request for certain information to be excluded pursuant to section 95AZA, 2 April 2014, para 3.6

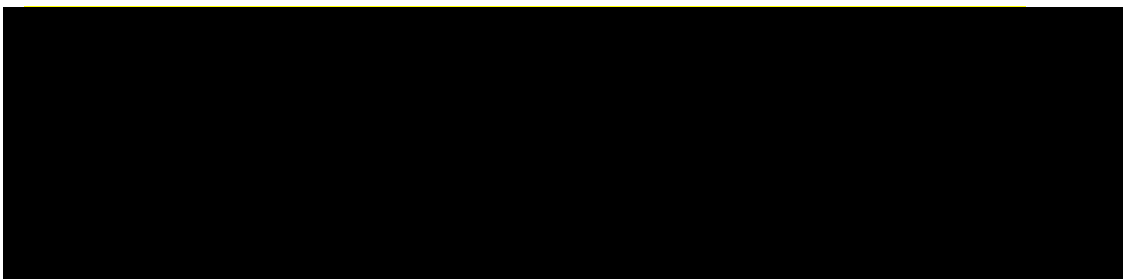
¹¹⁶ Submissions of the State of New South Wales and Macquarie Generation on the



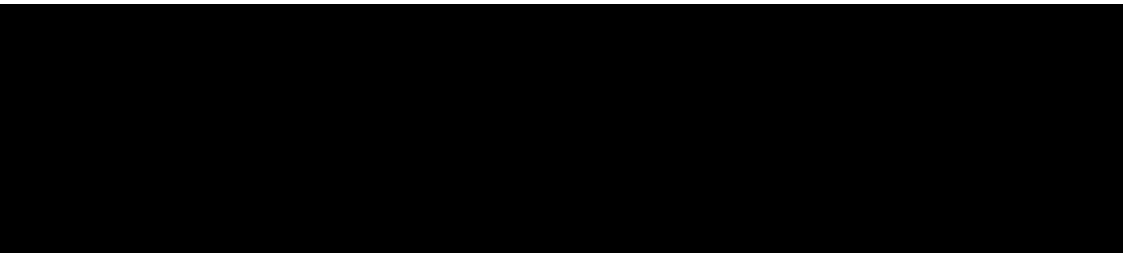
6.75.



6.76.



6.77.



6.78. The ACCC considers that it is plausible and even likely, that different owners of the same asset may adopt different management strategies, notwithstanding that they have the same incentives to maximise the value of the asset. In this context, AGL may seek to manage the Bayswater and Liddell assets in a different manner than should ownership of the assets remain with the State of NSW or the assets are acquired by another purchaser.

6.79. This is not to suggest however that Macquarie Generation (or any other purchaser) would not make decisions that take into account the entire life cycle of the assets. Rather, it reflects differing commercial strategies. The issue of whether one commercial strategy is superior to another is disconnected from the implementation of whole of life management.

6.80. The ACCC notes that state-owned generators often have whole of life asset management. As Ross Bunyon states:

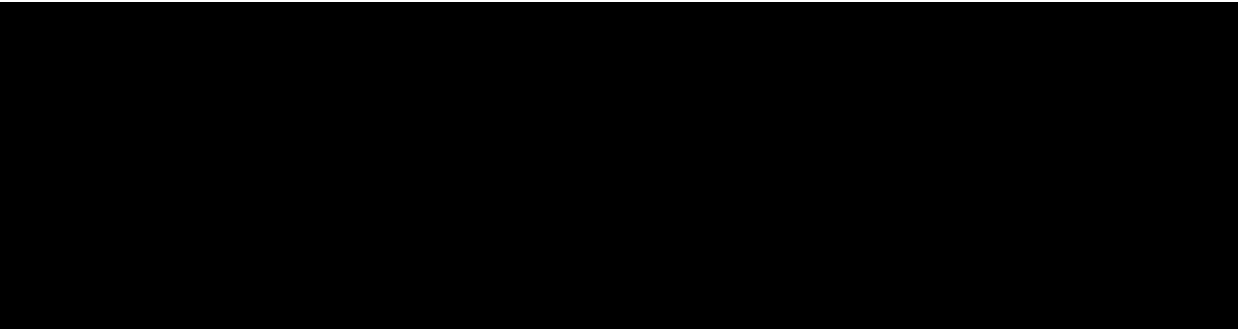
A “whole-of-life” asset management approach has been applied at power stations at which I have been responsible for [which include the Bayswater and

request for certain information to be excluded pursuant to section 95AZA, 2 April 2014, para 3.13

¹¹⁷ Submissions of the State of New South Wales and Macquarie Generation on the request for certain information to be excluded pursuant to section 95AZA, 2 April 2014, para 3.6

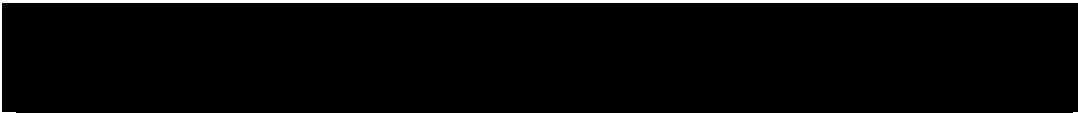
¹¹⁸ Macquarie Generation, Letter to ACCC, 1 May 2014.

¹¹⁹ Macquarie Generation letter to ACCC dated 1 May 2014.



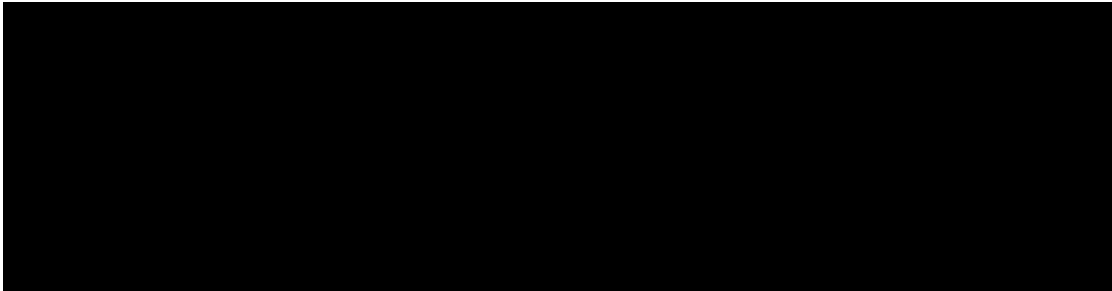
*Liddell plants under the management of Pacific Power between 1989 and 2003*¹²⁰

6.81.



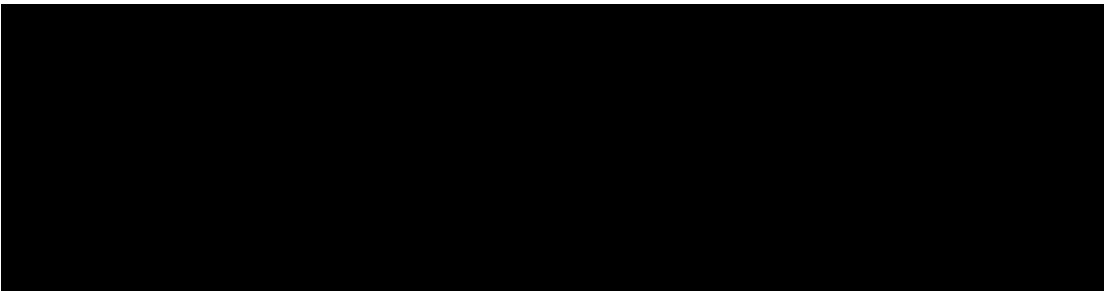
¹²¹

6.82.



6.83. Moreover, Macquarie Generation indicates in its Statement of Corporate Intent that it intends to continue to operate the assets into the long term and that, depending on environmental policy this will require careful investment and planning to optimise returns.¹²⁴

6.84. Macquarie Generation



¹²⁰ Affidavit of Bunyon, paragraph, 32. See also paragraph 5.

¹²¹ Delta Electricity, Submission to the Tribunal, 28 April 2014, page 3.

¹²² Affidavit of Schumacher, Annexure GS6, page ix.

¹²³ Affidavit of Schumacher, Annexure GS6, page ix.

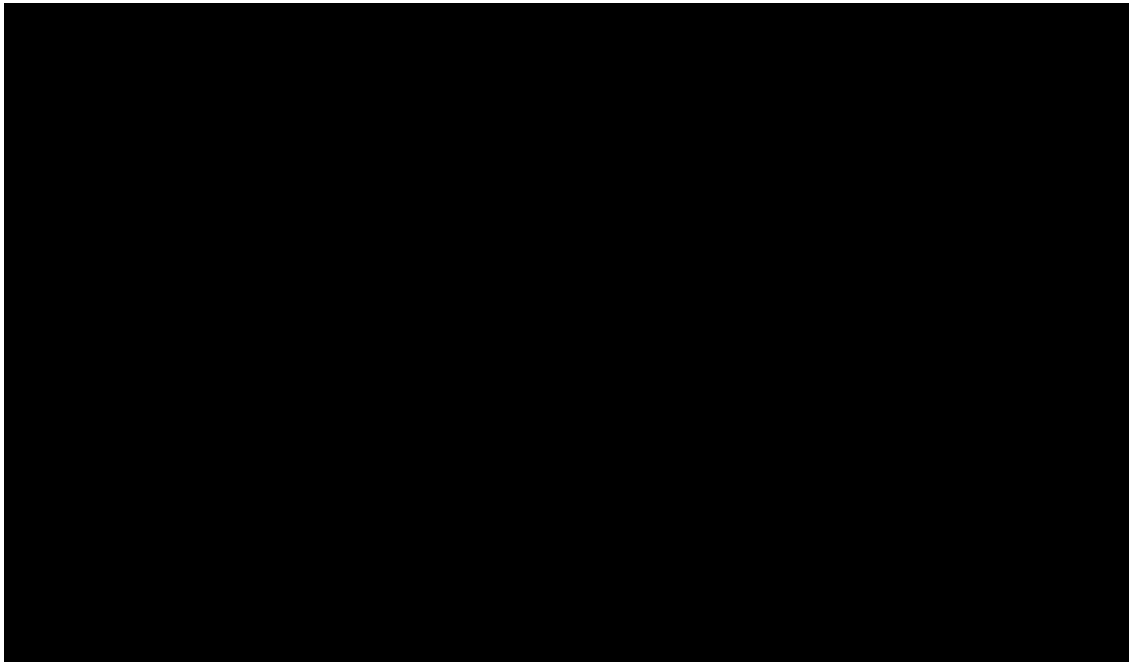
¹²⁴ Macquarie Generation Annual Report 2013, pages 6 -8, reproduced at Affidavit of Fowler, Annexure AF22); Macquarie Generation Statement of Corporate Intent 2011-12, page 7s and 10;



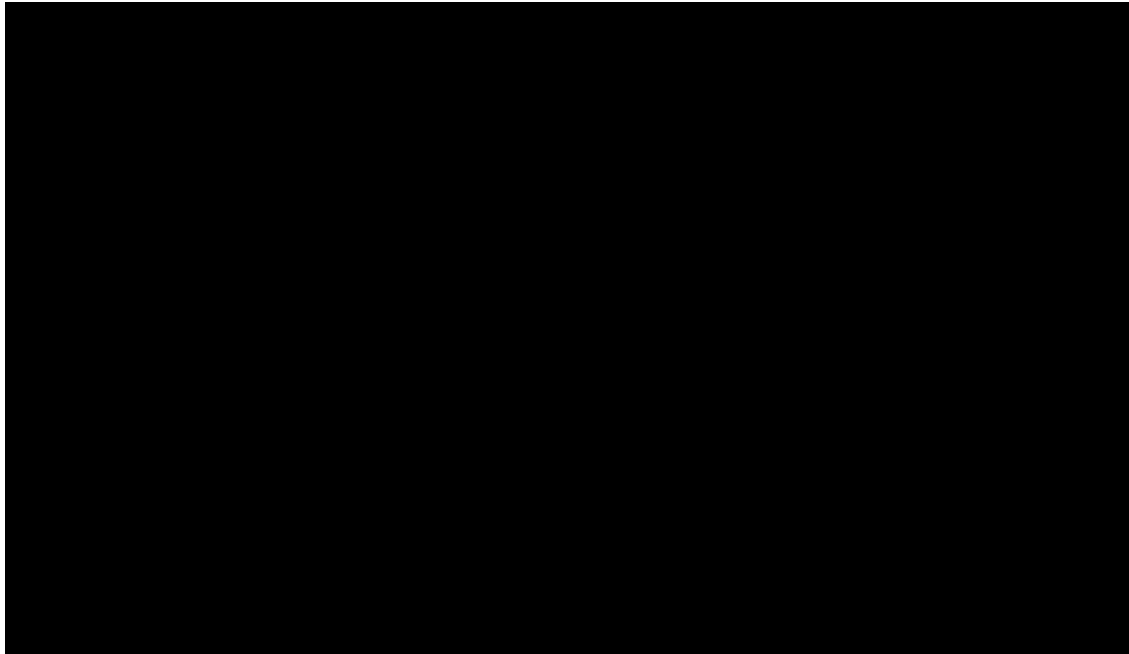
<http://www.macgen.com.au/Resources/Documents/Annual-Reports/Macquarie-Generation-SCI-2011-12.pdf> (accessed 12 May 2014).

¹²⁵ Affidavit of Schumacher, Annexure GS6, page 319.

¹²⁶ Macquarie Generation, Overall Engineering Strategy 2013/2014 (**Confidential Annexure B**), page 1.



6.85.



6.86.

6.87.

6.88.

¹²⁷ Macquarie Generation, Overall Engineering Strategy 2013/2014 (**Confidential Annexure B**), page 10.

¹²⁸ Macquarie Generation, Business Plan 2013/2014 (**Confidential Annexure C**), page 20.

¹²⁹ Macquarie Generation, Business Plan 2013/2014 (**Confidential Annexure C**), page 4.

¹³⁰ Macquarie Generation, Business Plan 2013/2014 (**Confidential Annexure C**), page 21.

¹³¹ Macquarie Generation, Business Plan 2013/2014 (**Confidential Annexure C**), page 24.

¹³² Macquarie Generation, Business Plan 2013/2014 (**Confidential Annexure C**), page 23.

¹³³ Macquarie Generation, Business Plan 2013/2014 (**Confidential Annexure C**), page 24.

[REDACTED]

6.89. Given that the market is presently characterised by excess supply of generation capacity, any owner of the Bayswater and Liddell plants will be incentivised to be vigilant over capital expenditure and maintenance costs.

6.90. For the above reasons, the ACCC does not consider that AGL utilising whole of life management for the Bayswater and Liddell plants is likely to result in public benefits as compared to the future without the proposed acquisition.

Labour cost savings

6.91. Labour cost savings, if realised, are likely to constitute a public benefit. However the ACCC considers that there is some doubt as to whether these savings will be achieved in the near future, and whether these savings are material.

6.92.

6.93.

6.94. On this basis, it is unlikely that there will be any significant labour cost savings in the next four years.

6.95. Beyond this timeframe, AGL has not set out how they have calculated the figure of labour cost savings [REDACTED]

6.96. The ACCC considers that the Tribunal may be assisted by AGL providing:

¹³⁴ Macquarie Generation, Business Plan 2013/2014 (**Confidential Annexure C**), page 5.

¹³⁵ Macquarie Generation, Business Plan 2013/2014 (**Confidential Annexure C**), page 20.

¹³⁶ Form S, paragraph 21.16; Affidavit of Redman, Annexure BAR25, Clause 16 of the Sale and Purchase Agreement.

¹³⁷ Affidavit of Redman, Annexure BAR16, page 4.

¹³⁸ Form S, paragraph 21.14(a).

[REDACTED]

a. the basis for the estimate of a reduction of [REDACTED]
[REDACTED]

[REDACTED]

6.97. As at 30 June 2013, Macquarie Generation's workforce comprised 642 employees.¹³⁹ Macquarie Generation has a corporate office in Newcastle with approximately 50 employees.¹⁴⁰ [REDACTED]
[REDACTED]¹⁴¹

6.98. The ACCC considers that to the extent that there are savings by removing duplicated corporate structures, this is likely to represent a public benefit. However it is not clear the extent to which the management and support staff functions will be duplicated between the Macquarie Generation and AGL plants. The ACCC considers that this makes AGL's estimate of [REDACTED]
[REDACTED] As at 30 June 2013, AGL had 2750 employees.¹⁴² While some of the support functions may be able to be undertaken by existing staff, an increase in staff numbers of 25% will presumably require some increase in support staff at AGL.

6.99. For this reason, the ACCC considers that beyond four years it is likely that AGL may be able to achieve some, but not all, of the estimated labour cost savings. The ACCC notes that the deferred nature of these projected cost savings adds uncertainty as to whether they will be achieved.

6.100. The ACCC notes that even using AGL's estimates of [REDACTED]
[REDACTED] in savings this only represents a [REDACTED] increase in the combined EBIT of AGL and Macquarie Generation if it were to be achieved.¹⁴³

6.101. For these reasons, the ACCC considers that labour cost savings are uncertain, unlikely to be realised in the near term, and even if they eventuate are only likely to represent minimal public benefits. Any labour cost savings are likely to accrue to AGL. There is no evidence to suggest these savings will be passed through to the

¹³⁹ Macquarie Generation Annual Report 2013, page 99 reproduced at Affidavit of Fowler, Annexure AF22).

¹⁴⁰ Macquarie Generation, Careers Overview, <http://www.macgen.com.au/Careers/Careers---Overview.aspx>, (accessed 12 May 2014).

¹⁴¹ Form S paragraph 21.14.

¹⁴² AGL Annual Report 2013, page 4, reproduced at Affidavit of Fowler, Annexure AF2.

¹⁴³ AGL's EBIT for the FY13 was \$869.3 million (see AGL Annual Report 2013, page 16 reproduced at Affidavit of Fowler, Annexure AF2) Macquarie Generation's EBIT for FY13 was \$208.1 million (see Macquarie Generation Annual Report 2013, page 7 reproduced at Affidavit of Fowler, Annexure AF22).

broader community – this should be taken into account when attributing weight to this benefit.

Supply of hedge contracts to retailers

- 6.102. The ACCC does not consider that the proposed acquisition is likely to result in an increased supply of hedge contracts to retailers.
- 6.103. AGL asserts that all else equal, higher levels of likely availability of the generation units at the Bayswater and Liddell power stations will result in increased supply of hedge contracts for electricity retailers.¹⁴⁴ AGL claims that where a generator has increased the reliability and likely availability of its generation capacity, the generator will incur less risk in selling hedge contracts. AGL considers it will have an [REDACTED]¹⁴⁵
- 6.104. However, AGL expects the acquisition of Macquarie Generation will provide it with an internal hedge for its NSW load.¹⁴⁶ AGL considers that if it owns Macquarie Generation it will be able to use the generation from these power stations as one part of its management of the risk associated with its NSW retail customer load.¹⁴⁷ AGL will be able to use generation from these power stations to provide hedge coverage for a greater volume of retail load (including both 'natural' hedge coverage for AGL's retail load and coverage under OTC and ETF contracts) if these power stations continued to be owned and operated by the State of NSW.¹⁴⁸
- 6.105. The ACCC considers, that when taken as a whole, the proposed acquisition is likely to result in a reduced supply of hedge contracts to retailers, not an increase in the supply as claimed by AGL. The ACCC's reasons for this conclusion are set out in more detail under the heading "Public Detriments" below.

Flow through to prices in the NEM, employment in the Hunter Valley region, the environment, or the community more broadly

- 6.106. The ACCC considers that even if it could be established that the proposed acquisition is likely to result in increased maintenance and capital expenditure (and this in turn resulted in increased availability) AGL has not provided any evidence to suggest that this will have a meaningful impact on wholesale or retail electricity prices.
- 6.107. While AGL has not quantified the efficiencies created from increased maintenance and capital expenditure, [REDACTED]

¹⁴⁴ Form S, paragraph 21.21.

¹⁴⁵ Form S, paragraph 21.22.

¹⁴⁶ Affidavit of Fowler, paragraph 238(b).

¹⁴⁷ Affidavit of Fowler, paragraph 240.

¹⁴⁸ Affidavit of Fowler, paragraph 244(b).

[REDACTED]

[REDACTED]

6.108. The ACCC considers that the efficiencies will have minimal effect on the marginal cost of generating electricity in NSW or the NEM more broadly. This is particularly the case in the context where the market is characterised by an excess of generation capacity.

6.109. [REDACTED]
[REDACTED]
[REDACTED] Given the period of time which will elapse before this occurs, the effect that the increased availability associated with this investment is likely to have on electricity prices in NSW or the NEM more broadly is subject to considerable uncertainty.

6.110. Moreover, when considered as a whole, the proposed acquisition by creating or increasing AGL's market power in the supply of electricity in the NEM, or in NSW, may result in higher wholesale electricity prices. This is discussed below.

6.111. Therefore, the efficiencies claimed by AGL are unlikely to result in lower electricity prices for end-users. Rather the proposed acquisition, by creating wholesale and retail market structures less conducive to competition will likely result in higher electricity prices for end-users. This is discussed further under the heading 'public detriments' below.

6.112. The ACCC considers that the same level of maintenance and capital expenditure is likely regardless of who owns the Bayswater and Liddell plants or that any difference would be minimal.

6.113. On this basis, the ACCC does not consider that the proposed acquisition is likely to result in an increase of employment in the Hunter Valley region. Nor is it likely to have any environmental impacts.

6.114. As there is no evidence to suggest they are likely to flow through to the broader community, this should be taken into account when attributing weight to any claimed benefit that the Tribunal is satisfied will occur, or is likely to occur, in the future with the proposed acquisition as compared to the likely future without the proposed acquisition.

III. Vertical integration efficiencies

¹⁴⁹ Affidavit of Bunyon, paragraph 34(a).

¹⁵⁰ Affidavit of Schumacher, paragraph 44.

AGL's claimed public benefits from vertical integration with Macquarie Generation

- 6.115. AGL claims that vertical integration of AGL with the Macquarie Generation assets will result in significant cost reductions and other efficiencies.¹⁵¹
- 6.116. According to AGL, an integrated AGL/Macquarie Generation is likely to incur lower costs than the sum of the costs of the stand-alone retailer and stand-alone generator operations currently.¹⁵² AGL claims these costs savings and other efficiencies will come from:¹⁵³
- a. avoiding the divergent preferences of a stand-alone retailer and stand-alone generator as to the duration and structure of hedge contracts (variable quantity hedge contracts or fixed quantity hedge contracts);
 - b. avoiding the transaction costs and hold-out risks of securing hedge contracts to manage its energy purchase cost risk/energy sales risk; and
 - c. avoiding the costs of failing to cover all of its market risk with hedge contracts, or avoiding the very high costs of doing so.
- 6.117. AGL claims in the competitive context in which AGL will operate, these efficiencies are likely to result in lower wholesale and retail electricity prices in the NEM or NSW.¹⁵⁴

ACCC's views on the likely benefits from vertical integration with Macquarie Generation

- 6.118. The ACCC is of the view that if AGL acquires Macquarie Generation, it will likely enable it to manage the volume and price risks currently faced by Macquarie Generation in the wholesale sale of electricity and by AGL in the wholesale purchase of electricity (to service its retail customers) in a more comprehensive and cost effective manner.
- 6.119. The size of any resulting costs savings and other efficiencies is however unclear. Without analysis quantifying the vertical integration efficiencies it has not been demonstrated, as AGL asserts, that they are significant. As discussed previously in paragraphs 6.52 - 6.54, while the Act does not require AGL to quantify in precise terms the claimed public benefits, there must be a factual basis for concluding that the public benefits are likely to result.
- 6.120. Moreover, these benefits will accrue solely or largely to AGL and are unlikely to be shared with the broader community. There is little likelihood that any cost savings and other efficiencies AGL achieves from vertical integration will result in lower

¹⁵¹ Form S paragraph 21.24.

¹⁵² Form S paragraph 21.28.

¹⁵³ Form S paragraphs 21.25 to 21.28.

¹⁵⁴ Form S paragraph 21.29.

wholesale or retail electricity prices in NSW. Rather, the increase in vertical integration will reduce competitive rivalry in the NSW retail electricity market enabling AGL to retain the benefits of any cost savings and other efficiencies it will likely attain.

Possible benefits to AGL of vertical integration with Macquarie Generation

- 6.121. The proposed acquisition will likely enable AGL to manage the volume and price risks faced by the generation and retail units of the merged business in a more comprehensive and cost effective manner.
- 6.122. There are a number of potential ways in which the proposed acquisition may enable AGL to better manage these risks.
- 6.123. One way is through a reduction in the costs of arranging hedge contracts with external parties. Depending on the hedge contract sought, it can be costly and time-consuming to find appropriate counterparties. To the extent that AGL can replace hedge contracts with external parties with 'internal' hedging between its generation and retail business units, its transaction costs are likely to be reduced.
- 6.124. A second way is through avoiding any hold-out risks from contracting with external parties. A generator entering a long-term fixed price wholesale electricity supply contract with a retailer may face a hold-out risk. If wholesale spot electricity prices fall during the period of the contract, the retailer may be exposed to a price squeeze – falling retail prices¹⁵⁵ but a fixed-price wholesale contract. This price squeeze may in turn cause the retailer to renege on the contract leaving the generator stranded.
- 6.125. While this is possible in theory, a number of factors limit its likely significance. First, generators such as AGL, adopt strict procedures to limit the risk of dealing with counterparties.¹⁵⁶ Second, generators do not face counterparty risk in exchange-traded contracts.¹⁵⁷ Third, the reputational damage to retailers who renege on wholesale contracts is likely to be substantial, reducing the likelihood of it occurring. It is not clear whether the 'hold-out' risk between stand-alone generators and retailers in NSW or the NEM more broadly is substantial. Frontier provides no examples of 'hold-out' risk in practice.
- 6.126. A third way is by enabling AGL to cover a larger portion of its energy purchase cost risk/energy sales risk. As also noted by Frontier, a vertically integrated generator and retail business:

¹⁵⁵ This assumes other retailers drop their retail prices as wholesale spot prices decrease.

¹⁵⁶ Affidavit of Fowler, paragraph 161.

¹⁵⁷ Affidavit of Fowler, paragraph 186.

*will have more of its energy purchase cost risk covered, especially where the generator has a portfolio of plant types including generators that can change their level of output to match variations in customer demand*¹⁵⁸

- 6.127. However, as intimated by Frontier, the degree to which this will be possible depends on, among other matters, the extent to which the Bayswater and Liddell plants can readily change their output to match variations in AGL's customer demands.
- 6.128. The Stevenson report also considers that vertical integration may enable AGL to mitigate price and volume risks through setting an internal transfer price between its retail and wholesale arms, thereby creating a hedge premium set through an internal process rather than a competitive process.¹⁵⁹
- 6.129. While some of the benefits of vertical integration claimed by AGL are likely, a relevant issue is what their quantum may be. This will depend on, among other matters, the:
- a. degree to which the size of Macquarie Generation's generation capacity will match the size of AGL's retail load;
 - b. degree to which Macquarie Generation's plants can be operated in a manner to match variations in AGL's retail load; and
 - c. cost and ability of AGL to acquire suitable hedge products in the absence of the proposed acquisition.
- 6.130. AGL has not attempted to quantify the costs savings and other efficiencies from vertical integration making it difficult to ascertain their likely size. As noted by Anthony Fowler:

*In my view, there are financial efficiencies in vertical integration as compared to contracting with third parties. However, I note that AGL's financial modelling of the AGL's proposed acquisition of Macquarie Generation did not seek to quantify the value of those efficiencies in this case.*¹⁶⁰

- 6.131. AGL is in the best position to quantify the cost savings and other efficiencies it may be able to achieve from vertical integration with Macquarie Generation. In the absence of such analysis, the value of the benefits from vertical integration is unclear. As such, it is difficult to identify the basis upon which AGL makes the claim that the cost reductions and other efficiencies to AGL will be significant.¹⁶¹

¹⁵⁸ Frontier (Competition) Report, paragraph 254.

¹⁵⁹ Report of Toby Stevenson, paragraphs 54 - 61

¹⁶⁰ Affidavit of Anthony Gareth Fowler affirmed 23 March 2014, paragraph 242.

¹⁶¹ Form S paragraph 21.24

Likely effects of vertical integration with Macquarie Generation on electricity prices

6.132. The most likely way in which the benefits from vertical integration could be shared with the broader community is through lower electricity prices. As noted above, AGL claims that in the competitive context in which it will operate, the vertical integration efficiencies it will achieve are likely to result in lower wholesale and retail electricity prices in the NEM or NSW.

Likely effect of any vertical integration with Macquarie Generation on wholesale electricity prices

6.133. While AGL has claimed that the costs savings and other efficiencies from vertical integration it may achieve will result in lower wholesale electricity prices, the manner in which AGL claims this will occur is not clear.

6.134. In order for AGL's claimed vertical integration cost savings and other efficiencies to result in lower wholesale electricity spot prices in NSW or the NEM, they must cause AGL to either:

- a. bid at lower prices into the wholesale spot market in situations where AGL is the marginal generator; or
- b. offer more generation capacity into the wholesale spot market at prices below the market price (which in turn, on occasion, may cause lower cost generators to become the marginal generator).

6.135. AGL has not provided any link between the vertical integration with Macquarie Generation and either of these outcomes. Nor has Frontier.

6.136. As detailed in the 'Public Detriments' section, it is the ACCC's view that the proposed acquisition, by substantially increasing AGL's share of generation capacity, creates a material risk of increased market power in the NEM-wide wholesale electricity market. In turn, this may result in higher wholesale electricity prices, off-setting any potential lowering of prices which may result from vertical integration.

6.137. The ACCC notes AGL has not attempted to quantify the impact of its vertical integration efficiencies on wholesale prices. This is surprising. Given the substantial portfolio of generation assets AGL will have across the NEM (around 23% of installed capacity and electricity dispatched¹⁶²), its future earnings are likely to be substantially exposed to wholesale prices.¹⁶³ If the proposed acquisition is likely to lower wholesale prices (as AGL claims), one would expect AGL to take that into consideration in determining the value to AGL of acquiring Macquarie Generation.

¹⁶² Derived from public AEMO NEM data by the AER.

¹⁶³ At least for the period AGL's generation output exceeds or does not match its needs to service its retail customers.

Likely effect of vertical integration with Macquarie Generation on retail electricity prices

- 6.138. As noted above, the proposed acquisition will likely enable AGL to manage the volume and price risks it faces in the wholesale purchase of electricity (to service its retail customers) in a more comprehensive and cost effective manner. This in turn will likely reduce the cost to AGL in supplying electricity to retail customers in NSW.
- 6.139. However, as explained in the Public Detriments section, the greater degree of vertical integration will substantially weaken the competitive constraints faced by AGL in the NSW retail electricity market. Specifically, the increased vertical integration resulting from the proposed acquisition will have the effect of raising the costs non-vertically integrated retailers incur in managing their risks in supplying electricity to retail customers in NSW. In turn, this will substantially raise the barriers to entry and expansion faced by non-vertically-integrated retailers resulting in higher retail prices.
- 6.140. The weakened competitive constraints faced by AGL in the NSW retail electricity market will enable it to retain the benefits from any cost savings and other efficiencies it will likely achieve from vertical integration with Macquarie Generation.

IV. Funds invested in NSW public infrastructure

AGL's claimed public benefits from funds invested in NSW public infrastructure

- 6.141. AGL claims that the contribution of the net proceeds from the sale to AGL of Macquarie Generation to the Restart NSW Fund, for the purposes of developing NSW public infrastructure in line with the NSW 20-year State strategy, will deliver the following public benefits:
- a. increased prospects of useful public infrastructure being developed in NSW, with the wider economic and social benefits that completion of such infrastructure will bring;
 - b. a reduction in debt funding otherwise required from the NSW Government to fund infrastructure projects;
 - c. increased prospects of the NSW Government retaining its AAA credit rating, and lower cost of debt;
 - d. a reduction in the prospect of decreased public transport and other existing NSW Government subsidies and/or decreased public expenditure on existing NSW Government programs;
 - e. a reduction in the prospect of increased taxation by the NSW Government;

- f. a reduction in the prospect of NSW Government capital being diverted away from other NSW Government investment priorities; and
- g. reduced call for contributions from Commonwealth funds for NSW infrastructure projects.¹⁶⁴

6.142. As a matter of logic, the more likely it is that the proposed acquisition will generate any one of AGL's claimed benefits, the less likely it will generate any of the other claimed benefits. For example, if the net proceeds of the sale are entirely used to fund additional public infrastructure, the same money cannot be used to reduce debt and state taxes; preserve NSW Government subsidies, programs and other investment priorities; or reduce calls for contributions from Commonwealth funds.

6.143. AGL assumes that the State of NSW will achieve net proceeds of around \$1 billion from the sale of Macquarie Generation to AGL, being the:

- a. purchase price payable by AGL of \$1,505 million; plus
- b. \$220 million in cash currently held by Macquarie Generation; less
- c. \$710.6 million being the re-payment of Macquarie Generation's debt.¹⁶⁵

6.144. AGL appears to claim that as a consequence, the State of NSW will:

- a. invest \$1 billion more on public infrastructure than otherwise would have been the case; or
- b. invest the same on public infrastructure but will need to raise \$1 billion less from other sources (less debt, lower taxes, lower government charges, etc) to fund investments in public infrastructure; or
- c. some combination of the two (for example spend \$600 million more on public infrastructure and raise \$400 million less from other sources).

6.145. This overlooks the fact that, by selling Macquarie Generation, the State of NSW will forego an on-going income stream. Foregoing this income will, all else being the same, reduce the ability of the State of NSW to fund additional public infrastructure; or require the State of NSW to raise monies from other sources to fund additional public infrastructure; or some combination of the two.

ACCC's view on the claimed public benefits from funds invested in NSW public infrastructure

6.146. The ACCC is of the view that AGL's approach to assessing any public benefit from funds invested in NSW public infrastructure is flawed. AGL has failed to take into

¹⁶⁴ Form S, paragraph 21.45.

¹⁶⁵ Form S, paragraphs 21.33 to 21.35.

consideration what the State of NSW is giving up in selling Macquarie Generation. Yet this is crucial to assessing the public benefits from the proposed acquisition.

- 6.147. By selling Macquarie Generation to AGL, the State of NSW gives up the alternative of either:
- a. selling Macquarie Generation to another party, either today or in the future; or
 - b. retaining ownership of Macquarie Generation.
- 6.148. If, in the alternative, the State of NSW sells Macquarie Generation to another party, the financial benefit of the proposed acquisition to the State of NSW is the difference between the purchase price offered by AGL and the purchase price offered by the other party.¹⁶⁶
- 6.149. If, in the alternative, the State of NSW retains ownership of Macquarie Generation, the financial benefit of the proposed acquisition to the State of NSW is the difference between the purchase price offered by AGL and the value of the on-going income stream from the Macquarie Generation assets. The ACCC has assumed that the State of NSW's view of the value of the on-going income stream from the assets is captured in the State of NSW's retention value for Macquarie Generation.
- 6.150. As a result, the financial benefit of the proposed acquisition to the State of NSW is likely to be a small fraction of \$1 billion (the net proceeds from the sale). Moreover, any such benefit is a transfer from AGL shareholders to the State of NSW.
- 6.151. The smaller the financial benefit, the smaller the likely effect of the proposed acquisition on the ability of the State of NSW to invest in public infrastructure or on the cost of funding such infrastructure.
- 6.152. As the financial benefit is likely to be a small fraction of \$1 billion, and given the current state of the State of NSW's finances, the ACCC is of the view that the proposed acquisition is unlikely to have a material effect on the ability of the State of NSW to invest in public infrastructure or on the cost of funding such infrastructure.

Assessing the benefits to the State of NSW from the proposed acquisition

- 6.153. There are two types of potential benefits to the State of NSW from the proposed acquisition. In the following section, the term State of NSW refers to the NSW Government and the public of NSW.
- 6.154. First is the financial benefit to the State of NSW. The financial benefit is the difference between the purchase price payable by AGL and the minimum price the State of NSW would be willing to accept to sell Macquarie Generation to AGL (**financial benefit**).

¹⁶⁶ This assumes that there are no material differences in any other terms of sale.

6.155. Second is the potential benefit to the State of NSW from the use of the proceeds from the sale of Macquarie Generation. The net proceeds from the proposed acquisition (of around \$1 billion) will be paid into the Restart NSW Fund¹⁶⁷ and will be used to fund public infrastructure projects in NSW.¹⁶⁸ In order for this to be a benefit to the State of NSW over and above the costs of foregoing the on-going income stream from Macquarie Generation, it must be the case that the proposed acquisition will:

- a. increase the ability of the State of NSW to fund public infrastructure; and/or
- b. reduce the cost to the State of NSW of funding investment in public infrastructure.

6.156. It must also be the case that the public infrastructure projects funded by the proceeds of the sale generate benefits to the State of NSW over and above the costs of those projects.

Financial benefit to the State of NSW of the proposed acquisition

6.157. The financial benefit is the difference between the purchase price payable by AGL and the minimum price the State of NSW would be willing to accept to sell Macquarie Generation to AGL.

6.158. The current Premier of NSW recently stated in relation to the sale of Macquarie Generation to AGL that the State of NSW:

*would proceed with the sale of state-owned assets only when the sale price offered exceeded the retention value of those assets – that is, the value of the assets if they remain in Government hands.*¹⁶⁹

6.159. On this basis, the minimum price the State of NSW would be willing to accept to sell Macquarie Generation to AGL is the greater of the:

- a. value to the State of NSW of retaining ownership of Macquarie Generation (**retention value**); and
- b. highest price the State of NSW could receive if it sold Macquarie Generation to a party other than AGL.

Financial benefit assuming in the absence of the proposed acquisition Macquarie Generation is retained by the State of NSW

¹⁶⁷ Form S, paragraph 21.34.

¹⁶⁸ Form S, paragraph 21.45.

¹⁶⁹ Mike Baird MP, NSW Treasurer, Macquarie Generation Sold for Proceeds of \$1.725 billion, Media Release, 12 February 2014.

6.160. If, in the absence of the proposed acquisition, Macquarie Generation is retained by the State of NSW, the financial benefit may be the difference between the purchase price payable by AGL and the State of NSW's retention value.

6.161. The ACCC has assumed that the retention value reflects the financial value to the State of NSW from retaining ownership of Macquarie Generation. Typically, prior to commencing a sale process for a significant public asset, governments determine a retention value. The aim is to safeguard against selling an asset at a (low) price when the government would have been better off holding onto the asset.

