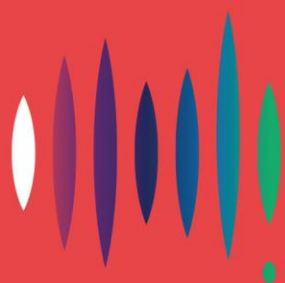


# ACCC Electricity Supply and Pricing Inquiry

Response to the Preliminary Report  
December 2017



**ENERGY  
CONSUMERS  
AUSTRALIA**

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The Preliminary Report of the Inquiry has confirmed that the electricity market is not working as it should and not delivering good value for money outcomes for consumers.

## Introduction

Energy Consumers Australia is the national voice for residential and small business energy consumers. Established by the Council of Australian Governments (COAG) in 2015, our objective is to promote the long-term interests of consumers with respect to price, quality, reliability, safety and security of supply.

The Australian Competition and Consumer Commission (ACCC) Electricity Supply and Pricing Inquiry (Inquiry) provides an opportunity to identify measures to provide relief in the short to medium term for consumers and to offer a longer-term view about market-design that supports competition and innovation.

The *Retail Electricity Pricing Inquiry: Preliminary Report* (Preliminary Report) sheds new light on why prices in the National Electricity Market (NEM) are increasing faster than wages and other prices, identifying significant issues around network costs, concentration and structure, and the way that retailers are presenting offers and interacting with consumers.

The report identifies the key areas where work is needed to improve value for money outcomes for consumers.

Energy Consumers Australia welcomes the opportunity to respond to the Preliminary Report. This submission focuses on areas ACCC has identified for further work. We advance eight propositions about the direction of this future work, including areas where the ACCC could extend the analysis already undertaken.

The submission has four sections.

In the first section (*The components of retail prices*), we explore the Preliminary Report's findings about price and bill increases. We note that the Preliminary Report has provided the first reliable fact base of price and bill movements and the components of these for the NEM. The Australian Energy Market Commission's (AEMC) very valuable *Retail Price Trends* and *Retail Energy Competition Review* reports have been constrained by the AEMC not having the information gathering powers available to the ACCC.

To assess the effectiveness of reforms arising from this Inquiry there needs to be an ongoing, comprehensive and reliable data set. Any lessons learned from the ACCC's information gathering should be reflected in recommendations on Information Gathering.

In the second section (*Unpacking discounting and price discrimination*), we discuss issues around discounting and price discrimination, and explain why a lack of genuine service innovation is a major problem in the electricity retail market.

In section three (*Responding to the drivers of higher prices*), we identify areas where the ACCC can make significant proposals for reform in the structure of the retail market, the application of environmental scheme costs, network costs and the operation of the wholesale market.

In the final section (*The way forward*), we discuss the process from here and the value of targeted consultation on the key reform opportunities.

Our submission refers to a report prepared for Energy Consumers Australia by Finncorn Consulting (Finncorn, 2017) that quantifies the competitive outcomes of retailing in the NEM using public data sources.

## The components of retail prices

### The Preliminary Report's Findings

The Preliminary Report has presents valuable new analysis of the changes in prices over the last decade and their impact on bills. In summary;

1. An average residential electricity bill across the NEM in 2015-16 was \$1524 (excluding GST) and was made up of:
  - network costs (48 per cent)
  - wholesale costs (22 per cent)
  - environmental costs (7 per cent)
  - retail and other costs (16 per cent)
  - retail margins (8 per cent).
2. Between 2007-08 and 2015-16 increases in residential bills were primarily driven by higher network costs. Bill increases were also driven by, to a lesser extent, increasing retailer operating costs and by increasing environmental scheme costs. Some of the increase was also attributable to increases in retailer margins, although this varied significantly by state. Over this period, wholesale energy costs decreased in real terms.
3. Bills and prices have not increased at the same rates. In real terms, average residential bills increased by around 30 per cent (in dollars per customer) between 2007–08 and 2015–16. Average residential prices (in cents per kilowatt hour (kWh)) have increased by 47 per cent during the same period.

This analysis indicates there is no simple picture of real cost of electricity for Australian households and businesses. The difference between price movements and the impact on bills together with the increasing divergence between 'standing offers' and best market offers create diversionary debates about methodologies rather than a focus on consumer outcomes. There are also implications of conducting analysis between two sample years; 2007-08 was an outlier year for wholesale costs due to the impact of the drought.

Energy Consumers Australia is keen to analyse this important new data to inform our own contributions to the next phase of the Inquiry.

The Preliminary Report provides detail for the NEM and by State (for the four mainland states) of the price stack in 2007-08 and 2015-16. The report also provides a 2016-17 estimate. The ACCC has stated that it is obtaining 2016-17 data from retailers. Data for the other years obtained by the ACCC is reflected in the graphs in Chapter 2, but without data labels. Energy Consumers Australia requests that the ACCC publish the 2016-17 data together with the data underpinning the graphs the Preliminary Report as an Excel workbook.

### **Closer, ongoing performance monitoring**

The Finncorn (2017) report commissioned by Energy Consumers Australia drew on publicly-disclosed data from listed and unlisted electricity retailers. This analysis suggests firstly that more use can be made of the data that is already revealed in this way. The report also notes that clearly some significant listed companies believe that disclosure of this type is not contrary to their commercial interests and therefore it is not unreasonable to require it of all retailers.

That said, there is no substitute for the ACCC's analysis based on information obtained from retailers using the ACCC's compulsory information gathering powers. The Preliminary Report provides a unique view of what is happening in the market that the AEMC, that does not have the same information gathering powers, can replicate. This is a major issue given the task of reforming the NEM and monitoring outcomes is a long-term project requiring enduring oversight by an appropriately equipped agency.

There is precedent for this in other sectors, we note for example that the ACCC reports (under legislation) annually on competition and pricing in the telecommunications sector.<sup>1</sup>

### **Better whole of economy data**

In framing its recommendations, we encourage the ACCC to engage with the Australian Bureau of Statistics (ABS), the Australian Government Department of the Environment and Energy, CSIRO and other agencies to identify opportunities to integrate and improve the economy-wide energy measures.

