



ACCC monitoring of electricity supply in the National Electricity Market

Discussion paper

21 November 2018

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1. ACCC monitoring of electricity supply in Australia

On 20 August 2018, the then Treasurer, the Hon Scott Morrison MP, directed the Australian Competition and Consumer Commission (**ACCC**) to hold a public inquiry that will monitor the prices, profits and margins in the supply of electricity in the National Electricity Market (**NEM**).¹ The **Inquiry** has been directed pursuant to s. 95H(1) of the *Competition and Consumer Act 2010* (CCA). A copy of the terms of reference and the direction is available at the [ACCC website](#).

This monitoring function follows the ACCC's Retail Electricity Pricing Inquiry (**REPI**), which concluded on 30 June 2018.² The Final Report from REPI, containing 56 recommendations to address electricity affordability, was published on 11 July 2018 and is available from the [ACCC website](#). The recommendations made by the ACCC are now being considered for adoption by governments.

The ACCC is required to provide a first report to the Treasurer by 31 March 2019 and no less frequently than every six months thereafter. The Inquiry is to conclude and provide its final report by 31 August 2025.

According to the direction from the Treasurer the first report is to focus on 'setting out the analytical framework for monitoring and provide information about expectations of market outcomes and market participant behaviour.' This discussion paper seeks views from stakeholders on these issues by **19 December 2018** to inform the ACCC's first report.

1.1. Issues for comment

There are a number of elements of the Inquiry that are still being finalised, including new legislation that, if enacted, would enable enforcement action to be taken by the ACCC in response to issues identified in the electricity sector.³ This discussion paper does not seek feedback on these issues but rather focuses on the monitoring task given to the ACCC by the Treasurer. Once any legislative changes have been finalised, the ACCC will consider the need for public consultation or guidelines on the approach the ACCC will take to utilising new enforcement tools.

Broadly, in this discussion paper, the ACCC is seeking views from stakeholders on the approach the ACCC should take to monitor the electricity market. The ACCC will also have regard to its experience in REPI, which involved many types of analysis that may also be applied in the ongoing monitoring role.

Feedback from stakeholders will inform the ACCC's first report to the Treasurer in March 2019. Reports from that point forward, to be delivered at least every six months, will focus on analysis of the electricity market. The ACCC expects the first such report of that nature to be delivered to Government in September 2019.

Views are sought from stakeholders in three key areas:

- The analytical framework for monitoring, including our expectations of market outcomes and participant behaviour and the measures we will use to monitor the electricity sector
- Monitoring the impact of policy developments

¹ The NEM is the wholesale electricity market that covers Queensland, New South Wales, Victoria, South Australia, Tasmania and the Australian Capital Territory.

² REPI was undertaken at the direction of the then Treasurer on 27 March 2017.

³ Consultation material relating to this draft legislation is available at: <https://treasury.gov.au/consultation/c2018-t337042/>

- Process and timing for the collection of information

In providing responses, where relevant, the ACCC expects stakeholders will draw on their experiences with REPI, other inquiries, regulators and government bodies. This may include both as a contributor of information and data and as a user of the outputs.

1.2. Timetable

An indicative timetable for the first two reports are set out in the table below.

| Date | Outcome |
|------------------------------|---|
| 21 November 2018 | Release of discussion paper |
| 19 December 2018 | Due date for feedback in response to the discussion paper |
| January/February 2019 | Targeted consultation with interested parties |
| 31 March 2019 | First report to be provided to the Treasurer |
| 30 September 2019 | Second report to be provided to the Treasurer |

1.3. Process and ACCC contacts

The ACCC invites written submissions in response to this discussion paper.

To make a submission or ask a question about the Inquiry you can email the Inquiry team at ElectricityMonitoring@acc.gov.au.

If you would like to provide information over the phone, please contact:

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Feedback to this discussion paper is requested by **19 December 2018**.

The ACCC will also undertake targeted consultation with interested parties in preparing the first report.

1.3.1. Treatment of information

The Inquiry is a public process and written feedback will generally be posted on the ACCC's website.