6.162. As noted by Infrastructure Australia, the main benefits to the Government balance sheet from asset transfer include:

the financial gain to government where the proceeds from asset transfers exceeds the net present value of future dividends the asset would have otherwise produced¹⁷⁰

6.163. As also noted by Infrastructure Australia:

...the benefits of sale to build accrued where the transfer to the private sector is above the retention value. The retention value should represent the net present value of dividend income to the public sector.¹⁷¹

6.164. The Tribunal has requested the State of NSW provide to it the retention value it has placed on Macquarie Generation. The Tribunal has also requested the State of NSW provide the basis upon which it determined the retention value and the factors it took into account in doing so. The ACCC is of the view that this information is highly relevant to a consideration of the benefits of the proposed acquisition to the State of NSW. Due to the confidential nature of this information, access to the State of NSW's response to these requests has been restricted to Senior Counsel and Junior Counsel for the ACCC and AGL.

6.165. Given Macquarie Generation is an income-producing asset, the ACCC anticipates that the State of NSW employed a financial methodology or model to determine its retention value. The ACCC notes that the State of NSW used a discounted cash flow valuation methodology to determine the retention values of three government-owned electricity retailers and the trading rights of two government-owned electricity generators which were sold in 2010-11.¹⁷²

6.166. The State of NSW's retention value for Macquarie Generation may be a single figure (say \$1.4 billion) or a range (say \$1.3 billion to \$1.5 billion). Assume for the

¹⁷⁰ Infrastructure Australia, *Australia's Public Infrastructure Update Paper Balance Sheet Impacts of Sell to Build*, December 2013, p.1.

¹⁷¹ Infrastructure Australia, *Australia's Public Infrastructure Update Paper Balance Sheet Impacts of Sell to Build*, December 2013, p.2.

¹⁷² State of NSW, Final Report of the Special Commission of Inquiry into the Electricity Transactions, Chapter 12 and Appendix 11.

purpose of demonstration that the State of NSW's retention value for Macquarie Generation is \$1.4 billion. Assuming that the State of NSW employed a robust financial approach in determining its retention value, the financial benefit to the State of NSW of selling Macquarie Generation to AGL is \$105 million. This being the purchase price offered by AGL of (\$1.505 billion) less the retention value of \$1.4 billion.

- 6.167. It is vital in making this calculation that it is made on a like-for-like basis. When it announced the sale of Macquarie Generation to AGL, the State of NSW stated that the gross proceeds of the sale were \$1.725 billion consisting of \$1.505 billion in proceeds from AGL and cash of \$220 million held by Macquarie Generation.¹⁷³ It seems logical that the retention value does not include the \$220 million for the cash held by Macquarie Generation as that is not part of the sale (it will be retained by the State of NSW). If this is the case, the financial benefit to the State of NSW of selling Macquarie Generation to AGL is \$1.505 billion less the retention value. However, without knowledge of how the retention value was determined it is not possible to be sure this is the appropriate calculation. If the retention value includes the \$220 million in cash, then the financial benefit to the State of NSW of selling Macquarie Generation to AGL is \$1.725 billion less the retention value.
- 6.168. Counsel for the ACCC will make a confidential submission to the Tribunal taking into account the confidential information on the retention value and the basis upon which it was determined provided to the Tribunal by the State of NSW. The ACCC's report should be read in conjunction with Counsel's confidential submission. It is anticipated that the confidential submission will cover the following.
- a. A brief description of the methodology used by the State of NSW to determine its retention value of Macquarie Generation.
 - b. When the State of NSW determined its retention value of Macquarie Generation.
 - c. The value and/or range of the State of NSW's retention value of Macquarie Generation.
 - d. The relevant proceeds of sale that should be compared with the retention value.
 - e. The financial benefit to the State of NSW of the proposed sale of Macquarie Generation to AGL (assuming that in the alternative the State of NSW will retain ownership of Macquarie Generation).
 - f. Whether any other party has offered the State of NSW a purchase price for Macquarie Generation in excess of its retention value.

¹⁷³ Mike Baird MP, NSW Treasurer, Macquarie Generation Sold for Proceeds of \$1.725 billion, Media Release, 12 February 2014.

- g. Whether the State of NSW's retention value may be altered in the future without the proposed acquisition.

Financial benefit assuming in the absence of the proposed acquisition Macquarie Generation is sold to another party

- 6.169. As noted above, the current Premier of NSW recently stated that the State of NSW will only proceed with the sale of state-owned assets (including Macquarie Generation) if the sale price exceeds its retention value. The ACCC assumes that at this stage no party other than AGL has offered the State of NSW a price in excess of its retention value. Unless the State of NSW changes its position on the sale of state-owned assets or lowers its retention value, another party would have to make an offer above the State of NSW's current retention value to acquire Macquarie Generation.
- 6.170. However, assume that in the absence of the proposed acquisition, Macquarie Generation is acquired by another party and the State of NSW's retention value for Macquarie Generation is \$1.4 billion. Also assume a party other than AGL offers the State of NSW \$1.45 billion for Macquarie Generation (\$50 million in excess of the assumed retention value). In the absence of the proposed acquisition, assume the State of NSW sells Macquarie Generation to this party. In this case, the financial value to the State of NSW of selling Macquarie Generation to AGL (and foregoing the sale to this party) is \$55 million. This being the purchase price offered by AGL (of \$1.505 billion) less the purchase price offered by the other party (\$1.45 billion).
- 6.171. It is difficult to be precise about the financial benefit to the State of NSW from the proposed acquisition without detailed information of the State of NSW's retention value and how it was determined. However, it is likely that the financial benefit is a small fraction of \$1 billion (the net proceeds from the sale).

Benefit to the State of NSW from the use of the proceeds of the sale to AGL

- 6.172. As noted above, the second type of potential benefit from the proposed acquisition to the State of NSW comes from the use of the proceeds from the sale of Macquarie Generation to AGL. The net proceeds from the proposed acquisition (of around \$1 billion) will be used to fund public infrastructure projects in NSW.
- 6.173. According to AGL, the State of NSW is constrained in its ability to fund (or to finance) new infrastructure in NSW.¹⁷⁴ It appears that AGL claims that the proposed acquisition will either increase the State of NSW's ability to fund additional investment in public infrastructure, or enable the State of NSW to fund investment in public infrastructure in a more cost effective manner.¹⁷⁵
- 6.174. These potential benefits are only likely to be relevant if, in the absence of the proposed acquisition, Macquarie Generation is retained by the State. If, in the

¹⁷⁴ Form S, paragraph 21.39.

¹⁷⁵ Form S, paragraph 21.45.

absence of the proposed acquisition, the State of NSW will sell Macquarie Generation to another party, it seems reasonable to assume that the proceeds of that sale will also be used to fund public infrastructure projects in NSW. The only difference is that the net sale proceeds may be smaller.¹⁷⁶ The benefit to the State of NSW of this difference is captured in the financial benefit discussed above.

- 6.175. If, in the absence of the proposed acquisition, the State of NSW will retain ownership of Macquarie Generation the alternatives are clear.
- 6.176. If the proposed acquisition proceeds, the net proceeds of around \$1 billion will be used to fund public infrastructure in NSW.
- 6.177. If the proposed acquisition does not proceed, the State of NSW will retain the on-going income stream from Macquarie Generation over the life of the assets.
- 6.178. In order to compare the two alternatives, assume that the State of NSW will fund \$1 billion of public infrastructure in both cases. In the first case by using the net proceeds of the sale. In the second case by increasing its borrowings by \$1 billion and using of the income stream from Macquarie Generations to service and repay the debt over time.¹⁷⁷
- 6.179. The relevant issue is whether there is likely to be any material difference between these alternatives. Specifically, as compared to Macquarie Generation being retained by the State of NSW, will the sale of Macquarie Generation to AGL have:
- a. a material effect on the ability of the State of NSW to undertake public infrastructure projects and to fund those projects; and/or
 - b. a material effect on the costs to the State of NSW of funding public infrastructure projects?
- 6.180. The ACCC considers that the answers to these two questions are no.
- 6.181. Crucial to this issue is a clear recognition of what the alternatives entail. If Macquarie Generation is sold to AGL, the State of NSW will:
- a. fund an additional \$1 billion of public infrastructure (from the net proceeds of sale); and
 - b. pay-off Macquarie Generation's debt of around \$711 million.

¹⁷⁶ If there is no difference between the purchase prices, there is no benefit in the proposed acquisition to the State of NSW. In the absence of the proposed acquisition, the State of NSW can achieve the same proceeds of sale from the alternative purchaser.

¹⁷⁷ In reality the State of NSW will service and repay this debt using general revenues of which income or dividends from Macquarie Generation will be a part. It is also possible that the income from Macquarie Generation may not be sufficient to service and repay the debt. Any such shortfall will likely be reflected in the difference between AGL's purchase price and the State of NSW's retention value.

6.182. If Macquarie Generation remains owned by the State of NSW it will:

- a. receive on-going income stream from Macquarie Generation; and
- b. hold around \$1.711 billion in debt being:
 - Macquarie Generation's debt of around \$711 million; and
 - \$1 billion in increased borrowings to finance an additional \$1 billion of public infrastructure.

6.183. Nigel Lake¹⁷⁸ has undertaken a calculation comparing these scenarios¹⁷⁹ on the finances of the State of NSW.¹⁸⁰ Using Macquarie Generations FY13 earnings¹⁸¹, Nigel Lake finds that the proposed acquisition (compared to the State of NSW retaining Macquarie Generation) would have reduced the State of NSW's net earnings by around \$25 million. That is, Macquarie Generation's earnings in FY13 would have exceeded the interest payments on the \$1.711 billion of debt by around \$25 million.

Table 5 – EBIT, operating profits after tax and dividends paid – Macquarie Generation, 2009/10 to 2015/16 (\$ million)¹⁸³

Financial year	EBIT*	Operating Profit after tax	Dividends paid**
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¹⁷⁸ Nigel Lake has considerable experience in advising companies and governments on a range of financial and funding issues in relation to commercial transactions and large infrastructure projects.

¹⁷⁹ Nigel Lake assumed that the value of the infrastructure investment is \$1.014 billion rather than \$1 billion.

¹⁸⁰ Report of Nigel Lake (13 May 2014), Section 4.5

¹⁸¹ Earnings before Interest and Tax after fair value movements in derivative financial instruments

¹⁸² [REDACTED]

¹⁸³ Macquarie Generation Annual Report 2011 and 2013; [REDACTED]

2009/10	334	196	150
2010/11	228	126	190
2011/12	229	120	130
2012/13	99	41	124
2013/14 (budget)	n.a		30
2014/15 (budget)	n.a		n.a
2015/16 (budget)	n.a		n.a

* Earnings before Interest and Tax after fair value movements in derivative financial instruments

** Dividends are dividends paid during the financial year. They are paid from net profits after tax in previous the financial year. n.a. not available

Likely effect of the proposed acquisition on the ability of the State of NSW to undertake public infrastructure projects and to fund those projects

- 6.185. Infrastructure NSW has identified around \$30 billion of infrastructure projects which it considers to be important for the State of NSW to undertake over the next 20 years.¹⁸⁴ Of these projects, \$10 billion are likely to be funded by user charges, leaving \$20 billion to be funded through other means.¹⁸⁵
- 6.186. The ACCC is of the view that the proposed acquisition (when compared to the State of NSW retaining Macquarie Generation) will have no material effect on the ability of the State of NSW to undertake public infrastructure projects and to fund those projects.
- 6.187. At a conceptual level, it is unclear whether capital recycling (the linking of the decision to sell state-owned assets and the decision to invest in a new infrastructure projects) places governments in a better position to fund public infrastructure. The Productivity Commission recently noted the following in relation to capital recycling

.... from a budget perspective, the net impact on the government's balance sheet through the use of capital recycling is unclear. In effect, government would essentially be swapping ownership of a mature asset (with known demand and cost characteristics), for ownership of a new (and potentially more risky) greenfields asset (with unknown demand and cost characteristics). While government is receiving revenue from the asset sale and avoiding future liabilities (including any contingent liabilities), it would also lose access to the future revenue stream from that asset (be it from dividends or otherwise) and

¹⁸⁴ Infrastructure NSW, *The State Infrastructure Strategy 2012-2032*, page 13.

¹⁸⁵ Infrastructure NSW, *The State Infrastructure Strategy 2012-2032*, page 13.

*be exposed to a new set of assets and liabilities with less reliable estimates of dividends and other revenue.*¹⁸⁶

6.188. Nigel Lake has similarly noted:

*Where asset recycling occurs, this may involve divesting a mature asset or business in order to invest the proceeds in new infrastructure. Greenfield infrastructure projects – particularly large projects – may be significantly more risky than the existing asset or business, and so this process may increase the economic risk to the State per dollar invested over the short term. Notwithstanding any increase in economic risks, states may undertake asset recycling because this has the potential to improve the infrastructure stock of the State significantly over the medium to long term. The risk is that this improvement may be destructive from a value perspective, and in particular may necessitate future tax increases to recover unexpected costs.*¹⁸⁷

6.189. In relation to the proposed sale of Macquarie Generation, the ACCC is of the view that the following factors mitigate against it having any material effect on the ability of the State of NSW to undertake public infrastructure projects and to fund those projects.

6.190. First, the net sale proceeds of approximately \$1 billion are small compared to the infrastructure spend of \$20 billion proposed by Infrastructure NSW.¹⁸⁸

6.191. Second, other assets are available to the State of NSW to sell to fund investments in public infrastructure.¹⁸⁹ The ACCC notes the State of NSW recently entered a 98-year lease for the Port of Newcastle for \$1.75 billion. More than \$1.5 billion of the proceeds from the lease will be invested in the Restart NSW Fund.¹⁹⁰

6.192. Third, sale proceeds less the retention value of Macquarie Generation is likely to be very small (relative to the infrastructure spend of \$20 billion proposed by Infrastructure NSW).¹⁹¹ Deducting the retention value from sale proceeds provides a more complete picture on the impact of the sale on the State of NSW's finances as it captures what the State is giving up as well as what it is getting. As noted by Nigel Lake:

...this measure provides a more complete assessment of the impact of the State to be able to fund and finance the proposed investment in new infrastructure, as it takes into account the effect of the sale price, the

¹⁸⁶ Productivity Commission, *Public Infrastructure*, Draft Report, Volume 1, March 2014, page 210.

¹⁸⁷ Report of Lake, page 17.

¹⁸⁸ Report of Lake, section 4.2.

¹⁸⁹ Report of Lake, section 4.3.

¹⁹⁰ NSW Treasury, Long-term Lease of the Port of Newcastle: Frequently Asked Questions, www.treasury.nsw.gov.au/data/assets/pdf_file/0008/123659/FAQs_-_Long-term_Lease_of_the_Port_of_Newcastle.pdf (accessed 15 May 2014).

¹⁹¹ Report of Lake, section 4.4.

*associated reduction in prospective borrowing costs (due to debt being repaid) as well as the loss of earnings associated with the assets following a sale.*¹⁹²

6.193. Nigel Lake concludes (in relation to the sale of Macquarie Generation):

*...on this measure a sale will not have material impact on the State's ability to fund or finance infrastructure projects.*¹⁹³

6.194. Fourth, as noted above, the sale of Macquarie Generation is likely to have a minimal impact on the earnings of the State of NSW. While the State of NSW could hold around \$1.7 billion more debt¹⁹⁴ in the absence of the sale of Macquarie Generation, the current cost of finance charges (interest) on this debt is less than Macquarie Generation's FY13 earnings.¹⁹⁵

6.195. Fifth, Macquarie Generation appears unlikely to impose near term obligations on the State of NSW to fund large capital expenditure or subject the State of NSW to substantial risks that may affect the State's ability to finance or fund public infrastructure projects.¹⁹⁶

Likely effect of the proposed acquisition on the cost to the State of NSW of funding public infrastructure projects

6.196. The most likely way in which retaining ownership of Macquarie Generation (relative to the sale of Macquarie Generation) may increase the cost to the State of NSW of funding public infrastructure projects is if it increases its cost of debt. The non-financial public sector of NSW currently holds net debt of around \$50 billion.¹⁹⁷ An increase in cost of debt of 100 bps (or one percentage point) could, over the long term, add \$500 million per annum to the States' interest payments. It will also make the financing of debt to invest in public infrastructure in the future more expensive. This will ultimately result in higher taxes or lower government expenditures.

6.197. The ACCC is of the view that financing \$1 billion of infrastructure investment through increasing debt (and servicing it using the on-going income stream from Macquarie Generation) is unlikely to raise the cost of debt to the State of NSW. This is the case for a number of reasons.

¹⁹² Report of Lake, page 22.

¹⁹³ Report of Lake, page 22.

¹⁹⁴ Assuming the State of NSW borrows \$1 billion to invest in the infrastructure that would have been funded by the proceeds of the sale of Macquarie Generation.

¹⁹⁵ Report of Lake, section 4.5.

¹⁹⁶ Report of Lake, sections 4.6 and 4.7.

¹⁹⁷ Report of Lake, page 29.

- 6.198. First, relative to the sale of Macquarie Generation, retaining Macquarie Generation and financing \$1 billion of infrastructure investment through debt will likely increase the State of NSW's debt by less than 4%.¹⁹⁸
- 6.199. Second, relative to the sale of Macquarie Generation, retaining Macquarie Generation and financing \$1 billion of infrastructure investment through debt is highly unlikely to have material impact on the State of NSW's credit rating (and hence cost of debt). This is because¹⁹⁹:
- a. the proceeds of the sale are modest in the context of the financial position of the State of NSW;
 - b. the impact of the proposed acquisition on Standard & Poor's credit rating metric is immaterial; and
 - c. ratings agencies tend to look at the longer term position of governments in assessing their credit rating, rather than the one-off impacts from asset sales of the size of Macquarie Generation.
- 6.200. The ACCC is of the view that the proposed acquisition will have no material effect on the cost to the State of NSW of funding public infrastructure projects.

Will the public infrastructure projects funded by the proceeds of the sale generate benefits to the State of NSW over and above the costs of the projects?

- 6.201. The discussion above assumes that the public infrastructure projects funded by the proceeds of the sale of Macquarie Generation will generate benefits to the State of NSW over and above the costs of the projects.
- 6.202. While the ACCC agrees with AGL that there are likely to be useful public infrastructure projects that can be developed by the State of NSW, there are uncertainties whether the projects likely to be funded by the net proceeds of the sale of Macquarie Generation will generate benefits in excess of the project costs.
- 6.203. Investments in public infrastructure are subject to substantial risks and uncertainties. Some investments fail. Others exceed expectations. This can make it highly uncertain whether any particular infrastructure project will yield a public benefit and whether any public benefit will be significant.
- 6.204. Investment in public infrastructure is subject to a number of specific risks. These include:
- a. project selection risks (the risk of selecting projects for which the costs exceed the benefits to the public); and

¹⁹⁸ Report of Lake, page 32.

¹⁹⁹ Report of Lake, sections 5 and 6.

- b. project implementation risk (such as design construction and commissioning risks, market (or demand) risks, and industrial relations risks).

6.205. As noted by the Productivity Commission, project selection risk can be exacerbated in situations where the proceeds of a sale are quarantined to fund projects (as is the case with the sale of Macquarie Generation). The Productivity Commission states:

The main risk from the capital recycling model is the potential for it to distort either of these decisions. In particular, an arrangement where the proceeds of sale are automatically hypothecated to investment in new infrastructure projects may create risks for over-investment in new greenfields infrastructure which, by its nature, typically involves significant risks in the early construction and operational phases. The crucial issue is effective project selection, which is not addressed by locked-in finance.²⁰⁰

6.206. Moreover, the infrastructure projects likely to be funded by the proceeds of the Macquarie Generation sale are likely to be more marginal projects. As noted above, other assets are available to the State of NSW to sell to fund investments in public infrastructure. Some of these sales have already taken place. Arguably, the State of NSW will undertake the projects likely to generate the largest net benefits to the public of NSW first. To the extent a project 'falls of the list' because the sale of Macquarie Generation does not go ahead, it is likely to be one with smaller expected net benefits.

Public benefits from funds invested in NSW public infrastructure

6.207. The ACCC is of the view that the proposed acquisition may generate some benefits for the State of NSW. To the extent that the purchase price payable by AGL exceeds the minimum price the State of NSW would be willing to accept to sell Macquarie Generation to AGL (and that minimum price was determined appropriately), then the proposed acquisition will generate a financial benefit to the State of NSW equal to the difference. However, without knowledge of the State of NSW's retention value for Macquarie Generation and how it was determined, the existence of any financial benefit is uncertain.

6.208. Moreover, it is not clear that this will result in a public benefit. All else equal, the higher the price AGL pays for Macquarie Generation, the better off the State of NSW will be. This however involves a transfer from AGL shareholders to the State of NSW. While it may be appropriate to place more weight on the benefits accruing to the State of NSW than AGL shareholders, it is nevertheless important to recognise that the financial benefit involves a transfer between parties.

6.209. While it is theoretically possible that the proposed acquisition will enable the State of NSW to fund investment in additional public infrastructure or fund investment in public infrastructure more efficiently, the ACCC is of the view that the benefits, if they occur, are unlikely to be material.

²⁰⁰ Productivity Commission, *Public Infrastructure*, Draft Report, Volume 1, March 2014, p.209.

V. Conclusion on public benefits

- 6.210. The ACCC considers that the proposed acquisition is likely to result in small public benefits. These benefits are in the form of labour cost savings (limited to being realised after [REDACTED] and vertical integration efficiencies which will accrue largely to AGL. The ACCC does not consider that AGL's other claimed benefits are likely to result in public benefits.

7. PUBLIC DETRIMENTS

- 7.1. The ACCC considers that the proposed acquisition is likely to lead to significant and continuing public detriment. The ACCC considers that this detriment is likely to manifest in two markets:
- a. the market for the retail supply of electricity to end users in NSW; and
 - b. the market for the wholesale supply of electricity in the NEM.
- 7.2. The ACCC considers that the proposed acquisition is likely to raise barriers to entry and expansion for suppliers in the market for the retail supply of electricity to end users in NSW. This is because the acquisition is likely to result in a reduction in the quantity of available hedge contracts or a deterioration in the terms and conditions on which such instruments are supplied. Such hedge contracts are a necessary input into the retail supply of electricity in order to manage the risks associated with supplying electricity to end-users.
- 7.3. The ACCC considers that the reduction in the quantity of available hedge contracts over time is likely to arise for a number of reasons following the proposed acquisition. One reason is that AGL will use the output of Macquarie Generation as a 'natural hedge' for its retail load, a volume which is likely to grow over time. This will effectively lock up the naturally hedged proportion of Macquarie Generation to AGL, whereas in the absence of the proposed acquisition (whether under the status quo or ownership by another purchaser without a significant retail base in NSW) this volume would likely be available (as hedge contracts) to all potential retail competitors.
- 7.4. In addition, for the proportion of Macquarie Generation's output which is not used by AGL as a natural hedge, the ACCC considers that AGL will have an incentive to foreclose access by retail competitors to hedge contracts on terms which enable those competitors to compete vigorously and effectively. The ACCC considers that AGL will have the ability to act on that incentive due to the insufficiency of the non-Macquarie Generation sources of hedge contracts to meet the hedge contracting needs of other retailers in NSW over time.
- 7.5. The ACCC also considers that the proposed acquisition will result in a material reduction in liquidity for trading hedge contracts in NSW as a result of AGL and Macquarie Generation, to a substantial degree, ceasing to trade on the open market

as a result of AGL using Macquarie Generation as a natural hedge for its retail load. This reduction in liquidity is likely to make it more difficult for other retailers to obtain the hedge contracts they require to manage their risks in NSW in a timely and certain manner.

- 7.6. The ACCC considers that the retail market structure that would arise in NSW following the proposed acquisition would be materially less conducive to competitive outcomes than the market structure that would exist in the likely future without the proposed acquisition. In particular, the proposed acquisition will result in substantially increased barriers to entry and expansion for electricity retailing in NSW for parties other than the 'big 3' vertically integrated generators (AGL, Origin and EnergyAustralia). With a substantially reduced threat of entry by smaller market participants (or second tier retailers), the ACCC considers that competition in the market for the retail supply of electricity is likely to substantially reduce.
- 7.7. In relation to the market for the supply of wholesale electricity in the NEM, the ACCC considers that there is a material risk that the proposed acquisition would lead to adverse market outcomes as AGL would become the largest generating entity in the NEM by a significant margin, and the largest generator in each of South Australia, Victoria and NSW. Should market conditions such as were recently observed in the NEM arise in the future, it is likely that AGL would be in a position to influence wholesale market prices to a material degree. Recognising the difficulties of forecasting electricity demand over long term horizons with any significant degree of accuracy, and a number of factors which could push the supply and demand balance back towards historical levels, the ACCC considers that the risk of these market conditions arising is material.
- 7.8. It is noted that this section of the report does not consider the effect of the conditions of authorisation that have been proposed by AGL, which are discussed separately in section 10. In summary, the ACCC considers that the proposed conditions, or any similar behavioural commitments, are not capable of addressing the long term structural problem created by the proposed acquisition.

I. Market definition

Retail supply of electricity

Product dimension

- 7.9. The ACCC considers that there are separate retail markets for the supply of electricity to residential and small business ('mass-market') customers (those consuming up to 160MWh of electricity per annum) and industrial and commercial ('large business') customers (those consuming more than 160MWh per annum). AGL agrees with this product market definition.²⁰¹

²⁰¹ Frontier (Competition) Report, section 4.2.2.

- 7.10. While the ACCC considers that this distinction is appropriate, it has little bearing on the assessment of the competitive effects of the proposed acquisition and the market is referred to throughout this report as the ‘market for the retail supply of electricity to end-users’.

Geographic dimension

- 7.11. The ACCC considers that there is a separate geographic market for the retail supply of electricity to end users in NSW. However, AGL contends that the geographic dimension of the retail market is the NEM or, in the alternative, NSW.²⁰² The ACCC considers that AGL’s contention that there is a NEM-wide retail market is inconsistent with the realities of the market and the commercial behaviour of electricity retailers.²⁰³ The ACCC also considers that it is based on a contention in relation to the viability of interregional hedging that is also inconsistent with the commercial behaviour of electricity retailers in NSW and the NEM.
- 7.12. The ACCC considers that the primary reason why the geographic dimension of the relevant retail market is NSW and not the NEM is that retailers supplying end-users in NSW fundamentally require hedge contracts that reference the NSW spot price, whereas retailers in other regions primarily require hedge contracts referencing the spot price in those other regions.²⁰⁴

Requirement to use hedge contracts referencing the NSW spot price

- 7.13. There is a different spot price in each of the NEM regions. The existence of transmission constraints between the regions creates a risk of interregional price separation. This means that electricity retailers hedge the majority of their load with hedge products referenced to the regional reference price where their customers are located (ie. the region of the NEM where they are consuming electricity and are therefore exposed to the local spot market).²⁰⁵
- 7.14. The ACCC recognises that it is possible to manage risks associated with a NSW retail load using a hedge contract that references a spot price in another region (an interregional hedge). This is potentially done by combining the interregional hedge with a purchase of Interregional Settlement Residue units (**IRSR units**), which are explained below, or cap products. However, such hedge contracting strategies carry significant additional levels of risk and uncertainty and the circumstances in which it

²⁰² Form S, paragraph 5.11; and Frontier (Competition) Report, section 4.2.4.

²⁰³ Affidavit of David John Guiver affirmed on 9 May 2014, paragraph 30; Affidavit of Vernon Swanepoel affirmed on 15 May 2014, paragraph 17; and Affidavit of David Robert Evans affirmed on 16 May 2014, paragraph 43.

²⁰⁴ Report of Dean Willis (13 May 2014), paragraph 31; Affidavit of Guiver, paragraph 28 and Affidavit of Swanepoel, paragraph 17.

²⁰⁵ Affidavit of Guiver, paragraph 28 and Affidavit of Swanepoel, paragraph 17.

would be commercially attractive or desirable to do so arise rarely.²⁰⁶ As discussed below, this is particularly difficult for non-vertically integrated retailers.

7.15. Therefore, the ACCC considers that hedge contracts referencing a spot price in another region do not provide a substitute for hedge contracts referencing the NSW spot price. While interregional hedging strategies are possible, and may be engaged in to a small degree by market participants from time to time, hedge contracts referencing the NSW spot price provide clearly the most effective form of hedge cover for NSW retail loads and are an input that is fundamentally required by electricity retailers supplying end-users in NSW.

7.16. The ACCC considers that the following factors support this proposition:

- a. AGL's approach to hedge contracting in NSW;
- b. the lack of use of interregional hedging by second tier retailers;
- c. the materiality of interregional price separation risk; and
- d. the inability of other hedging strategies to mitigate this risk, particularly due to the lack of reliability of IRSR units.

7.17. These factors are explained in more detail below.

AGL's NSW hedge contracting

7.18. The ACCC considers that AGL's hedging activities in relation to its NSW retail loads supports the proposition that NSW retailers primarily require hedge contracts that reference the NSW spot price. The affidavit of Anthony Fowler summarises AGL's NSW position as follows:

AGL established its NSW hedge position:

- (a) *principally by entering into hedge contracts referenced to the NSW RRP with generators located in NSW (in particular, with [REDACTED] and [REDACTED]);*
- (b) *by entering into hedge contracts referenced to the NSW RRP with generators located in other regions of the NEM (in particular Queensland generators); and*
- (c) *by utilising hedge contracts referenced to other regions of the NEM and/or physical generation located in other regions (in particular Victoria and Queensland), supplemented by IRSRs.²⁰⁷*

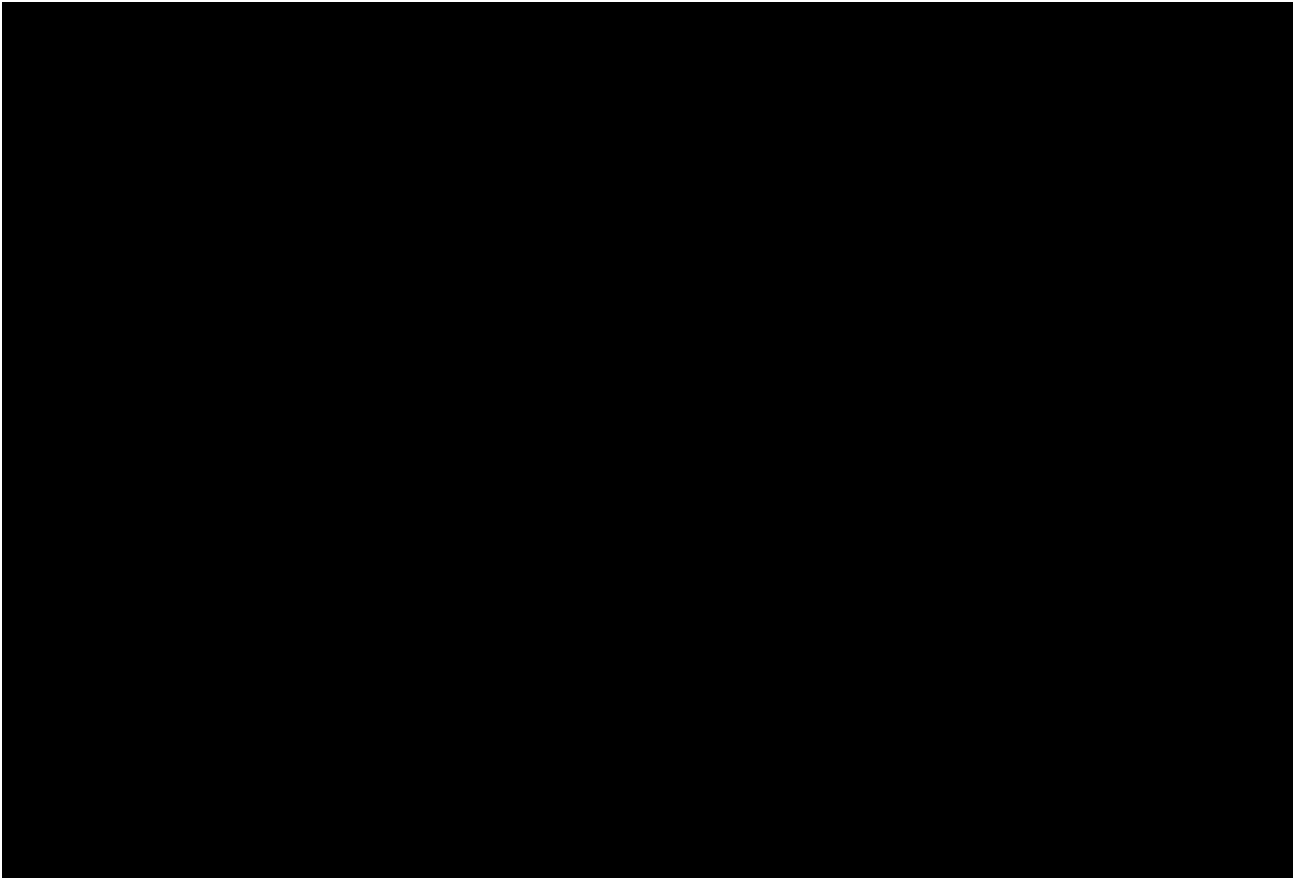
²⁰⁶ Affidavit of Evans, paragraph 43; Affidavit of Swanepoel, paragraph 17; and Affidavit of Guiver, paragraph 32.

[REDACTED]

7.19. The proposition that AGL ‘principally’ established its NSW hedge position by entering into hedge contracts referenced to the NSW RRP is supported by the breakdown of AGL’s hedge book provided by Anthony Fowler (Figure 2).

[REDACTED] The explanations provided by Anthony Fowler at paragraphs 136 (extracted above), 141 and 145 indicate that the contracts in this graph which are labelled as being provided by non-NSW generators are still contracts which reference the NSW spot price.

Figure 2 – AGL NSW contract book [REDACTED]



²⁰⁸

7.20. Elsewhere in his affidavit, Anthony Fowler states that:

I know from my experience that AGL uses (and has for many years used) as a standard risk management tool a combination of IRSRs covering interconnector flows from Queensland into NSW and hedge contracts with Queensland generators referenced to the Queensland RRP (or output from the Oakey

²⁰⁷ Affidavit of Fowler, paragraph 136.

²⁰⁸ Affidavit of Fowler, paragraph 138 (Figure 3).

[REDACTED]

power station). I consider that this combination of IRSRs and hedge arrangements creates a hedge position which is broadly equivalent to a hedge contract referenced to the NSW RRP. I consider that this combination of hedge arrangements is an important hedging tool for AGL (in the sense that AGL frequently uses or considers using it), and AGL's use of this combination of hedge arrangements adds liquidity to the supply of NSW contracts.²⁰⁹

- 7.21. It is not clear from Anthony Fowler's affidavit, or elsewhere in AGL's evidence, the exact or approximate volume (if any) of hedge coverage used by AGL to cover its NSW retail load which references a spot price in another region. At most, it appears such volumes could possibly be included in the category of contracts described as

- 7.22. The fact that AGL doesn't consider hedge contracts that reference the spot price in another region to be generally suitable to cover its NSW retail load is further evidenced by one of AGL's core rationales for the transaction, which is to use the output of Macquarie Generation to supply its retail load. This was described by Brett Redman in his affidavit:

Supplying AGL's existing NSW load: *AGL's load in the NSW region is 9.1TWh per annum. Without any dispatchable generation in NSW, AGL currently spends approximately \$650-700 million per annum acquiring electricity from the market to supply its customers. AGL currently uses a mix of surplus generation in Victoria and market contracts to hedge its NSW position. However, AGL's surplus Victorian generation capacity will reduce from 2016 as new Victorian contracts commence. The Macquarie Proposal allows AGL to manage the risk from its NSW load with the Macquarie Generation Assets.²¹⁰*

- 7.23. While Brett Redman states that AGL uses, in part, surplus generation in Victoria to hedge its NSW position, the volume it uses in that way is not specified here or elsewhere in AGL's evidence. [REDACTED]

[REDACTED] It appears that to the extent that AGL uses its Victorian generation capacity in this way, it would be in relation to some portion of the [REDACTED], as explained by Anthony Fowler:

I know from my understanding of AGL's contracting practices that where the graph shows that AGL's position is 'short' in NSW, this is because AGL usually also holds:

- a. *IRSRs, to allow AGL to hedge NSW retail load using generation located in regions other than NSW; and/or*

²⁰⁹ Affidavit of Fowler, paragraph 147.

²¹⁰ Affidavit of Redman, paragraph 71(b).

b. *weather derivatives (and has maintained a residual exposure to the pool price).*²¹¹

7.24. In addition, as explained by Anthony Fowler at paragraph 175, AGL supplies hedge contracts to a range of counterparties in Victoria, where it owns substantial generation capacity. As shown in **Figure 3**, AGL supplied over [REDACTED] of hedge contract capacity to Victorian counterparties. If hedge contracts referencing the Victorian spot price were truly substitutable for hedge contracts referencing the NSW spot price, AGL would be expected to use its Victorian generation to back its NSW retail load in preference to either selling contracts in Victoria or buying them in NSW, given the efficiencies associated with vertical integration that are claimed by AGL.²¹²

Figure 3 – AGL Hedge Position (Victoria) [REDACTED]

²¹¹ Affidavit of Fowler, paragraph 139.

²¹² For example, Affidavit of Fowler, paragraphs 240 to 242.

²¹³ Affidavit of Fowler, paragraph 174 (Figure 11).

- 7.25. The ACCC considers that the contracting behaviour of AGL in NSW demonstrates that it does not consider hedge contracts referencing a spot price in another region to be generally substitutable for contracts referencing the NSW spot price in relation to its NSW retail load.

Interregional hedge contracting by other retailers

- 7.26. Other retailers have provided evidence to the Tribunal that the extent to which interregional hedging occurs is non-existent or minimal. For example, ERM Power uses interregional hedges less than 1% of the time,²¹⁴ and Hydro Tasmania's interregional hedging generally comprises a small percentage of the total volume of its hedge book.²¹⁵ Progressive Green does not currently engage in interregional hedging.²¹⁶
- 7.27. This reflects the fundamentally risky nature of interregional hedging. As noted in the report of Dean Willis:

Typically a party seeking to hedge market risk will choose to hedge that risk with reference to the same location as where that risk is located, that is at the same regional reference node because to hedge that risk with reference elsewhere will introduce additional 'basis risk' as the price of the risk being hedged and the price of the instrument being used to hedge the risk are not perfectly correlated (they are not 'apples with apples').

...

inter-regional hedging introduces additional basis risk to the portfolio and is inappropriate for [new entrant retailers] and AEMO's auction of IRSR does not provide a reliable hedge of that basis risk²¹⁷

Materiality of the interregional price separation risk

- 7.28. In its discussion of the geographic dimension of the relevant wholesale markets, Frontier provided data in relation to the frequency of various levels of interregional price separation across the NEM. This data is summarised in **Figure 4**.