We make the following observations:

- The price trends in the Preliminary Report (30 per cent) differed from those in the Finkel Review Preliminary Report (61 per cent) – the latter drawing on the ABS Energy Account CAT. 4604.0.<sup>2</sup>
- We understand the ABS utilises *standing offer* data – which may not provide a complete picture of prices in the market – to derive the

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<sup>1</sup> <https://www.accc.gov.au/publications/accc-telecommunications-report>

<sup>2</sup> <https://www.energy.gov.au/government-priorities/energy-markets/independent-review-future-security-national-electricity-market>

electricity price component of the Consumer Price Index (CAT. 6401.0).<sup>3</sup>

- The ABS Household Expenditure Survey (CAT. 6530.0) provides data on electricity expenditure by household figure but is only completed every six years and is released over twelve months after the relevant year.<sup>4</sup>
- New South Wales Farmers has reported to us that the retail market position in regional areas is worse than metropolitan areas, with little retail choice and consequently higher prices. The data provided in Figure 2.7 of the Preliminary Report is only a one year snapshot and does not provide any trend data.
- The additional funding CSIRO secured in the 2016/17 Federal Budget to develop the Energy Use Data Model (EUDM) provides an opportunity to apply new thinking emerging from this ACCC Inquiry. The EUDM is a new model CSIRO is developing to provide a more accessible and granular view of energy consumption patterns and technological change in an evolving economy and society.

Improved ongoing reporting will be critical in evaluating the success of measures introduced following the final report.

### *Proposition 1*

*To fully benefit from the Inquiry's findings and recommendations, a single reliable data source on price and bill outcomes for Australian electricity consumers (including residential, small business and larger commercial, industrial and government users) is required.*

*Energy Consumers Australia is open to what this source should be. As discussed above it is not unreasonable to place on retailers reporting obligations that are based on the existing reporting required from a listed company. Alternatively, a market body may require ongoing information gathering powers similar to that of the ACCC.*

*We think the following information should be available from the data set:*

- 1. The data set needs to be national, but also able to provide granular views by Distribution Network Service Provider licence area.*
- 2. The data set needs to report outcomes for residential, small business and commercial & industrial customers.*
- 3. The data set needs to allow for distinction between outcomes in regional areas from those in metropolitan areas.*

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<sup>3</sup> <http://www.abs.gov.au/ausstats/abs@.nsf/mf/6401.0>

<sup>4</sup> <http://abs.gov.au/household-expenditure>

4. *The data set needs to reconcile with other national data sets.*

*In the Final Report the ACCC should provide advice to the Government on the most appropriate mechanism for ongoing reporting and whether this reporting obligation should be incorporated in legislation.*

## Unpacking discounting and price discrimination

The Preliminary Report has developed its analysis of the drivers of higher costs by starting at the production of energy and then adding in the network and retail elements. To understand and promote the long-term interests of consumers, it is also important to assess the market from the vantage point of the consumer.

Beyond price, the most notable feature of the retail market has been the lack of innovation in the service itself. While there is no doubt that retailers regularly review their market offers and seeking new ways to present them, the fundamental structure in retailing energy has remained unchanged for some years. This was one of the key points we made in our submission to the Preliminary Issues Paper (ECA, 2017a).

We are therefore pleased that the Preliminary Report identifies the lack of retail market innovation as a major issue, and one to be explored in depth the next phase of the Inquiry.

It is critical that as this discussion progresses that we do not become bogged down in complex, often circular debates about the extent which 'discounting' is 'innovation'.

In their report provided as an attachment to the Origin submission in response to the Preliminary Issues Paper, the Competition Economists Group defended discounting practices or, in the economic jargon, 'price discrimination'. Their conclusion is that without price discrimination the market would be only about price and hence would trend to monopoly. They conclude:

*However, the clear conclusion from the literature is that a goal of all customers being 'perfectly informed/engaged' is not, in fact, desirable. Unless electricity retailing can be turned into a differentiated product market, then successfully pursuing such a goal would ultimately lead to monopoly (or collusive oligopoly). (CEG, 2017, p. 43)*

### Innovative retailers helping consumers save and shift

This conclusion is based on the false premise that the only way to innovate in the retail market is by price discrimination.

Retailers face variable costs. The starting proposition is that the price of electricity in the wholesale market varies by the half hour and becomes very

expensive in periods of high demand or network-constrained supply. An innovative retailer would have an incentive to introduce price structures that offered consumers the ability to respond to these high price events by curtailing their demand. That is, the retailer would help the household or small business use less electricity, or shift their use to a cheaper period.

What we see in the market is few offers structured in this way for small consumers. As we will discuss later the ACCC's report demonstrates that retailers are over investing in hedging.

A similar issue is evident in the attitude to cost reflective network tariffs. Rather than demanding cost reflective tariffs as a basis for innovative retail offers, retailers have been at best unwilling participants.

For example, Ausgrid charges retailers on either a block or time of use basis depending on whether the customer has an accumulation or an interval meter. Our understanding is that retailers are simply passing through this pricing structure to their customers. Later in this submission we will provide evidence that the retailers are actively discriminating against consumers on time of use meters.

Finally, a retailer that was not also a participant in the generation market would innovate by encouraging a consumer to invest in energy efficiency. If a retailer could identify savings of \$200p.a. for a consumer whose annual bill was \$1500, in an innovative market they would help the consumer make the consumption change while placing them on a plan that cost \$1400, in the process increasing the retailer's margin by \$100 (numbers are indicative).

The consumer is saving \$100 and the retailer is getting increased profit of \$100. Over time other retailers would replicate the offer and the remaining \$100 will be competed away and the full saving will accrue to the consumer.

This is the expected approach of how competition promotes innovation. The innovator gets the ability to earn a transitory economic profit from the innovation until competitive response reduces it to zero.

It is not clear to Energy Consumers Australia that a vertically integrated retailer has this incentive to truly innovate i.e. to offer a more complete range of energy services to households and small businesses. Their greatest focus is in generating demand to cover the fixed cost of their generation investment, cover their marginal costs and earn the best possible return. We therefore support a strong focus on vertical integration in the next phase of the Inquiry.

#### **Inappropriate counterfactual**

We would also challenge CEG's proposition is that any competition is better than a monopoly.