The CCA allows interested parties that provide written feedback to the Inquiry to make claims for confidentiality in certain circumstances.

The ACCC can accept a claim for confidentiality from the party if the disclosure of information would damage their competitive position. If the ACCC is satisfied that the

confidentiality claim is justified, it must keep that information confidential unless it considers that disclosure of the information is necessary in the public interest.

If the ACCC considers that the confidentiality claim cannot be upheld, the ACCC will provide the parties with an opportunity to withdraw part or all of their feedback. If this information is withdrawn, then the ACCC will not take it into account. If a party elects not to withdraw the information, then the ACCC may disclose the information publicly. If the ACCC subsequently considers that disclosure of the information that has initially been treated as confidential may be necessary in the public interest, the ACCC will consult with the party providing the information before any such disclosure is made.

The ACCC invites interested parties, where appropriate, to discuss confidentiality issues further with the ACCC in advance of providing written feedback.

Any information that parties would like to claim confidentiality over should be provided in a separate document and should be clearly marked as 'confidential' on every page. Reasons must be provided in support of the claim for confidentiality, so that the ACCC can properly consider whether the claim is justified.

2. The National Electricity Market

The NEM is a wholesale market through which electricity generators and retailers trade electricity in Australia. It interconnects Queensland, New South Wales, Australian Capital Territory, Victoria, Tasmania and South Australia through a transmission grid and several interconnectors. Western Australia and the Northern Territory are not connected to the NEM.

Energy retailers are the main customers in the market. Retailers buy wholesale electricity through the NEM and bundle it with network services for sale to residential, small businesses, commercial and industrial energy users. The NEM has a total generating capacity of more than 50 000 MW⁴ and supplies electricity to almost 10 million residential and business customers.

There are over 300 registered participants in the NEM, including generators, transmission network service providers, distribution network service providers, and market customers.⁵ They play a crucial role in bringing retail electricity services to customers:

- Generators produce electricity using a range of technologies and then sell it on the wholesale market
- Network operators deliver electricity to customers using transmission and distribution networks
- Retailers buy electricity on the wholesale market and pay network operators to deliver the electricity to their customers.

A number of government and non-government organisations oversee the delivery of electricity from generators to customers.

The Australian Energy Market Agreement creates the NEM and sets out the legislative and regulatory framework for Australia's energy markets. The Council of Australian Governments (COAG) Energy Council sets the direction of energy policy throughout Australia and

⁴ Australian Energy Market Operator, *Generation Information Page*, accessed on 12 November 2018, <https://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Planning-and-forecasting/Generation-information>

⁵ Australian Energy Market Operator, *Fact Sheet – The National Electricity Market*, accessed on 12 November 2018, <https://www.aemo.com.au/-/media/Files/Electricity/NEM/National-Electricity-Market-Fact-Sheet.pdf>

promotes energy policy reform, including the harmonisation of regulatory arrangements. The key national bodies in the NEM are:

- Australian Energy Market Operator (**AEMO**) is responsible for operating electricity markets and power systems including dispatching the required electricity to meet customer demand.
- Australian Energy Market Commission (**AEMC**) makes and amends the national electricity and energy retail rules. The AEMC also reports to, and conducts independent reviews for, the COAG Energy Council.
- Australian Energy Regulator (**AER**) is the national economic regulator and the body responsible for monitoring and enforcing national energy legislation. It regulates wholesale and retail energy markets, and energy networks everywhere except Western Australia under national energy legislation and rules. The AER also sets the amount of revenue that network operators are allowed to recover.
- Energy Security Board (**ESB**) has been established by the COAG Energy Council to coordinate the implementation of the reform blueprint produced by Australia's Chief Scientist. ESB's Health of the National Electricity Market reports track the performance of the electricity system, the risks it faces, opportunities for improvement and affordability issues.

There are a number of state and territory agencies that continue to have regulatory functions to varying degrees, including in some cases regulation of retail electricity markets.