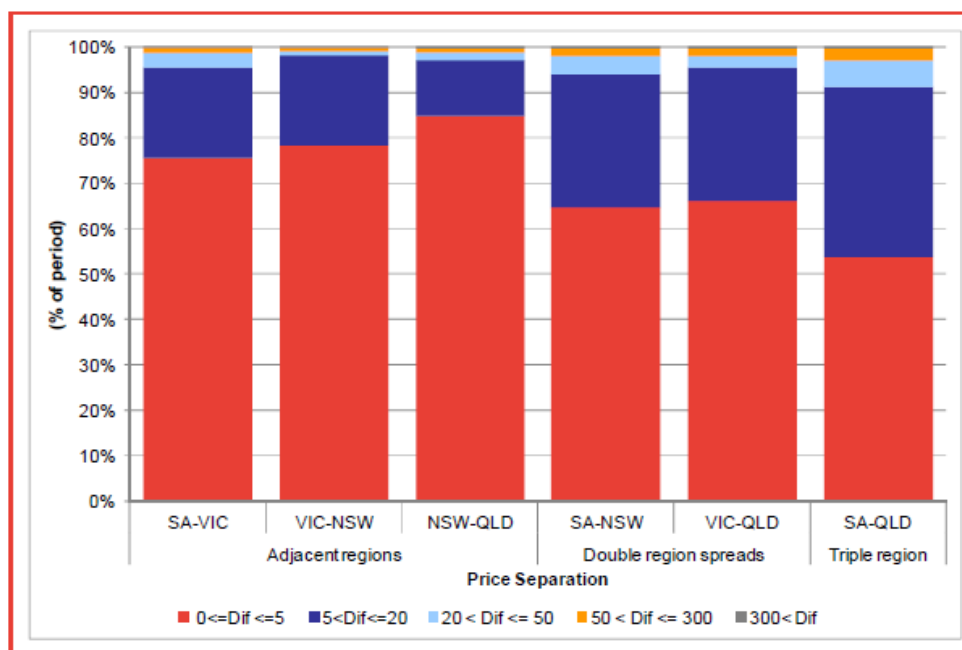
²¹⁴ Affidavit of Guiver, paragraph 32.

²¹⁵ Affidavit of Swanepoel, paragraph 17.

²¹⁶ Affidavit of Evans, paragraph 43.

²¹⁷ Report of Willis, paragraphs 31 and 216.

Figure 4 – Percentage of price separation across the NEM over FY2008 to FY2014 to date²¹⁸

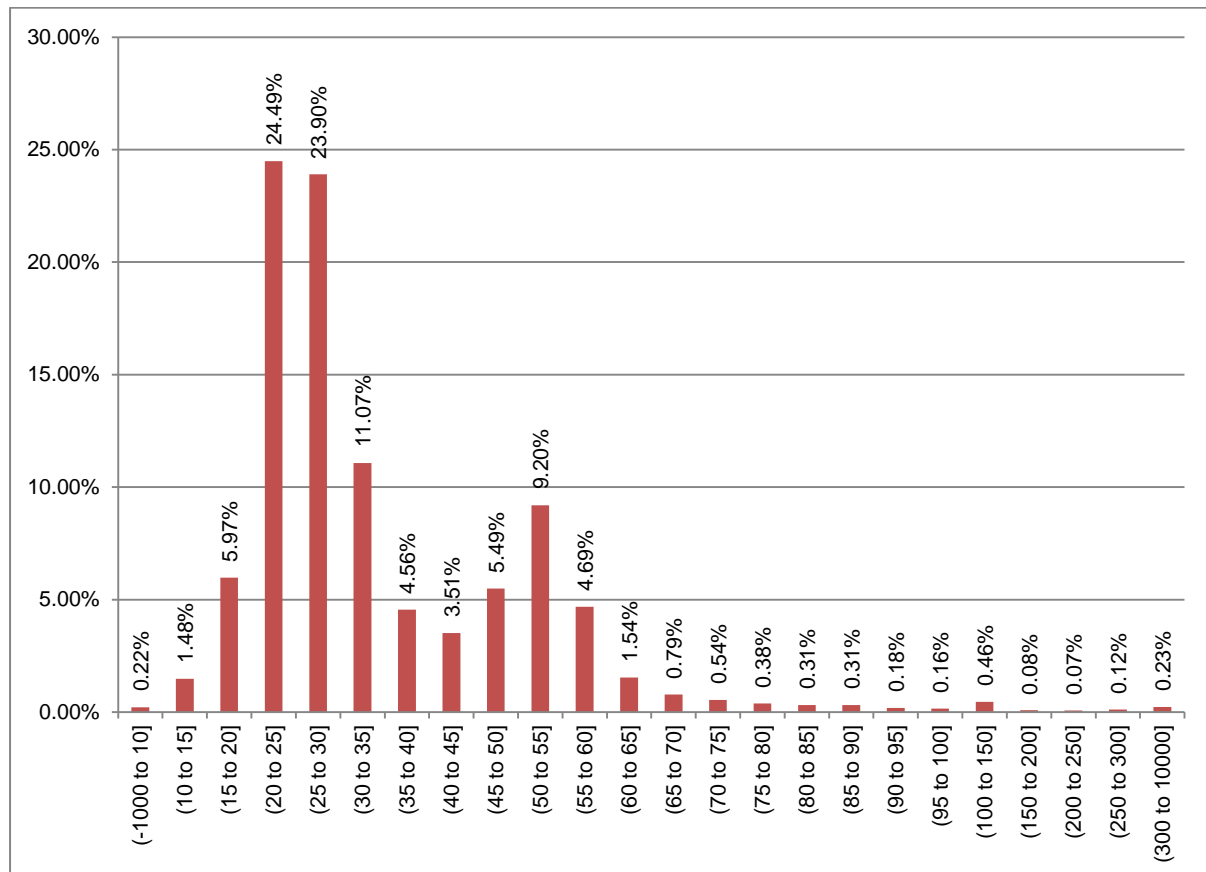


Source: Frontier Analysis of AEMO data (incorporates data from dispatch intervals 1/07/2008 00:05 to 16/03/2014 00:05 inclusive)

7.29. The ACCC considers that the fact that high price separation events occur relatively rarely does not mean that hedge contracts referencing the spot price in another region are effective substitutes for hedge contracts referencing the NSW spot price. As explained further below under the heading 'Hedge contracts required by retailers in NSW', the primary rationale for retailers entering into hedge contracts is to mitigate against infrequent risks which, if realised, would cause unmanageable cash flow or financial difficulties for the retailer. The risk of high levels of spot price exposure is itself relatively rare (**Figure 5**); the NSW spot price between 2009-2013 was greater than \$50 less than 20% of the time. However, high prices are still a risk that retailers universally hedge against.

²¹⁸ Frontier (Competition) Report, paragraph 114 (Figure 2).

Figure 5 – Frequency of NSW spot prices CY2009-2013²¹⁹

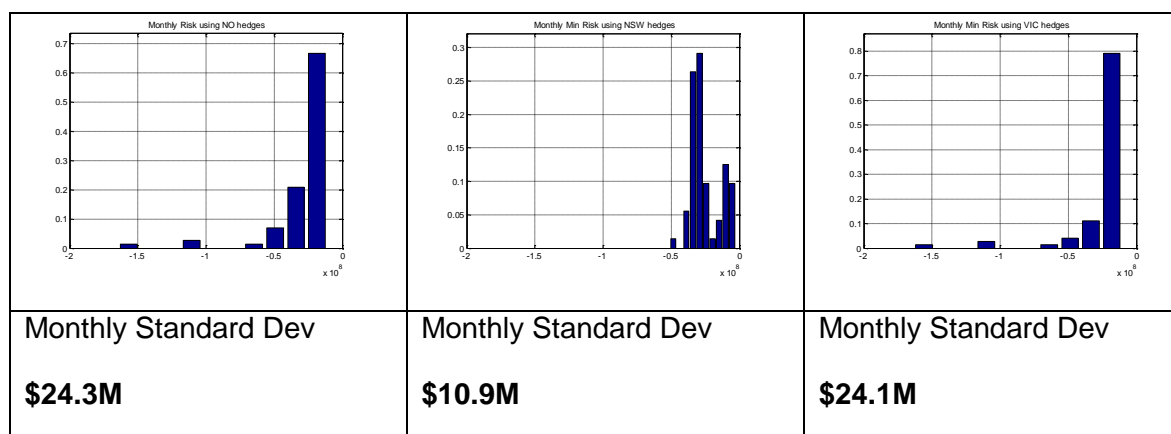


7.30. The ACCC notes that Frontier’s analysis makes no attempt to measure the quantum of the risk associated with hedging interregionally given the price separation that they identified. Such an analysis is presented in the expert report of Angus Macleod,²²⁰ where it is identified that a strategy of hedging a NSW retail load using hedge instruments referenced to the Victorian spot price between January 2008 - December 2013 would have yielded a similar portfolio risk profile to not hedging that load at all (measured by the amount of monthly variation, or statistical standard deviation).

²¹⁹ Derived from public AEMO NEM data by the AER.

²²⁰ Report of Angus Macleod, paragraphs 209 - 222.

Figure 6 – Financial cost distribution using the Integral Distribution Zone Net System Load Profile from January 2008-December 2013²²¹



Left: portfolio risk with NO hedges; Middle: portfolio risk with NSW hedges; Right: portfolio risk with Vic hedges. The Vic prices prove to deliver low effectiveness at reducing the risk of the native exposures.

Quantitative analysis of the lack of reliability of IRSR units

- 7.31. There are two main mechanisms by which a retailer could attempt to hedge against interregional price separation risks. These mechanisms are outlined by Frontier in its competition report.²²² The two mechanisms are:
- combine a swap contract that references the price in a neighbouring region (or have generation in the neighbouring region) with the purchase of IRSR units in relation to flows into NSW on the relevant interconnector; and
 - combine a swap contract that references the price in a neighbouring region (or have generation in the neighbouring region) with a cap contract referencing the NSW spot price.
- 7.32. The ACCC considers that while IRSR units can be purchased to manage the risk of price separation:
- the trading of IRSR units requires a high level of sophistication, so it is unlikely that second tier retailers without some form of significant generation would trade IRSR units;²²³ and
 - IRSR units do not constitute a firm hedge and can only be deployed to a limited extent because of timing, exposure to low interconnector flows (or counter-

²²¹ Report of Angus Macleod, paragraph 218 (Figure 12).

²²² Frontier (Competition) Report, paragraph 263.

²²³ Affidavit of Swanepoel, paragraph 18.

price flows) at times of price differences between regions (both issues are explained in detail below).²²⁴

- 7.33. The reason for IRSR units not being a firm source of protection against the risk of price separation between regions requires an explanation of the manner in which such instruments operate in practice.
- 7.34. AEMO auctions off IRSR units because it generates income when there is a price difference between two regions. The income arises due to electricity flowing from a high-price region across the interconnector to the lower-price region. AEMO auctions off the rights to that income.²²⁵ For example, if the interconnector transmits electricity into region A at a flow of 100MW, and for an hour (i.e. two 30 minute trading intervals) and the prices are:
- a. \$10,000/MWh in region A; and
 - b. \$50/MWh in region B
- 7.35. AEMO will gain \$995,000. This money will be allocated proportionally among the market participants that have purchased IRSR units for flows into region A.
- 7.36. Therefore, a retailer that has hedged interregionally can in theory protect itself against price differences by purchasing IRSR units.
- 7.37. While in theory such an approach can work there are significant risks associated with doing so for two main reasons:
- a. **The capacity of interconnectors is not firm:** AEMO will sell IRSR units for flows across an interconnector to match the interconnector's approximate maximum capacity (the number of IRSR units sold between regions is shown below in **Table 6**). However, interconnectors are often not operating at capacity, due to maintenance, unplanned outages, extreme weather, fire, lightning and other factors. At all times, in order to maintain a secure electricity system, AEMO ensures that transmission lines are capable of dealing with contingency events (such as the outage of another line or generator). Often the reason for interconnectors not operating at capacity can be due to limits on other transmission lines geographically a long way from the interconnector. Because the actual capacity of an interconnector can be less than the maximum capacity, and therefore less than the number of IRSR units AEMO has sold, the holders of IRSR units will have no guarantee that they will be entitled to the proportion of residues arising when prices diverge between regions that the number of IRSR units would initially suggest.

²²⁴ Affidavit of Swanepoel, paragraph 18 and Affidavit of Evans, paragraph 44.

²²⁵ The auction proceeds are returned to the transmission company that owns the network on the import side of the interconnector, to offset some of the costs to customers in that region.

b. **Intra-regional congestion greatly impacts on interconnector flows:** the way in which intra-regional congestion impacts on interconnector flows is complicated. In December 2012 the AER published a report on this issue which explains the concepts in detail titled 'The impact of congestion on bidding and inter-regional trade in the NEM' (**Annexure E**). In short, whenever there is intra-regional congestion (i.e. transmission lines within a region are operating at their maximum capacity when they cannot safely carry more electricity) AEMO can change the output of generators in order to protect the security of the electricity system, and ensure that transmission lines are not overloaded. AEMO directs certain generators to increase their output (which is called constrained on), and will direct other generators to lower their output (which is called constrained off). However, if prices are high, the generators will try to avoid being constrained off. They do this by rebidding their ramp rates (the rate at which AEMO can change their output) and their prices (they will often bid in their capacity at -\$1,000/MWh). Such behaviour often causes the interconnectors to be forced to flow in the wrong direction, or counter-price, as it is only by changing the flows on the interconnectors that AEMO is able to address the risk of transmission lines being overloaded. This results in interconnectors sometimes flowing from a high-priced region into a lower-priced region. The report at **Annexure E** contains a full description of this behaviour and why it occurs.

7.38. The above two factors combined mean that interconnectors are often not flowing at maximum capacity from low-priced regions to high-priced regions, which means that holders in total of IRSR units only receive a proportion of the price difference. Furthermore, interconnectors sometimes flow counter-price (i.e. from the high price region to the low price region). When this happens, holders of IRSR units receive nothing.

7.39. **Table 6** demonstrates these issues. The table analyses half-hour trading intervals when there is a greater than \$100/MWh price difference between two regions. These times are important, because it is at these times, where if a retailer has hedged interregionally in combination with purchasing IRSR units, it will most want to receive a payment from those IRSR units because the price difference between the regions is high.

7.40. The left hand column shows the relevant region to region price differences (e.g. the first row is for when the Qld price is more than \$100 above the NSW price). The second column shows the number of IRSR units that AEMO sells (each unit is for 1MW) for flows on the interconnectors, corresponding to the maximum capacity of the relevant interconnector. The next five columns show the number of times that the price difference between the regions has been above \$100/MWh during the relevant financial year. It also shows in brackets, the number of those times when the flow on the interconnector was counter-price (i.e. flowed in the wrong direction). The five columns on the right hand side show the average flow on the interconnector into the high-priced region during the trading intervals when the price difference is more than \$100/MWh.

Table 6 – IRSR units during trading intervals where differences in relative regional spot prices was greater than \$100/MWh²²⁶

Relative regional spot prices	Total IRSR units	Number of trading intervals* (number of counter price flow intervals in brackets)					Average flow (MW)				
		2009-10	2010-11	2011-12	2012-13	2013-1 Apr 14	2009-10	2010-11	2011-12	2012-13	2013-1 Apr 14
Qld > NSW	550	41 (9)	19 (19)	60 (48)	432 (129)	91 (19)	27	-255	-255	1	42
NSW > Qld	1200	131 (24)	63 (2)	5 (0)	23 (0)	9 (0)	193	459	299	428	508
NSW > Vic	1500	172 (23)	108 (3)	6 (2)	6 (4)	8 (8)	221	396	96	-21	-245
Vic > NSW	1300	69 (27)	9 (9)	1 (0)	57 (13)	55 (6)	59	-260	52	103	152
SA > Vic	700	110 (1)	34 (0)	27 (2)	366 (3)	138 (7)	179	207	176	224	152

* There are 17,520 trading intervals per year

- 7.41. Of particular relevance to consideration of the position of NSW retailers is the NSW > Qld row (that is the NSW price is at least \$100/MWh greater than the Qld price) and the NSW > Vic row, as it is for IRSR units for flows into NSW that a NSW retailer would likely be interested in purchasing. It can be seen that even though AEMO sells 1,200 units for NSW >Qld (i.e. 1,200MW worth of units), the average flow into NSW, when the NSW price is more than \$100/MWh higher than the Qld price, was only 193MW in 2009-2010. A flow of 193MW means that one SRA unit is only returning 1/6th of its nominal value on average. Recently there has been improvement, with the average flow being 508MW between 1 July 2013 and 1 April 2014, however, the average flows are still well below the number of units sold.
- 7.42. For NSW > Vic the situation is even worse. Holders of NSW > Vic IRSR units would have received no income at all from holding IRSR units between 1 July 2013 and 1 April 2014 during the 8 trading intervals when the price in NSW was more than \$100/MWh higher than the price in Victoria, as this interconnector flowed counter-price on every occasion in this period. Even though AEMO sells 1,500 IRSR units for NSW > Vic, the highest annual average flow into NSW during periods of greater than \$100/MWh price divergence has been only 396MW, which occurred in 2010-11.
- 7.43. Given the above, the ACCC considers that IRSR units cannot be regarded as a firm source of hedge against divergences in regional spot prices. This is recognised by Frontier:

One limitation of IRSR units is that they do not always provide a reliable or 'firm' hedge against divergences in RRP. Non-firmness can arise when, for a variety of reasons, the flow on an interconnector is below its nominal expected level despite the fact that the relevant RRP have separated. Participants

²²⁶ Derived from public AEMO NEM data by the AER.

sometimes respond to IRSR non-firmness by acquiring greater MW quantity of IRSR units than their inter-regional MW exposure²²⁷

- 7.44. The Frontier (Industry) Report suggests that non-firmness can be overcome by acquiring a greater quantity of IRSR units. However, the ACCC notes that purchasing a greater quantity of units does not deal with the problem that arises from counter-price flows. When there are counter-price flows there is no income at all from holding IRSR units. As noted above, a holder of NSW > Vic IRSR units during the period 1 July 2013 to 1 April 2014, will have received no income on the eight occasions the spot price in NSW was more than \$100/MWh above the Victorian spot price.
- 7.45. The Frontier (Industry) Report also suggests that interregional hedging can occur by combining a swap contract that references the price in a neighbouring region (or have generation in the neighbouring region) with a cap contract referencing the NSW spot price.
- 7.46. The ACCC considers that combining an interregional swap with a cap contract referencing the NSW spot price involves the retailer taking on a substantial degree of additional risk, in that they are exposed to price differences between the regions up to the level of the cap (which is generally \$300). Additionally, this strategy involves the purchase of two separate instruments instead of one (an interregional swap plus a NSW cap, as opposed to just purchasing a NSW swap). NSW ETC cap contracts providing cover for any of 2012-2014 traded for an average of \$8.26²²⁸ and NSW ETC flat swap contracts for the same period traded for an average of \$51.09. Given this, an interregional swap would have to be trading for more than \$8.26 (approximately 15%) lower than a NSW swap for such a strategy to possibly be commercially attractive. A retailer adopting this strategy would then also have to adjust for the additional risk of price differences between the regions when the NSW price is under \$300/MWh.

Conclusion

- 7.47. In summary, based on analysis of AGL's own approach to hedging in NSW, evidence from other retailers, and quantitative analysis of the magnitude of interregional price separation risk and the lack of reliability of IRSR units, the ACCC does not consider that interregional hedging is a substitute for hedging against the NSW spot price. The ACCC considers that the evidence demonstrates that retailers in NSW must fundamentally hedge against the NSW spot price to effectively cover their exposure to the NSW spot price.

²²⁷ Frontier (Industry) Report, paragraph 153.

²²⁸ ASX Energy.

Wholesale supply of electricity

Product dimension

7.48. In the context of the proposed acquisition, the ACCC considers that the relevant wholesale product market is the physical production and sale of electricity into the pool.

7.49. The ACCC does not consider it is critical to this matter whether or not electricity derivative contracts are considered part of this market, or a separate market. The ACCC notes that, to a degree, generators may substitute between supplying forward contracted capacity and carrying exposure on the spot market. The ACCC also notes the linkage between wholesale prices and hedge contract prices identified by Frontier:

Over a longer time horizon, a generator that is able to affect the spot price through its bidding behaviour may consider the trade off between short term losses on difference payments and its ability to raise wholesale prices (including contract prices) in the long run as a consequence of its bidding behaviour.²²⁹

7.50. On the other hand, as explained under the heading ‘Requirement to use hedge contracts referencing the NSW spot price’ above, the ACCC considers that retailers in NSW fundamentally require hedge contracts referenced to the NSW spot price to effectively manage risks associated with supplying electricity to end-users in NSW. This creates limits on the substitutability of hedging products between regions.

Geographic dimension

7.51. The geographic dimension of the wholesale market is a complicated issue. In the past, the ACCC has taken a purposive approach to market definition when analysing aggregation of generation capacity, contemplating regional, multi-regional or NEM-wide markets. On the other hand, in *Australian Gas Light Company v Australian Competition and Consumer Commission (No 3)*²³⁰ French J, as he was then, contemplated a NEM-wide market, although there was not a detailed analysis of geographic market definition issues in the judgment.

7.52. The ACCC considers that attempting to choose between the binary options of regional or a NEM-wide geographic market definition does not greatly assist the competition analysis. Substitution is a matter of a degree. This is particularly true in electricity where flows between regions have fixed limits and where the competitive dynamic varies considerably depending on demand levels in the relevant half-hour trading interval. As stated in *ACCC v Liquorland (Australia)*²³¹:

²²⁹ Frontier (Competition) Report, paragraph 81.

²³⁰ [2003] FCA 1525, [387].

²³¹ [2006] FCA 826, [430].

once one appreciates the integrated legal and economic notions involved in the concept of a market and its purposive role ... one is unlikely to find utility in a debate about the precise physical metes and bounds of a market.

- 7.53. Adopting a purposive approach to market definition, the ACCC's analysis of horizontal aggregation market power issues under the heading 'Competitive effects – wholesale supply of electricity' below, focusses on the NEM-wide perspective of the market, as AGL does not currently have generation assets in NSW so there is no horizontal aggregation of generation *within* NSW arising from the proposed acquisition.
- 7.54. The ACCC considers that for a majority of the time, when interconnectors are not constrained and demand is not peaking in a region, the relevant market is NEM-wide. During these times baseload plants across the NEM are effectively all in competition with each other, and price separation between regions is limited.
- 7.55. However, there are also strong arguments for consideration of region-specific markets. Frontier²³² notes the role of the SSNIP test in deciding what substitutes are included in the market. The ACCC supports the use of the SSNIP test as a useful tool in market definition analysis. The ACCC considers that the application of the SSNIP test could clearly support a region-based market. The ACCC has not formally modelled this result in the context of the proposed acquisition, but in a report to the AEMC completed by NERA and Oakley Greenwood in April 2012, the application of the SSNIP test suggested regional markets²³³ and Frontier itself notes that region-specific markets would be the likely finding of applying the test.²³⁴ The ACCC considers that if a hypothetical monopolist owned all of the generation in a region, there can be little doubt that it could increase the price very significantly (there are never circumstances where a region can only be supplied by flows from interconnectors so the owner of the generators would have complete control over the price) and it would highly likely be profitable, especially in the short run, to set the price at the cap (\$13,100/MWh) at all times.²³⁵ The flows on interconnectors are not sufficient to constrain such behaviour, and it is not plausible that interconnectors

²³² Frontier (Competition) Report, paragraph 55.

²³³ NERA, Benchmarking NEM Wholesale Prices Against Estimates of Long Run Marginal Cost: A Report for the AEMC, 12 April 2012, pages 3 -6. Available at <http://www.aemc.gov.au/getattachment/45ce127c-c549-400e-bd09-532366426317/NERA-report.aspx> (accessed 12 May 2014). This NERA report builds on several other NERA reports prepared for the AEMC prior to 12 April 2012 which explain the SSNIP test. See for example: NERA, Potential Generator Market Power in the NEM: A Report for the AEMC, 22 June 2011, pages 34 to 45. Available at <http://www.aemc.gov.au/Media/docs/NERA%20Report-17ccd45b-52cf-4aad-8a1e-88095be3cc9a-0.pdf> (accessed 12 May 2014).

²³⁴ Frontier (Competition) Report, paragraph 93.

²³⁵ If the market price did stay at such high levels for beyond 7 days, the cumulative price threshold would be breached, which would force the price down to a maximum of \$300/MWh. Further, in the medium to longer run, setting the price at extremely high levels may cause industry to shut down, so there would be some elasticity of demand which may mean the profit maximising price increase would not be at the very high extremes. However, the ACCC still firmly considers that at a minimum, a significant non-transitory increase in prices would be profitable.

will be expanded to sufficient capability in the foreseeable future to change such a finding.²³⁶

- 7.56. When demand in a region is peaking²³⁷ inflows on the interconnectors reach their limit. During these times, the market is effectively regional and during these times the peaking and baseload generators in that region are not constrained, to a significant extent, by generators in other regions. While the interconnectors do generally²³⁸ provide a degree of constraint, the degree of that constraint is limited by the capacity of the interconnectors. Taking NSW as an example, the average availability of interconnector flows (or to put it another way, the capacity of interconnectors) into NSW from Qld and Victoria for calendar years 2011 to 2013 has been around 2,000MW. To place that in context, the NSW demand generally ranges around 8,000MW, although it can spike to higher than 14,000MW.²³⁹ During the peak periods in NSW, competition analysis should take into account the interconnector flows as a competitive constraint, but only up to the limit of the interconnectors.²⁴⁰
- 7.57. The ACCC does not consider that the periods of price separation and price spikes can be dismissed as a transitory short-term issue. Long-term investments in peaking capacity are made on the basis of short-term demand spikes. The entire electricity system, including generation and networks, is built to cope with short-term spikes in demand as otherwise blackouts occur. The price cap of \$13,100/MWh is set at such high levels, to drive retailers to hedge which in turn drives generation investment that secures reliable supply in each region. To dismiss analysis of short-term regional-specific competition risks ignoring a critical competitive dynamic in the industry. Furthermore, even a very short period of high prices has a very significant impact on average annual prices. For example, for every hour prices are above \$10,000/MWh, there is an increase in the average annual price of over \$1/MWh.
- 7.58. Further, the periods of price separation between regions, particularly where one region has a spike in price that does not occur in neighbouring regions, is the fundamental reason that retailers must have hedges that reference the spot price in

²³⁶ Expansions to interconnectors would be subject to the Regulatory Investment Test for Transmission <http://www.aer.gov.au/node/8865> (accessed 16 May 2014). The only interconnector expansion that has progressed in recent years is an increase on the limits of the SA-Vic Heywood interconnector.

²³⁷ Peaks usually occur on summer weekday afternoons due to domestic air conditioning (particularly in South Australia, Victoria and New South Wales) or on cold winter days due to electric domestic heating (particularly in New South Wales where domestic gas heating is less prevalent).

²³⁸ As noted under the heading “Quantitative analysis of the lack of reliability of IRSR units”, above, due to intra-regional transmission limitations, often interconnectors flow counter-price (i.e. from the high-priced region to the low-priced region) at peak times.

²³⁹ See AER, Wholesale Market Statistics, <http://www.aer.gov.au/node/23453> (accessed 16 May 2014).

²⁴⁰ In such a region-specific analysis, it is also important to take into consideration that large generators in a neighbouring region may be able to exert influence over the neighbouring region’s price, which can in turn impact on the interconnector flows.

the region where their customers are (or they must have generation in that region). Although spot price spikes are not necessarily a daily or weekly event, they do occur frequently and, even if the spot market has been subdued for a period, there is always the possibility that spot price spikes will occur in the near future.

- 7.59. The ACCC notes that Frontier submitted that there was inconsistency between a NEM-wide definition for analysis of the horizontal generator aggregation issue and the ACCC's contention that the relevant geographic dimension of the retail market is NSW²⁴¹ for the purposes of analysing the vertical issue. The ACCC does not consider that there is any inconsistency in its approach. Recognising that hedges that reference the NSW spot price are a critical input to retailing in NSW, which means there is a NSW-specific retail market (as discussed in more detail under the heading "Requirement to use hedge contracts referencing the NSW spot price", above) does not take away from the fact that in the spot market, generators across the NEM compete in a single market for most of the time and that generators in one NEM region can have an influence on spot prices in another region.
- 7.60. In summary, the ACCC considers that competition analysis in electricity matters requires consideration of both a NEM-wide generation market, where relevant, and region-specific markets.

II. Competitive effects – retail supply of electricity

Hedge contracts required by retailers in NSW

- 7.61. To manage risks associated with fluctuating retail loads and electricity spot prices, retailers and generators enter into hedge contracts, to the extent that their retail load is not supported by a natural hedge.²⁴²
- 7.62. The ability to access customised and competitive hedge contracts is particularly important for non-vertically integrated retailers because managing risk is a necessary precondition for sustainably competing as a retailer.²⁴³ Without a natural hedge through ownership of a generation business, non-vertically integrated retailers are more reliant on hedge contracts and vulnerable to increasing hedge contract prices.²⁴⁴ Increases in hedge contract prices must either be passed on to customers or be absorbed by the retailer by reducing margins.²⁴⁵

²⁴¹ Frontier (Competition) Report, paragraph 90.

²⁴² Report of Willis, paragraph 142; Affidavit of Guiver, paragraph 27; Affidavit of Swanepoel, paragraph 12 and Affidavit of Evans, paragraphs 31 and 36.

²⁴³ Report of Willis, section entitled 'Risk management strategies', paragraphs 142 to 150. Affidavit of Guiver, paragraph 34; and Affidavit of Evans, paragraphs 58 and 61.

²⁴⁴ Affidavit of Guiver, paragraph 34.

²⁴⁵ Affidavit of Guiver, paragraph 34.

Importance of risk management in the NEM

- 7.63. In their day-to-day operations, electricity retailers are exposed to many kinds of risk when supplying electricity to their customers. Two key types of risk applying to the purchase of electricity by retailers are 'price risk' and 'volume risk'. These arise from the fact that electricity retailers do not know in advance about the volume of electricity that they will need to purchase to supply their customers or the price they will pay for that electricity.
- 7.64. Wholesale spot prices in the NEM have the potential to be highly volatile. Prices in each half-hourly trading interval are able to vary between the market floor price (-\$1,000/MWh) and the market price cap (\$13,100/MWh). Financial exposure to this volatility is referred to as 'price risk'. While the frequency of very high spot prices may not be high (as shown in Figure 5 above) the very large magnitude of the risk creates an unacceptable financial risk to a retailer if they are exposed to it to a significant degree for any period of time. The necessity of a retailer hedging its exposure to the spot price is described in more detail in the report of Dean Willis, who notes that 'hedging this exposure should not be considered discretionary'.²⁴⁶
- 7.65. Customer load profiles (i.e. the use of electricity by customers at a particular time) are also subject to a degree of variability and uncertainty that may differ according to measures including but not limited to the time of day, season, customer profile, recent usage, and region of the NEM. While retailers are able to generate forecasts of future usage, they do not know in advance the exact volume of electricity that they will need to supply for their customers. This uncertainty is referred to as 'volume risk'.²⁴⁷
- 7.66. The importance of access to appropriate risk management tools to retail competition was recognised by the AEMC in its recent report into retail competition in NSW.²⁴⁸ The AEMC recognised that access to hedges was a key consideration regarding barriers to entry and expansion in the retail market and concluded that:

For those firms without physical hedges, the contracting market is liquid and 55 per cent of generation capacity in NSW is currently controlled by state-owned corporations (not other retailers), suggesting there are no barriers to obtaining hedges at reasonable prices. However, we note the sale of NSW generation assets may change the market structure and potentially make it more difficult for smaller retailers to obtain hedges.

...

The Commission sees no evidence of significant barriers to entry. A number of new retailers entered the market in the last few years. However, the

²⁴⁶ Report of Willis, paragraph 103.

²⁴⁷ Volume risk is described in more detail in the Report of Willis, paragraphs 104 to 113.

²⁴⁸ AEMC, Review of Competition in the Retail Electricity and Natural Gas Markets in New South Wales, 3 October 2013.

Commission does have some concerns about the ability of small retailers to obtain hedges, depending on the outcome of the proposed sale of the NSW government's generation assets.²⁴⁹

- 7.67. Due to the importance of hedge contracts for retailers, if there is a reduction in the availability, increase in price, or deterioration in the terms of supply for hedge contracts, it will raise barriers to entry and expansion in the retail market.

Hedge contract types

- 7.68. In the absence of a 'natural hedge' provided by vertical integration, electricity retailers must rely upon hedge contracts to manage their exposure to the spot price.²⁵⁰
- 7.69. The ACCC notes that, within the category of hedge contracts, there are a wide range of instruments available to retailers that are capable of hedging against their price and/or volume risk. Electricity hedge products commonly entered into by retailers include:²⁵¹
- a. swap contracts;
 - b. cap contracts;
 - c. hybrid instruments (including options); and
 - d. structured (customised) hedge products, including load following and reallocation arrangements.
- 7.70. The ACCC agrees with the description of these instruments provided by Anthony Fowler.²⁵²
- 7.71. Swap contracts are the primary hedge product retailers source to manage customer price risk for base levels of demand.²⁵³ Swaps would typically comprise around 90% of a small retailer's hedge book.²⁵⁴ Access to swaps is crucial for retailers to manage risk because they provide retailers with a high level of cost certainty on the bulk of their electricity sales.²⁵⁵ A number of retailers in NSW are reliant on the supply of NSW swaps from Macquarie Generation.²⁵⁶

²⁴⁹ AEMC, Review of Competition in the Retail Electricity and Natural Gas Markets in New South Wales, 3 October 2013, pages 20 to 21.

²⁵⁰ Affidavit of Guiver, paragraph 34; and Affidavit of Evans, paragraph 36.

²⁵¹ Affidavit of Swanepoel, paragraph 15.

²⁵² Affidavit of Fowler, paragraph 97.

²⁵³ Affidavit of Guiver, paragraph 35.

²⁵⁴ Affidavit of Guiver, paragraph 35.

²⁵⁵ Affidavit of Guiver, paragraph 35.

²⁵⁶ [REDACTED] and Affidavit of Swanepoel, paragraph 27.

7.72. Hedge contracts can further be classified as over-the-counter (**OTC**) and exchange-traded contracts (**ETC**). OTC contracts are customised bilateral agreements between two parties, whilst ETCs are standardised instruments traded on the ASX Energy exchange. This is described in the Frontier (Industry) Report:

OTC contracts involve customised bilateral commitments between two parties (generally retailers and generators). OTC contracts can either be directly negotiated (i.e. no financial intermediary between contracting parties) or transacted through a broker. OTC instruments tend to exhibit the following characteristics:

- *Highly customised to suit the needs of the two contracting parties*
- *Non-transparent due to private negotiations and settlement*
- *Subject to credit default risk in the event a counterparty defaults on its obligations.*

Exchange-traded instruments involve standardised contracts that are bought and sold through a securities exchange. In Australia, exchange-traded electricity contracts are designed and developed by d-cyphaTrade and sold through the ASX. Exchange-traded contracts tend to exhibit the following characteristics:

- *Highly standardised in terms of contract type, size, price fluctuations (ticks) and settlement*
- *Transparent and publicly reported (aggregated volumes, prices etc)*
- *Not subject to credit default risk due to the presence of a financial intermediary (clearing house) between contracting parties.²⁵⁷*

7.73. Access to OTC contracts can be particularly important for second tier retailers, as the types of customisation that can be achieved with OTC contracts enables such contracts to better meet the needs of second tier retailers.²⁵⁸

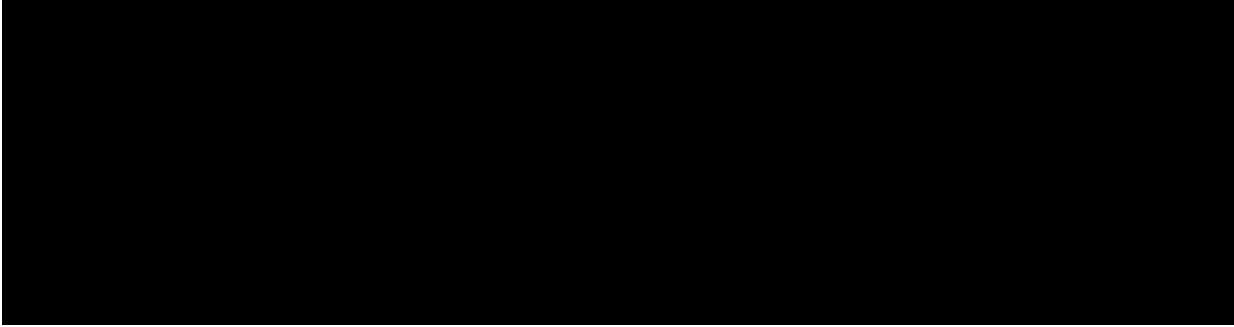
7.74. Examples of customised OTC hedge products include:²⁵⁹

- a. Load following hedges (often coupled with reallocation arrangements), which provide retailers with a risk free position in the spot market because the generator agrees to provide hedge cover for the retailer's actual load outcomes at a specified price.

²⁵⁷ Frontier (Industry) Report, paragraphs 141 to 142.

²⁵⁸ Affidavit of Guiver, paragraph 36. Affidavit of Evans, paragraph 40.

²⁵⁹ Affidavit of Guiver, paragraph 40.

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- b. Time of use shaped hedges, which provides hedge cover for a fixed load shape.
 - c. Conditional hedges, which are triggered by external factors such as demand and temperature.
 - d. Non-standard strike caps, which provide strike prices ranging from \$100 to \$500.
 - e. Hedge contracts which provide for carbon price adjustments.

7.75. A major issue facing second tier retailers is the intensive level of credit support required to grow in the market.²⁶⁰ To ease this burden, retailers can source 'reallocation'²⁶¹ from generators or financial intermediaries through OTC arrangements as it offsets AEMO prudential requirements.²⁶² Consequently, reallocation is an important mechanism for second tier retailers seeking to reach any level of critical mass.²⁶³ Without reallocation, the capital requirements to compete effectively in the NEM are too large for second tier retailers to enter and expand.²⁶⁴ Reallocation is not associated with ETC contracts.²⁶⁵

7.76. The ACCC notes that retailers' risk management is a complex activity that involves additional considerations outside of the choice of instruments and variables that define them. AGL describes the complexity of retail risk management as follows:

*Managing AGL's pool price exposure that arises from the demand of its customers is a complex task. Decisions are made over a variety of time horizons and involve complex analysis and decision making over a wide variety of market variables and business inputs.*²⁶⁶

7.77. The ACCC considers that this description applies to retailers of all sizes in the NEM, and that the inherent importance, complexity, and intensive nature of retailers' risk management activities render them particularly sensitive to changes in the hedge trading environment.