In general, the theory of introducing competition to a previous monopoly market is that consumers should benefit as competition forces providers to reduce their costs to remain competitive. The ACCC's data provided in the Preliminary Report (Figures 2.8, 2.12, 2.16 and 2.20) shows that increased

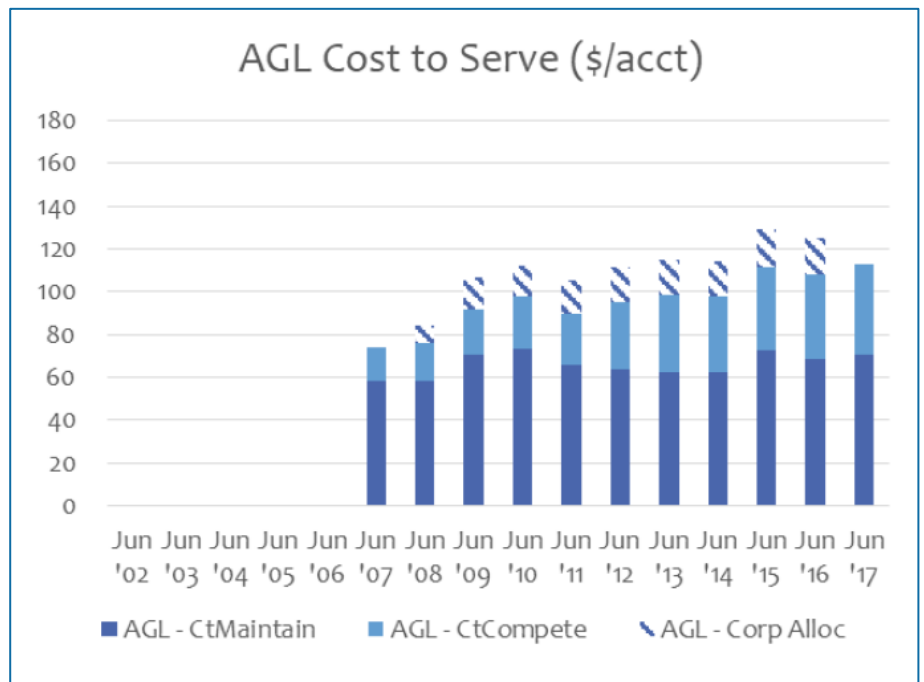


retailer costs have contributed 47% (Vic), 7% (NSW), 31% (SA) and 11% (Qld) of the increase in the average bill between 2007/08 and 2015/16.<sup>5</sup>

Across the entire NEM retail and other costs contributed 28% of the increase in the average bill, greater than environmental costs.

The analysis by Finncorn (2017) for Energy Consumers Australia from public data indicates that these increases come mostly from the ‘Cost to Compete’. This is the retailer’s own costs of customer acquisition recovered across all customers, that is primarily marketing, not the cost to consumers to churn.

**Figure 1: AGL Cost to Serve per account (Source: Finncorn)**



That is, the consequence of introducing competition to retail has had the opposite effect to that expected by theory; retailer costs have increased not decreased.

**Proposition 2**

*The design of the retail electricity market is determining outcomes in upstream markets. The retail market is operating primarily as a ‘coupon market’. Consumers are offered inducements to switch suppliers through discounts with the expectation that they will then migrate to a higher priced offer.*

<sup>5</sup> The Preliminary Report notes that an apparent negative retail margin in NSW in 2007/08 may affect that state’s data.

*Primarily retailers are simple price takers of network and wholesale prices and regard them as a pass through. Competition by headline discount mitigates against the introduction of innovative offers.*

*The Commission should provide analysis of how decisions about the design of the retail market could influence the operation of the wholesale market and network pricing.*

## The Consumer Experience

Competitive markets are a means to an end, they are not an end in themselves. That end is lower prices than would occur under a less competitive model and better customer service driven by innovation.

While there are many potential indicators of the degree of competition in a market, they are secondary if the ends are not being achieved. The ACCC Preliminary Report demonstrates that prices and bills have been increasing rapidly. Our Energy Consumer Sentiment Survey has consistently revealed that consumers rate the value of money of electricity below that of other essential services.

### Price Dispersion

The Preliminary Report discusses price dispersion. It contrasts the view that price dispersion is efficient if consumers are segmented according to their elasticity of demand or reflects a meaningful level of product differentiation, with the analysis that dispersion may only be reflecting information asymmetry and search costs. (ACCC, 2017, p. 124). These alternative outcomes are set up as efficient and inefficient segmentation respectively.

The extent to which this is the appropriate analysis is an empirical question. If there is efficient segmentation, then households with low willingness or ability to pay would be effectively cross-subsidised by those with a higher willingness to pay. If there is inefficient segmentation all prices are likely to still be higher than they need to be and 'vulnerable' consumers are likely to be disadvantaged.

A process designed to 'direct efforts' to reducing misallocation of vulnerable consumers to high priced offers can only be effective to the extent that all vulnerable consumers can be accurately identified.

Retailers have expressed a desire to move vulnerable customers who are on high tariffs to better plans.<sup>6</sup> Some customers evidently will not agree to changes proposed by the retailer. This is not surprising given the lack of trust in the sector as reflected in our Energy Consumer Sentiment Survey. It may also reflect a consumer perception that they are better protected by a 'standing' offer than by a 'market' offer.

It is tempting to think that the solution to this reluctance is to allow the retailer to unilaterally move the consumer to a better plan. There is,

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<sup>6</sup> <https://www.agl.com.au/about-agl/media-centre/asx-and-media-releases/2017/march/agl-announces-a-fairer-way-package-for-vulnerable-customers>

however, a preferable alternative, that alternative is to lower the prices of standing offers and expired market offers.

### Marketing practices

The primary strategy of retailers has been to encourage consumers to switch using the inducement of a high discount and then hope that a large proportion of those customers will drift to 'no discount' offers at the end of a defined benefit period.

This feature of the market has been addressed through a rule change that is part of the Prime Minister's retail agenda requiring retailers to write to customers to alert them that their offer is expiring.<sup>7</sup> This is a useful development.

The effect of this will be to reduce the number of customers on expired offers and hence it will reduce the size of the pool of customers on higher prices. The subsequent revenue reduction will be compensated for by either increasing the prices for the standing offer and expired offer customers, or by reducing the discounts available.

There are other concerns with the current structure of discounts.

To create some trigger for the application of the discount, the discounts are often offered as a reward for paying on time. However, discounts offered in this way are far greater than would ever be allowed if they were penalties for late payment. This is an obvious anomaly.

That the 'discount' is applied to different bill components by different providers is an obvious deficiency; it makes it difficult for a consumer to compare offers in a simple way.