3. Framework for monitoring and types of analysis

The terms of reference state that matters to be monitored and taken into consideration in the Inquiry include but are not limited to:

- i. electricity prices faced by customers in the National Electricity Market including both the level and the spread of price offers, analysing how wholesale prices are influencing retail prices and whether any wholesale cost savings are being passed through to retail customers
- ii. wholesale market prices including the contributing factors to these such as input costs, bidding behaviour and any other relevant factors
- iii. the profits being made by electricity generators and retailers and the factors that have contributed to these
- iv. contract market liquidity, including assessing whether vertically integrated electricity suppliers are restricting competition and new entry, and
- v. the effects of policy changes in the National Electricity Market, including those resulting from recommendations made by the ACCC in its Retail Electricity Pricing Inquiry report of July 2018.

The REPI Final Report highlighted the significant overlap in reporting on prices in the NEM that currently exists. The terms of reference also state that the ACCC should make use of publicly available information, including that published by the AER, AEMC or AEMO, where appropriate.

3.1. The analytical framework for monitoring

The analytical framework that the ACCC uses to undertake its monitoring role will shape the way it goes about this task, the data it collects, the analysis it undertakes, and the

expectations of market outcomes and participant behaviour against which it views the monitoring results.

These elements are set out in the following parts of this paper:

- in section 3.2, we discuss the measures that we might use to monitor the factors listed in the direction
- in section 3.3, we discuss some possible expectations of market outcomes and market participant behaviour that we would use to assess the observed outcomes
- in section 4 we discuss how we might monitor the impact of policy developments.

The ACCC is seeking feedback on all of the elements with specific questions for stakeholders listed at the end of each section and a consolidated list at Appendix A.

The ACCC has identified three potential aspects of an analytical framework that are likely to be relevant to the Inquiry's monitoring activities:

- a market failure framework: which considers whether a particular market is functioning as an effective competitive market, or whether there are inefficiencies or failures that are impeding competitive forces. Economic theory provides a number of conditions under which competition is likely to be impeded, such as markets with characteristics like barriers to entry, externalities, or information asymmetry. A market failure framework will provide the basis for analysis regarding the impact of these inefficiencies on market outcomes, such as prices, the allocation of resources, and consumer welfare.
- a legal framework: which considers the regulatory framework (including legislation, regulations, codes of conduct, etc) that relates to the supply of particular goods or services. This enables an assessment of whether conduct in the market is compliant with relevant legislation or, more broadly, whether the existing legal provisions are fit for purpose and, if not, what amendments could be made to improve them.
- a distributional or equity framework: which considers the consumer and producer outcomes in the market, and the degree to which those outcomes align with expectations of the market, including any particular goals relating to equity or fairness. These frameworks may be relevant to electricity issues around the distribution of customers across different types of offers, and for analysis relating to hardship and vulnerable customers.

The ACCC seeks stakeholder views on:

- 1) The appropriate analytical framework(s) for the ACCC's monitoring activities, including
 - (a) What frameworks are most relevant to the electricity market
 - (b) How the ACCC should incorporate these overarching frameworks into its monitoring activities

3.2. Measures the ACCC will use

The ACCC's view, as expressed in REPI, is that a consistent NEM-wide approach to retail price monitoring, including collection of data on revenue, costs and profits as well as what consumers are actually paying, is essential to providing governments and policymakers with a clear picture of how well the electricity market is functioning.

The ACCC invites stakeholder views on:

- 2) Current overlapping and inconsistent methodologies to market monitoring, and suggestions for preferred approaches.