²⁶⁰ Report of Willis, paragraphs 91 and 116. Affidavit of Guiver, paragraph 86.

²⁶¹ A full description of Reallocation can be found in the Report of Willis, section entitled "The importance or otherwise of reallocation arrangements to Small Retailers". In short, reallocation allows for the volume of electricity that is subject to a hedge between approved parties to be offset against the volume of expected electricity purchasers which is used by AEMO to calculate the retailer's maximum credit limit, thereby reducing the level of credit support required of the gentailer by AEMO.

²⁶² Report of Willis, section entitled "The importance or otherwise of reallocation arrangements to Small Retailers". Affidavit of Guiver, paragraph 87.

²⁶³ Affidavit of Guiver, paragraph 42.

²⁶⁴ Affidavit of Guiver, paragraph 42.

²⁶⁵ Report of Willis, paragraphs 28 and 30.

²⁶⁶ Affidavit of Fowler paragraph and 123.

Hedge contracts and barriers to entry and expansion

- 7.78. To the extent hedge contracts are required by a retailer (vertically integrated or otherwise) to manage their price and volume risk, the viability of the available contracts to manage those risks from the retailer's perspective is dependent on the following factors:
- a. **Price:** hedge contracts which trade at a higher premium to the spot price are by definition more costly for retailers to enter into than equivalent contracts with a lower premium. Hedge contract prices may vary across time, counterparty pairs, contract types, and exhibit varying degrees of transparency (e.g. ETC as opposed to OTC contracts).
 - b. **Availability:** for desired hedge contracts to be viable for risk management, retailers require access to them for the desired dates in a timely manner. Some parties in the market also desire to have the ability to enter and exit a position when appropriate and without material delay.
 - c. **Product breadth:** swaps, caps, and other hedging instruments are also often synergistic with each other. Thus it can be important for retailers to have access to a range of hedge contract products at a particular point in time to closely manage their risks.
 - d. **Terms of supply (customisation):** regarding OTC products, the degree to which hedging contracts are tailored to best suit a retailer's needs directly facilitates the viability of that contract for a retailer's hedging strategy. Examples of these bespoke modifications to standard contracts include reallocation arrangements and load-following terms.
- 7.79. The ACCC considers that a material deterioration of any of these factors would have the result of raising barriers to entry and expansion in the market for the retail supply of electricity. This is because there will be increased difficulty associated with the effective management of retailers' price and volume risk. In particular, due to the importance of swap contracts as the fundamental building block of a retailer's hedge book,²⁶⁷ a limit on the availability of swaps will raise barriers to entry and expansion and effectively place a cap on the market shares of non-vertically integrated retailers in the NSW market.²⁶⁸

Ability of retailers in NSW to obtain hedge contracts

- 7.80. The ACCC considers that, following the proposed acquisition, the total volume of competitively priced and customised hedge contracts available for other retailers in NSW would be diminished. This will significantly raise barriers to entry and expansion for second tier retailers, particularly those who are non-vertically

²⁶⁷ Report of Angus Macleod, paragraph 28.

²⁶⁸ Affidavit of Swanepoel, paragraph 28.

integrated, in NSW. As explained in more detail below, the ACCC considers that this situation is likely to arise because:

- a. The sources of hedge contracts for second tier retailers in NSW, other than Macquarie Generation, will be insufficient to meet the hedging requirements of those retailers, both currently and over time.
- b. Macquarie Generation will be a smaller and less reliable source of hedge contracts to other retailers in NSW due to AGL's ownership of it.
- c. There will be lower levels of liquidity in hedge contract trading in NSW which will make it more difficult for retailers to obtain competitively priced and customised hedge contracts.

Insufficiency of non-Macquarie Generation sources of hedge contracts

- 7.81. The ACCC considers that the sources of hedge contracts, other than Macquarie Generation, will be insufficient to meet the hedging requirements of other retailers in NSW, both currently and over time. In particular, other generators which supply hedge contracts in NSW will not have the capacity to supply the swap contracts needed or will not supply swaps at prices to enable second tier retailers to effectively compete.²⁶⁹
- 7.82. The ACCC considers that the total volume and type of hedge contracts used by retailers in NSW and supplied by generators would most appropriately be measured by a detailed analysis of the hedge books of all relevant participants in the NSW market. Obtaining this information was one of the reasons why the ACCC requested that the Tribunal issue information requests to market participants on 1 April 2014. Unfortunately this information has not been made available to the ACCC or its advisors in sufficient time for it to be incorporated into this report. As a result, the ACCC has relied in its report on estimates of the likely contracting strategies of various retailers, and other evidence available to it.
- 7.83. The ACCC also notes that, as outlined in section 3, the development of second tier retail competition in NSW is nascent, primarily as a result of regulatory barriers which have historically impeded the growth of second tier retailers in NSW. The ACCC considers that the current market share of second tier retailers of less than 5% of the small customer retail market should not be regarded as a sufficient level of competition in the NSW retail market going forward, and that it is important to maintain the ability of these retailers to grow over time.
- 7.84. As outlined in more detail below, using standard industry hedging methodologies to estimate the volume of hedges required to effectively manage the risks of second tier retailers, second tier retailers in NSW required approximately [REDACTED] of generation capacity to meet their 2013 demand for swap

²⁶⁹ Report of Angus Macleod, Chapter 8; Affidavit of Swanepoel, paragraph 28

contracts at peak demand times.²⁷⁰ The ACCC does not consider that the reliable sources of swap contracts in NSW, outside of Macquarie Generation, would be able to meet this demand, particularly given that EnergyAustralia and Origin are likely to be net purchasers of hedge contracts at peak times in NSW.²⁷¹ The ACCC notes that baseload generation assets that produce at a high capacity factor²⁷² are, in general, most suited to backing the sale of swap contracts.²⁷³

- 7.85. Outside of Macquarie Generation, the following sources are the primary potential suppliers of hedge contracts that reference the NSW spot price:
- a. Delta Electricity and Snowy Hydro;
 - b. generation assets owned by Energy Australia and/or Origin;
 - c. financial intermediaries (e.g. ANZ, Westpac) and the ASX Energy exchange;
 - d. generators not located in NSW.
- 7.86. The sufficiency of these sources of supply to meet the hedge requirements of second tier retailers in NSW, particularly for swaps, is discussed further below.

Volume of hedge contracts required by second tier retailers

- 7.87. To estimate the volume and type of hedge contracts used by retailers in NSW, particularly second tier retailers, the ACCC obtained load duration curves from AEMO for retailers in NSW. These provide information about the volume and 'shape' of a retailer's load. The importance of understanding the shape of a retailer's load in addition to the total or average energy consumed by that retailer is shown by an analysis of an average system load in the Ausgrid distribution region in Sydney across the day (Figure 7).

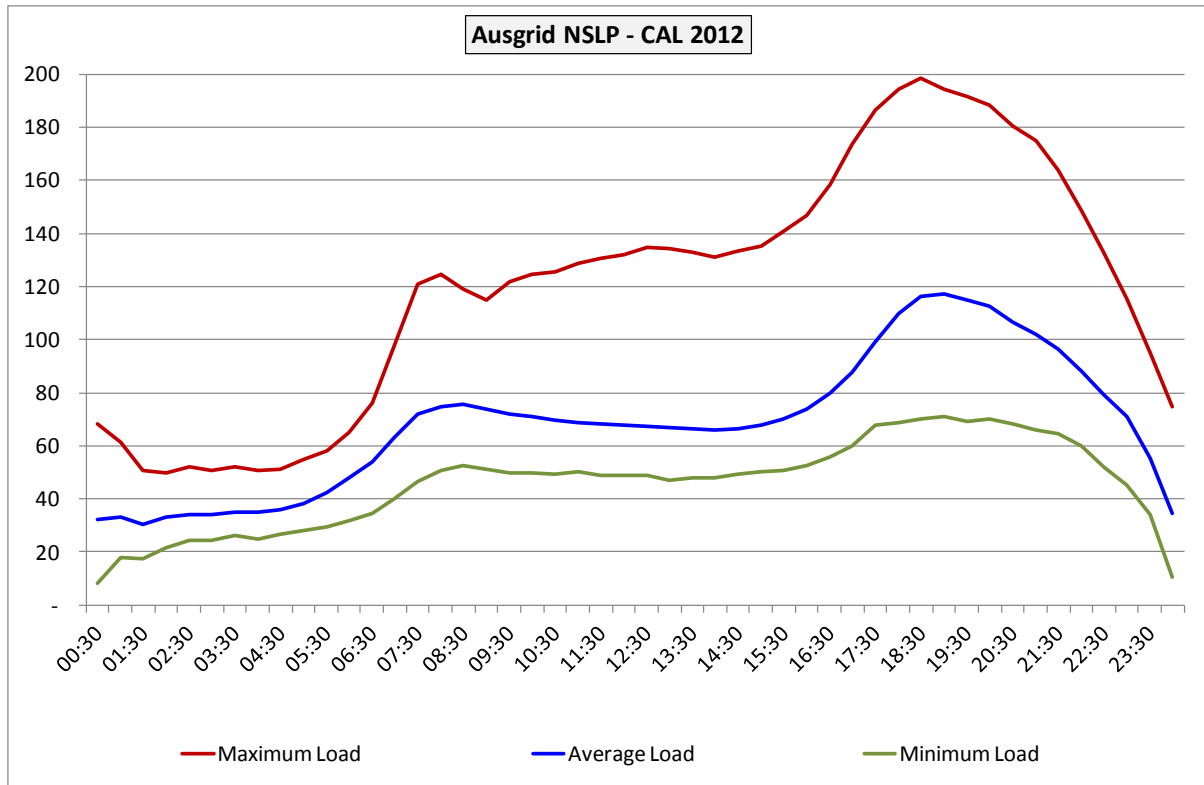
²⁷⁰ Report of Angus Macleod, paragraph 400, Table 2.

²⁷¹ Report of Angus Macleod, paragraph 415. Frontier (Economics) Report, paragraph 286

²⁷² Capacity factor is the ratio of a power plant's actual output over a period of time, compared to its potential output if it were possible for it to operate at full capacity indefinitely.

²⁷³ Report of Angus Macleod, paragraph 357.

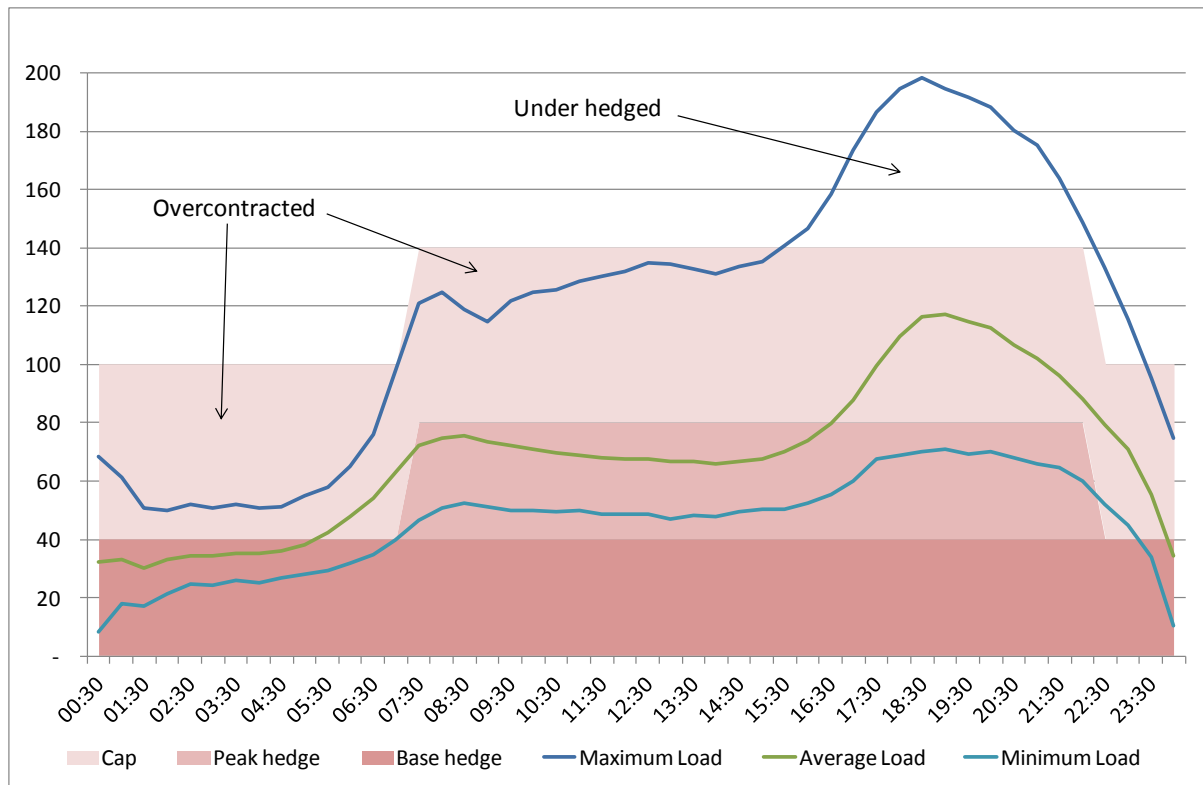
Figure 7 – Ausgrid Net System Load Profile Calendar Year 2012²⁷⁴



7.88. Retailers will typically seek to hedge this load using a combination of hedging instruments (primarily swaps and caps). An illustrative example is shown in Figure 8. Due to the shape of the retail load that is being hedged against, the generation capacity required to back the hedge instruments used is not able to be accurately estimated by simply looking at the retailer’s total volume.

²⁷⁴ Report of Willis, page 20 (Chart 1).

Figure 8 – Under and over hedge contracting illustration relative to load profile range²⁷⁵



- 7.89. On the basis of the load duration curves provided by AEMO, which provide information about the volume and shape of a retailer’s load, the ACCC has sought to estimate the volume and type of hedge contracts that would be used by a prudent and efficient retailer to cover risks associated with these loads. The Report of Angus Macleod presents a hedging methodology that is broadly reflective of standard industry approaches which involves a retailer hedging its expected energy with swap contracts and its higher flex demand with cap contracts (up to the expected 99th percentile of their load).
- 7.90. Applying this methodology to the AEMO load duration curve data provides estimates of second tier retailer demand for hedge contracts in NSW as shown in Table 7. It is noted that the generation capacity required to back the supply of peak swaps is additive to the capacity required to supply flat swaps, as flat swaps provide cover for all hours in the day; peak swaps additionally provide cover for 07:00 to 22:00.

²⁷⁵ Report of Willis, page 43 (Chart 12).

Table 7 – Estimated demand for hedge contracts in 2013 by retailers other than AGL, Origin and Energy Australia (MWs)

Flat swap	Peak swap	[All swaps]	Caps

²⁷⁶

7.91. Given that it is most important for retailers to hedge their loads at the peak demand times of day, as this is the time of day when the risk of exposure to the spot price is likely to be greatest, the ACCC considers that it is particularly important for there to be sufficient generation capacity in the market to effectively back the supply of peak swap contracts.

Snowy Hydro and Delta Electricity

7.92. Outside of Macquarie Generation, Delta Electricity is the largest source of base load capacity that is not owned by a large retailer in NSW. Delta Electricity owns and operates the 1,320MW Vales Point coal power station and the 667MW gas peaking Colongra power station. The Vales Point station consists of two units of 660MW each, while Colongra consist of four units of approximately 166MW. Vales Point has a capacity factor of approximately 60% to 65%,²⁷⁷ reflecting its status as a base load generator, while Colongra has a capacity factor of less than 0.5%,²⁷⁸ reflecting its status as a peaking plant.

7.93. The ACCC considers that Delta Electricity's ability to supply hedge contracts, and swaps in particular, is likely to be limited by a number of factors, principally the fact that it has a small generation portfolio.

7.94. The fact that Delta Electricity only has two base load generation units in its portfolio is particularly important in understanding its commercial ability to supply swap contracts at a competitive price. Swap contracts expose the selling counterparty to a constant spot price risk, as they require the selling party to compensate the contractual counterparty at any point that the spot price is above the contractual strike price. The risk faced by the seller of a swap contract is therefore similar to a retailer, in that the selling party is fully exposed to spot price when it is higher than the contractual strike price (up to a maximum of \$13,100). Thus, due to their high capacity factors (ie. they are producing energy, and being paid the spot price for that output, for a significant proportion of the time), base load generation is most suitable for backing swap contracts.²⁷⁹ When the spot price is higher than the contractual strike price, there is a high chance that the base load generator is able to be dispatched (commercially and physically) and, thus, receive the higher spot price.

²⁷⁶ Report of Angus Macleod, paragraph 400, Table 2; and AEMO.

²⁷⁷ Derived from public AEMO NEM data by the AER.

²⁷⁸ Derived from public AEMO NEM data by the AER.

²⁷⁹ Report of Angus Macleod, paragraph 357.

7.95. The proposition that a base load power station, with a capacity factor of > 65%, is a substitute for a swap contract is described as a “general rule of thumb” by Anthony Fowler, although he notes that 'intermediate generators with a capacity factor between say 30% and 65%' may also be substitutes.²⁸⁰ Anthony Fowler does not suggest that a gas-fired peaking plant with a capacity of approximately 1%, such as Delta’s Colongra generator, would be appropriate to substitute for swap contracts. This general proposition is also described in the Report of Angus Macleod, although he notes that, given a sufficiently large price incentive, different generators may have the potential to support different types of contracts:

*Furthermore, different types of Generators naturally supply different types of NSW Hedge Products. For example, although there is some degree of substitutability, coal fired generators such as Macquarie Generation and Delta Energy’s Colongra plant are suited to selling Flat Swaps and Peak Swaps while gas fired plants and hydro power stations are naturally suited to selling Caps.*²⁸¹

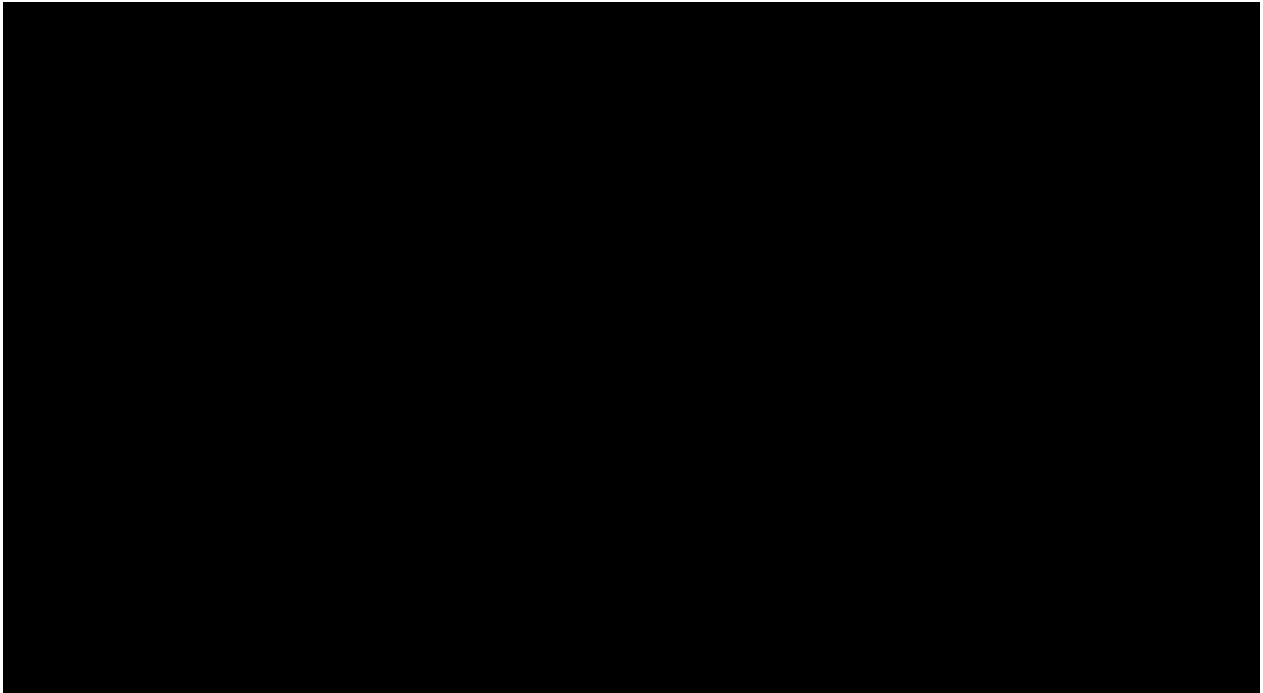
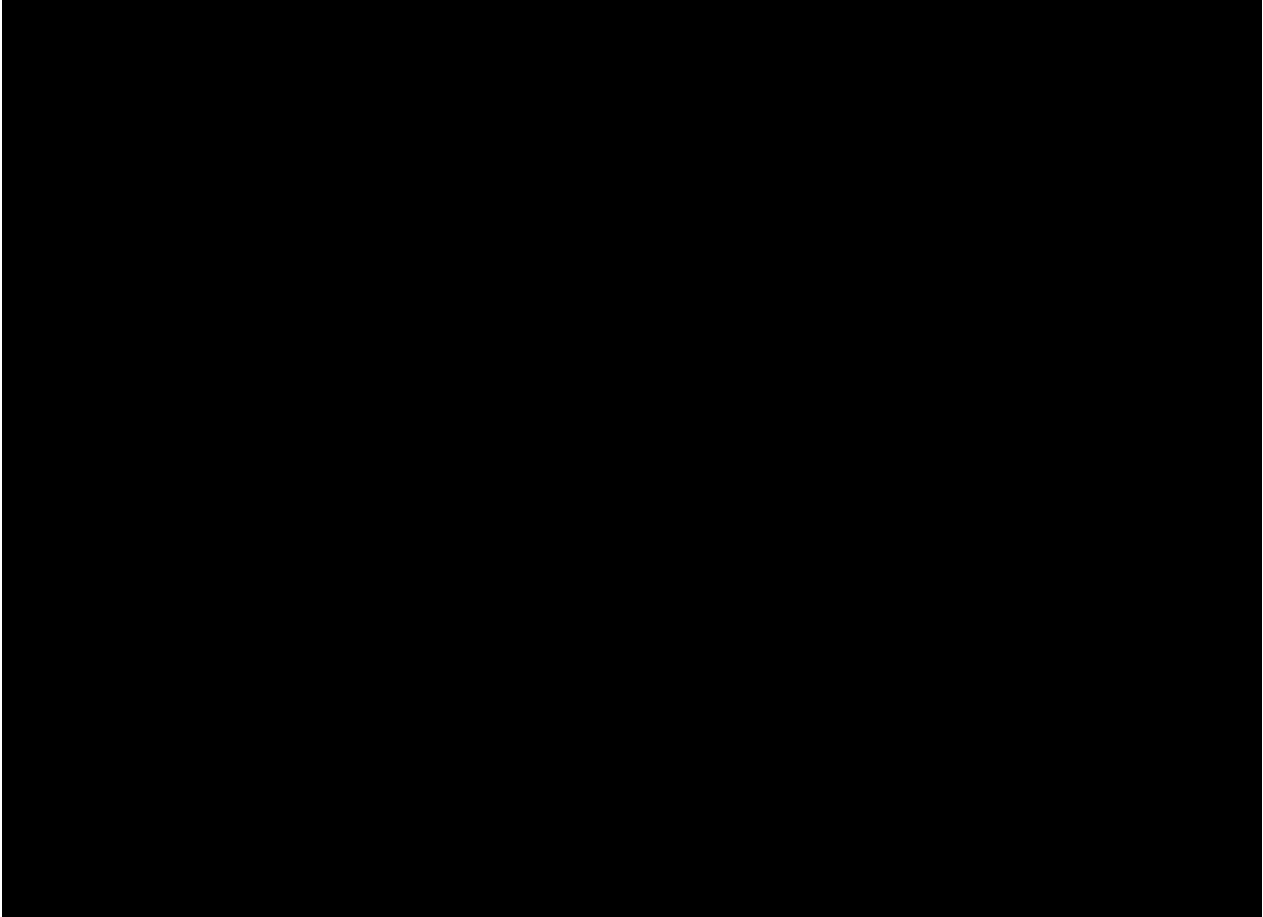
7.96. As outlined in more detail in the Report of Angus Macleod, a standard industry hedging technique is the ‘N-1’ approach, in which the full fleet of generation is made available to physically back the forward selling of hedge contracts, apart from a spare unit (the ‘N’tth unit’).²⁸² Keeping the capacity of one unit uncontracted is important as it means that, if the generation unit against which a hedge contract has been sold has an unexpected outage, there is at least one uncontracted generation unit available to cover the sold contracts. In addition, this allows for the scheduling of planned maintenance without exposing the generator to spot price risk. Having an uncontracted unit is even more important at times of the year when demand is at its highest (typically Q1 and Q4, which include the summer months), as the risk of very high spot price exposure during that period is higher.

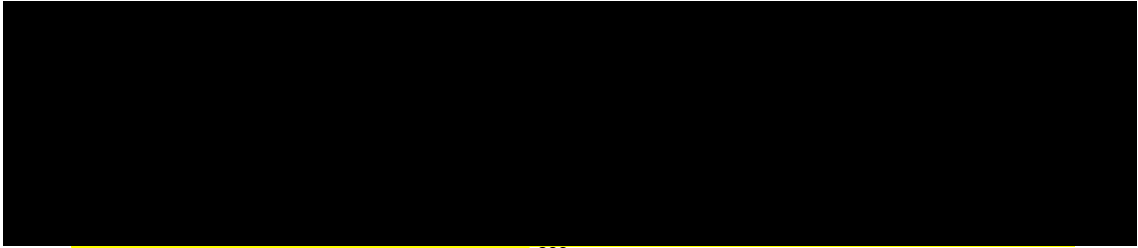
7.97. The use of (N-1) as a hedging technique was described [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

²⁸⁰ Affidavit of Fowler, paragraph 121.

²⁸¹ Report of Angus Macleod, paragraph 357.

²⁸² Report of Angus Macleod, paragraph 387.



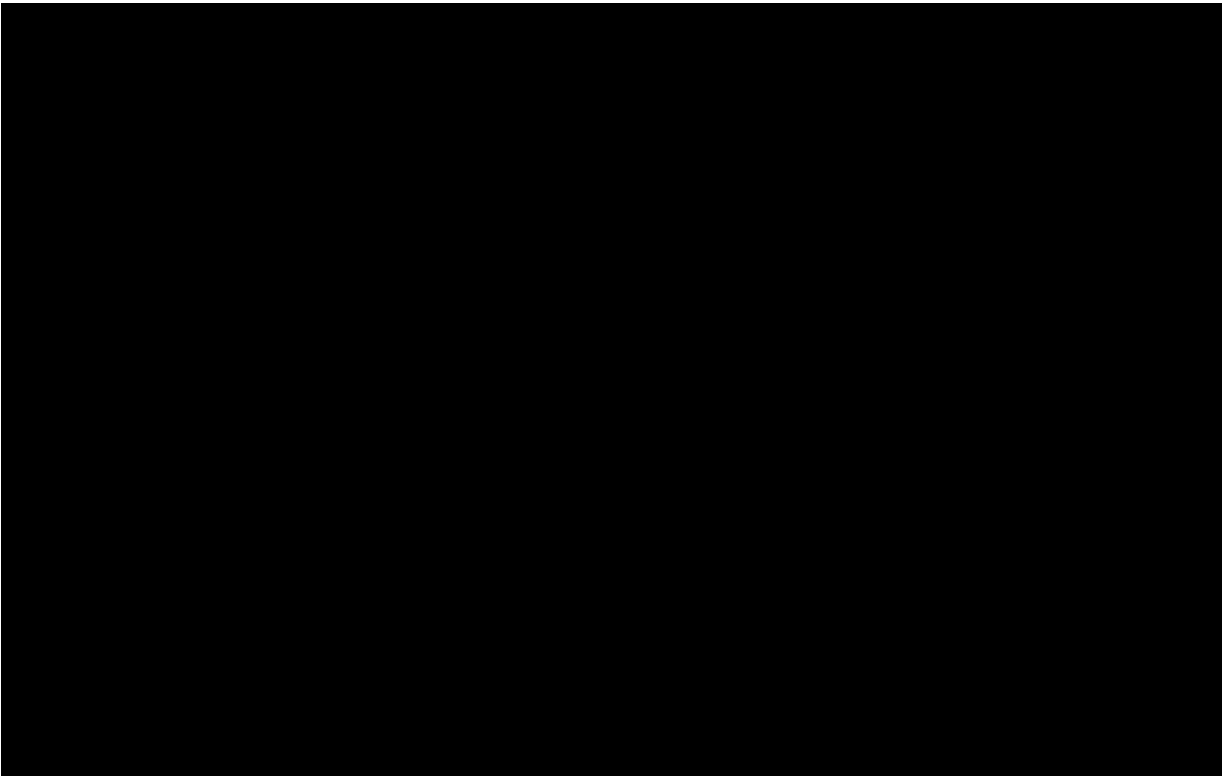


[redacted] ²⁸³

7.98. Given these factors, the ACCC considers that the natural contracting position for Delta Electricity under normal circumstances [redacted]

[redacted]
[redacted]
[redacted]
[redacted]
[redacted]
[redacted]

[redacted]



²⁸³ AGL, Submission to the ACCC in relation to Loy Yang Power, 20 December 2012 2012
²⁸⁴ Delta Electricity, letter to DLA, 15 May 2014

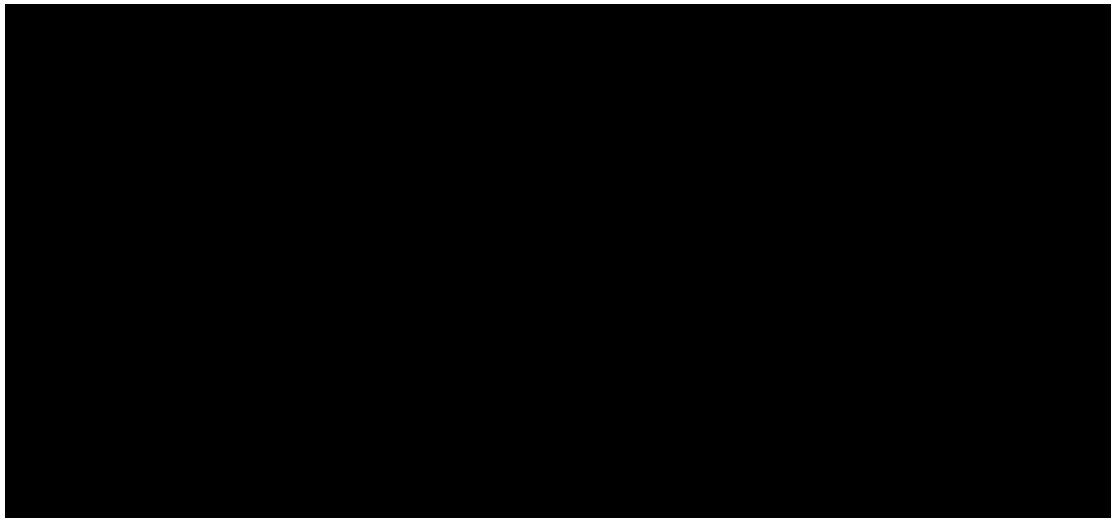


7.99. The ACCC also notes that information provided by [redacted]
 [redacted]
 [redacted]
 [redacted]
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Table 8 – [redacted]

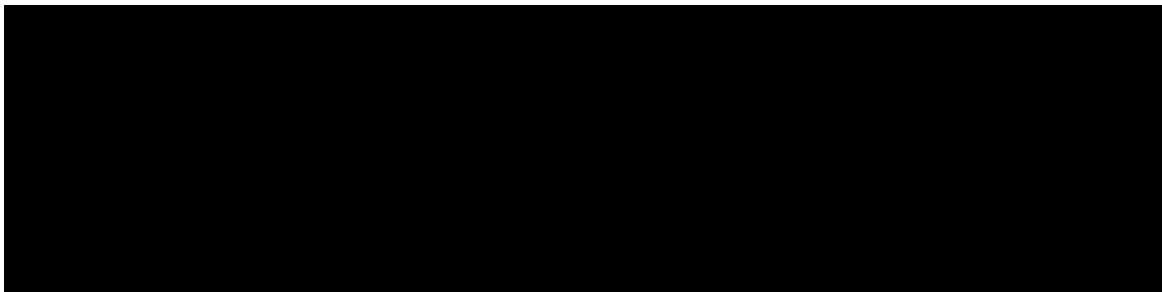
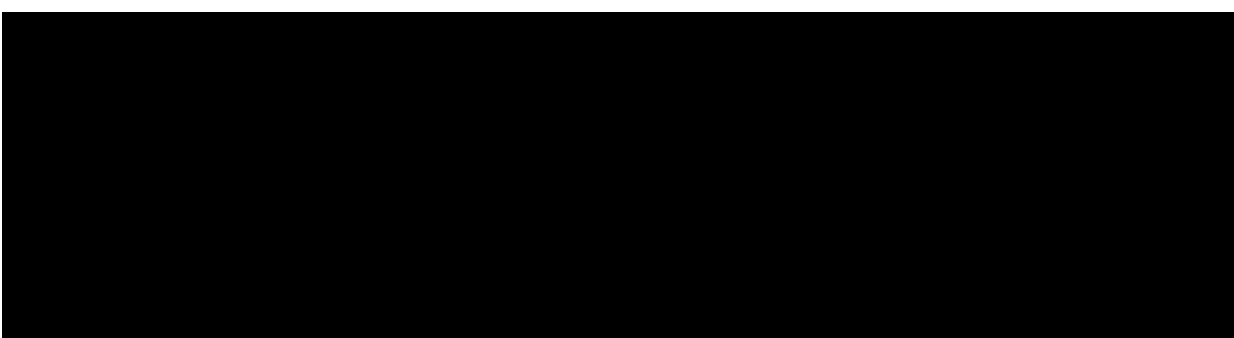
Time of Year	Minimum reserve margin (MW 'as generated')	Maximum contract position backed by Delta's generation (MW 'as generated')	Maximum contract position including Delta West Hedge (MW 'as generated')
[redacted]			

7.100. The ACCC notes that [redacted]
 [redacted]
 [redacted]



7.101. While the ACCC agrees that it is [redacted]
 [redacted]

²⁸⁵ Delta Electricity, attachment to letter to DLA Piper, 15 May 2014
²⁸⁶ First affidavit of Carver, Annexure LC1.



7.102. The ACCC also notes that [redacted]
[redacted]
[redacted]
[redacted]
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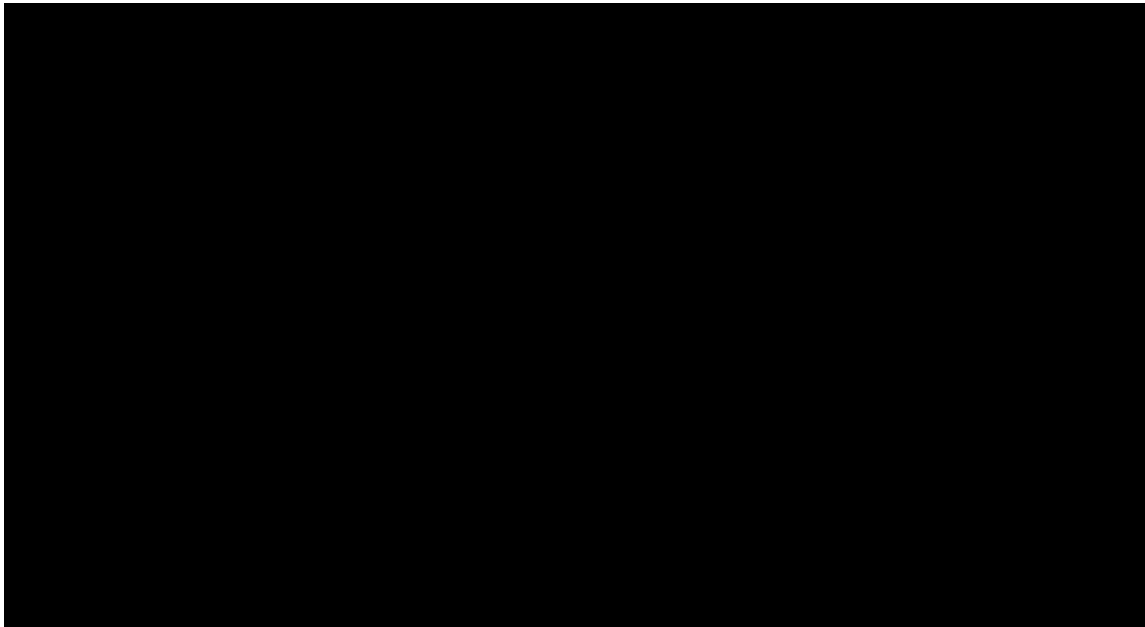
7.103. The Report of Angus Macleod provides an estimate of Delta’s prudent contracting limits based on the application of a “N-1” methodology. Applying this methodology to Delta Electricity provides an estimated limit of Delta’s supply of swaps in Q1 of 701MW of flat swaps and 201MW of peak swaps.²⁸⁷ [redacted]
[redacted]
[redacted]

7.104. Snowy Hydro has summer rated capacity of 2,492MW in NSW, which represents the capacity of a three individual hydroelectric plants. Snowy Hydro’s plants in NSW have capacity factors of approximately 3% to 35%,²⁸⁸ reflecting their status as intermediate hydro-electric generators.

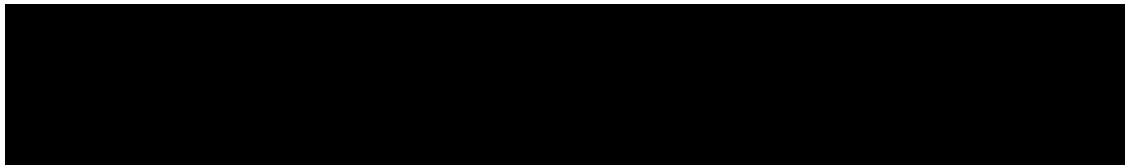
7.105. While it is possible for Snowy Hydro to offer swap contracts, due to the fact that it is an intermittent, peaking generator with a limited and uncertain fuel supply, its capacity to offer swap contracts is far more limited than its large capacity would suggest.