That retailers appeared to have responded to changed requirements about fixed term contracts by creating the construct of a defined benefit period is an obvious deficiency.

This conduct increases information asymmetries and search costs for households and small businesses – it makes it harder for them to shop around and make decisions. In the terms of this analysis this will therefore lead to an increase in 'inefficient segmentation'.

That the conduct is not identified as 'misleading and deceptive conduct' simply reflects the limitations of the definition of that term as applied by the ACCC and the courts. This is one reason why additional rules are required in many sectors as part of market design.

The best remedy for the marketing practices in electricity retailing is to address the issue directly. The electricity market does not rely only on the generic consumer law. It is a complex product purchased infrequently in artificially constrained circumstances. It is reasonable to add additional rules

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<sup>7</sup> See <https://www.pm.gov.au/media/turnbull-government-secures-better-power-deal-australian-families> and <http://aemc.gov.au/Rule-Changes/Notification-of-end-of-fixed-benefit-period>

around the way that price offers can be made to improve consumer confidence and participation in the market.

### Informed and engaged consumers

The Preliminary Report refers to the initiatives currently underway following the commitments given to the Prime Minister by major retailers. Working to help consumers move from high priced, standing offers or expired market offers to more competitive offers can save households and small businesses many hundreds, if not thousands of dollars. Developing new price comparison tools, and augmenting Energy Made Easy can also deliver meaningful and immediate benefits. Energy Consumers Australia therefore strongly supports the Prime Minister's retail agenda. (See (ECA, 2017b))

Longer-term the genuinely innovative, *energy services market* we have described above requires more innovative offers than are currently provided. The AEMC's *Power of Choice* report (AEMC, 2012) identified the need for more 'demand side' engagement in the market to make it effective. That is, to reward consumers who reduce their consumption, or shift their use, in a way that helps balance the grid and run it efficiently.

This more dynamic market is to be built on contestable metering and more dynamic 'cost reflective' network pricing that have, for example, a time of use component or maximum demand charge of some kind.

For consumers to be able to evaluate these offers they need to be able to access details of their historic usage together with tools that can combine this and other information to provide forecast total expenditure outcomes for households.

Energy Consumers Australia endorses the conclusion of the ACCC in the Preliminary Report (P. 136) that additional resourcing should be provided for the promotion and improvement of *Energy Made Easy* and *Victorian Energy Compare*.

The Preliminary Report also notes that the COAG Energy Council has agreed to work to improve consumer access to consumption data, including by simplifying processes for consumer consent, developing options for timely delivery of data and standardising formats. The COAG Energy Council has hired a consultant to report on options for delivering on these important goals. The consultant is including the Energy Consumers Australia *Electricity Meter Data Portability Model* as a 'strawman' in this process.<sup>8</sup>

All these projects are individually valuable; they are based on the value of engaged consumers and what it takes to get them engaged.

Importantly, these approaches do not accept the simple assumptions about consumer behaviour assumed of the utility maximising individual. They begin with the observations from applying psychology and experimental techniques to better understand the conduct of consumers in markets.

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<sup>8</sup> <http://energyconsumersaustralia.com.au/publication/electricity-meter-data-portability-discussion-paper/> last accessed 20 November 2017

Under the rubrics of ‘Behavioural Insights’ or ‘Behavioural Economics’ these observations demonstrate that consumers don’t behave the way the utility maximising model assumes. But absent of additional studies they don’t tell us how consumers will behave in specific markets.

The Consumer Policy Research Centre is finalising a report with the working title *Preconditions for Improved Consumer Engagement* which provides a conceptual framework for analysing the issues in this and similar markets. We believe this report will shortly be submitted to the ACCC and other agencies. Energy Consumers Australia suggests that the framework would be a useful basis or some additional consultation by the ACCC as part of the preparation of the final report.

### *Proposition 3*

*Analysis of electricity price increases needs to start with the consumer. Retail market design needs to encourage innovation rather than exploitation. How the market is designed needs to be informed by an understanding of the preconditions for improved consumer engagement.*

*To enable innovation consumers need access to better tools and better data. A process of market reform needs to be linked to the availability of these tools.*

## Responding to the drivers of higher prices

The previous section has identified some of the end-to-end issues that are resulting in higher prices. We now focus on the specific issues in each part of the supply chain that are explored in the Preliminary Report.

### **Retail Market Structure**

The retail market structure is highly concentrated across three major providers. Each of these providers has a different history.

Under the various processes of reform of the NEM retail businesses were separated from distribution network businesses. In NSW and Victoria this resulted in three and five potential retail businesses. However, in the process of ‘rationalisation’ three firms – Origin, Energy Australia and AGL – acquired these businesses.

For example, Origin Energy was formed in 2000 from the demerger of Boral Limited. Between 2001 and 2002 Origin acquired Powercor and Citipower (it is unclear when the separation of the network assets occurred). In 2006 the Queensland Government sold Sun Retail, the former retail arm of Energex, to Origin. In 2010 Origin purchased the retail divisions of Integral Energy and Country Energy from the NSW Government.

In 2005 the retail business previously associated with the network business AusNet was sold to TRU Energy, the owners of the Yallourn Power Station.

In 2011 TRU Energy acquired the retail business of Energy Australia from the NSW Government and changed its name to Energy Australia.

In brief, the highly concentrated retail market structure has been facilitated by the decisions of governments in the sale of their retail businesses. It is not clear what scrutiny was applied to the acquisitions at the time by the ACCC.

In markets with high economies of scale, concentration should be expected. There is no particular reason why this highly concentrated market structure should not be able to deliver the benefits of competition.

The Australian mobile telecommunications industry has been dominated by three providers since 1992. Occasional attempts at entry by the likes of OneTel, AAPT and Hutchison (as Orange and Three) have failed to develop lasting positions. That has not deterred TPG from attempting the same.

These attempts have been made possible by policy settings that address the barriers to entry, exit or expansion.

A feature of the mobile market has been the regular replacement of the technology standard and the need to invest in additional spectrum holdings. Auctions of spectrum are always designed to ensure a highly competitive process.

Policies to promote entry also include requirements to share certain infrastructure. A consequence of that difference has been a different approach to vertical integration. Mobile operators used to regard base station sites (towers) as strategic assets. Vodafone and Optus subsequently decided to divest themselves of these assets, selling them into one infrastructure operator.