7.106. [redacted]
[redacted]

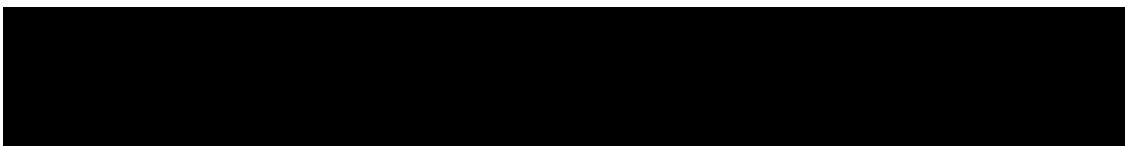
²⁸⁷ Report of Angus Macleod, paragraph 415 and spreadsheet.
²⁸⁸ Derived from public AEMO NEM data by the AER.



7.107.



7.108.



7.109. The Report of Angus Macleod provides an estimate of Snowy’s prudent contracting limits based on the application of a “N-1” methodology. Applying this methodology to Snowy Hydro provides an estimated limit of Snowy’s supply of swaps in Q1 of 71 MW of flat swaps and 243 MW of peak swaps.²⁹²

7.110. The ACCC considers that these factors demonstrate that Snowy cannot be regarded as a firm and reliable source of a significant volume of swap contracts in NSW.

7.111. Given the above factors, if AGL ceased supplying hedge contracts to competing retailers post-acquisition, the ACCC considers that Delta Electricity and Snowy

²⁸⁹ [Redacted]

²⁹⁰ [Redacted]

²⁹¹ [Redacted]

²⁹² Report of Angus Macleod, paragraph 415 and spreadsheet.

[REDACTED]

Hydro are unlikely to adequately fill this void, meaning that second tier retailers are likely to be unable to obtain the volume and types of hedge contracts they require to effectively compete in the NSW retail market.²⁹³

Origin and EnergyAustralia

7.112. The ACCC considers that Origin and EnergyAustralia are likely to be a very small source of hedge contracts, particularly of swaps at peak demand times. EnergyAustralia had an average retail load in 2013 of approximately [REDACTED] which was [REDACTED] average 2013 generation output of approximately 1,900MW. Origin had an average retail load in 2013 of approximately [REDACTED] which was [REDACTED] average 2013 generation output of approximately 1,380MW. Further, each of these retailers have large numbers of small residential customers in NSW, which is likely to mean that any spare generation capacity that they may have is limited to off-peak times.²⁹⁴

7.113. Given this, the ACCC considers that it is unlikely that Origin and EnergyAustralia would have sufficient generation capacity to supply swap contracts to other retailers, particularly at peak times. Thus they are unlikely to be able to meet the demands for second tier retailers for swap contracts if such contracts were not supplied by AGL, particularly at peak demand times which is when such contracts are most required and when the market is most likely to have a shortfall of available hedge contract capacity in the absence of supply by Macquarie Generation. In fact the ACCC considers that it is likely that Origin and, in particular, EnergyAustralia are net purchasers of hedge contracts in NSW, particularly at peak demand times.²⁹⁵

Financial intermediaries and the ASX Energy exchange

7.114. The ACCC understands that financial intermediaries and the ASX Energy exchange are important sources of hedge contracts for retailers. However, the ACCC considers that these are secondary sources of supply in the sense that they will only provide or facilitate the supply of hedge contracts to the extent that the relevant instruments are ultimately backed by a generator.²⁹⁶

7.115. Further, hedge contracts available from the ASX Energy exchange are a less efficient hedging mechanisms because they are not as flexible and able to be customised as OTC contracts.²⁹⁷ This prevents retailers from hedging their portfolio's load shape and flex profiles economically with fixed volume, fixed period

²⁹³ Affidavit of Guiver, paragraph 69.

²⁹⁴ Frontier (Economics) Report, paragraph 275.

²⁹⁵ Report of Angus Macleod, paragraph 415. Frontier (Competition) Report, paragraph 286.

²⁹⁶ Report of Angus Macleod, paragraph 397.

²⁹⁷ Affidavit of Guiver, paragraph 36; Affidavit of Evans, paragraph 40.

ETCs.²⁹⁸ Additionally, ETCs lack the ability to manage the cashflow timing associated the spot market so there is no guarantee of a cashflow hedge.²⁹⁹

- 7.116. Given this, and having regard to the impact of the proposed acquisition on the liquidity of hedge contract trading discussed below, following the proposed acquisition, the ACCC's view is that intermediaries and the ASX Energy exchange will be insufficient sources of hedge contracts for retailers in NSW.

Interstate generators

- 7.117. As discussed under the heading "Requirement to use hedge contracts referencing the NSW spot price" above, the ACCC considers that the magnitude of interregional price separation risk and the insufficiency of contracting strategies to hedge against that risk makes interregional hedging a risky strategy which is unlikely to be used frequently. Similar risks are faced by interstate generators which supply a hedge contract referenced to the NSW spot price. Therefore the ACCC considers that:

- a. The volume of hedge contracts referencing the spot price is likely to be minimal and uncertain, as generators not located in NSW are more likely to supply contracts referenced to the spot price in the same region to avoid transmission and price risk.³⁰⁰
- b. Generators outside of NSW are likely to charge a premium for a hedge product referenced to a region outside of NSW to take into account transmission and price separation risks. Therefore, the willingness and ability of retailers to acquire such contracts may likely to be limited.³⁰¹

- 7.118. For example, Progressive Green has submitted in evidence to the Tribunal that discussions it had with [REDACTED] about hedge contracts referenced to the Victorian spot price did not progress because prices were not favourable.³⁰²

- 7.119. A demonstration of the materiality of interregional price separation risk from a generator's perspective is shown by a comparison of three hedging strategies for the output of the Bayswater and Liddell power stations between January 2009 and December 2013 (**Figure 10**). As can be seen, if these generators had hedged their output by selling contracts referenced to the Victorian Spot price over this period, this would have carried a similar magnitude of risk (measured by monthly revenue variance, or standard deviation) to leaving that output unhedged. Both strategies introduce far greater risk to the portfolio than a strategy of hedging against the NSW spot price.

²⁹⁸ Affidavit of Guiver, paragraph 36.

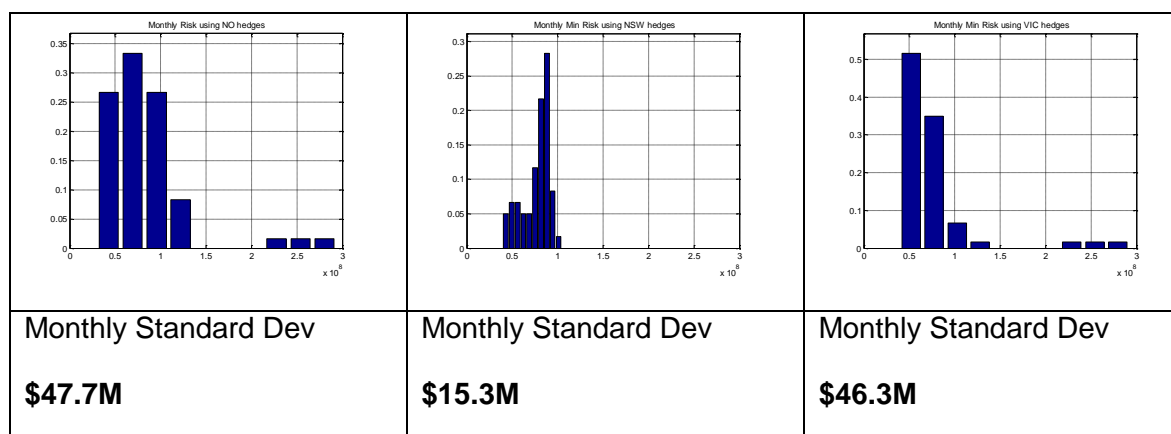
²⁹⁹ Affidavit of Guiver, paragraph 38.

³⁰⁰ Affidavit of Evans, paragraph 46.

³⁰¹ Affidavit of Evans, paragraph 46.

³⁰² Affidavit of Evans, paragraph 45.

Figure 10 – Portfolio risk distribution of monthly revenues from Bayswater and Liddell Power Stations³⁰³



Left: portfolio risk with NO hedges; Middle: portfolio risk with NSW hedges; Right: portfolio risk with Vic hedges. The Vic prices prove to deliver low effectiveness at reducing the risk of the native exposures of Bayswater and Liddell generation.

7.120. For these reasons, the ACCC considers that, while supplying hedge contracts referencing the NSW spot price is something that interstate generators will choose to do from time to time, such generators are unlikely to be a reliable source of a significant volume of competitively priced swap contracts referencing the NSW spot price.

Incentive of AGL to supply hedge contracts from Macquarie Generation following the proposed acquisition

- 7.121. The ACCC considers that AGL would have a lower incentive to supply hedge contracts to competing retailers than any likely alternative owner of Macquarie Generation would. This is because:
- vertically integrated generators with substantial retail loads have less incentive than other non- or less-vertically integrated generators to supply hedge contracts to other retailers;
 - AGL will have an incentive to use the output of Macquarie Generation as a hedge for its existing retail load;
 - AGL will have an incentive to grow its retail load to further take advantage of Macquarie Generation's natural hedge; and
 - AGL will have an incentive to foreclose retailers from accessing hedge contracts competing on terms which enable them to be strongly competitive with AGL's retail business.

³⁰³ Report of Angus Macleod, page 41 (Figure 13).

[REDACTED]

7.122. These points are discussed in more detail below.

7.123. As a result of AGL's reduced incentive to supply hedge contracts to other retailers compared to any other likely owner of Macquarie Generation, the ACCC considers that the proposed acquisition is likely to result in a reduced quantity of hedge contracts being available in NSW following the proposed acquisition than would otherwise be the case. The ACCC considers that this is likely to increase barriers to entry and expansion for second tier retailers in NSW.

General incentives of independent and vertically integrated generators

7.124. To manage the risk that spot prices will be low for sustained periods of time, generators, to the extent that they are not supporting a retail load through a natural hedge, will generally seek to supply hedge contracts with other parties up until the point deemed necessary by the generators' appetite for risk. To manage this price risk, generators which are not supporting a retail load possess a strong commercial incentive to sustain and facilitate a diverse and competitive pool of retailers that are capable of serving as counterparties (and competing for these positions) for hedging instruments backed by the generators' capacity.³⁰⁴

7.125. For example, the ACCC considers that GDF Suez is the primary source of hedge contracts for second tier retailers in Victoria. [REDACTED]

7.126. The desire for independent generators to transact with a range of parties is recognised in Macquarie Generation's existing Risk Management Policy. This policy sets:

[REDACTED]

7.127. The existence of this limit reflects the fact that independent generators have an interest in supporting a more diverse retail market, as this reduces their risk exposure to any particular party.

Incentive to use Macquarie Generation as a natural hedge for AGL's NSW retail load

7.128. Some market participants have expressed concern that, post-acquisition, AGL will deploy the Macquarie Generation capacity as a natural hedge to support its NSW

³⁰⁴ Affidavit of Evans, paragraph 51.

³⁰⁵ [REDACTED]

³⁰⁶ Macquarie Generation, Risk Management Policy, 14 June 2013.

retail position.³⁰⁷ This will substantially or wholly remove from the NSW market the availability of over 4,600MW of baseload generation.³⁰⁸

- 7.129. AGL has stated that the use of Macquarie Generation as a natural hedge for its NSW retail load is one of the key benefits to AGL from acquiring the Macquarie Generation assets and using its output to substitute for hedge contracts bought on the open market:

*Supplying AGL's existing NSW load: AGL's load in the NSW region is 9.1TWh per annum. Without any dispatchable generation in NSW, AGL currently spends approximately \$650-700 million per annum acquiring electricity from the market to supply its customers. AGL currently uses a mix of surplus generation in Victoria and market contracts to hedge its NSW position. However, AGL's surplus Victorian generation capacity will reduce from 2016 as new Victorian contracts commence. The Macquarie Proposal allows AGL to manage the risk from its NSW load with the Macquarie Generation Assets.*³⁰⁹

- 7.130. The ACCC notes Anthony Fowler's statement that the hedge contracts currently purchased by AGL would be available for others to purchase following the proposed acquisition:

It is also my opinion that if the Macquarie Generation transaction were to proceed, then the generation capacity supporting the hedge contracts that AGL would otherwise purchase will be available to support hedge contracts with other market participants.

*The proposed acquisition of Macquarie Generation would reduce the need for AGL to purchase these hedge contracts. If that occurred, it would be open to other market participants (including smaller retailers) to purchase those hedge contracts.*³¹⁰

- 7.131. The ACCC agrees that, while it is possible that some proportion of hedge contracts held by AGL prior to the proposed acquisition may become available to other counterparties (including retailers in NSW), the ACCC nevertheless considers that the proposed acquisition is likely to have a substantial impact on the overall availability of hedge contracts required by retailers in NSW. Specifically, the ACCC considers the following:

- a. AGL may elect to continue to manage its hedge book post-acquisition in a manner such that the net supply of hedges before and after the proposed acquisition are not equivalent. In particular, as discussed in more detail from paragraph 7.135 below, the ACCC considers that AGL is likely to have an

³⁰⁷ Affidavit of Swanepoel, paragraph 27.1.1; Affidavit of Guiver, paragraph 72; Affidavit of Derek McKay, paragraph 32; and Affidavit of Evans, paragraph 55.

³⁰⁸ Affidavit of Swanepoel, paragraph 27.1.1.

³⁰⁹ Affidavit of Redman, paragraph 71(b)

³¹⁰ Affidavit of Fowler, paragraphs 217 to 218.

incentive to withhold hedge contracts that would otherwise have been supported by the generation output of Macquarie Generation.

- b. The hedge contracts relinquished by AGL once it naturally hedges may not be a suitable replacement for the contracts formerly between Macquarie Generation and other retailers from the perspective of retailers other than AGL (e.g. in terms of price, type (for example, swap versus cap), terms of supply, availability).
- c. Through removing natural buyers and sellers (AGL and Macquarie Generation respectively) from a natural hedge, the liquidity of hedge contract trading would, as a direct result, be substantially decrease in both ETC and OTC traded contracts. This is discussed further from paragraph 7.144.

The incentive for AGL to grow its retail operations to become ‘balanced’ following the proposed acquisition

7.132. The ACCC considers that, following the proposed acquisition, AGL will have an incentive to grow its retail customer load in order to balance its retail and generation output and take advantage of the natural hedge that Macquarie Generation’s surplus capacity would provide.³¹¹ The ACCC notes that AGL has submitted that there are efficiencies from vertical integration in electricity retailing and the ACCC therefore expects AGL to seek to take advantage of the potential natural hedge that the proposed acquisition would provide it with.

7.133. AGL’s retail market share (as estimated by UBS) has grown over the last five years at the average rate of 3.75%, representing an average of 120,600 customers per year (Table 9).³¹²

Table 9 – AGL small customer NSW retail market share, 2009-2013³¹³

Year	2009	2010	2011	2012	2013
Share	9%	12%	14%	19%	24%
Δ	-	+3%	+2%	+5%	+5%

7.134. The ACCC expects that AGL would look to continue this retail growth in NSW following the proposed acquisition, which would have the effect of further reducing the capacity of Macquarie Generation that would be offered to support hedge contracts.

³¹¹ See also Affidavit of Evans, paragraph 55.

³¹² Affidavit of Brownfield, Annexure MB5.

³¹³ Affidavit of Brownfield, Annexure MB5.

The incentive for AGL to foreclose its retail competitors through the withholding of hedge contracts

- 7.135. Post-acquisition, the three large vertically integrated retailers (AGL, Origin and EnergyAustralia) would control the vast majority of NSW generation.³¹⁴ Second tier retailers would likely need to seek hedge contracts from their larger competitors, who may have an incentive to withhold hedge contracts.³¹⁵
- 7.136. The ACCC considers that there is a real risk that, post-acquisition, AGL will have a material incentive to withhold the supply of hedge contracts from its retail competitors³¹⁶ and/or not be prepared to supply retailers with competitively priced swaps because they are retail competitors.³¹⁷ AGL's ultimate interest would not be in maximising the value of Macquarie Generation itself, but to maximise the value of its vertically integrated business.³¹⁸ The ACCC considers that the potential profits associated with supplying electricity to retail end-users is greater than the potential profits associated with providing hedge contracts to other retailers.
- 7.137. Brett Redman describes an analysis conducted by AGL to derive an estimate of any potential net gain or loss from the withholding of hedge contracts:

On a whole of business basis I believe the appropriate way in which to consider this question of incentives is to ask what does AGL gain by selling a hedge contract to an independent retailer in NSW and what does AGL potentially lose by doing so. In selling a contract, AGL locks in the premium over the spot price but may lose some margin earned from the portion of retail customers that it may lose to its competitor.

The Head of Finance Merchant Energy has, with other AGL analysts, undertaken an analysis on the financial impacts of selling hedge contracts to third parties, and in particular, independent retailers.³¹⁹

- 7.138. The ACCC considers that the analysis presented by Brett Redman was based on certain data and assumptions that are incorrect. Additionally, the data and assumptions do not take into account the full range of strategic options available to AGL in NSW following the proposed acquisition. A full analysis of these factors is discussed in the Report of Toby Stevenson. The primary issues identified in that report are as follows:
- a. The analysis presented by Brett Redman did not take into account the possibility of AGL pursuing a retail growth strategy as an alternative to a hedge contracting strategy. Brett Redman only compared the hedge contracting

³¹⁴ Affidavit of Derek McKay, paragraph 31.

³¹⁵ Affidavit of Derek McKay, paragraph 31; and Affidavit of Evans, paragraph 56.

³¹⁶ Affidavit of Derek McKay, paragraph 32; and Affidavit of Evans, paragraphs 56 and 57.

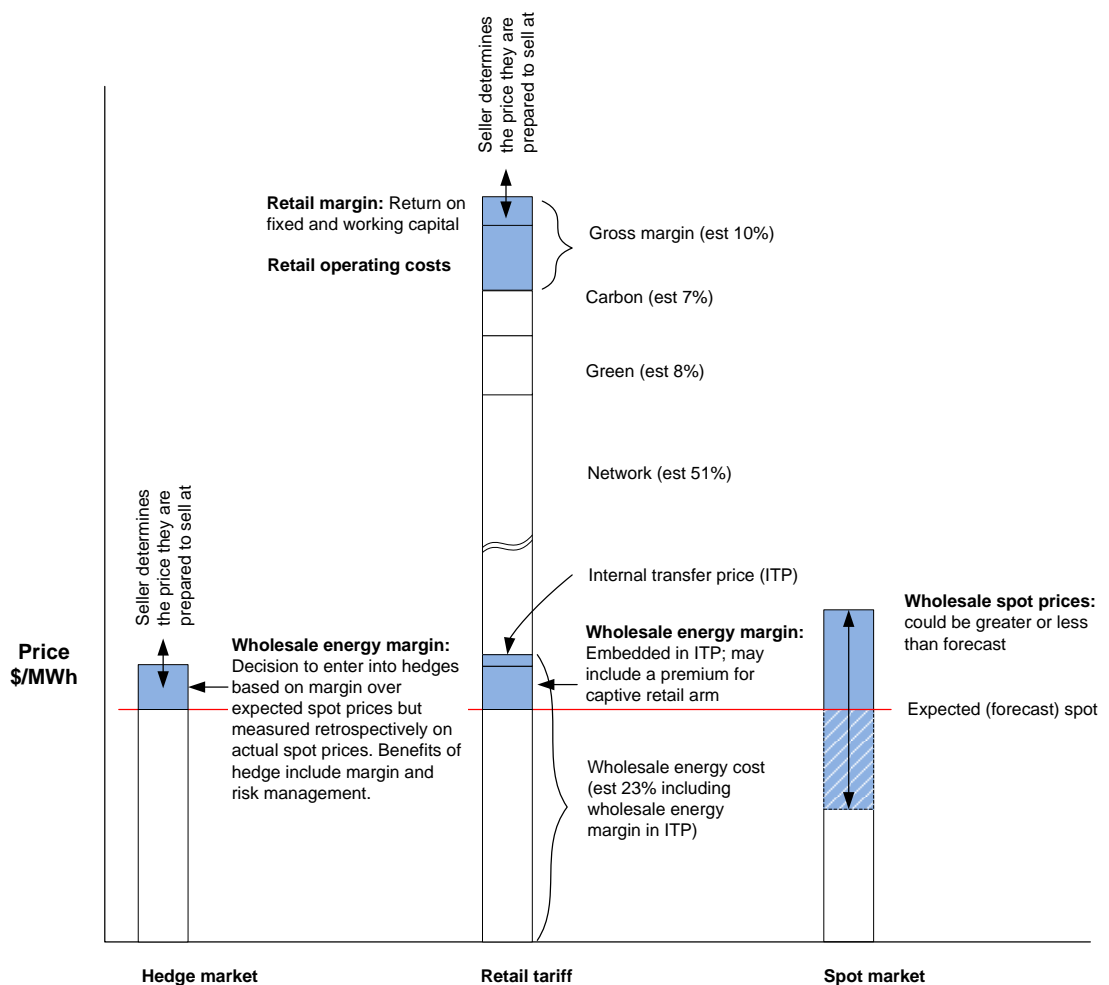
³¹⁷ Affidavit of Swanepoel, paragraph 27.1.2.

³¹⁸ Affidavit of Guiver, paragraph 72.

³¹⁹ Affidavit of Redman, paragraphs 138 to 139.

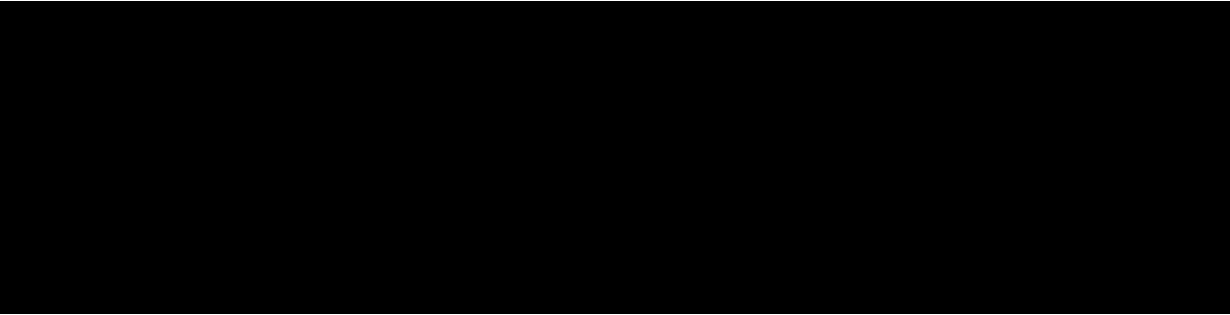
strategy to the alternative of having unhedged generation. As can be seen in the illustration of the channels to market available to vertically integrated generators in Figure 11, this overlooks a potentially lucrative alternative strategy and one that would be contemplated by a generator in AGL's position. While an exact quantification of AGL's incentives to engage in a hedge contracting strategy relative to a retail growth strategy is difficult to undertake, given the variables outlined at paragraph 95 of the Report of Toby Stevenson, calculations based on AGL's costs of customer acquisition reported by Brett Redman indicate that such a strategy would be substantially more profitable to AGL than a hedge contracting strategy.³²⁰

Figure 11 – Illustration of the source and nature of margins for each of three channels to market available to vertically integrated generator/retailer³²¹



³²⁰ Report of Toby Stevenson, Appendix 1.

³²¹ Report of Toby Stevenson, page 16 (Figure 7).

- 
- b. There are a number of additional incentives for a vertically integrated generator to pursue a retail growth strategy, including that a retail load can act as a type of long term hedge for a generation output, if churn is appropriately managed, and that there is value in having a customer over not having a customer due to the fact that customer acquisition costs are sunk. Further, growing a retail load locks in an internal transfer wholesale price for a vertically integrated generator, as opposed to it having to rely on the market's hedge contract price.³²²
- c. Brett Redman used as an input a hedge contract premium which was significantly higher than a long run historical average premium as measured from 2003-2013. The use of this figure materially overstated the likely profitability of supplying hedge contracts. As hedge contract prices reflect, to some degree, market expectations about future electricity spot prices, they are subject to a substantial margin for error and the premium that they trade above the spot price varies significantly from year to year when measured on an ex-post basis. The ACCC notes that the benign spot market conditions in recent years, which arose in part because underlying demand was materially lower than had been forecast by AEMO, may have caused realised spot prices to be lower than expected spot prices, raising hedge contract premiums in recent years.
- d. The market share figure used by Brett Redman, which was for FY2012-13, did not include the retail load associated with the customers of Australian Power and Gas (APG), which AGL acquired in October 2013. If the load of these customers is taken into account, which the ACCC considers is appropriate given that AGL has now acquired APG, AGL's market share in CY2013 would be approximately [REDACTED]. The analysis conducted by Brett Redman is highly sensitive to market share, as a higher market share results in an increased expected payoff from denying competing retailers hedge coverage on competitive terms. The ACCC notes that neither of the AGL market share figures used by Brett Redman or in the Report of Toby Stevenson took into account AGL's payoff from any foreclosure strategy arising from 50% shareholding in ActewAGL. Taking this into account would further increase the expected profitability from denying hedge contract coverage to a competing retailer on competitive terms.

7.139. Given these factors, the ACCC strongly considers that AGL would have an ultimate incentive to grow its retail market share in NSW instead of providing competitively priced hedge contracts to competing retailers following the proposed acquisition. This position is supported by the Report of Toby Stevenson:

It is my view that, notwithstanding the circumstances where there is a case to use the hedge market for risk management purposes, the long term incentive to

³²² Report of Toby Stevenson, paragraph 61.

*sell generation through the retail arm overwhelm the case for relying on the hedge market.*³²³

- 7.140. The ACCC notes Frontier Economic's suggestion that the behaviour of EnergyAustralia provides an indication of its views as the incentives of AGL to supply hedge contracts following the proposed acquisition:

Yet the very fact that EnergyAustralia has announced unit closures at Wallerawang power station strongly suggests that EnergyAustralia has few if any concerns as to the availability of NSW contracts, even assuming the merger proceeds.

When it is clearly not profitable for an AGL-owned Macquarie Generation to seek to force Origin and EnergyAustralia to relinquish their customers in this way, there is little basis for presuming that an AGL-owned Macquarie Generation would find it profitable to deny contracts to a non-vertically integrated retailer.

*The revealed behaviour of EnergyAustralia in announcing the closure of units at Wallerawang suggests that the gentailers hold no concerns about the availability of swaps in NSW. 107 This, in turn, suggests that non-vertically integrated retailers – and consequently the ACCC – likewise need hold no concerns about their ability to procure such contracts.*³²⁴

- 7.141. However, as noted by Frontier in a footnote to that section, in announcing this withdrawal EnergyAustralia also announced that the relevant units "will then be placed on a three-month recall should market conditions change." It seems clear that if EnergyAustralia had difficulties in obtaining hedge contracts following the proposed acquisition, this would be a change in market conditions that could result in it bringing the relevant Wallerawang units back on line. Given the nature of the capacity withdrawal, the ACCC does not consider that this behaviour by EnergyAustralia provides any indication as to its long term views about hedge contract availability in NSW.

- 7.142. The ACCC notes that the above discussion in relation to the incentives of AGL to pursue a retail growth strategy is premised on the fact that AGL has an existing substantial retail load in NSW. If Macquarie Generation were acquired by a retailer with a much smaller existing retail market share (eg. 5%), the quantification exercises presented by Brett Redman and in the Report of Toby Stevenson would show that such a retailer would have a strong incentive to supply competitively priced hedge contracts.

- 7.143. In this context, Derek McKay (ERM Power) submits that an acquisition of Macquarie Generation by AGL would have a greater effect on liquidity than an acquisition by ERM Power because AGL would be expected to sell fewer hedge contracts to other

³²³ Report of Toby Stevenson, paragraph 98.

³²⁴ Frontier (Economic) Report, paragraphs 288 – 290.

market participants.³²⁵ Additionally, ERM Power would be able to supply a greater quantity of firm hedge contracts to third parties due to its smaller retail load.³²⁶ Although an acquisition by ERM Power would enable it to expand its retail business, any such expansion would occur gradually over a long time period and so it will maintain significant capacity to supply electricity to the pool and hedge contracts to other retailers.³²⁷ Furthermore, ERM Power would have strong incentives to supply as many hedge contracts as possible, in order to realise the value of its generation assets, meet debt covenants and earn any contract ‘premiums’ available.³²⁸

Impact of the proposed acquisition on liquidity of hedge contract trading in NSW

- 7.144. Liquidity, or the degree and speed with which an asset can be bought or sold without affecting that asset’s price, is a fundamental factor related to the trading of hedge contracts and, consequently, for electricity retailers to effectively manage their risk.
- 7.145. The ACCC considers that, as a result of the proposed acquisition, liquidity in the trading of hedge contracts in NSW will substantially decrease. The ACCC considers that this will have the effect of significantly raising barriers to entry and expansion for non-vertically integrated retailers in NSW.

Measures of liquidity and relevance to risk management

- 7.146. Liquidity may be measured in several ways, including those described in Table 10.

Table 10 – Measures of liquidity

Measure (unit)	Description
Turnover (traded volume) (MWh)	Volume of electricity traded
Liquidity ratio (MWh)	Turnover divided by NEM system demand
Open interest (no.)	Number of outstanding positions (i.e. unmatched bids of buyers and sellers)
Bid-offer spread (\$)	Offer price minus bid price

- 7.147. Assets and markets may be liquid or illiquid along varying degrees. For example, KPMG defined a liquid market in the context of the NEM as ‘the existence of ready and willing buyers and sellers at all times’ and considers a market deeply liquid if

³²⁵ Affidavit of Derek McKay, paragraph 30.

³²⁶ Affidavit of Derek McKay, paragraph 29.

³²⁷ Affidavit of Derek McKay, paragraph 29.

³²⁸ Affidavit of Derek McKay, paragraph 29.

‘there are ready and willing buyers and sellers in large quantities where orders involving marketable parcels do not strongly influence prices.’³²⁹

7.148. Liquidity in the trading of hedge contracts affects the availability of those contracts and so may consequently affect the price, type, and terms of supply of hedge contracts ultimately obtained by a retailer for its risk management purposes.

7.149. Anthony Fowler identified that one of the risks faced by retailers in the NEM is ‘liquidity risk’:

*Liquidity risk: the risk associated with availability of competitively priced OTC contracts or ETFs*³³⁰

7.150. The magnitude of this risk faced by retailers is higher when there are lower levels of liquidity in a market. As lower levels of liquidity cause an increase in this type of risk, a material reduction in liquidity can increase a non-vertically integrated retailer’s costs of operation in a region. For this reason, the ACCC considers that liquidity is important for the entry and expansion of retailers in the NEM. For example, ERM Power submits that it has been able to grow to be the fourth largest retailer in Australia on the back of liquid OTC and ETC hedge contract markets.³³¹

7.151. This position was also expressed in the affidavit of Katherine Farrar:

*I agree with the view expressed by the ACCC at paragraph 53 of the Affidavit of Issues that a certain level of liquidity and access to hedge contracts is vital to the participation of small independent retailers within the retail electricity market.*³³²

7.152. Overall, the ACCC considers that liquidity in the trading of hedge contracts in a region serves a number of other important functions that support competitive retailing activity, including enabling price discovery so that participants in the market can respond to market movements effectively and providing an underlying supply of contracts to enable financial intermediaries to transform them into customised products desired by second tier retailers.

7.153. As noted by AGL, risk management for electricity retailers is a complex activity, the ACCC considers that highly liquid trading markets are best able to facilitate such activities:

In practise, managing AGL's exposure in this way is a highly complex, interdependent, dynamic and information intensive task... Decisions about AGL's contract position are made constantly throughout a day by the team of 5 full time traders who comprise the WED; decisions about dispatch of AGL's

³²⁹ KPMG, Review of Energy Related Financial Markets: Electricity Trading, November 2006, page 2.

³³⁰ Affidavit of Fowler, paragraph 95(d)(i).

³³¹ Affidavit of Guiver, paragraph 74.

³³² Affidavit of Katherine Farrar affirmed on 21 March 2014, paragraph 3.2.

generation are made and communicated to AEMO for every 5 minute increment of every day. In each case, decisions are taken and revised as additional information and analysis becomes available.³³³

- 7.154. Without a liquid wholesale market, a liquid hedge market and availability of reallocation with generators in NSW, second tier retailers would have limited capability to provide a competitive restraint on the larger vertically integrated retailers.³³⁴ Further, as outlined in more detail below, decreased liquidity creates less potential for financial intermediaries to trade hedge contracts, further limiting the ability of second tier and potential new entrants to source viable hedging contracts and therefore compete effectively in retail markets.³³⁵

Effect of the proposed acquisition on the liquidity of hedge contract trading in NSW

- 7.155. A high level of vertical integration in a market will impact the availability of hedge contracts as vertically integrated generators act to preserve their natural hedge positions.³³⁶ This makes it more difficult for non-vertically integrated retailers to manage risk.³³⁷ While there is a large range of different factors which may affect liquidity in a region at a particular point in time, the contribution of increased vertical integration to overall liquidity will always be negative (all other factors being equal).
- 7.156. Following the proposed acquisition, the ACCC considers that the liquidity of hedge contract trading in NSW would be significantly decreased on a permanent and irreversible basis, and that this would have the result of substantially raising barriers to entry and expansion for retailers in the region (especially those without access to vertical integration arrangements as a risk management solution).³³⁸
- 7.157. The ACCC considers that the primary mechanism for the decrease in liquidity associated with the proposed acquisition is the removal of a very large buyer (AGL) and seller (Macquarie Generation) of hedge contracts in NSW as a result of the natural hedge that the proposed acquisition will provide to AGL.
- 7.158. The volume of hedge contracts currently acquired by AGL in NSW is [REDACTED] [REDACTED]³³⁹ which supports an AGL retail load of approximately 1,000MW and other purchases made by AGL in the NSW region, including on behalf of ActewAGL.³⁴⁰ Following the proposed acquisition, it is likely that a significant proportion of AGL's demand for hedge contracts in NSW will be taken out of the market.

³³³ Affidavit of Fowler, paragraph 110.

³³⁴ Affidavit of Guiver, paragraph 73.

³³⁵ Affidavit of Guiver, paragraph 73.

³³⁶ Affidavit of Guiver, paragraph 70.

³³⁷ Affidavit of Guiver, paragraph 70.

³³⁸ Affidavit of Dean Charles Price affirmed on 13 May 2014, paragraph 28; Affidavit of Swanepoel, paragraph 28 and Affidavit of Guiver, paragraph 75.

³³⁹ Affidavit of Fowler, Figure 3.

³⁴⁰ Affidavit of Fowler, paragraph 134.

- 7.159. As explained in more detail in Table 4 of section 8.4 of the Report of Angus Macleod, it is estimated that hedge contract trading in NSW is based on underlying demand by retailers for hedges of approximately 6030MW. Thus, the proposed acquisition would represent a reduction in underlying demand for hedge contracts of approximately [REDACTED]. This reduction in underlying liquidity would be further increased to the extent that AGL withheld the supply of hedge contracts in relation to the output of Macquarie Generation that was in excess of its retail requirements.
- 7.160. The ACCC considers that this reduction in underlying hedge demand is likely to have a significant effect on overall liquidity in the trading of hedge contracts in NSW. There are a range of estimates of the total volumes of ETC and OTC trading liquidity in NSW, with estimates for 2013 ranging from between 2-6 times the underlying physical load (which averaged approximately 8,200MW in FY2012/13, inclusive of imports).³⁴¹ The median of these estimates is 3.01,³⁴² suggesting a total NSW hedge contract trading volume of approximately 25,000MW in 2013.
- 7.161. As well as the immediate and ongoing reduction in liquidity as a direct result of AGL's natural hedge following the proposed acquisition, the ACCC considers there would be a number of likely further effects over time that would increase the decline in liquidity of hedge contract trading in NSW following the proposed acquisition:
- a. Financial intermediaries would likely, all else equal, increase the prices of their hedge products sold to retailers in NSW as a result of increased liquidity risk.
 - b. Financial intermediaries may reduce the scope of their speculative activities and potentially exit the NSW market due to the contraction in liquidity and a loss of market confidence.³⁴³ This could then have a multiplier effect on ETC liquidity as other speculators also seek to reduce their traded volumes.³⁴⁴
- 7.162. A substantial volume of trading on exchange traded markets is undertaken by or on behalf of market speculators.³⁴⁵ Speculators perform an important role in supporting overall ETC liquidity by providing a liquidity multiplier effect from an initial ETC hedge trade transacted by either a generator or a retailer and by offering 'spread' trades between different ETC products.³⁴⁶ In addition, it is important for proprietary traders in ETC markets to have confidence that ETC liquidity will be sustainable over the longer term.³⁴⁷ If market speculators believe that liquidity will reduce, they

³⁴¹ Report of Angus Macleod, paragraph 16.

³⁴² Report of Angus Macleod, paragraph 16.

³⁴³ Affidavit of Price, paragraphs 25 and 28.

³⁴⁴ Affidavit of Price, paragraphs 25 and 28.

³⁴⁵ Affidavit of Price, paragraph 18.

³⁴⁶ Affidavit of Price, paragraph 24.

³⁴⁷ Affidavit of Price, paragraph 25.

may pre-emptively reduce their participation in order to minimise their trade entry and exit risk.³⁴⁸

- 7.163. If levels of liquidity in a market are insufficient to provide these parties with confidence in the underlying volume of liquidity in the market, they may scale back their activities or exit entirely. This is described in the Report of Angus Macleod:

*Critical to justifying an Intermediary's capital commitment to all of the above business models is both return and acceptable risk levels. If the scale or liquidity of the underlying market reaches a point where an Intermediary cannot manage and reprofile risk in response to changing circumstances, at a sufficient level of responsiveness and granularity through access to ongoing transactions, the negative impact on their risk return profile will cause them to recalibrate or terminate their involvement in the market and seek better risk return opportunities elsewhere. Furthermore, such circumstances will act as a deterrent to new Intermediaries entering the market.*³⁴⁹

- 7.164. That is, when the underlying hedge contract trading between generators and retailers reduces in light of vertical integration, trading volume (to a multiple of the underlying trades) may be lost from the overall ETC market ('multiplier effect').³⁵⁰ This effect is difficult to quantify. However, as noted by Angus Macleod:

I believe it is probably the impact will be equal to a multiplier of greater than 1.0 (but I am not able to quantify to what extent above 1.0).

- 7.165. Taking this multiplier effect into account, the Report of Angus Macleod provides a range of estimates of the potential total reduction in liquidity arising from the proposed acquisition.³⁵¹ Angus Macleod estimates that the proposed acquisition could result in a reduction in the multiplier by up to 50%. Namely, the post-acquisition reduction in total liquidity would cause the multiplier to fall to approximately 2 from an assumed multiplier of 3 under the status quo.