By contrast the electricity retailers have increased their vertical integration. The vertical integration in electricity appears to be making it harder than it should be for new firms to enter the market. The Finncorn (2017) analysis we commissioned, and is attached to this submission, provides insights into how the entry and expansion dynamic is currently playing out.

The Finncorn analysis identifies three categories of retailer. The Big Three Gentailers in Tier 1, two much smaller integrated providers in Tier 2 and the remainder in Tier 3. Finncorn also notes that there are significant economies of scale in electricity retailing. Consequently, policies to increase competitive intensity need to be focussed on the barriers to expansion by existing retailers, especially the Tier 2 providers, rather than facilitating entry.

In our discussions with Tier 3 retailers and other potential participants, the concept of a regulatory sandbox for the electricity sector has been proposed. Regulatory culture and approaches, as well as formal rules, can be barriers to entry and expansion. A regulatory sandbox constitutes a facilitated limited regulatory exemption designed to facilitate innovation. Regulatory sandboxes have been implemented in both the UK and Australia (e.g. Australian Securities and Investment Commission) to assist fintech businesses to innovate.

#### *Proposition 4*

*Whether the highly concentrated retail market can provide competitive outcomes depends to a large degree on the conditions for market entry and expansion. The evidence is that market entry is currently impeded by vertical integration, the state of retail market regulation, and the inter-state disparity of that regulation.*

*The ACCC could in its final report provide guidance to the COAG Energy Council and market bodies on regulatory reform to facilitate market entry and expansion.*

#### **Environmental Policies**

The Preliminary Report indicates that environmental costs made up between 6 and 8% of bills in 2015-16, depending on the State.

These policies address policy goals such as:

- increasing energy efficiency;
- encouraging greater use of renewables in the wholesale market; and
- encouraging the take-up of rooftop solar panels.

The funding of these policies through electricity bills directly increased consumer costs. Structuring the policies in this way can, however, have additional price and distributional impacts.

Energy efficiency and rooftop solar reduce the amount of energy consumed at a greater rate than the cost of networks can be reduced to reflect the change. Further as the Preliminary Report notes in section 3.2.2 the decline in total consumption was not forecast and so networks were in fact still investing for a higher level of consumption driving prices higher unnecessarily.

The impact of rooftop solar reduced total household consumption but had a less pronounced effect on the peak level of demand, which is the major driver of capital investment. Even if the consumption decline had been forecast the consequence of rooftop solar was to increase the network cost as measured in cents per kilowatt hour.

There are also distributional consequences. Owner occupiers are more likely to invest in solar or energy efficiency than renters and consequently the amount of electricity consumed can be expected to have declined more for owner occupiers than renters.

As will be further discussed in wholesale costs renewable sources of energy (both rooftop and grid) require extra expenditure on the frequency and ancillary control services required to keep the grid operating in a secure state.

Environmental costs therefore have both direct, indirect and distributional consequences. The Preliminary Report (section 5.3) has reached the conclusion that future schemes that will impose costs on electricity consumers should be rigorously and transparently analysed. It adds that

further consideration should be given to policies that governments can make to achieve both environmental and affordability objectives together.

In relation to the latter point, the Preliminary Report highlights the value of programs to provide efficiency or solar support schemes to vulnerable households. Since the Preliminary Report was released the approach taken by the Energy Security Board in designing the National Energy Guarantee seeks to solve these issues jointly.

#### *Proposition 5*

*In its final report, the ACCC could provide advice on how the data reporting framework can accurately capture the direct costs, indirect costs and distributional impacts of environmental policies.*

*The ACCC could also provide advice on an appropriate framework for ex ante evaluation of the likely direct costs, indirect costs and distributional impacts of new environmental policies.*

## **Network Costs**

### **Revenue Allowance**

The Commission has noted that across the NEM rises in network costs have been the single biggest contributor to rising prices. The percentage contributions identified by the ACCC between 2007-08 and 2015-16 have been 66% (Vic), 66% (NSW), 63% (SA) and 60% (Qld) (Source: Preliminary Report Figures 2.8, 2.12, 2.16 and 2.20).

While this figure will change from year to year, and the most recent trend has been downward (Preliminary Report Figure 2.35), network costs account for between 40 and 50 per cent of household bills.

The Preliminary Report also provides graphic evidence of the significant increases in the regulatory asset base for the network businesses (Fig 2.34). It also notes that the relative efficiency of networks has decreased over time (Box 3.7).

This situation has arisen because of inter-related elements described in the Preliminary Report, including:

1. the failure to forecast the downturn in consumption that started in about 2008;
2. the mandated reliability standards in New South Wales and Queensland;
3. the potential incentive to over-invest if the allowed rate of return is greater than the enterprise's real cost of capital;
4. limited incentives for firms to operate more efficiently; and
5. weaknesses in the regulatory regime that have been removed that required the regulator to accept potentially excessive revenue claims.



In the discussion in section 5.2 of the Preliminary Report, the ACCC notes the Finkel Review recommendation that consideration should be given to writing down asset values where appropriate. The issue in discussing any write down is who bears the cost of the write down.

If the write down is implemented through a kind of accelerated depreciation, the immediate consequence is an increase in the revenue allowance for networks and an increase in consumer prices. This approach has been advocated for by Energy Networks Australia (Crawford, 2014) (ENA, 2015).

The alternative is for the write down to be implemented as a cost to be borne by the business. This approach appears to conflict with an existing principle in the regulatory framework which is the Revenue and Pricing Principles (section 7A of the National Electricity Law). These principles begin “*A regulated network service provider should be provided with a reasonable opportunity to recover at least the efficient costs the operator incurs.*” It goes on to add that that regard should be had to the regulatory asset base adopted in previous periods.

In this context, it is reasonable to conclude that the consequence of an imposed write down would be a change by investors in their perception of risk and hence a requirement that the regulated cost of capital should increase. This position has also been taken by networks. (ENA, 2014)

A key question is, however, whether the allowed rate of return already factors in the risk of asset stranding. As Simshauser (2017) notes, it would be highly unusual for a regulator to include an explicit allowance for the risk of asset stranding in regulated rates of return; the risks are not catalogued and individually priced by regulators. The question is whether despite this, there is an implicit allowance in this instance. Simshauser provides evidence that there is.

This is surprising since the operation of the Revenue and Pricing Principles virtually guarantees that there is no such risk. Simshauser further notes that revenue has not only been capped, it has also been floored – in no other industry do firms, irrespective of performance, face such a low probability of failure.

The recognition that the treatment of stranded assets has an impact on the rate of return provides a third alternative to the challenge of excessive regulatory asset bases. That is to re-evaluate the cost of capital to better reflect the low risk inherent in these assets. Investors however have invested in these assets having an expectation of these excess returns, but investors will discern the difference between bad historic investments and well-founded future investments.

This alternative approach of eliminating the implicit risk weighting for a non-existent stranded asset risk has a further benefit. A key driver of over-investment has been the reality that the business operators have been getting a higher return than the actual cost of capital they face. Reducing the Weighted Average Cost of Capital (WACC) therefore could appropriately deal with the historic problem and the incentive problem.

The three alternatives listed are not exhaustive. It is, however, important to recognise the two-way linkage between the approach to asset valuation and the determination of the regulated rate of return.

#### *Proposition 6*

*The increases in network regulatory asset combined with declining consumption are contributing to increased prices and bills. While this is an asset under-utilisation issue, it is technically equivalent to asset stranding.*

*The ACCC in its final report should analyse potential responses to this issue including comparing approaches to write downs and the alternative of setting the rate of return to be more consistent with the asset value protection afforded through the regulatory regime.*

#### Cost Reflective Network Tariffs and Prices

The Preliminary Report contemplates other action to lower network costs including the use of smart meters and cost reflective pricing.

As noted previously, the decline in consumption of grid delivered electricity has not been accompanied by commensurate decreases in peak demand. In many parts of the NEM peak demand has continued to increase – triggering efforts to smooth demand through the day (technically to increase the load factor of the networks) and reduce the costs. The preferred mechanism of economists in these circumstances is to use ‘price signals’ to change the incentives and ultimately consumers’ consumption patterns.

The terms ‘prices’ and ‘tariffs’ are both used in the energy market. A useful use of the two terms is to restrict the word ‘tariff’ to refer to the prices networks charge retailers. These prices are logically called a tariff because they are a schedule of rates and charges, and inherently includes the presumption that all users of a specific type then face the same price.

Using the two terms can also make the distinction between the activity that occurs at the network/retailer interface from activity that occurs at the retailer/consumer interface. We adopt that distinction in this sub-section.

Energy Consumers Australia agrees with the ACCC that ‘cost reflective prices’ are part of the solution to reducing the peak load on the network and therefore, bringing down the amount of network investment required.

However, the implementation of these prices can mean some consumer end up paying more – particularly those that may not have the means or the ability to reduce or shift their use.

As the Preliminary Report notes, there are three issues currently impeding the adoption of cost reflective prices, being:

1. low penetration of interval meters in most jurisdictions;
2. consumers do not have access to the tools and data necessary to properly evaluate more complex retail price structures; and

3. the introduction of cost-reflectivity is being progressed in some cases on an opt-in basis at both the network (tariff) and retail (price) level.

With the introduction of metering contestability, the penetration of interval meters will increase as at least all new and replacement meters will need to provide this functionality. Whether take up can be more rapid depends upon the extent to which retailers opt to make attractive pricing offers that rely on this data, and the availability of tools for consumers. It may also require transitional support, whether that be through incomes policy and/or energy efficiency/management initiatives, to ensure that some consumers can continue to access the energy they need and are not left behind.

The need for improved access to data and for reinvestment in *Energy Made Easy* was made earlier in this submission.

Cost reflective tariffs applied by networks are only part of the solution to high network costs if they are effective in changing consumption patterns to reduce the need for network resources that are only rarely used, that is that they level out the peaks in the load profile. This implies a change in the prices consumers face to incentivise different behaviour.

Retail price structures that reward consumers for having lower peaks will be more effective than prices that penalise high peaks. (CSIRO, 2015) (Hobman, Frederiks, Stenner, & Meikle, 2016) Unfortunately, retailers have not been innovative in introducing these prices. The retail response to Ausgrid time of use tariffs provides an illustration of this point.

In the Ausgrid distribution area retailers are charged a time of use tariff for consumers who have an interval meter. The three largest retailers include block and time of use prices in each of their price structures, with the type of meter determining which price structure a consumer is on.

Energy Consumers Australia analysed retail pricing outcomes (on post 1 July 2017 standing offers for no controlled load) using data from 5,000 random meters provided by Ausgrid. The data provided was only the total annual consumption by either block or time of use category for each customer.

This data was then used to calculate the Ausgrid network charge that would apply and the retail charge that would apply for each of four retailers (the Big Three and Mojo to give an example of a smaller retailer.)

Of the sample of 5,000 consumption patterns, 1866 faced higher network charges under the Ausgrid time of use tariff. However, a higher proportion faced higher retail bills under time of use for all four retailers: 3,053 (EA), 2,812 (Origin), 2,932 (AGL) and 2,213 (Mojo).

Figure 1 below shows the proportion of customers worse off on time of use tariffs and prices in the sample. The horizontal axis is the annual consumption of households, the vertical axis is the proportion of consumers worse off on the time of use tariff. The solid lines show proportion of customers (vertical axis) for each provider (and Ausgrid) who consume at or below the relevant consumption level (horizontal axis). The dotted line

shows the proportion of consumers (vertical axis) in the sample whose annual consumption is at or below the consumption level (horizontal axis). This graphically shows the same relativity between the retail and network charges.