- 7.166. The ACCC notes a number of previous instances of vertical integration in the NEM that have impacted on liquidity:
- a. Low levels of liquidity in South Australia are largely a result of vertical integration, particularly following AGL's acquisition of the Torrens Island Power Station, which deterred market speculators from trading in the region.³⁵² Hydro Tasmania has submitted that AGL, as the largest generator in South Australia, is not a viable counterparty for providing hedge contracts to support Momentum Energy's retail sales in South Australia.³⁵³ Momentum Energy has

³⁴⁸ Affidavit of Price, paragraph 25.

³⁴⁹ Report of Angus Macleod, paragraph 240.

³⁵⁰ Affidavit of Price, paragraph 24.

³⁵¹ Report of Angus Macleod, paragraph 318 and 321.

³⁵² Affidavit of Price, paragraph 27.

³⁵³ Affidavit of Swanepoel, paragraph 21.

recently ceased making offers to C&I customers in South Australia, predominantly because of the lack of peak swaps in South Australia.³⁵⁴

- b. Liquidity in NSW decreased following the NSW privatisation of state-owned generation and retail assets in part due to the vertical integration and related reduction in market players involved in the privatisation process.³⁵⁵
- c. The ACCC further notes that, as AGL would likely continue to increase the size of its retail operations to take advantage of the natural hedge that Macquarie Generation would provide, liquidity in the trading of relevant hedge contract instruments would be likely to decrease further over time following the proposed acquisition.

Market structure following the proposed acquisition

Importance of second tier retailers

7.167. As discussed in more detail below, the ACCC considers that competition between three large, vertically integrated gentailers is likely to become muted over time without the existence or threat of competition from other strong retailers. The ACCC considers that second tier retailers provide an important competitive constraint on the pricing behaviour of the larger firms and that they contribute to the development of innovative products and services for customers in the market. The ACCC considers that the threat of entry or expansion by such firms represents a dynamic source of competition and that the proposed acquisition would prevent or hinder this source of competition by creating a significant barrier to non-integrated retailers meaningfully participating in the NSW market.

Current participation by second tier retailers in NSW

7.168. AGL describes Origin Energy and EnergyAustralia as 'its closest competitors in electricity retailing in NSW' and retailers other than these as 'a material factor in the competitive environment in which AGL operates' which 'provide an important competitive constraint on AGL'.³⁵⁶

7.169. The AEMC, in its 2013 report regarding electricity retail competition in NSW, noted the important role that second tier retailers play in the NSW market and concluded that:

³⁵⁴ Affidavit of Swanepoel, paragraph 21.

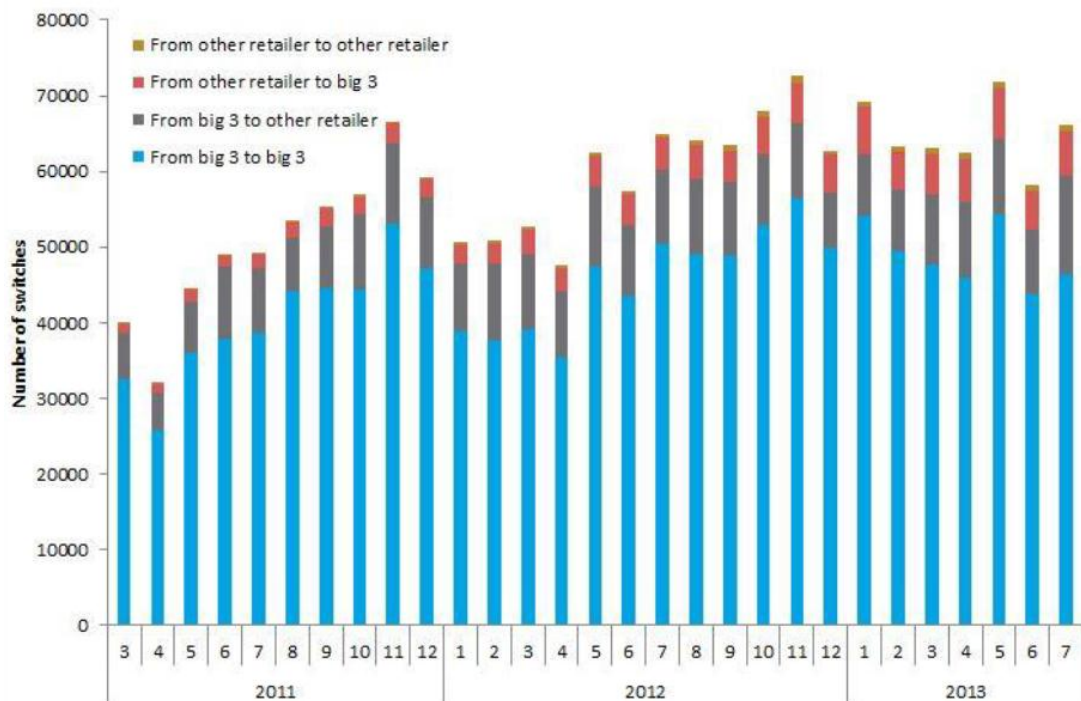
³⁵⁵ Affidavit of Price, paragraph 18.

³⁵⁶ Affidavit of Brownfield, paragraph 3.57.

While the majority of switching is between the 'big three' retailers (Origin Energy, AGL, and EnergyAustralia), more consumers are switching to smaller retailers than are switching back from smaller retailers towards the big three.³⁵⁷

7.170. As shown in **Figure 12**, despite AGL, Origin Energy and EnergyAustralia having collective share of small customers in NSW of greater than 96% in 2013,³⁵⁸ the AEMC's analysis reveals that second tier retailers in NSW consistently account for a much higher proportion of customer churn than their market share would suggest. The ACCC considers this is indicative of the disproportionate impact on competition that second tier retailers in NSW have on the Big 3, despite none having an individual market share of small customers greater than approximately 1%.

Figure 12 – switching in NSW between the 'Big 3' and other retailers³⁵⁹



7.171. The disproportionate impact of second tier retailers on incumbents' churn is also apparent from data provided by AGL.³⁶⁰ This data shows that, when their share of the retail market is taken into account, second tier retailers are responsible for a

³⁵⁷ AEMC, Review of Competition in the Retail Electricity and Natural Gas Markets in New South Wales, October 2013, page 17.

³⁵⁸ Affidavit of Brownfield, Annexure MB5.

³⁵⁹ AEMC, Review of Competition in the Retail Electricity and Natural Gas Markets in New South Wales, October 2013, page 24.

³⁶⁰ Affidavit of Brownfield, Annexure MB17.

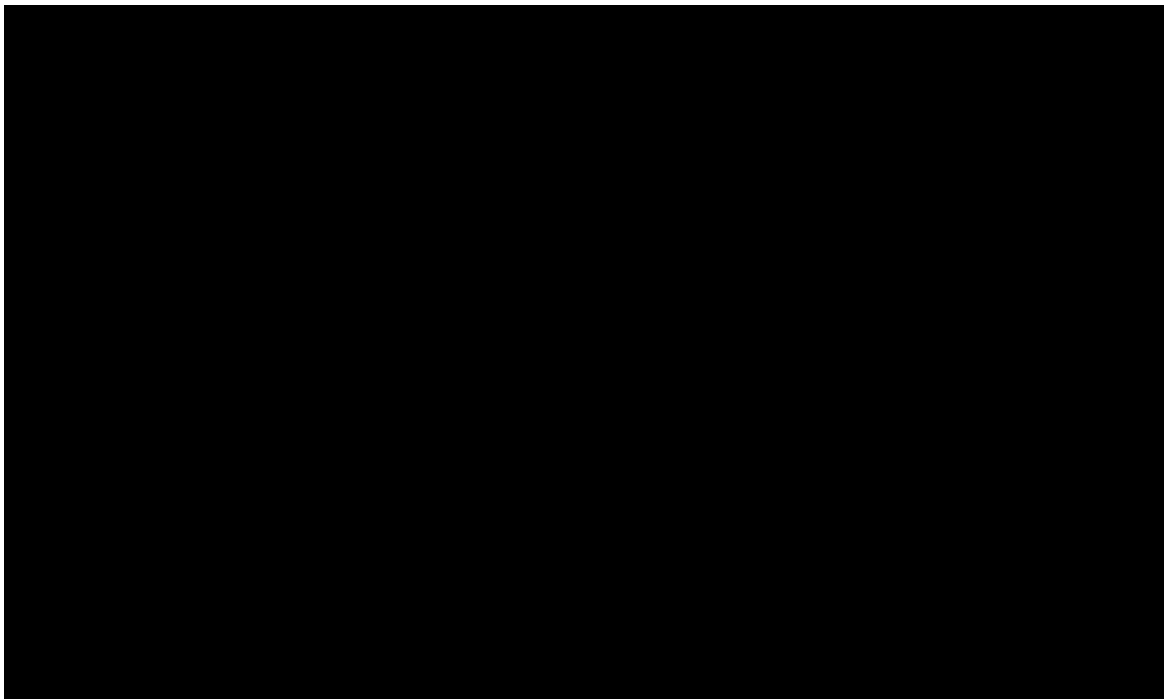


greater amount of customer churn from AGL than EnergyAustralia and Origin and have also been increasing this rate in recent years.

7.172. Despite their small size relative to the Big 3, second tier retailers have in recent years driven material levels of customer switching from AGL, particularly given their current small market share. For example, Australian Power and Gas in FY11 was responsible for [redacted]³⁶¹ customers switching away from AGL despite only having a 1%³⁶² market share in that year. This compared to [redacted] by EnergyAustralia and Origin,³⁶³ who each had market shares at the time of 33%.³⁶⁴ The following year, APG was responsible for [redacted] in FY2012/13 (the year it was acquired by AGL).³⁶⁵

7.173. **Figure 13** and Table 11 below show [redacted]
[redacted]
[redacted]
[redacted]

Figure 13 – Average churn from AGL to other retailers in customers per unit of small retail customer market share, FY11-13 [redacted]



³⁶¹ Affidavit of Brownfield, Annexure MB17, page 3.

³⁶² Affidavit of Brownfield, Annexure MB6, page 3.

³⁶³ Affidavit of Brownfield, Annexure MB17, page 3.

³⁶⁴ Affidavit of Brownfield, Annexure MB6, page 3.

³⁶⁵ Affidavit of Brownfield, Annexure MB17, page 3.

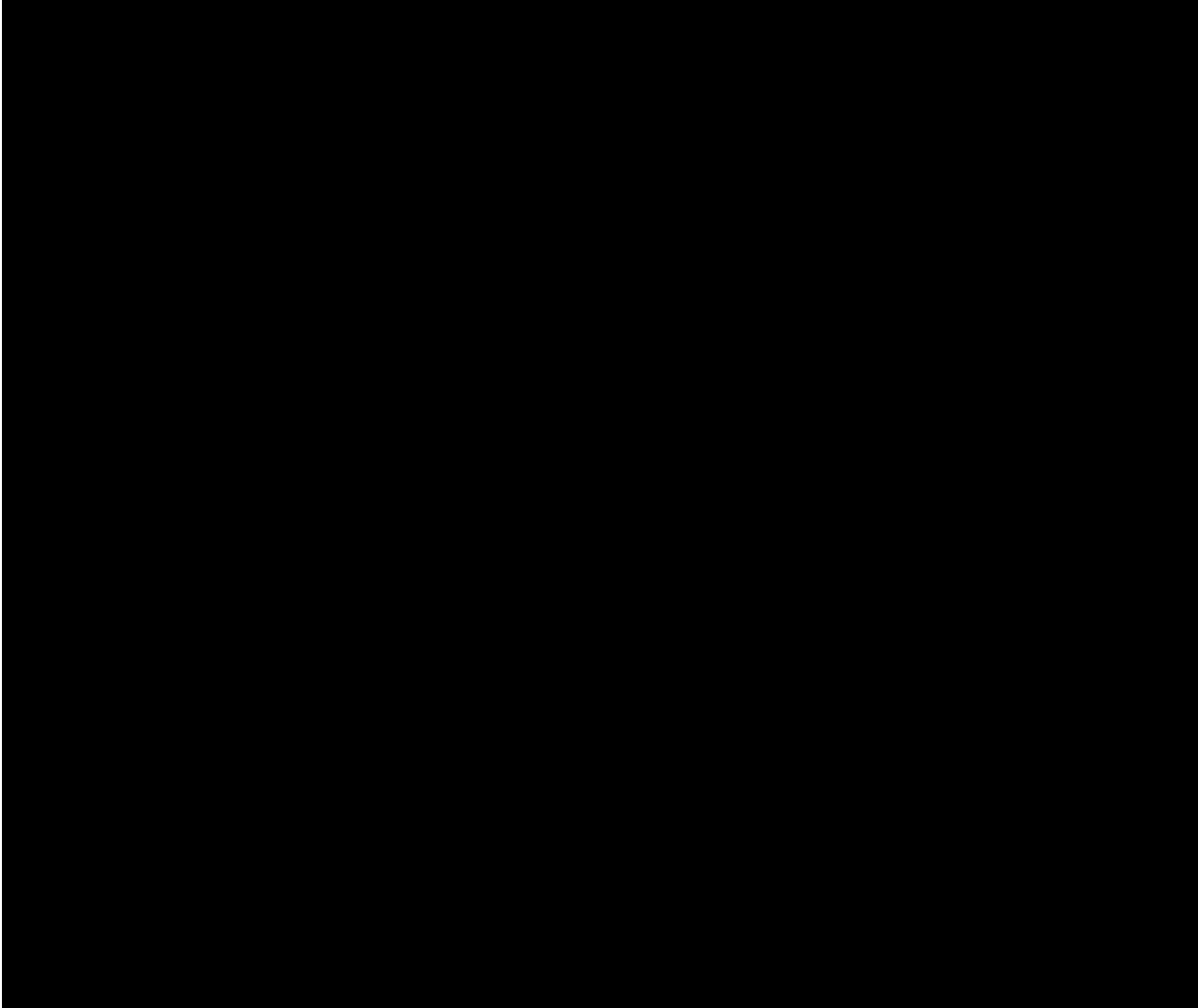
Table 11 – Churn from AGL to other retailers, FY11-13

Retailer	Average churn from AGL in period	Average NSW market small customer share in period	Churn per unit of market share
Origin Energy		43.67%	
EnergyAustralia		33.67%	
Australian Power and Gas		1.5%	
DODO Energy		1%	
Lumo Energy		1%	
Red Energy		1%	

7.174. The ACCC also notes that the proportion of AGL's overall churn in NSW from second tier retailers has been increasing over time (**Figure 14**).

³⁶⁶ Affidavit of Brownfield, Annexures MB5 and MB17.

Figure 14 – NSW churn from AGL by retailer identity, FY10-14



³⁶⁷

7.175. The ACCC notes that Mark Brownfield submits that this churn data ‘shows that AGL loses significantly more customers to Origin Energy and EnergyAustralia than other retailers’.³⁶⁸ While this is clearly correct, the ACCC considers that a reference to absolute magnitude of churn numbers is an incomplete measure of intensity of competition in the absence of an adjustment for retailer size. The absolute values are likely to be driven in part by historical market penetration and reflect the large incumbent market shares of Origin and Energy Australia.³⁶⁹

³⁶⁷ Affidavit of Brownfield, MB17.

³⁶⁸ Affidavit of Brownfield, paragraph 3.58.

³⁶⁹ Affidavit of Brownfield, paragraph 3.58.

7.176. In light of the above, the ACCC considers that the absolute competitive impact of second tier retailers on churn is substantial and likely to increase over time in the absence of the proposed acquisition.

Potential future competition by second tier retailers in NSW in the future without the proposed acquisition

7.177. The ACCC considers that the competitive pressure exerted by second tier retailers in relation to price and innovation of services is disproportionately greater than their smaller market shares.³⁷⁰ As discussed in Section 3, the ACCC considers that electricity retail competition, particularly for small residential customers, has developed less effectively than it otherwise could have in NSW due to regulatory barriers. However, it expects that these barriers will be substantially alleviated after 1 July 2014 due to price deregulation. The ACCC considers that this has the potential to allow retail competition in NSW to develop along the lines that it has in Victoria, which has had retail price deregulation since 2009. In this context, the ACCC considers that it is instructive to examine AGL's consideration of the competitive threat posed by second tier retailers in Victoria.

7.178. The ACCC considers that, in Victoria, second tier retailers have played an important part in the retail electricity market. The St Vincent de Paul Society Victoria monitors the Victorian electricity retail market as part of its research into issues which have the potential to impact the lives of low income people and families. As described further in the affidavit of Gavin Dufty, second tier retailers have provided consumers with choice and diversity³⁷¹ and are important for ensuring competition in the market in relation to product, price and service offerings.³⁷² In particular, second tier retailers have contributed to the innovation in the differentiation of tariffs³⁷³ and products/services in Victoria such as consumption tracking technology and pay in advance options.³⁷⁴ Some of them are also currently offering lower prices than the 'Big 3'.³⁷⁵

7.179. Consumer Action Law Centre (**CALC**) has identified a number of examples where second tier retailers have exerted pressure or constrained the conduct of larger retailers, as well as driven innovation and increased the range of differentiated offers:

- a. In April 2014, Origin Energy announced that it would remove exit fees that had been payable in relation to the cancellation of market contracts.³⁷⁶ CALC had previously identified that all of the larger retailers required customers to pay

³⁷⁰ Affidavit of Guiver, paragraph 81.

³⁷¹ Affidavit of Gavin John Dufty affirmed on 30 April 2014, paragraph 35.

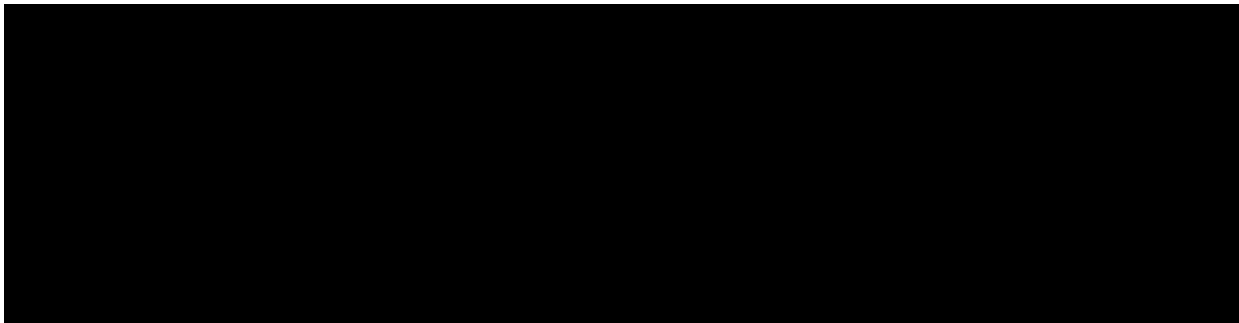
³⁷² Affidavit of Dufty, paragraph 36.

³⁷³ Affidavit of Dufty, paragraph 35.

³⁷⁴ Affidavit of Dufty, paragraph 29.

³⁷⁵ Affidavit of Dufty, paragraph 30.

³⁷⁶ Affidavit of Gerard Gavan Brody affirmed 13 May 2014, paragraph 24.



exit fees in relation to the early cancellation of market contracts and a limited number of second tier retailers did not require customers to pay exit fees.³⁷⁷

- b. In 2012, Powershop was the first retailer to introduce a mobile device application to monitor energy use and purchase energy.³⁷⁸ Since this time, larger retailers have also introduced devices or online services which allow consumers to monitor real time energy use.³⁷⁹
- c. In January 2014, Dodo began offering customers an hour of free energy usage between 6am and 7am.³⁸⁰

7.180. Progressive Green began electricity retailing in around April 2009 with product offerings that are innovative, unique, transparent and resulted in savings for customers. Since 2010, Progressive Green has grown significantly.³⁸¹

7.181. An example of successful entry and expansion by a second tier retailer is ERM Power. ERM Power commenced retailing seven years ago after the sale of the Qld electricity retailers.³⁸² [Redacted]

[Redacted]³⁸³ The success of ERM Power's retail model is demonstrated by the rapid growth in its customer volume.³⁸⁴ ERM Power is now the fourth largest retailer in the NEM.³⁸⁵ As noted above, this growth has been supported by ERM having access to hedge contracts.³⁸⁶

7.182. The ACCC has reviewed internal documents from AGL relating to competitors and competitive conditions in Victoria. These documents demonstrate that AGL faces a significant degree of competitive pressure from second tier retailers in Victoria.

7.183. An example of AGL's consideration of the competitive challenge posed by second tier retailers is at **Figure 15**. This shows that AGL recognised the large and growing threat posed by second tier retailers and that they consider that there was

[Redacted]³⁸⁷ The document also notes that [Redacted]

³⁷⁷ Affidavit of Brody, paragraph 23.

³⁷⁸ Affidavit of Brody, paragraph 27.

³⁷⁹ Affidavit of Brody, paragraph 27.

³⁸⁰ Affidavit of Brody, paragraph 28.

³⁸¹ Affidavit of Evans, paragraph 26.

³⁸² Affidavit of Guiver, paragraph 82.

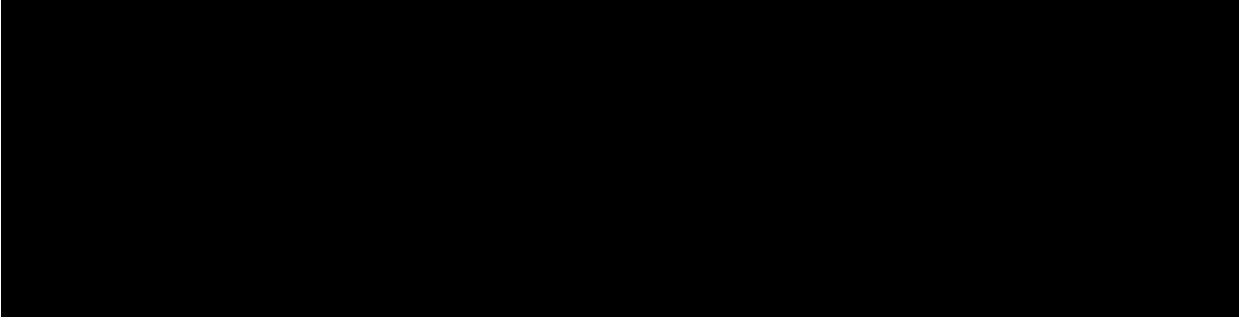
³⁸³ Affidavit of Guiver, paragraph 83.

³⁸⁴ Affidavit of Guiver, paragraph 84.

³⁸⁵ Affidavit of Guiver, paragraph 84.

³⁸⁶ Affidavit of Guiver, paragraph 76.

³⁸⁷ [Redacted]




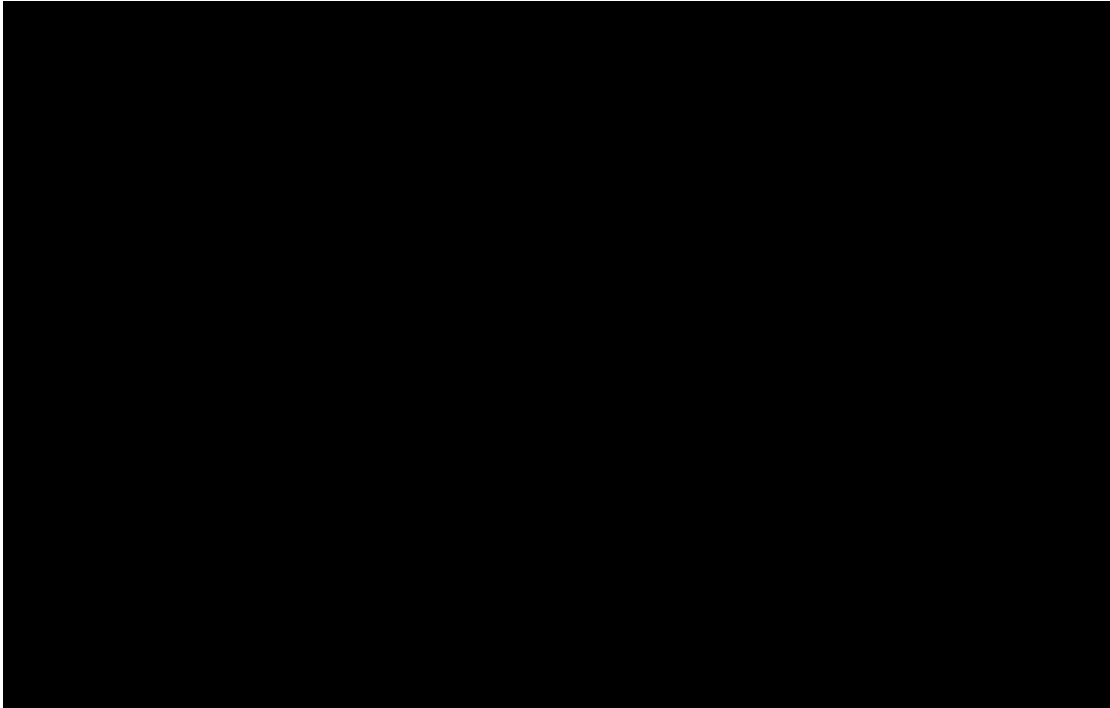
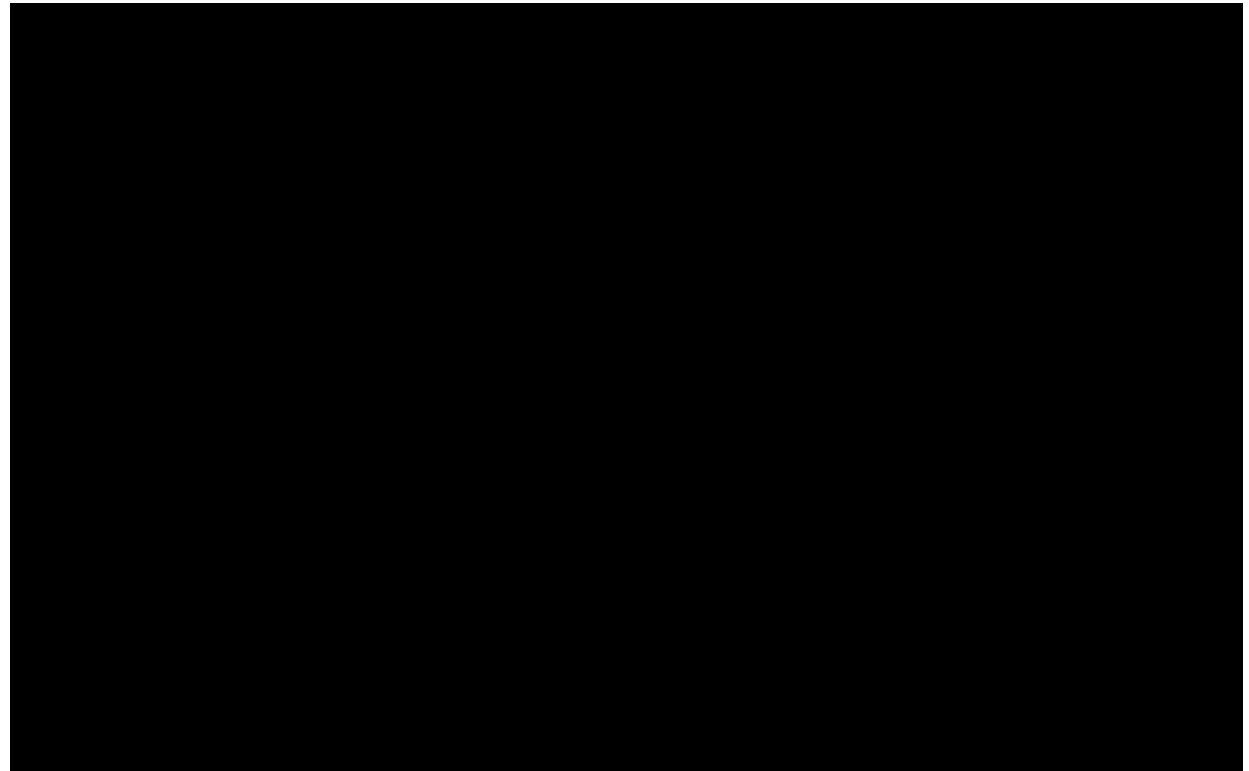
³⁸⁸ which is a greater amount than would be expected given the market share of those entities.

Figure 15 – 



³⁸⁸ 



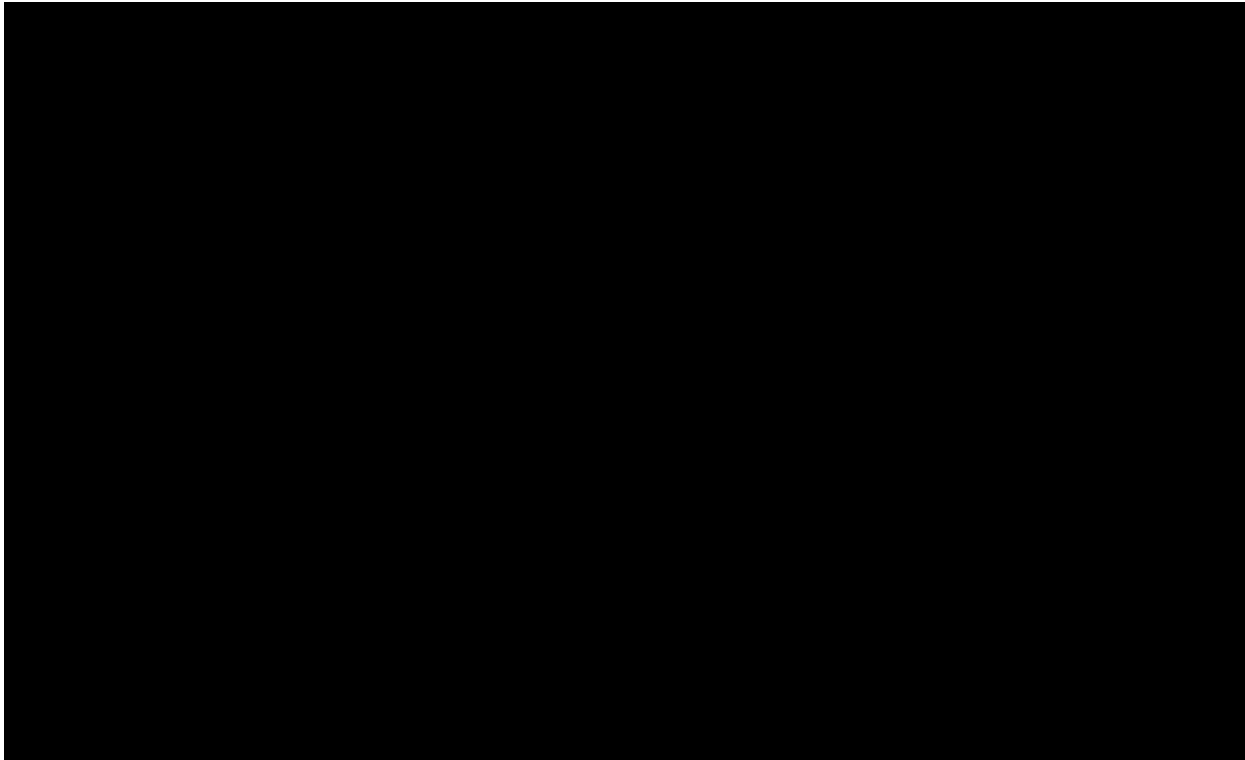
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7.184. Further examples of the competitive threat posed by second tier retailers is evidenced in [REDACTED], examples of which are provided at **Figure 16**, **Figure 17** and **Figure 18**, below. These reports show second tier retailers driving churn in Victoria through heavy discounting and AGL's concern to respond to the discounting activities of second tier retailers.

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Figure 16 – [Redacted]

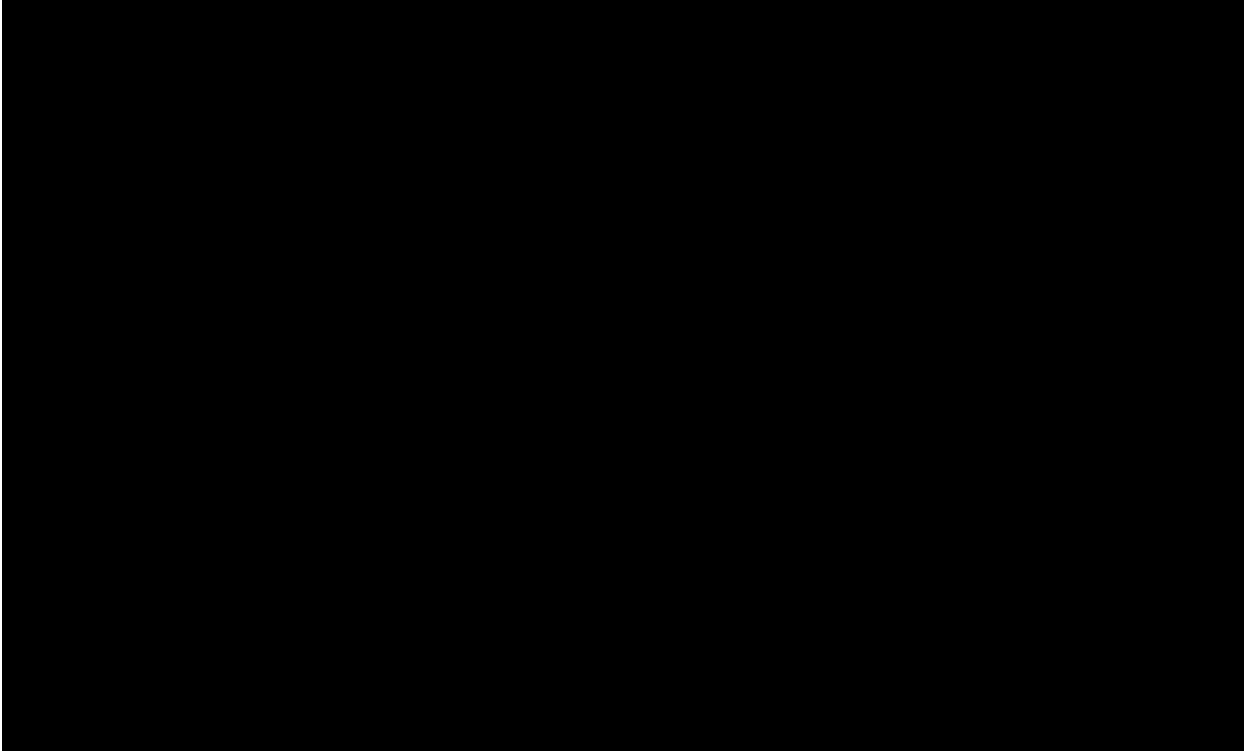


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390 [Redacted]



Figure 17 – [Redacted]

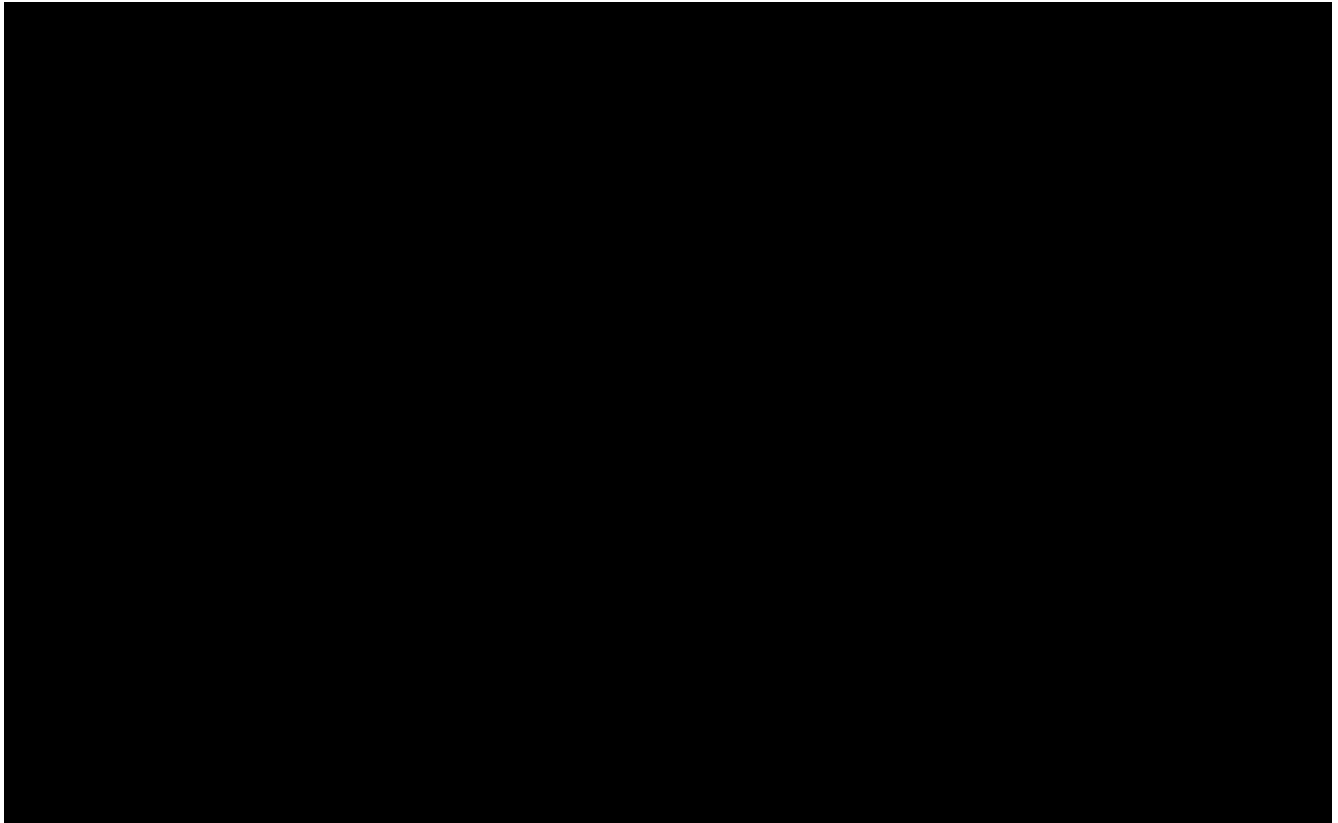


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391 [Redacted]

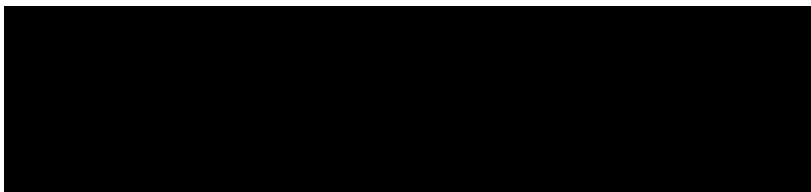


Figure 18 – [redacted]



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7.185. The ACCC examined three types of periodic retail reports that were produced by AGL which were considered by its senior managers: [redacted]



7.186. These reports show that AGL consistently monitors the pricing and advertising campaigns of specific second tier retailers.