**Figure 1: Proportion of customers paying more on time of use prices**

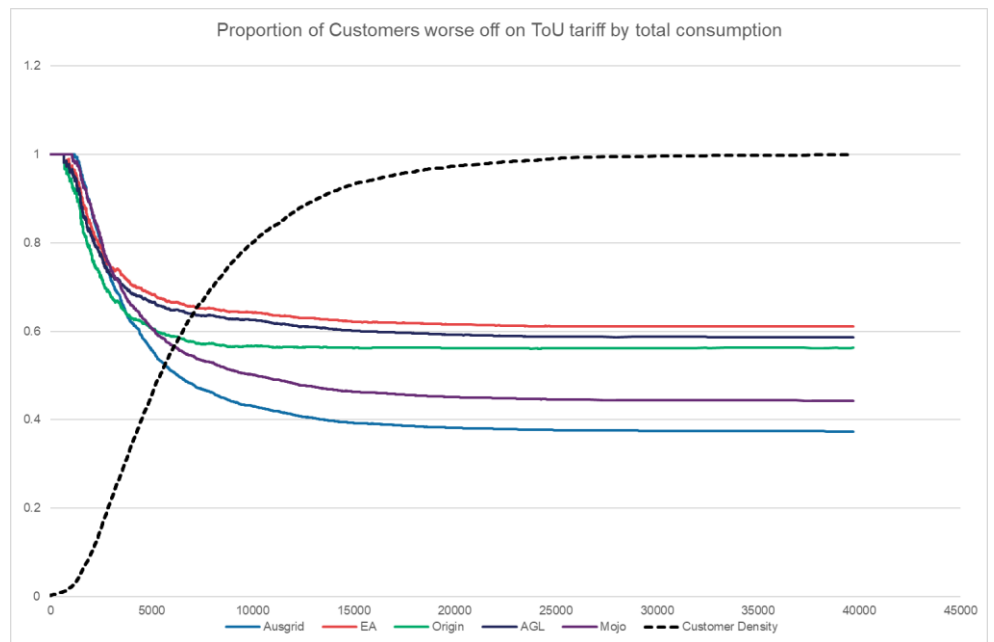


Figure 1 also suggests that the implementation of time of use tariffs and prices is biased to disadvantage low consumption customers. This is in part a consequence of the ‘long run marginal cost’ requirement under new AER guidelines has been interpreted by the sector. Everything other than forecast expansion capital expenditure is treated as a sunk cost that it is assumed in fully cost reflective prices will be recovered in the daily supply charge. Even with transitional cost reflective tariffs, this analysis indicates the outcome is higher daily supply charges. This has the unfortunate consequence of encouraging ‘grid defection’ and compounding rather than alleviating the risk of asset stranding.

**Proposition 7**

*The introduction of cost reflective network tariffs is not being done in a way to facilitate the desired outcome of alleviating the need for future network investment, or to enable savings in replacement expenditure.*

*The ACCC could provide further analysis of how the implementation of cost reflective tariffs can provide future price reductions for consumers.*

## Wholesale Costs

As discussed earlier the ACCC analysis possibly underestimates the impact of recent wholesale price increases in residential and small business bills as the base comparison year 2007-08 was an outlier in wholesale electricity prices,

### Gas prices

One driver of these increases has been gas prices. This impact has been magnified by a greater incidence of gas generation as being the marginal source that determines spot market prices.

Initiatives to improve the gas market will help reduce the price of gas, and hence the impact of the higher prices of gas generated electricity.

In addition, over the near term there is a significant expansion in renewable generation and storage that should reduce the incidence of gas generation being the marginal source. The modelling assumptions for the National Energy Guarantee see most investment in dispatchable and intermittent renewables, not gas, in both the business as usual and guarantee scenarios.

No additional action over that already being progressed is required.

### Over hedging

The ACCC has been able to derive a cost of hedging (Figure 2.32 of the report) by comparing the average wholesale cost of electricity as declared by retailers with the average annual volume weighted spot price. It would be helpful if the ACCC could also provide the data values for the charts to allow stakeholders to undertake further analysis.

The Preliminary Report notes the variability in the net cost of contracting from year to year and by region. It also notes that estimates in other studies (Table 2.1) assume more consistency. However, it also appears that the other approaches underestimate the cost of hedging.

For example, in Victoria hedging costs have ranged from \$10 to \$40 a MWh compared to the assumption of \$10-\$20 used in the Victorian review. The hedging cost in 2013-14 reached almost 50% in 2013-14 and has always been higher than 10% compared to the 5% uplift assumed by the AEMC.

There have been three instances where contract prices were better than spot prices. These were the drought affected year 2007-08 in South Australia and Queensland and the drought and interconnector failure year 2015-16 in Tasmania.

We do not have expertise in the appropriate pricing of risk mitigation measures by retailers, however, the quantum of the premium and the consistently positive value suggests to us that the retailers are paying an excessive insurance premium. Our concern is that any over-payment for hedging points to ineffective retail competition; this is one element of the cost structure that we would expect to be reduced through competition or reduced by innovation in retail offers.

The ACCC also notes that these costs have been higher in more recent periods and that this may reflect difficulties in managing risk (because prices have become more volatile) and liquidity issues.

The latter is certainly the case. The lack of contract liquidity has been identified by Finncorn (2017) as a significant barrier to entry in the retail market as discussed above. A cause of the lack of liquidity is an increase in vertical integration of retailers with generators.

### Impact of Vertical Integration

The Preliminary Report notes (p.82) that the Big Three retailers supply around 70% of retail customers in the NEM. In the period 2009 to 2017 these companies expanded their market share in generation from 15 to 48 per cent.

This so-called 'physical hedge' not only removes the transactions that would otherwise be occurring between separated generators and retailers, it creates an incentive for the generator to sell less contracts over all. A firm with market power has an incentive to exercise that market power.

The issue of vertical integration in the electricity market has long been a concern to the ACCC with two cases of AGL acquisitions making it to the courts. As the report by Frontier Economics provided by AGL to this inquiry notes, the first of these cases was about contract liquidity while the second was about spot price impact by underbidding (Frontier, 2017).

Frontier has modelled the latter case only. Gans and Wolak (2013) review the other case. They compare an *ex ante* analysis of the transaction with an analysis of the market clearing prices subsequent to the transaction. They find reasonable alignment between the prospective and retrospective quantitative impact of the acquisition on wholesale prices. They conclude:

*Both methodologies find a significant increase in wholesale electricity prices associated with the acquisition, which emphasizes the importance of taking into account the extreme susceptibility of short-term wholesale electricity markets to the exercise of unilateral market in any competition analysis in this industry.*

The impact of vertical integration in reducing contract liquidity is not its only effect. As mentioned above a retailer that is vertically integrated with a generator has less incentive to take actions to save consumers money by promoting energy efficiency.

Energy Consumers Australia can see the value to investors in vertical integration as it reduces their risk. However, we can also see that it provides mixed incentives for managers. We are also cognisant that there are no divestiture powers in Australian competition legislation.

We do, however, believe that the interests of investors and consumers can be improved by considering an operational separation regime between the retail and generation parts of the 'gentailers.' As the ACCC is aware, operational separation regimes have been used in other sectors to address concerns arising from vertical integration.

The elements of this regime would be relatively simple. The retail and generation operational management would be required to be separate and to have a remuneration plan that is only based on the operational performance of their own business. Transactions between the two businesses (i.e. contracts) must be provided on the same terms and conditions as each would enter into with third parties, all supported by a transparency requirement and an appropriate reporting regime.

The monitoring of the terms and conditions can either be conducted by the contracts being reported privately to the AER or publicly. The consequences of the contracts would be visible in annual accounting reports.

This increases contract market liquidity (though still over the counter contracts). It also creates different incentives for the managers. The retail manager will buy from some other generator if they can get a lower price (that is how they are remunerated), the generator will be interested in contracting as much of its capacity it can.

Unlike separation in other areas (e.g. network businesses and their competitive market activity) there is less need for 'rigour' around the operation of common functions like IT, HR and finance. This is really 'accounting plus incentives' separation rather than a full blown operational separation.

Energy Consumers Australia doesn't have the capability to fully evaluate this proposal. The ACCC states that the final report will further explore the impact of vertical integration and the high level of concentration on wholesale prices.

### *Proposition 8*

*In exploring the impact of vertical integration, the ACCC should consider the outcomes in both wholesale and retail markets of alternative market arrangements. The alternatives considered should only be those that are possible to achieve with existing policy levers.*

*The light-touch operational separation model proposed above is one alternative that could be considered. In conducting this analysis, the ACCC should consider how any such arrangements may benefit the operation of the National Energy Guarantee.*

## The way forward

The Preliminary Report has provided a new and comprehensive review of the issues, challenges and concerns that are fundamental to addressing the major electricity affordability challenges households and small businesses are facing.<sup>9</sup> In this submission we have focussed on the areas that we perceive to have the greatest impact on future prices.

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<sup>9</sup> These are well summarised at the top of page 151 of the Preliminary Report.

We have not commented on the current generation mix, the incentives for new generation or the mechanisms appropriate for integrating energy and climate policy. These issues are being directly addressed by the COAG Energy Council and the Energy Security Board.

The ACCC has noted that its focus for the remainder of the inquiry is to identify 'practical, viable and meaningful measures' to ease electricity price pressure.

We understand that the Inquiry Team will be undertaking targeted consultations on specific issues in the coming months. We believe the following areas should be the focus of this work:

1. The ongoing monitoring of prices, average bills and elements of the cost stack to determine the effectiveness of policy.
2. The impact of the operation of the retail market on upstream markets.
3. The retail market design requirements to facilitate consumer choice and control.
4. Reforms to facilitate retail market entry and expansion.
5. The accurate reporting of environmental costs directly added to retail prices and more effective regulatory impact assessment of new proposals.
6. A comparison of different approaches to revaluing network assets including the consideration of whether reviewing the basis for determining the regulatory rate of return is a more appropriate approach.
7. Analysis of how cost reflective tariffs and prices can be implemented to deliver lower future prices for consumers.
8. In considering responses to vertical integration, analyse the benefits of introducing a form of operational separation of 'gentailers.'

Energy Consumers Australia would welcome the opportunity to engage with the Commission on these, or any other matters, as the final report is prepared.



## References

- ACCC. (2017). *Retail Electricity Pricing Inquiry; Preliminary report*. Australian Competition and Consumer Commission.
- AEMC. (2012). *Power of Choice*. Australian Energy Market Commission.
- CEG. (2017). *Competition in electricity retail markets*. Competition Economists Group.
- Crawford, G. (2014, December). Assessing Proposals for Regulatory Write-downs. *Network*(53).
- CSIRO. (2015). *Australian Consumers' Likely Response to Cost Reflective Electricity Pricing*. Retrieved from <https://publications.csiro.au/rpr/download?pid=csiro:EP152667&dsid=DS2>
- ECA. (2017a, July). *ACCC Electricity Supply and Pricing Inquiry: Submission*. Energy Consumers Australia. Retrieved from <http://energyconsumersaustralia.com.au/publication/accc-electricity-supply-pricing-inquiry-submission/>
- ECA. (2017b). *AER Customer price information Issues Paper: Submission*. Energy Consumers Australia. Retrieved from <http://energyconsumersaustralia.com.au/publication/aer-customer-price-information-issues-paper-submission/>
- ENA. (2014). *Written-down value? Assessing proposals for electricity network write-downs*. Energy Networks Association. Retrieved from [http://www.energynetworks.com.au/sites/default/files/written-down\\_value\\_august\\_2014.pdf](http://www.energynetworks.com.au/sites/default/files/written-down_value_august_2014.pdf)
- ENA. (2015). *Future Network Cost Recovery and Depreciation: Regulatory and policy options*. Energy Networks Association. Retrieved from [http://www.energynetworks.com.au/sites/default/files/ena\\_future\\_network\\_cost\\_august\\_2015.pdf](http://www.energynetworks.com.au/sites/default/files/ena_future_network_cost_august_2015.pdf)
- Finkel, A., Moses, K., Munro, C., Effeney, T., & O'Kane, M. (2017). *Independent Review into the Future Security of the National Electricity Market: Blueprint for the Future*.
- Finncorn. (2017). *State of Play: Quantifying the Competitive Outcomes of Retailing in the NEM*. Finncorn Consulting Pty Ltd. Retrieved from <http://energyconsumersaustralia.com.au/wp-content/uploads/Finncorn-State-of-Play-Quantifying-the-competitive-outcomes-of-retailing-in-the-NEM.pdf>
- Frontier. (2017). *Effects of vertical integration in capacity bidding behaviour*. Frontier Economics.
- Hobman, E., Frederiks, E., Stenner, K., & Meikle, S. (2016, May). Uptake and usage of cost-reflective electricity pricing: Insights from psychology and behavioural economics. *Renewable and Sustainable Energy Reviews*, 57, 455-467. Retrieved from <http://www.sciencedirect.com/science/article/pii/S1364032115015270>
- Simshauser, P. (2017). Monopoly regulation, discontinuity & stranded assets. *Energy Economics*, 384-398.
- Wolak, F., & Gans, J. (2013, March 30). A Comparison of Ex Ante versus Ex Post Vertical Market Power: Evidence from the Electricity Supply industry. doi:<http://dx.doi.org/10.2139/ssrn.1288245>