7.187. The ACCC considers that although their current presence in the NSW market is relatively small, the competitive threat posed by second tier retailers is likely to have a meaningful impact on competitive outcomes in NSW in the future, provided there are no significant barriers to their entry or expansion.

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UK and NZ interventions

- 7.188. The ACCC considers that the experience of international electricity retail markets which have experienced high levels of vertical integration and concentration between generators and retailers, with associated low levels of liquidity in the trading of hedge contracts, provides a demonstration of the negative consequences of a significantly vertically integrated market structure with high barriers to entry and expansion by other retailers.
- 7.189. In particular, the UK and New Zealand electricity markets have experienced adverse liquidity issues in relation to the trading of their hedge contracts arising from significant degrees of vertical integration which has resulted in either Government or regulatory intervention. The experience of these jurisdictions is discussed in more detail below.

New Zealand

- 7.190. As outlined in more detail in the Report of Toby Stevenson, low liquidity in the trading of hedge contracts arising from vertical integration was identified as a cause of low levels of competition in retail markets for electricity in New Zealand by the Ministerial Review of Electricity Market Performance. This resulted in a broad collection of Government reforms and intervention during that period and in recent years.
- 7.191. Concerns regarding the trading of hedge contracts were identified by the New Zealand Government as far back as in 2004 when a Government Policy Statement (**GPS**) on Electricity Governance observed that:

*A transparent and liquid hedge market is a critical component of an efficient wholesale market...Concerns are regularly expressed that the current hedge market does not operate particularly well.*³⁹³

- 7.192. Specifically, the 2004 GPS provided further context to the nature of these operations in regards to retailers:

*Independent retailers cite difficulties in obtaining hedge contracts at reasonable prices from vertically integrated generators/retailers, which are their competitors as a barrier to retail competition.*³⁹⁴

- 7.193. In response to the above situation, the 2004 GPS noted that the Government had amended the *Electricity Act 1992* 'to provide regulation-making powers to establish

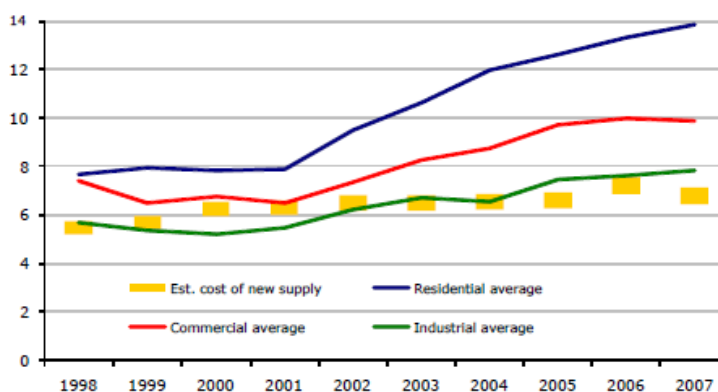
³⁹³ Ministry of Economic Development (New Zealand), Government Policy Statement on Electricity Governance, October 2004 (referred to below as 'MED Policy Statement on Electricity Governance'), page 19. Available at <http://www.med.govt.nz/sectors-industries/energy/pdf-docs-library/electricity-market/electricity-industry/specific-legislation/revoked-gps/gps-gps-on-electricity-governance.pdf> (accessed 11 May 2014).

³⁹⁴ MED Policy Statement on Electricity Governance, page 129.

and promote hedge markets,' with powers that included, among other measures, coverage of 'requiring generators to offer by tender a minimum volume of contracts that enable the price risks associated with the spot market to be managed, including the terms and conditions of those contracts.'³⁹⁵

- 7.194. Additionally, the New Zealand Government in 2004 formed the Hedge Market Development Steering Group (**HMDSG**), which confirmed liquidity related problems including a 'lack of robust information about forward prices,' 'high participation and transaction costs,' and a 'lack of confidence in the competitiveness of the market for term contracts.'³⁹⁶ The ACCC understands that a number of reforms were undertaken by the HMDSG including a site for hedge contract data disclosure and a standard Schedule for the standard ISDA agreement.³⁹⁷
- 7.195. The ACCC, however, understands that despite this, liquidity problems in the trading of hedge contracts persisted, with the 2009 Ministerial Review of New Zealand's electricity industry noting that:

*Retail prices, particularly to residential consumers, have risen faster than underlying increases in generation costs. The review concluded that there were multiple factors behind these outcomes... the absence of a liquid energy hedge market, combined with vertical integration of generator-retailers (and the absence of transmission hedges), makes it difficult for new retailers and generators to enter the market, and reduces hedging options for major electricity users.*³⁹⁸



³⁹⁵ MED Policy Statement on Electricity Governance, page 129.

³⁹⁶ Energy Link, Evaluation of Hedge Market Liquidity (referred to below as 'Energy Link Report'), June 2011, page 11 (**Annexure H**).

³⁹⁷ Energy Link Report, page 11.

³⁹⁸ Ministry of Economic Development (New Zealand), 2009 Ministerial Review of the Electricity Market (referred to below as 'MED Ministerial Review'), page 4. Available at <http://www.med.govt.nz/sectors-industries/energy/pdf-docs-library/electricity-market/implementing-the-electricity-market-review-recommendations/background-papers-on-2009-review/Elec.0025%20-%20Electricity%20Market%20Review%20-%20Cabinet%20Paper.pdf> (accessed 11 May 2014).

- 7.196. The regulatory response to this review is discussed in the Report of Toby Stevenson.³⁹⁹ He notes that:

Following the Ministerial Review in 2009 (and prior to the finalisation of the Electricity Industry Bill and the establishment of the Authority), the Electricity Commission undertook significant work on one aspect of a competitive market; barriers to retail entry and expansion. The Commission found that access to wholesale electricity supply contracts was one of the main barriers to retailer entry and expansion alongside the dominant retailer's pricing and customer acquisition and servicing costs.

- 7.197. Despite the measures undertaken by the Electricity Commission, a 2011 review of these arrangements by Energy Link found that despite 'a significant amount of progress' having been made as a result of the market-making arrangements⁴⁰⁰, the market was 'neither deep nor resilient' and:

We conclude... that the market-making arrangements in themselves have failed to produce bid-ask spread that are consistent with a liquid futures market. As a result, the futures market has failed to attract the entry of new players, a conclusion supported by our discussions with stakeholders.⁴⁰¹

- 7.198. Since the publication of the Energy Link Report, a tighter bid-ask spread was introduced in late 2011, and this has been stated by the Energy Authority in 2013 to have appeared to improved liquidity to an extent.⁴⁰²

United Kingdom

- 7.199. Low levels of wholesale market liquidity in the UK were found by Office of Gas and Electricity Markets (**Ofgem**) to be an issue of concern in its 2008 Energy Supply Probe. During that probe, respondents to Ofgem's information request and interview program submitted that inadequate liquidity comprises a significant barrier to entry and expansion and was 'the most significant issue facing new entrants and small scale suppliers.'⁴⁰³ This finding eventuated in regulatory intervention in the form of the 'Secure and Promote' licence conditions, which is discussed in more detail below.

³⁹⁹ Report of Toby Stevenson, paragraphs 29 to 38.

⁴⁰⁰ Energy Link Report, page 18.

⁴⁰¹ Energy Link Report, page 21.

⁴⁰² Electricity Authority (New Zealand), Hedge Market Performance Update, 21 May 2013, paragraph 3.1.2. Available at <http://www.ea.govt.nz/development/work-programme/wholesale/hedge-market-development/implementation/may13-info-paper/> (accessed 11 May 2014).

⁴⁰³ Ofgem, Energy Supply Probe – Initial Findings Report (referred to below as 'Ofgem Energy Supply Probe'), 6 October 2008, page 64. Available at <https://www.ofgem.gov.uk/ofgem-publications/38437/energy-supply-probe-initial-findings-report.pdf> (accessed 11 May 2014).

7.200. In 2008, Ofgem noted that greater liquidity was in particular associated with a greater ability for ‘non-vertically integrated entrants and competitors to participate on the same terms as vertically integrated firms’, and ‘new entrants to be confident that the wholesale markets are not artificially distorted by vertically integrated players.’⁴⁰⁴

7.201. A link between vertical integration and a reduction in liquidity in the UK was identified in that year 2008, with the report by the Business and Enterprise Committee following a Parliamentary Inquiry noting that:

*The biggest concern raised over vertical integration was about the lack of liquidity in the wholesale electricity market. Ofgem, Energywatch, the European Commission, the independent generators, the large-scale consumers, and the small suppliers all highlighted this issue. Because the ‘Big 6’ are able to supply most of their domestic and SME customer base from their own generating capacity, there is much less need for them to trade in the open market. They need only do so to balance or hedge their positions*⁴⁰⁵

7.202. In its analysis of liquidity during the 2008 Energy Supply Probe, Ofgem found that traded volumes in the electricity wholesale markets (which in the UK are inclusive of hedge contract products of both OTC and ETC forms) had ‘much less liquidity than in many other commodity markets and electricity markets in other countries, and this therefore is a matter of some concern to Ofgem.’⁴⁰⁶ These findings were confirmed in a more extensive analysis in June 2009⁴⁰⁷ which led to Ofgem’s initial proposed policy remedies in February 2010.⁴⁰⁸

7.203. The ACCC understands that following Ofgem’s remedy proposals in 2010, unsatisfactorily low levels of liquidity persisted that were not adequately addressed by market participants on their own.⁴⁰⁹ As a result, Ofgem proposed, consulted upon, and ultimately implemented the regulatory intervention mechanism known as the ‘Secure and Promote’ licence conditions.

7.204. The Secure and Promote licence condition came into effect in April 2014 and has the three stated policy design aims of (1) boosting the availability of products to support hedging; (2) creating robust reference prices along the forward curve; and

⁴⁰⁴ Ofgem Energy Supply Probe, page 64.

⁴⁰⁵ Business and Enterprise Committee (UK), Eleventh Report – Energy Prices, fuel poverty and Ofgem, 28 July 2008.

⁴⁰⁶ Ofgem Energy Supply Probe, page 67.

⁴⁰⁷ Ofgem, Liquidity in the GB wholesale energy markets, 8 June 2009. Available at <https://www.ofgem.gov.uk/ofgem-publications/40515/liquidity-gb-wholesale-energy-markets.pdf> (accessed 11 May 2014).

⁴⁰⁸ Ofgem, Liquidity proposals for the GB wholesale electricity market, 22 February 2010. Available at <https://www.ofgem.gov.uk/ofgem-publications/40485/liquidity-proposals-gb-wholesale-electricity-market.pdf> (accessed 11 May 2014).

⁴⁰⁹ Ofgem, Wholesale power market liquidity: final proposals for a ‘Secure and Promote’ licence condition, 12 June 2013, page 4. Available at <https://www.ofgem.gov.uk/ofgem-publications/39302/liquidity-final-proposals-120613.pdf> (accessed 11 May 2014).

(3) creating an effective near-term market.⁴¹⁰ In its 2013 Statutory Consultation Document, Ofgem noted that ‘the market has not made sufficient progress against our first two objectives,’ that it ‘remains concerned about the overall level of liquidity’, and that ‘[Ofgem remains] concerned about the accessibility of the market for small suppliers.’⁴¹¹

7.205. The Secure and Promote licence condition functions through the imposition of three requirements on a group of eight large suppliers, which include the six vertically integrated entities known as the ‘Big 6’.⁴¹² The three requirements comprise:

- a. **Supplier Market Access Rules**⁴¹³, which include time limits on responses to requests for trading from smaller retailers, conditions on credit and collateral arrangements (including justification of rationales), and rules on product range and pricing;
- b. **Market Making Obligation**⁴¹⁴ (applicable only to the Big 6), which imposes a maximum range across bid-offer spreads, an obligation to trade at posted prices, and a daily 2-hour compulsory trading window for the offering of hedge products at the posted prices; and
- c. **Reporting Requirements**⁴¹⁵, which include mandatory quarterly and annual updates on the Supplier Market Access Rules and the Market Making Obligation in order to ensure compliance.

7.206. While the Secure and Promote licence condition has been designed by Ofgem to increase the liquidity in the UK electricity industry, Ofgem has explicitly stated in its March 2014 State of the Market Assessment Report (**Annexure G**) that the conditions were not intended to address challenges faced by independent suppliers, or the advantages that may arise from vertical integration.⁴¹⁶ The relationship between vertical integration and competition in the UK electricity industry is discussed further below.

⁴¹⁰ Ofgem, Wholesale power market liquidity: statutory consultation on the ‘Secure and Promote’ licence condition (referred to below as ‘Ofgem consultation on licence condition’), 20 November 2013, page 30. <https://www.ofgem.gov.uk/ofgem-publications/84508/wholesalepowermarketliquiditystatutoryconsultationonthesecureandpromotelicencecondition.pdf> (accessed 11 May 2014).

⁴¹¹ Ofgem consultation on licence condition, page 30.

⁴¹² Ofgem, State of the Market Assessment (referred to below as ‘Ofgem State of the Market Assessment’), 27 March 2014, page 6. Available at <https://www.ofgem.gov.uk/ofgem-publications/86804/assessmentdocumentpublished.pdf> (accessed 11 May 2014).

⁴¹³ Overview at <https://www.ofgem.gov.uk/ofgem-publications/39302/liquidity-final-proposals-120613.pdf> (accessed 16 May 2014), page 22.

⁴¹⁴ Overview at <https://www.ofgem.gov.uk/ofgem-publications/39302/liquidity-final-proposals-120613.pdf> (accessed 16 May 2014), page 30.

⁴¹⁵ Overview at <https://www.ofgem.gov.uk/ofgem-publications/39302/liquidity-final-proposals-120613.pdf> (accessed 16 May 2014), page 27 and 36.

⁴¹⁶ Ofgem State of the Market Assessment, page 14.

7.207. Weak competition in a market structure characterised by a high degree of vertical integration and low liquidity was also a key finding in the United Kingdom following an assessment conducted earlier in 2014 by Ofgem in conjunction with the Competition Markets Authority (CMA) and UK Office of Fair Trading (OFT). In their State of the Market Assessment Report, Ofgem stated:

In summary, we have found weak competition between incumbent suppliers. This arises from market segmentation and possible tacit coordination. While we might expect competitive pressure from consumers or new suppliers, we have also found barriers to entry and expansion (including vertical integration) and weak customer pressure⁴¹⁷

7.208. Ofgem, CMA, and OFT found that following its market analysis that vertical integration results directly in reduced liquidity:

...we conclude that vertical integration does lead to a reduction in wholesale market liquidity. The biggest six suppliers' churn ratios are somewhat below the ratio for other European wholesale markets, and well below overall churn ratios in the gas market. This is consistent with the self-supply activity, which reduces liquidity in the wholesale market overall. Having an internal generation arm to fall back on when there are unexpected changes in demand means there is less incentive for the big six companies to adjust their wholesale position so often. Low levels of liquidity could be self-reinforcing as the poor availability of products and volatile prices that result could increase incentives to self-supply.⁴¹⁸

7.209. As well as the harm to retail competition arising via a reduction in liquidity from vertical integration, the 2014 Market Assessment Report also raised the possibility of harm from physical or economic withholding which would increase the costs of its rivals.⁴¹⁹ The impact of vertical integration on competition was found to be material, with the report concluding that 'the costs to retail competition in terms of the barriers to entry and expansion resulting from vertical integration may be significant.'⁴²⁰

7.210. In addition to the raised barriers to entry and expansion resulting from vertical integration in the UK, a number of other market outcomes in the UK have been identified by the Ofgem, OFT, and CMA to be indicative of weak competition to the detriment of consumers. These include:

- a. an increase in the aggregate reported profits of the six large vertically integrated suppliers over the last four years,⁴²¹ accompanied with a finding in

⁴¹⁷ Ofgem State of the Market Assessment, page 11.

⁴¹⁸ Ofgem State of the Market Assessment, page 98.

⁴¹⁹ Ofgem State of the Market Assessment, page 93.

⁴²⁰ Ofgem State of the Market Assessment, page 15.

⁴²¹ Ofgem State of the Market Assessment, page 6.

2012 that average margins were 'high compared to benchmarks'⁴²² and that there was 'little evidence of cost efficiency improvements over time'⁴²³; and

- b. a 'number of aspects of the behaviour of the six largest suppliers that would appear to be consistent with tacit coordination between them', including an alignment in timing and magnitudes of price changes as well as an asymmetric response to cost changes (where prices increased faster than they fell).⁴²⁴

Conclusion

- 7.211. The ACCC considers that the New Zealand and UK market situations provide a useful demonstration of the competition concerns that are likely to arise in an electricity market characterised by a high degree of vertical integration and low levels of hedge contract liquidity.

III. Competitive effects – wholesale supply of electricity

- 7.212. The ACCC considers that there is a material risk that the proposed acquisition would lead to adverse market outcomes in the relevant market or markets for the wholesale supply of electricity. The proposed acquisition would result in AGL becoming the largest generating entity in the NEM by a significant margin, and the largest generator in each of South Australia, Victoria and NSW. The ACCC considers that should market conditions such as were recently observed in the NEM arise in the future, it is likely that AGL would be in a position to influence wholesale market prices to a material degree. Recognising the difficulties of forecasting electricity demand over long time horizons with any significant degree of accuracy, and a number of factors which could push the supply and demand balance back towards historical levels, the ACCC considers that the risk of these market conditions arising is material.

Uncertainty regarding future market conditions

- 7.213. A key question informing an assessment of the likely competition effects of an aggregation of two generation portfolios is the underlying supply and demand conditions in the relevant supply market. If there is a substantial amount of excess supply in the market relative to demand, then it is less likely that an individual generator would be able to materially influence the market.
- 7.214. AGL submits that one of the key features of the NEM in recent years is that it has been characterised by a substantial oversupply of generation capacity.⁴²⁵ It presents an analysis of historical and forecast reserve plant margin to support this proposition (**Figure 19**).

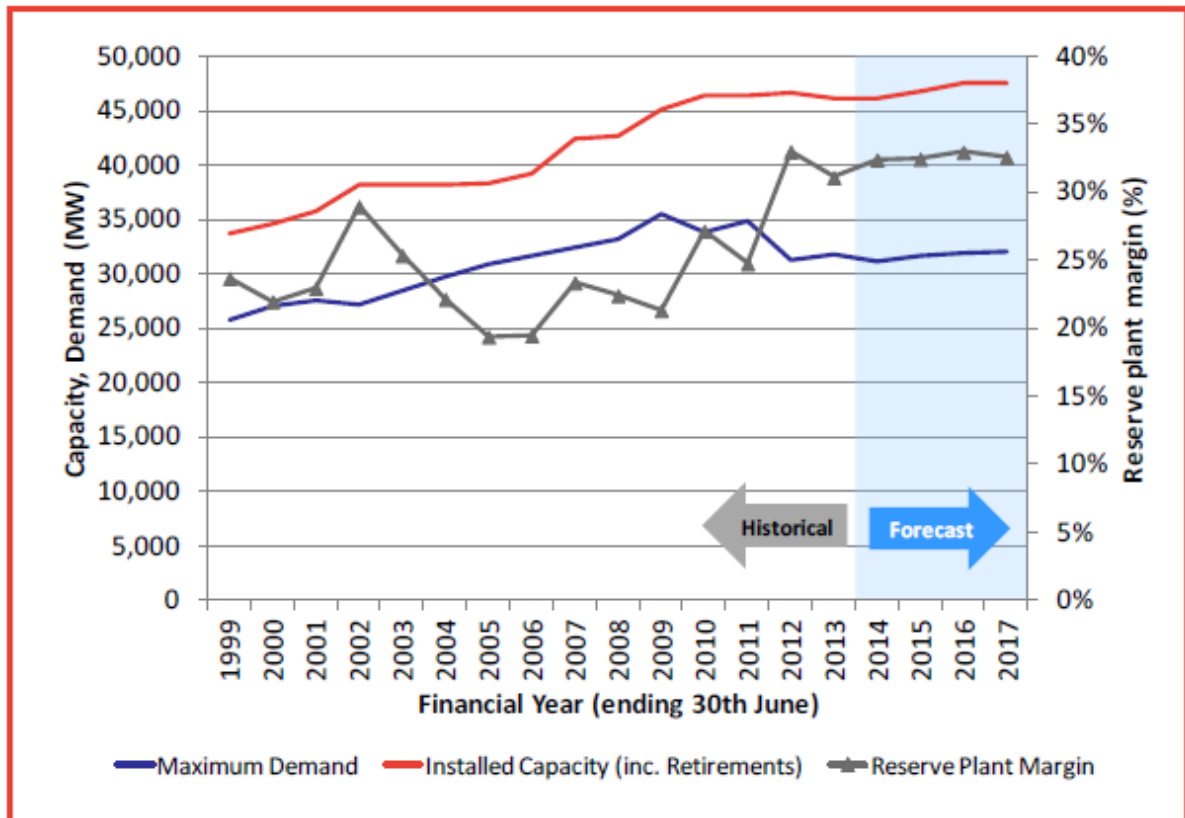
⁴²² Ofgem State of the Market Assessment, page 7.

⁴²³ Ofgem State of the Market Assessment, page 7.

⁴²⁴ Ofgem State of the Market Assessment, page 12.

⁴²⁵ Frontier (Industry) Report, section 6.1.

Figure 19 – NEM-wide reserve plant margin⁴²⁶. Note: Wind capacity is measured at 100% of its installed capacity.



Source: Frontier Economics analysis ESAA and AEMO data and information from public reports.²⁴

7.215. As is seen from the above figure, AGL submits that the existing levels of high (by historical standards) excess capacity will be maintained for the foreseeable future. As noted in the Report of Greg Houston, these supply and demand forecasts form the basis of the modelling exercise conducted by Frontier Economics:

In undertaking its modelling of wholesale electricity spot price outcomes, Frontier Economics assumes that the future supply-demand balance will remain largely unchanged from current levels. In particular, Frontier Economics' analysis assumes a reserve capacity margin for the years 2013/14 to 2016/17 of approximately 33 per cent – an amount that is approximately 10 percentage points higher than the average reserve plant margin observed from 1998/99 to 2008/09.⁴²⁷

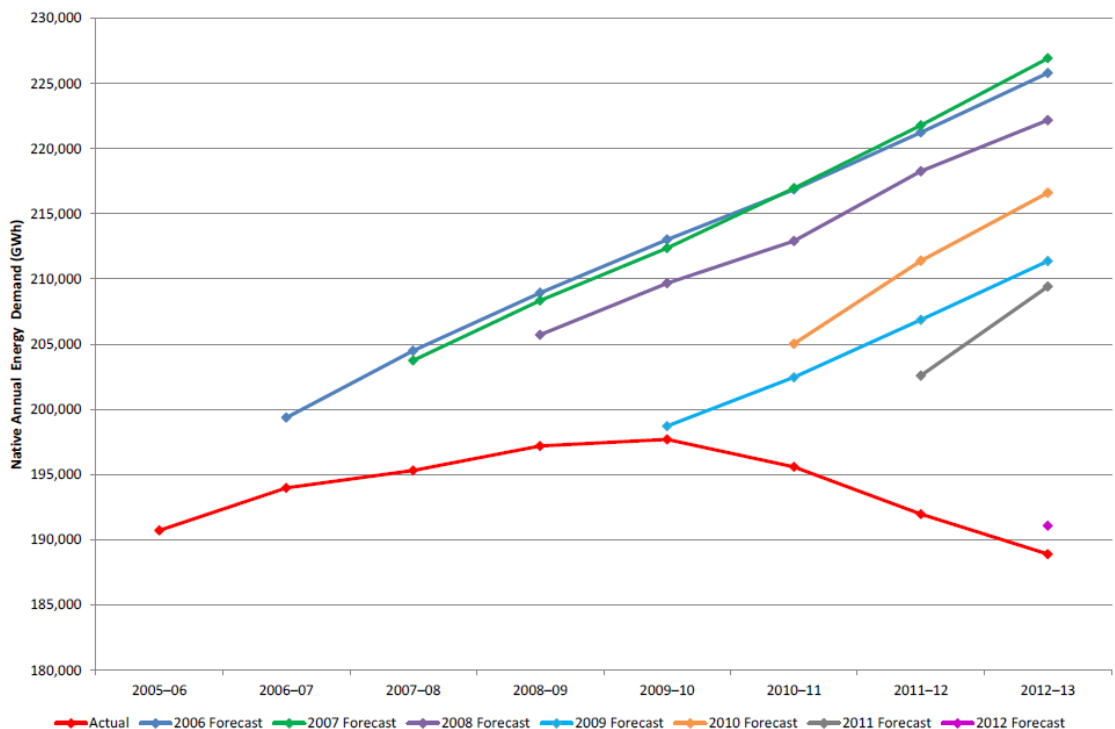
7.216. The ACCC notes, however, that there is a significant degree of uncertainty associated with demand forecasts, particularly over long time horizons. Long term

⁴²⁶ Frontier (Industry) Report, page 56 (Figure 19).

⁴²⁷ Report of Greg Houston, page 19.

AEMO electricity demand forecasts have had significant margins of error when compared to realised demand, and in particular have been highly imprecise when forecasting beyond 1-2 years (Figure 20).⁴²⁸

Figure 20 – Actual and Forecast Native Energy Demand for the NEM (Source: Report of Greg Houston, page 18)



Sources: AEMO's National Electricity Forecasting Report published 2012 and 2013; and AEMO's Electricity Statement of Opportunities published annually from 2006 to 2011.

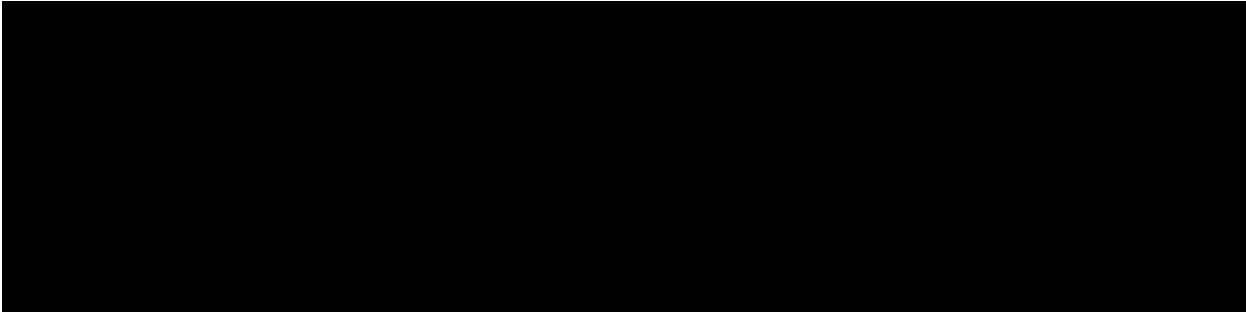
7.217. As outlined in the Report of Greg Houston, there are a large range of factors at the moment that which mean that there is an “unprecedented degree of uncertainty as to the path of the future supply demand balance in the NEM.”⁴²⁹ These factors include:

- a. facing persistent adverse market conditions, generators may continue withdrawing generating capacity from the market. Approximately 3200MW of capacity has already been withdrawn from the NEM since 2010.⁴³⁰

⁴²⁸ Report of Greg Houston, page 18.

⁴²⁹ Report of Greg Houston, page 19.

⁴³⁰ Report of Greg Houston, page 16.

- 
- b. there is substantial regulatory uncertainty regarding climate change and renewable energy policies, which have a significant long term impact on generation supply;
 - c. long term trends affect particular types of generators (eg. gas export parity pricing affecting the viability of gas generators, persistent drought conditions) which can affect the costs and fuel availability of these types of generators in the market.

7.218. The magnitude of these uncertainties mean that spot price modelling exercises based on specific supply and demand forecasts may be of limited utility. The ACCC considers that there is a material risk that supply and demand conditions in the NEM could revert to historical levels over the long-term time horizon in which the competitive effects of the proposed acquisition should be assessed in the wholesale market.⁴³¹ As noted in the Report of Greg Houston:

Given the currently high reserve margin relative to historical values and the correspondingly depressed spot prices it is not unreasonable to assume that market forces will place significant downward pressure on the future reserve margin. This is likely to come about through either:

- *an increase in customer demand that more fully utilises current capacity; or*
- *the exit of further capacity from the market, as a commercial response to unsustainably low wholesale prices.*⁴³²

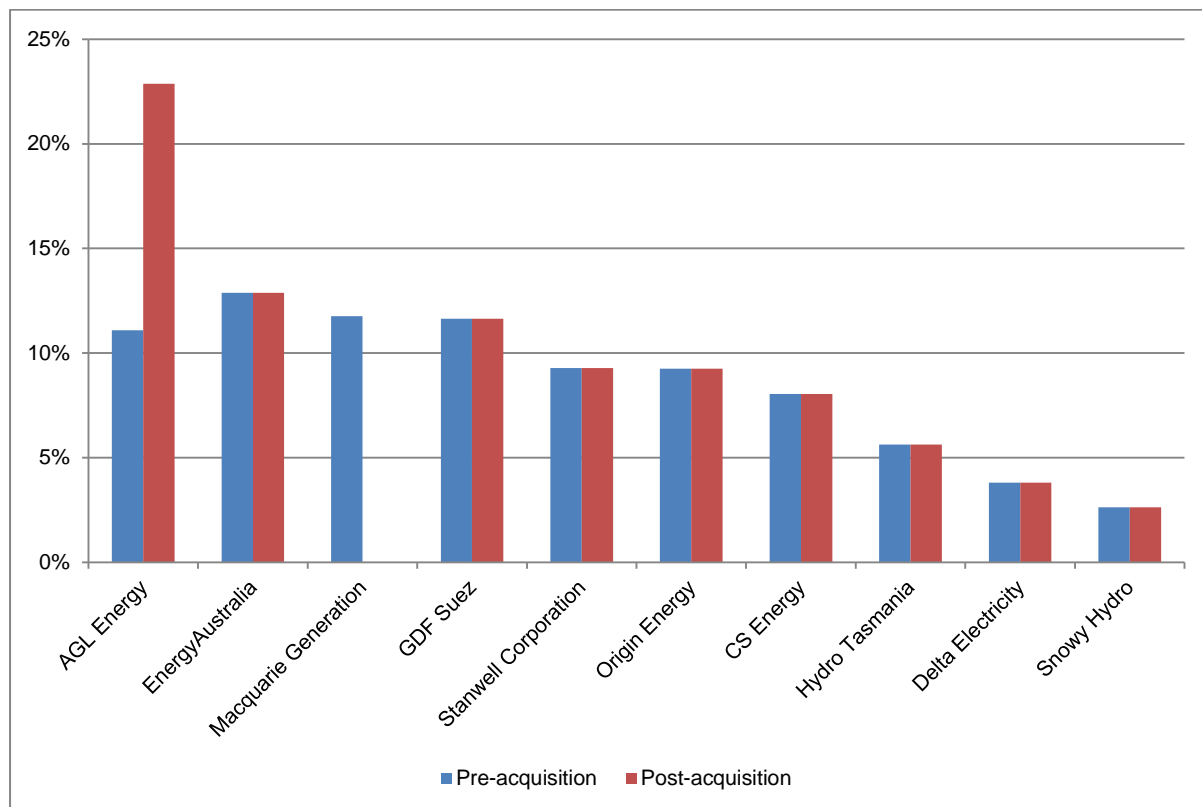
Market concentration

7.219. The proposed acquisition would result in AGL becoming the largest generating entity in the NEM by output (**Figure 21**) and installed capacity (**Table 1**). They would be approximately 75% and 65% larger than the second largest generating entity on these two measures.

⁴³¹ Frontier (Competition) Report, paragraph 124.

⁴³² Report of Greg Houston, page 20.

Figure 21 – NEM generator market share by output⁴³³



7.220. The size of the generating entity's portfolio is the most important factor in assessing its ability to influence the spot price by withdrawing capacity. Small generating entities will virtually never have sufficient capacity to materially influence spot prices, as a withdrawal of their capacity will simply result in a generator slightly further up the merit order being dispatched. A larger generating entity has a greater chance of being able to significantly move the market price by withdrawing sufficient low price capacity that high price capacity much further up the merit order is required to be dispatched to meet market demand.

7.221. In referring to withdrawal of capacity in the context of exercising horizontal market power, the ACCC notes that the most common way for a generator to withdraw capacity is for it to bid in a significant portion of its capacity at very high prices (i.e. above \$10,000/MWh). Whilst the capacity is still available, if it is dispatched the market price will be very high.

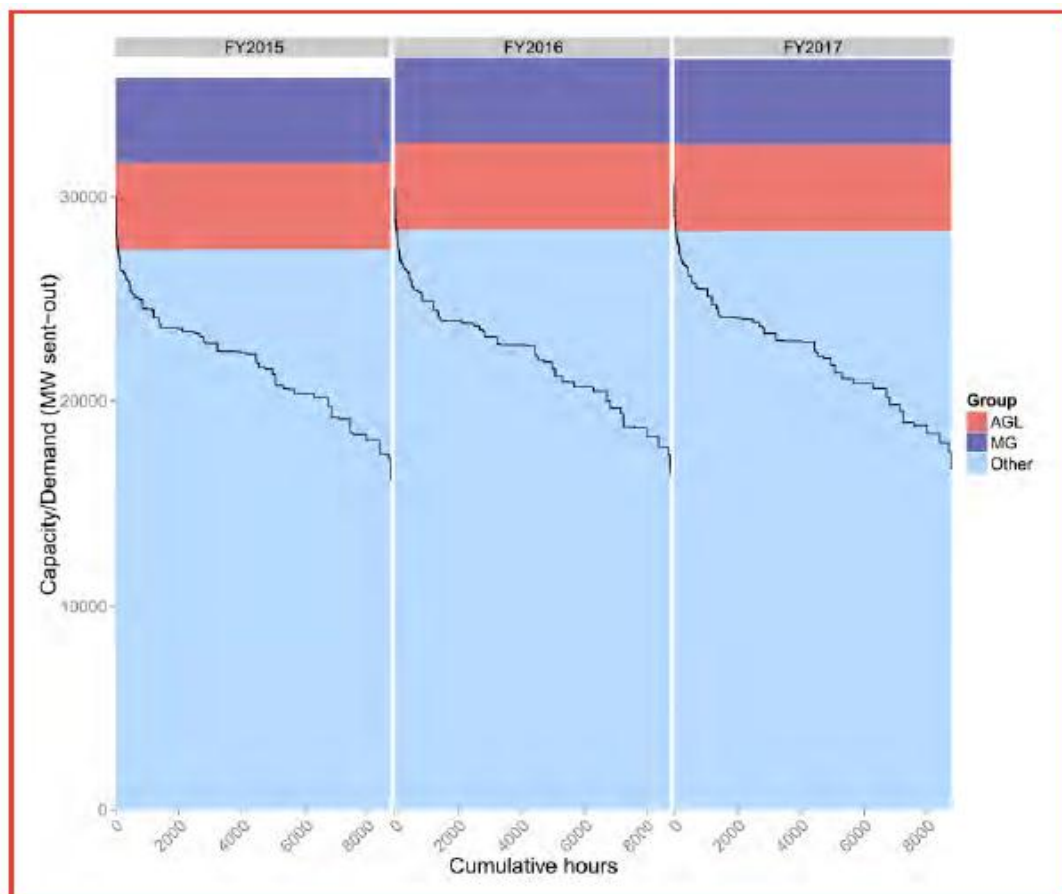
⁴³³ Derived from public AEMO NEM data by the AER.

Pivotality analysis

7.222. One way of assessing whether a generating entity is large enough to cause substantial shifts in the market price is by looking at how frequently that generator is required to meet market demand. This analysis is presented in the Frontier (Industry) Report (Figure 22), based on future demand forecasts and certain assumptions in relation to the availability of generators.⁴³⁴ AGL submits that this analysis demonstrates:

the likely lack of market power AGL or Macquarie Generation are likely to have separately or together given the current state of the NEM or in the foreseeable future.⁴³⁵

Figure 22 – AGL and MacGen capacity relative to market demand⁴³⁶



Source: AEMO data, Frontier Economics analysis

⁴³⁴ Frontier (Industry) Report, section 6.

⁴³⁵ Frontier (Industry) Report, paragraph 204.

⁴³⁶ Frontier (Industry) Report, page 199 (Figure 38).

7.223. One way of describing the above analysis is that it is seeking to understand the proportion of time that a firm is 'pivotal', or required to meet market demand. A firm can only be pivotal when all other generators in the market are operating at their maximum capacity. If a firm is pivotal, and it doesn't generate, there would be a shortfall of energy and some customers would have their power cut. The implication of pivotality is that a pivotal firm has the certain ability to unilaterally cause the spot price to rise to the price cap of \$13,100/MWh by offering in its capacity at that price

Significance of extraordinarily high prices

7.224. As noted above, being pivotal implies that a firm has the ability to raise the spot price to the price cap of \$13,100/MWh by withdrawing all of its supply from the market. While it would not necessarily be profitable for a pivotal firm to do so, particularly given its contract position in that period, if a firm is pivotal for even a very small proportion of hours in a year this implies that it has a very large ability to increase prices in that period.

7.225. Average spot prices can be impacted significantly by there being even a small change in the number of trading intervals during which spot prices are at the cap. **Table 12** presents several illustrative examples. For instance, if the spot price in 2013 was at the price cap for an additional 20 half hour trading intervals – approximately 0.11% of the year – the average spot price in 2013 would have risen by approximately 22%.

Table 12 – Impact of cap prices on the average spot price

Change in # of trading intervals with spot price at cap	% hours in year	Average spot price ⁴³⁷	% increase
0	0.00%	62.00	-
4	0.02%	64.73	4%
10	0.06%	68.81	11%
20	0.11%	75.63	22%
40	0.23%	89.26	44%
176	1.00%	181.93	193%

⁴³⁷ Based on the non-volume weighted average spot price of \$62 across NEM regions in 2013.

NEM-wide pivotality of AGL and Macquarie Generation alone and jointly

7.226. Table 13 reports the number of trading intervals in which AGL alone, Macquarie Generation alone, and AGL & Macquarie Generation jointly were pivotal on a NEM-wide basis over the six financial years 2008 to 2013. For the purpose of this analysis, it is assumed that the AGL's generating portfolio includes all of the generators that it currently owns, including Loy Yang A, which it acquired a 100% of in 2012.

Table 13 – Frequency of Periods of Pivotal Supply – 2008/09 to 2012/13⁴³⁸

Financial Year	Quarter	Macquarie Generation	AGL	AGL + Macquarie Generation	Percentage of trading intervals
2007/08	2007 – Q3	8	2	670	8.72%
	2007 – Q4	0	5	487	
	2008 – Q1	0	0	131	
	2008 – Q2	1	0	239	
2008/09	2008 – Q3	3	0	387	5.79%
	2008 – Q4	0	0	145	
	2009 – Q1	1	0	225	
	2009 – Q2	0	0	257	
2009/10	2009 – Q3	0	0	30	1.52%
	2009 – Q4	0	0	138	
	2010 – Q1	0	0	87	
	2010 – Q2	0	0	12	
2010/11	2010 – Q3	0	0	7	0.45%
	2010 – Q4	0	0	0	
	2011 – Q1	0	0	71	
	2011 – Q2	0	0	0	
2011/12	2011 – Q3	0	0	2	0.05%
	2011 – Q4	0	0	0	
	2012 – Q1	0	0	0	
	2012 – Q2	0	0	6	
2012/13	2012 – Q3	0	0	6	0.03%
	2012 – Q4	0	0	0	
	2013 – Q1	0	0	0	
	2013 – Q2	0	0	0	

7.227. On the basis of these figures, the Report of Greg Houston concludes that:

This analysis demonstrates that, as compared with the circumstance where MacGen either continues to be owned by the NSW government or is owned by a party other than Origin/Energy Australia, under supply-demand balance

⁴³⁸ Report of Greg Houston, Table 4.1

outcomes that existed only four years ago, a combined AGL-MacGen is likely to be in a position to have a substantial influence on wholesale electricity spot price outcomes in the NEM.⁴³⁹

Example of AGL exercising generator market power to increase the spot price

- 7.228. The ACCC considers that AGL's bidding of its Torrens Island Power Station (**TIPS**) during the summers of 2008, 2009 and 2010 provides a useful illustration of a generator exercising market power and the possible detriment arising from horizontal aggregation in the wholesale market. It also provides a demonstration that AGL has, in the past, been willing to use its market position to influence the spot price when it expected that behaviour to be profitable.
- 7.229. TIPS is the largest generator in South Australia, with a capacity of 1,260 MW. AGL acquired TIPS in 2007.
- 7.230. While the AEMC has considered that it is not clear as to whether substantial market power existed in South Australia,⁴⁴⁰ the ACCC considers that AGL's behaviour clearly indicates that TIPS had an ability to greatly influence the short term spot prices and longer-term average prices during this period.
- 7.231. During the three summers of 2008-10, when demand was high, AGL on a number of occasions offered a substantial majority (sometimes close to 80 per cent) of the available capacity at TIPS at prices above \$5000/MWh. This caused the spot price to rise above \$5000/MWh, as TIPS was required to be dispatched to meet demand. The output of TIPS was dispatched as low as 300MW during these peak price and demand periods, despite it having available capacity of generally over 900MW. Such a strategy is often called "economic withholding" because, while the capacity is still bid in to the market, it is bid at extremely high prices.⁴⁴¹ The AER produces reports whenever the spot price is above \$5000/MWh. There are a number of such reports during this period which explain in detail the bidding behaviour of AGL and the resulting effect on spot prices.⁴⁴²

⁴³⁹ Report of Greg Houston, page 23.

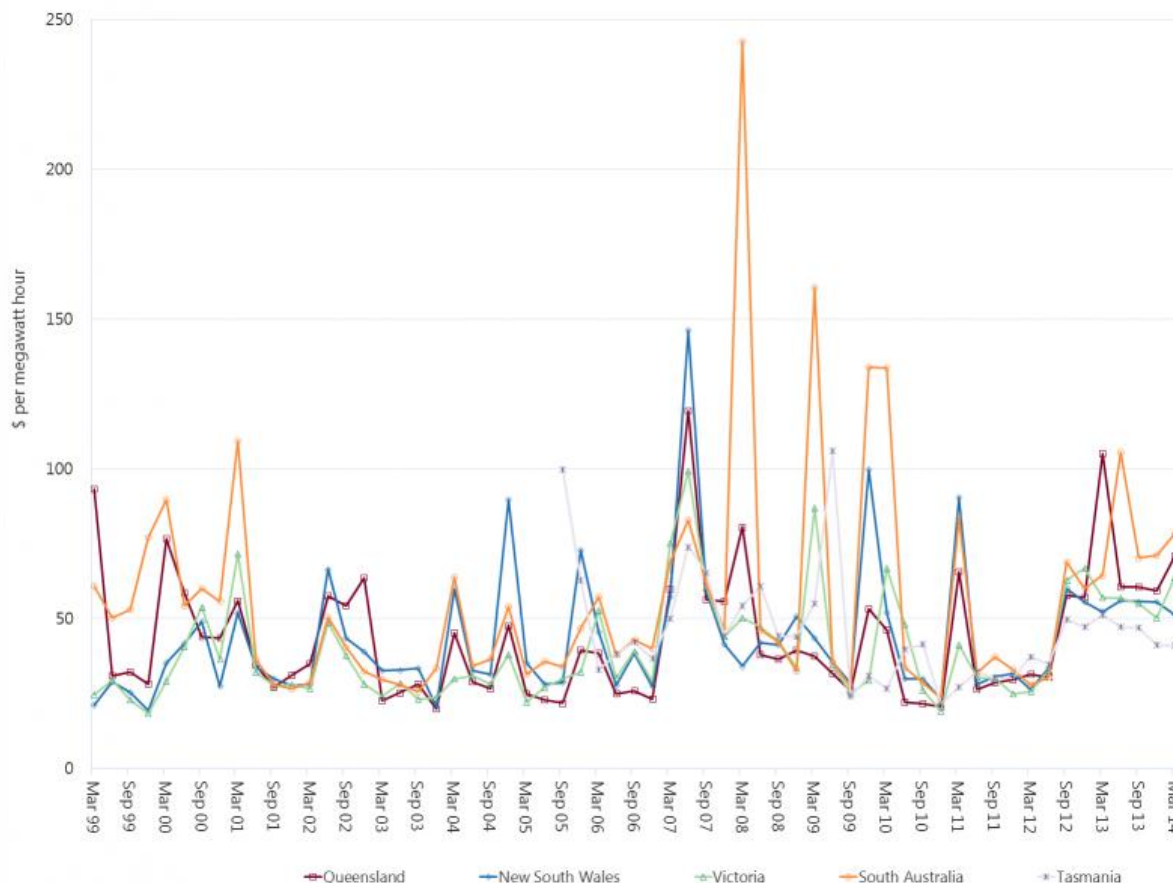
⁴⁴⁰ AEMC, Final Rule Change Determination, Potential Generator Market Power in the NEM, 26 April 2013, <http://www.aemc.gov.au/getattachment/b0feca33-0630-45e8-9bfc-54dfa262acd0/Final-Determination.aspx> (accessed 15 May 2014)

⁴⁴¹ Economic withholding is distinguished from physical withholding, where the generator does not make available the capacity at all.

⁴⁴² AER, Prices above \$5000/MWh - 4 and 10 January and 18 to 19 February 2008 (SA), <http://www.aer.gov.au/node/10935> (accessed 16 May 2014); AER, Prices above \$5000/MWh - 13 January 2009 (SA), <http://www.aer.gov.au/node/10962> (accessed 16 May 2014); AER, Prices above \$5000/MWh - 28 and 29 January 2009 (SA and VIC), <http://www.aer.gov.au/node/10988> (accessed 16 May 2014); AER, Prices above \$5000/MWh - 10 to 13 November 2009 (SA), <http://www.aer.gov.au/node/10953> (accessed 16 May 2014); AER, Prices above \$5000/MWh - 19 November 2009 (SA), <http://www.aer.gov.au/node/10975> (accessed 16 May 2014); AER, Prices above \$5000/MWh - 2 November 2009 (SA), <http://www.aer.gov.au/node/10941> (accessed 16 May 2014); AER, Prices above \$5000/MWh - 11 January 2010 (SA and VIC),

7.232. The impact was not only felt on short-term spot prices. The average price in SA increased dramatically during this period. The average price in SA in FY 2007/08 was \$101/MWh,⁴⁴³ by far the highest annual average price ever seen in the NEM (even after introduction of the carbon price). The average price in SA in FY 2009/10 was \$83/MWh and in FY 2008/09 was \$69/MWh, the second and equal third highest annual average prices in any region of the NEM pre-introduction of the carbon tax. The quarterly average price also peaked to extreme levels, as can be seen in Figure 23 below. The South Australian quarterly average price was \$243/MWh for the 2008 summer quarter, \$161/MWh for the 2009 summer quarter and \$134/MWh for the 2010 summer quarter.

Figure 23 - Quarterly Volume Weighted Average Spot Prices



<http://www.aer.gov.au/node/10984> (accessed 16 May 2014); AER, Prices above \$5000/MWh - 8 January 2010 (SA), <http://www.aer.gov.au/node/10968> (accessed 16 May 2014); See also an AER submission to the AEMC exploring the behaviour: <http://www.aemc.gov.au/getattachment/60d0a1c5-1223-4163-919b-23d3896ae19c/Australian-Energy-Regulator-received-1-August-2012.aspx> (accessed 16 May 2014).

⁴⁴³ AER Statistics, <http://www.aer.gov.au/node/9756> (accessed 16 May 2014).

7.233. The ACCC notes the following concerns have been raised by parties providing submissions or affidavits to the Tribunal regarding AGL's ability to affect spot prices in SA and their observations of the broader impact of high spot price events on electricity prices in SA:

- a. **Major Energy Users Inc:** "At the most fundamental point of view, the concerns of the MEU relate to the ability of MacGen to exercise market power in the NSW region of the NEM. The MEU has identified that, due to their relative size compared to the regional markets there are some generators in the NEM who, due to the constraints that can occur in the NEM transmission network, have the ability to set the spot price in the wholesale market. The MEU saw this occurring in the SA region of the NEM in years 2008, 2009, 2010 and 2011. The outcome of this exercise of market power was to increase the wholesale spot price of electricity in the region and this higher price then flowed into retail contracts increasing retail price offers to end users."⁴⁴⁴
- b. **Nyrstar:** "I have observed AGL exercise an ability to spike the South Australian spot price. Because Torrens Island power station is so large relative to the size of the South Australian market, AGL can spike the spot price often, particularly over summer when demand is high due to residential air-conditioning load."⁴⁴⁵
- c. **EUAA:** "The extreme spot prices in South Australia have also resulted in a significant divergence between average prices in South Australia and those in other NEM regions. Specifically, while spot prices in South Australia have typically been comparable to the spot prices in the other regions of the NEM for 99.6% of the half-hourly settlement periods in a year, the extreme prices in South Australia in a few settlement periods have raised the average annual spot prices (in South Australia) by more than 50% when compared to the rest of the NEM, for the period from 2007 to 2011."⁴⁴⁶

7.234. The ACCC notes that in the Affidavit of Fowler, he states that "I would not expect a prudent generator to engage in such a strategy [engaging in economic withholding] unless that generator had a very high appetite for risk, and was able to sustain extensive commercial losses in the event that they were not able to implement the strategy as planned."⁴⁴⁷ The ACCC considers that AGL's behaviour in South Australia over 2008 to 2010 is a clear example of AGL implementing such a strategy and that strategy having a dramatic effect on average spot prices. The ACCC notes that Anthony Fowler held the role at AGL of General Manager of

⁴⁴⁴ Affidavit of David Maurice Headberry affirmed on 16 May 2014, annexure 1, page 2.

⁴⁴⁵ Affidavit of Gregory Paul Zooeff affirmed on 16 May 2014, paragraph 50.

⁴⁴⁶ Energy Users Association of Australia, Submission to Tribunal, 28 April 2014, Attachment 2: *Electricity market power in South Australia*, page 5.

⁴⁴⁷ Affidavit of Fowler, paragraph 281

Energy Portfolio Management from approximately January 2008 to October 2010, during the period that AGL engaged in the behaviour outlined above.⁴⁴⁸

IV. Conclusion on public detriments


- 7.235. The ACCC considers that the proposed acquisition is likely to result in significant detriments in the markets for:
- a. the retail supply of electricity to end users in NSW; and
 - b. the wholesale supply of electricity in the NEM.
- 7.236. In relation to the retail supply of electricity, the ACCC considers that it is likely the proposed acquisition will raise barriers to entry, cause foreclosure of smaller retailers and place a ceiling on their growth, and deny others the scale in generation required to become a vigorous competitor. As a result, the proposed acquisition will cause a permanent change in the NSW retail market structure and is likely to entrench the dominance of three large vertically integrated retailers. It is likely that competition between the three will become muted over time without the existence or threat of competition from other strong and emerging retailers. In addition, the dynamic competition which is created by the threat of entry or expansion by smaller retailers is likely to be removed or diminished.
- 7.237. In relation to the wholesale supply of electricity, there is a material risk that the proposed acquisition will give AGL an increased ability to raise wholesale electricity prices.
- 7.238. Based on the above, the ACCC considers that, as a result of the proposed acquisition, it is likely that consumers will pay more, receive lower quality service and be offered less choice. For these reasons the ACCC considers that the proposed acquisition will, or is likely to, result in substantial public detriments.

8. WEIGHING THE BENEFITS AND DETRIMENTS

- 8.1. The Tribunal is required to conduct a balancing exercise to weigh the public benefits that are likely to result from the proposed acquisition against the detriments constituted by any lessening of competition (and other detriments where required by the relevant public benefit test) that will, or are likely to, result from the proposed acquisition to determine whether the net public benefit tests are met.
- 8.2. The ACCC considers that it is likely small public benefits flow from the proposed acquisition. These benefits are in the form of **labour cost savings** and **vertical integration efficiencies**.

⁴⁴⁸ Affidavit of Fowler, paragraph 7

- 8.3. The labour cost savings are limited to being realised in the longer term, and are unlikely to be achieved in the next [REDACTED] Any labour cost savings are likely to be minimal and, in any event, accrue to AGL. There is no evidence to suggest these savings will be passed through to the broader community – this should be taken into account when attributing weight to this benefit.
- 8.4. The vertical integration efficiencies will likely enable AGL to manage the volume and price risks it faces in the wholesale electricity market in a more comprehensive and cost effective manner. The size of these efficiencies, and in turn the magnitude of the benefits generated, is unclear based on the evidence AGL has presented. Regardless of the magnitude, any benefits from vertical integration will likely be retained by AGL. There is little likelihood that any of the efficiencies AGL may achieve from vertical integration will result in lower wholesale or retail electricity prices or flow through to the broader community more generally. As a result, limited weight should be accorded to these benefits.
- 8.5. The ACCC notes that vertical integration will permanently alter the market structure of electricity retailing in NSW. The benefits and detriments which flow from this changed market structure are intrinsically linked to vertical integration. Therefore, in this circumstance, the benefits from vertical integration cannot be achieved without detriments resulting. As discussed below, the intrinsic detriments which flow from vertical integration are significant.
- 8.6. If the Tribunal considers that a particular benefit will not or is not likely to occur, that benefit or detriment should not be taken into account in the weighing exercise. The ACCC considers that the following claims by AGL will not result in public benefits:
- a. **Additional capital expenditure and maintenance spend:** To the extent the additional maintenance and capital expenditure identified by AGL is prudent, it is likely to occur with or without the proposed acquisition.
 - b. **The utilisation of whole of life management:** asset management strategies that take into account the entire life cycle of the Bayswater and Liddell plants are likely to be utilised with or without the proposed acquisition.
 - c. **Increased supply of hedge contracts:** taken as a whole, the proposed acquisition is unlikely to result in an increased supply of hedge contracts to retailers.
 - d. **Increased prospects of public infrastructure:** while it is theoretically possible that the proposed acquisition will enable the State of NSW to fund investment in additional public infrastructure (or fund these investments more efficiently) there is considerable doubt whether any such benefits are likely to occur, or if they do, whether they will be material.
- 8.7. While the ACCC considers that the level of **capital and maintenance expenditure** is unlikely to be materially different with or without the proposed acquisition, should



the Tribunal consider that there was likely to be a material difference, the ACCC considers that this is likely to result in minimal public benefits in the short term.

- 8.8. In the longer term, AGL's estimates are subject to such uncertainty as to only give rise to potential (rather than likely) benefits.
- 8.9. The ACCC considers that where the proposed acquisition has the potential to result in particular public benefits but these benefits are not likely, they should not be taken into account in the weighing exercise.
- 8.10. Should the Tribunal consider that AGL ownership of the Bayswater and Liddell plants is likely to result in efficiencies, the ACCC considers the benefits are unlikely to flow through to the community and therefore should be accorded less weight.
- 8.11. In weighing the public benefits and detriments, the Tribunal has previously applied a modified total welfare standard. Under a total welfare standard, public benefits are defined widely and include the benefits to producers and their shareholders (e.g., cost savings) rather than just benefits that accrue directly to consumers or the general public. Under the modified standard, the weight that should be accorded to benefits may vary depending upon who takes advantage of them and the time period over which the benefits are received.
- 8.12. Based on the above, the ACCC considers that the proposed acquisition will or is likely to result in small public benefits.
- 8.13. The ACCC considers that the proposed acquisition is likely to result in significant detriments in the form of a lessening of competition in the markets for:
- a. the retail supply of electricity to end users in NSW; and
 - b. the wholesale supply of electricity in the NEM.
- 8.14. In relation to the retail supply of electricity, currently two vertically integrated generator/retailers (Origin and Energy Australia) compete with AGL (retail only in NSW), and other smaller retailers for customers in NSW. The current market structure is conducive to smaller retailers expanding significantly, particularly as historical regulatory barriers have recently been removed.
- 8.15. It is likely that the proposed acquisition will raise barriers to entry, cause foreclosure of smaller retailers and place a ceiling on their growth, and deny others the scale in generation required to become a vigorous competitor.
- 8.16. The increased barriers to entry and foreclosure risk arise from Macquarie Generation being removed, or diminished, as a source of hedge contracts post acquisition. Hedge contracts are a fundamental requirement for stand-alone retailers. Without these products they are exposed to the risk that volatile wholesale energy prices can dramatically spike while their contractual arrangements to sell electricity to end-users remain fixed at a much lower rate. For hedge contracts to

provide effective insurance against these price spikes, retailers in NSW require them to be referenced to the NSW spot price, because there are significant risks of price separation between NSW and other regions of the NEM.

- 8.17. Therefore the result of the proposed acquisition is that it will result in a permanent change to the market structure and likely entrench the three large vertically integrated retailers, at the expense of competition. Competition between these three large vertically integrated retailers is likely to become muted over time without the existence or threat of competition from other strong and emerging retailers. These smaller retailers provide an important competitive constraint on the pricing behaviour of the larger retailers and contribute to the development of innovative products and services for customers in the market. The threat of entry or expansion by smaller retailers also represents a dynamic source of competition that is likely to be removed or diminished if the proposed acquisition proceeds.
- 8.18. In relation to the wholesale supply of electricity, there is a material risk that the proposed acquisition will give AGL an increased ability to raise wholesale electricity prices. The proposed acquisition will result in AGL becoming the largest generating entity in the NEM by a significant margin, and the largest generator in each of South Australia, Victoria and NSW. If the excess supply (which currently characterises the market) dissipates, it is likely that AGL will be in a position to influence wholesale market prices to a material degree.
- 8.19. Overall, the ACCC considers that, as a result of the proposed acquisition, it is likely that consumers will pay more for electricity, receive lower quality service and be offered less choice.
- 8.20. Based on the above, the ACCC considers that the proposed acquisition will, or is likely to, result in substantial public detriments.
- 8.21. If the Tribunal is not satisfied in all the circumstances that the net public benefits test is met, it may consider imposing specified conditions that would yield the requisite net public benefit.⁴⁴⁹ AGL proposes that the Tribunal grant authorisation subject to the conditions set out in Annexure H of its application. For the reasons outlined in section 10, below, the ACCC considers that the proposed conditions are not capable of addressing the likely substantial detriments in the future with the proposed acquisition. On this basis the ACCC considers that the proposed conditions are unlikely to alter the balance of benefits and detriments.

9. PERIOD OF AUTHORISATION

- 9.1. If the Tribunal is minded to authorise the proposed acquisition, it is relevant to consider the period of time for which the authorisation will stay in force.

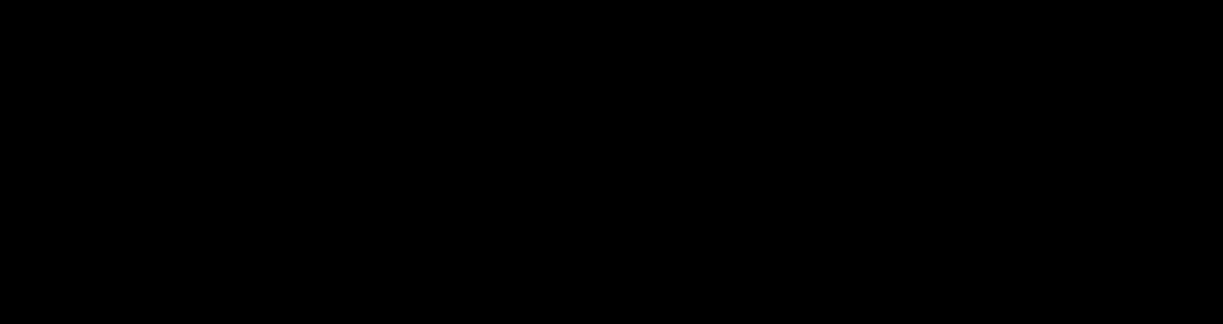
⁴⁴⁹ Section 95AZF provides that the Tribunal may grant authorisation subject to specified conditions.

- 9.2. Section 95AZK(2) of the Act provides that a merger authorisation may be expressed to be in force for a specified period.
- 9.3. AGL submitted that a period of authorisation was 'not applicable'.⁴⁵⁰ AGL has not advanced any reasons why authorisation of an unlimited duration should be granted, nor why any particular period would be inappropriate.
- 9.4. The ACCC considers (should the Tribunal decide to grant authorisation) that it would be appropriate to have a time limit on the period of time which AGL is authorised to complete the acquisition of Macquarie Generation. The ACCC considers that this is appropriate because market structure and conditions, and competitive dynamics can change over time. As a result, the balance of benefits and detriments may change should the transaction remain dormant for an extended period of time before being completed.
- 9.5. In the ACCC's view, twelve months is likely to be an appropriate time period to provide AGL with a sufficient, commercially realistic period in which to complete the proposed acquisition.

10. CONDITIONS OF AUTHORISATION

- 10.1. AGL has requested that the Tribunal grant authorisation of the proposed acquisition subject to conditions. The conditions are set out in Annexure H to AGL's application (the conditions). The effect of the Tribunal granting authorisation of the proposed acquisition on the conditions, is that AGL would be subject to the following obligations:
- a. AGL must offer, or enter into, a prescribed quantity of products priced with reference to the NSW regional reference price (**RRP**) (either an exchange-traded futures contract (**ETF**) or an over the counter (**OTC**) product that is on the same terms as the equivalent ETF product), for a period of six and a half years beginning on the date six months after completion of the Proposed Acquisition (**Liquidity Obligation Term**).
 - b. The quantity of products AGL is to offer, or enter into, is at least 250MW of such products in each NEM trading interval during the first 26 whole weeks of the Liquidity Obligation Term, and at least 500MW of such products for each NEM trading interval for the balance of the Liquidity Obligation Term.
 - c. The proposed orders are intended to facilitate the supply of products priced with reference to the NSW RRP to parties other than AGL, by requiring AGL to offer, or enter into, the required quantity of products for the NEM trading interval by one or more of the following methods (other than products involving Macquarie Generation, or for which AGL is the purchaser):

⁴⁵⁰ Form S, paragraph 25.1.

- 
- i. offering or entering into products that are OTC products directly with NSW retailers (other than AGL, EnergyAustralia or Origin);
 - ii. placing an offer to enter, or entering, into OTC products through a broker with a NSW retailer or person that holds an Australian Financial Services Licence (**AFSL**) (other than to AGL);
 - iii. executing one or more price or quantity orders for ETF products placed on the futures exchange operated by ASX Energy Limited (ASX) (other than an order in relation to which AGL is the purchaser or acquirer).
 - d. The conditions deem that AGL has offered to enter into the required quantity of products (less the quantity that has already been entered into), where, in respect of a NEM trading interval, AGL has offered to enter into a minimum quantity (being 20MW) of products, which includes that NEM trading interval, over 120 trading days in the previous 12 months at a price that is no more than \$0.75 higher (measured in \$/MWh) than the most recent trading day's clearing price for the equivalent ETF product immediately before the day on which the offer was made, or the price of the last trade on the ASX for which AGL was not a party (**Offer Condition**).
 - e. In relation to NSW retailers:
 - i. AGL must negotiate in good faith, on request of a NSW retailer other than AGL, Origin Energy or EnergyAustralia, to enter into a product, provided that the Offer Condition has not already been satisfied; and
 - ii. If requested by a NSW retailer, AGL must offer a quantity of the requested product to that retailer. For each business day, the quantity of the products that is to be offered to NSW retailers, pursuant to this condition, is capped at an aggregate of 50MW for each trading interval of products entered into with all NSW retailers for that day. This obligation applies afresh each business day. The price of the offer must be no more than \$0.75 higher (measured in \$/MWh) than the most recent trading day's clearing price for the equivalent ETF product immediately before the day on which the request was made or the price of the last trade on the ASX for which AGL was not a party. This obligation does not apply if the Offer Condition has been satisfied for the NEM trading interval.

ACCC assessment of the proposed conditions

10.2. The ACCC considers that the proposed conditions do not and cannot address the public detriments arising from the proposed acquisition. The ACCC considers that there are a number of issues with the concept of the proposed remedy that cannot

be overcome with amendments to the proposed conditions. The ACCC also has a number of specific concerns with the proposed conditions as they are currently proposed.

Behavioural conditions are unlikely to address long term detriments

- 10.3. The proposed conditions are intended to address the detriments arising from the proposed acquisition by imposing a constraint on AGL's conduct in entering into hedge contracts with other retailers.⁴⁵¹
- 10.4. Conceptually, the ACCC considers that the proposed conditions, or any amended conditions, are not capable of addressing the detriments arising from the proposed acquisition. The proposed acquisition will result in a permanent structural change that is likely to lead to significant long term detriments. It is not possible to remedy the detriments with static behavioural conditions that attempt to deal with complex and potentially dynamic markets and are limited in term. For example, David Guiver of ERM has stated:


*In my view, given the complexity of the National Electricity Market, and the sophistication of the market participants, conditions or behavioural undertakings are not an acceptable means of managing the potential adverse impacts on the availability and liquidity of hedge products likely to arise from AGL's acquisition of Macquarie Generation.*⁴⁵²

- 10.5. As outlined in the detriments section of this report, the proposed acquisition is likely to raise significant detriments in the long term. It is not possible to predict when or if market conditions might change in the future such that any detriments arising from the proposed acquisition would be alleviated. In those circumstances it is not possible to remedy the detriments with conditions that are limited in term.⁴⁵³
- 10.6. Even if the term of the conditions were extended to be perpetual, the static nature of any possible behavioural conditions raises significant risks that, even if a remedy could be designed that may be effective today, the remedy would not remain effective over the medium to long term. If the conditions become ineffective over time, the detriments that would arise from a significant and permanent structural market change would remain unconstrained. As such, the ACCC considers that behavioural conditions such as these cannot be relied on to remedy the detriments arising from the proposed acquisition.
- 10.7. The primary risks arise because electricity hedge contract trading occurs in a complex, dynamic environment, where a range of variables may impact liquidity and trading outcomes at any given time. These variables may include, for example, changes to the way hedge contracts are traded or temporary changes to dynamics in electricity generation and retail markets.

⁴⁵¹ Form S, paragraph 10.31.

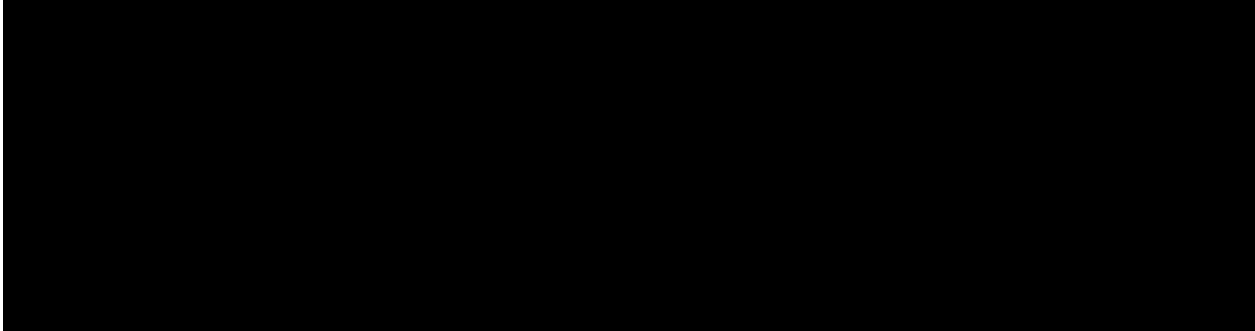
⁴⁵² Affidavit of Guiver, paragraph 89.

⁴⁵³ Affidavit of Guiver, paragraph 91; and Affidavit of Swanepoel, paragraph 29.4.

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- 10.8. To design a set of behavioural conditions that would adequately address all of the risks that may undermine the effectiveness of the conditions, the Tribunal would need to anticipate and identify all of the potential variables that may influence hedge contract trading over a long period of time, potentially in perpetuity. The ACCC considers that this is impossible to achieve.
- 10.9. The Tribunal would then need to draft complex conditions that effectively account for all of the risks that may arise from all potential scenarios arising in relation to the complex hedge trading environment. Given the complexity and dynamic nature of electricity hedge contract trading, the ACCC considers that this is likely to be an extremely difficult, if not impossible, task.
- 10.10. The ACCC's experience with behavioural undertakings is that it is very difficult to identify all of the possible risks to the objective of a proposed remedy, even in relation to relatively simple markets and/or behavioural obligations, and those risks increase significantly with the length of the behavioural undertaking. Even when risks have been clearly identified, the ACCC has found that drafting behavioural obligations to adequately address complex risks is a particularly difficult task.
- 10.11. The types of risks described above are risks that may arise irrespective of the behaviour of AGL. A further issue likely to arise in attempting to design conditions is the need to address potential circumvention risks, where the conditions may allow AGL to behave in certain ways to deliberately undermine the effectiveness of any conditions while remaining fully compliant with the obligations as drafted. The potential for circumvention of behavioural obligations is a significant issue that is likely to be very difficult to address in relation to the complex, dynamic electricity hedge contract trading environment.
- 10.12. Given the range of potential risks arising from the reliance on a set of static behavioural conditions, the ACCC considers that conditions cannot adequately replace naturally competitive trading of hedge contracts or be relied on to maintain hedge contract liquidity or competition in electricity retail markets.

Issues with the current proposed conditions

- 10.13. Looking beyond the fundamental concerns with any behavioural conditions identified above, there are a number of specific issues with the conditions proposed by AGL. The ACCC considers that these issues highlight the problems associated with drafting complex, long term behavioural conditions.
- 10.14. Specific issues with the proposed conditions include the following:
- a. There are significant risks that AGL may be in a position to circumvent the conditions.
 - b. If liquidity is lost during the term of the conditions, there is no mechanism to re-establish a liquid market. The price-setting mechanism in the obligation references previous market trades and therefore to the extent that a reduction



in liquidity results in higher hedge contract prices, this will not be addressed by the conditions.

c. It is not clear whether the quantity of 500MW will be sufficient to maintain liquidity throughout the term of the conditions and market participants consider the volume to be inadequate.⁴⁵⁴

d. [Redacted text block]

e. The conditions include a Review Event for circumstances beyond the reasonable control of AGL. If a Review Event occurred and the conditions were varied or suspended by the Tribunal, liquidity in the market may be lost and there is no mechanism to re-establish liquidity.

f. The pricing mechanism allows AGL to charge \$0.75 per MW above the previous day's clearing price. This may provide a mechanism to place upward price pressure on hedge contract trading and reduce liquidity, as well as providing AGL with an arbitrage opportunity and a mechanism to negate any volume sold.⁴⁵⁶

g. The \$0.75 per MW price premium may negate the likelihood of any Product being transacted.⁴⁵⁷ In this regard David Guiver of ERM provided the following example:

A \$0.75/MWh premium on a calendar year swap valued at \$37.50/MWh, would be an additional 2% (or an annual premium of \$3.28m across the entire 500MW). Analysis of historical wholesale market data would demonstrate that calendar year swaps very rarely trade 2% above their previous cleared price, indeed from Jan 2013 to Feb 2014 the NSW Cal 2015 base futures strip has had an average upward daily movement of only 0.4%⁴⁵⁸ and never exceeded 2%⁴⁵⁹.

⁴⁵⁴ Affidavit of Guiver, paragraphs 92 to 93; and Affidavit of Swanepoel, paragraph 29.3.

⁴⁵⁵ Form S, paragraph 4.55.

⁴⁵⁶ Affidavit of Guiver, paragraph 106-107.

⁴⁵⁷ Affidavit of Guiver, paragraph 100; and Affidavit of Swanepoel, paragraph 29.5.

⁴⁵⁸ While the calendar 2015 base strip has generally traded downward, the average price increase on the days the price has actually risen has been on average only a 0.4% increase.

⁴⁵⁹ Affidavit of Guiver, paragraph 101(a).

- h. The \$0.75 per MW premium may also limit the ability of competitors to compete for low margin customers, in particular, commercial and industrial customers.⁴⁶⁰ The ability to compete for these customers may be important for retailers to establish or strengthen their position in the electricity retail market. For example, Vernon Swanepoel of Hydro Tasmania stated:

The proposed price reference point of \$0.75 above the most recent trading day's clearing price would allow AGL to effectively 'lock-in' an above market arbitrary trading profit on all transactions covered by the proposed conditions and would also make the proposed conditions ineffective for retailers seeking to compete in the C&I electricity supply space, as the retail margins in this space are extremely narrow. In my view, this will substantially change Macquarie Generation's current profile in the market from a competitive source of base-load support for retailers, to a non-competitive option and therefore significantly lessen competition in this sector as AGL's price will always be over and above the market price⁴⁶¹

- i. The \$0.75 per MW price premium is intended to be calculated in addition to the price of the last trade from the previous day that AGL was not a party to. However, it will not be possible to identify the counterparties to the relevant trades.⁴⁶²
- j. The conditions allow AGL to adjust the price for management of greenhouse gas emissions, although no mechanism is specified as part of the conditions. This may allow AGL to manipulate such a price adjustment in circumstances where naturally competitive hedge trading might establish an appropriate pricing mechanism for greenhouse gas emissions.⁴⁶³
- k. It is not clear how pricing would be determined if an Exchange Product has not been traded the previous day.
- l. The obligations only require AGL to offer Products, rather than actually supply Products. If AGL successfully fulfils its obligations by offering Products but ultimately not entering Products, it is not clear how the conditions would have assisted liquidity. If this occurs, it appears likely that liquidity will have collapsed and the conditions will be rendered ineffective.
- m. The obligations do not require AGL to offer, or create an incentive for AGL to offer, customised hedge contracts, which some market participants consider essential to manage a retail electricity hedge book.⁴⁶⁴

⁴⁶⁰ Affidavit of Guiver, paragraph 101-105.

⁴⁶¹ Affidavit of Swanepoel, paragraph 29.1.

⁴⁶² Affidavit of Swanepoel, paragraph 29.

⁴⁶³ Affidavit of Guiver, paragraph 108.

⁴⁶⁴ Affidavit of Guiver, paragraph 97.

- n. AGL may limit its offers to large volumes that would far exceed the hedge needs of small retailers.⁴⁶⁵
- o. The credit support arrangements may unreasonably increase risk to retailers.⁴⁶⁶
- p. There is uncertainty around the process and terms by which AGL will make offers to retailers in response to a request.⁴⁶⁷

10.15. The ACCC is particularly concerned about the risk that AGL may directly or indirectly circumvent the proposed conditions, rendering the conditions ineffective. Possible circumvention risks include the following:

- a. AGL may be in a position to circumvent the obligations by entering an off-setting transaction at the same time, or potentially another time, for example, by simultaneously entering two separate transactions – one to sell a product and one to buy the exact same product. This could be achieved through a financial intermediary, some of which are retailers (as defined in the conditions), for a potentially insignificant transaction charge. Such transactions could be entered off market such that there is no visibility and no impact on liquidity, and would instantly fulfil AGL's obligations pursuant to the conditions.⁴⁶⁸
- b. It may also be open to AGL to strategically offer products to certain retailers that it is aware will not be in a position to accept the offer. For example, it could offer large quantities (potentially up to 500MW) to a small retailer who is financially incapable of accepting the offer.
- c. To satisfy the Offer Condition, AGL is only required to offer products for a limited period of time on a limited number of Trading Days. This, combined with the \$0.75 per MW price premium, may allow AGL to strategically offer Products during certain market conditions, for example, when prices are trading below the previous day's close, to satisfy the Offer Condition with no impact on liquidity.⁴⁶⁹
- d. If at some stage during the term of the conditions there is a particular exchange product that is not being regularly traded such that the market for that particular product becomes illiquid, AGL could fulfil its obligations by offering that illiquid product knowing that it will not be accepted and will not add to liquidity in the market. AGL may be in a position to offer different exchange products at different times depending on which products are illiquid at any particular time.


⁴⁶⁵ Affidavit of Guiver, paragraph 98.

⁴⁶⁶ Affidavit of Guiver, paragraph 117-123.

⁴⁶⁷ Affidavit of Guiver, paragraph 124-126

⁴⁶⁸ Affidavit of Guiver, paragraph 90.

⁴⁶⁹ Affidavit of Guiver, paragraph 111.



This is particularly the case as offers are only required to be open for one hour at a time.⁴⁷⁰

- e. AGL may re-negotiate existing contracts in such a way that would fulfil the Obligation Quantity, for example, as part of a renegotiation with Tomago AGL could require Tomago to obtain a retail licence, which may result in AGL fulfilling its obligations for the whole term of the Conditions without any impact on liquidity.⁴⁷¹
- f. AGL may choose not to offer products in periods most valued by retailers, thereby reducing liquidity when it is most important for the ability of retailers to compete for key customers.⁴⁷²
- g. AGL could strategically choose to not offer products for continuous periods, so that there is reduced liquidity for a full year at any point in time, increasing risk to retailers.⁴⁷³
- h. Given the complexity of the markets, there may be other circumvention risks that the ACCC has not yet identified

Conclusion in relation to the proposed conditions

- 10.16. The ACCC is of the view that the detriments arising from the proposed acquisition are not capable of being addressed by the conditions proposed by AGL or any alternative long term behavioural conditions.

⁴⁷⁰ Affidavit of Guiver, paragraph 112.

⁴⁷¹ Affidavit of Guiver, paragraph 99.

⁴⁷² Affidavit of Guiver, paragraph 113.

⁴⁷³ Affidavit of Guiver, paragraph 114.