3.2.1. Retail electricity prices

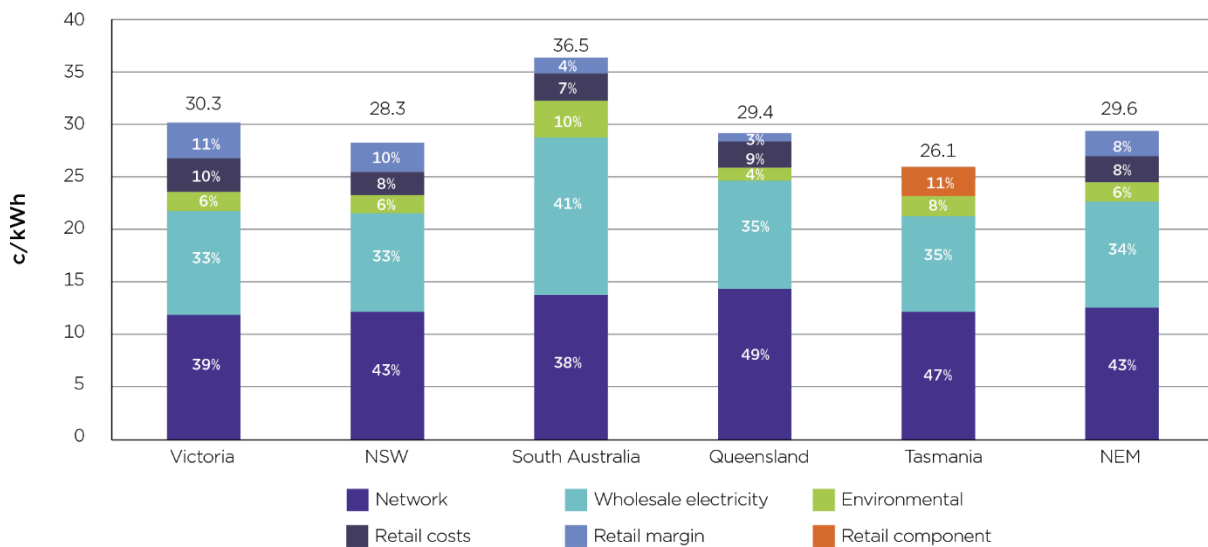
The direction requires the ACCC to monitor electricity prices faced by customers in the NEM including both the level and spread of price offers, analysing how wholesale prices are influencing retail prices and whether any wholesale cost savings are being passed through to retail customers.

3.2.1.1. Retail prices

The ACCC reported on the level and spread of retail prices in REPI in a number of forms:

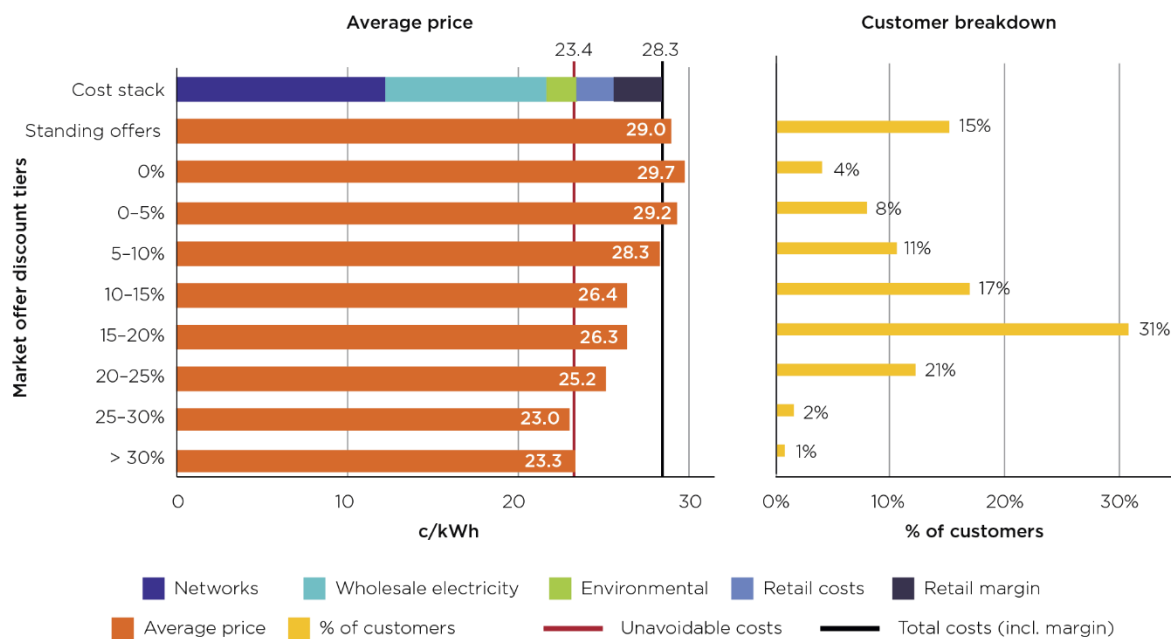
- Data was collected from retailers on the revenue earned from sales of retail electricity (by customer type and region), costs incurred by retailers and the volume of electricity sold which were used to derive prices for electricity in cents per kilowatt hour (c/kWh). For example:

Figure 1: Average residential customer effective prices, 2017-18, c/kWh, real \$2016-17, excluding GST (Figure 1.5 in the REPI Final Report)



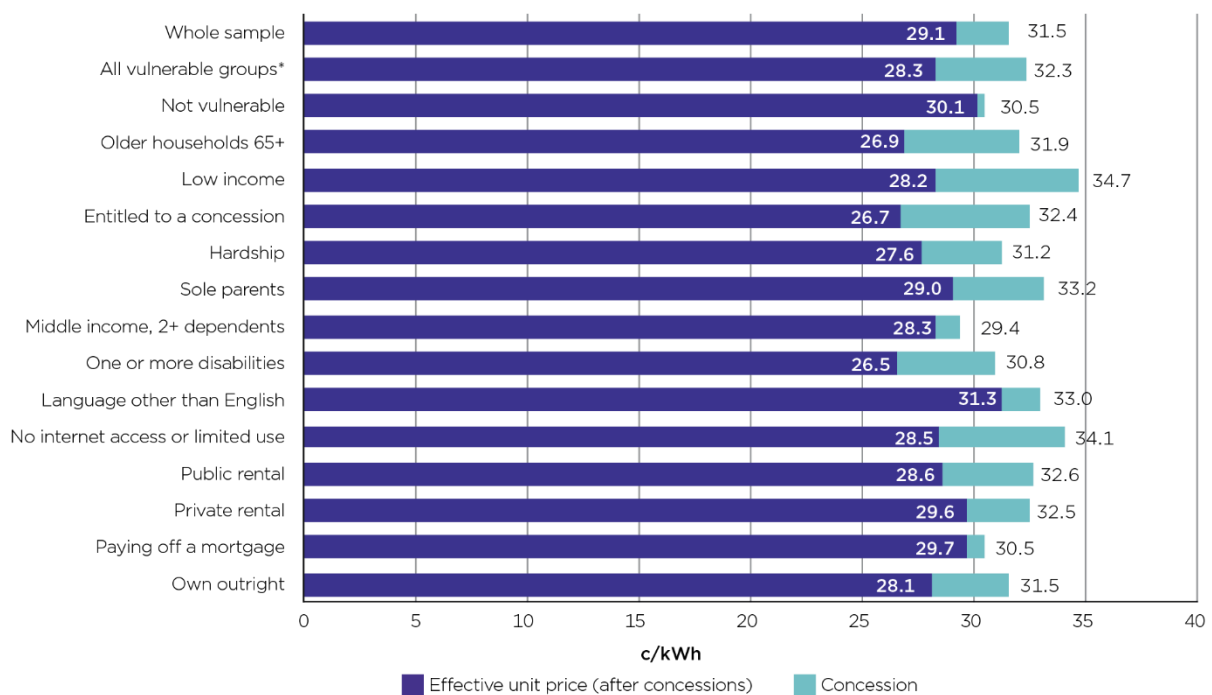
- Data was collected from retailers on the revenue earned from sales of retail electricity (by customer type and region) and the volume of electricity sold by market/standing offer and by various tiers of customer discount which was used to derive average prices (in c/kWh) for electricity by different retail offers. For example:

Figure 2: Average effective price outcomes (c/kWh) and average proportion of customers by offer category, NSW residential non-solar customers, 2017-18 est., real \$2016-17, excluding GST (Figure 1.11 in the REPI Final Report)



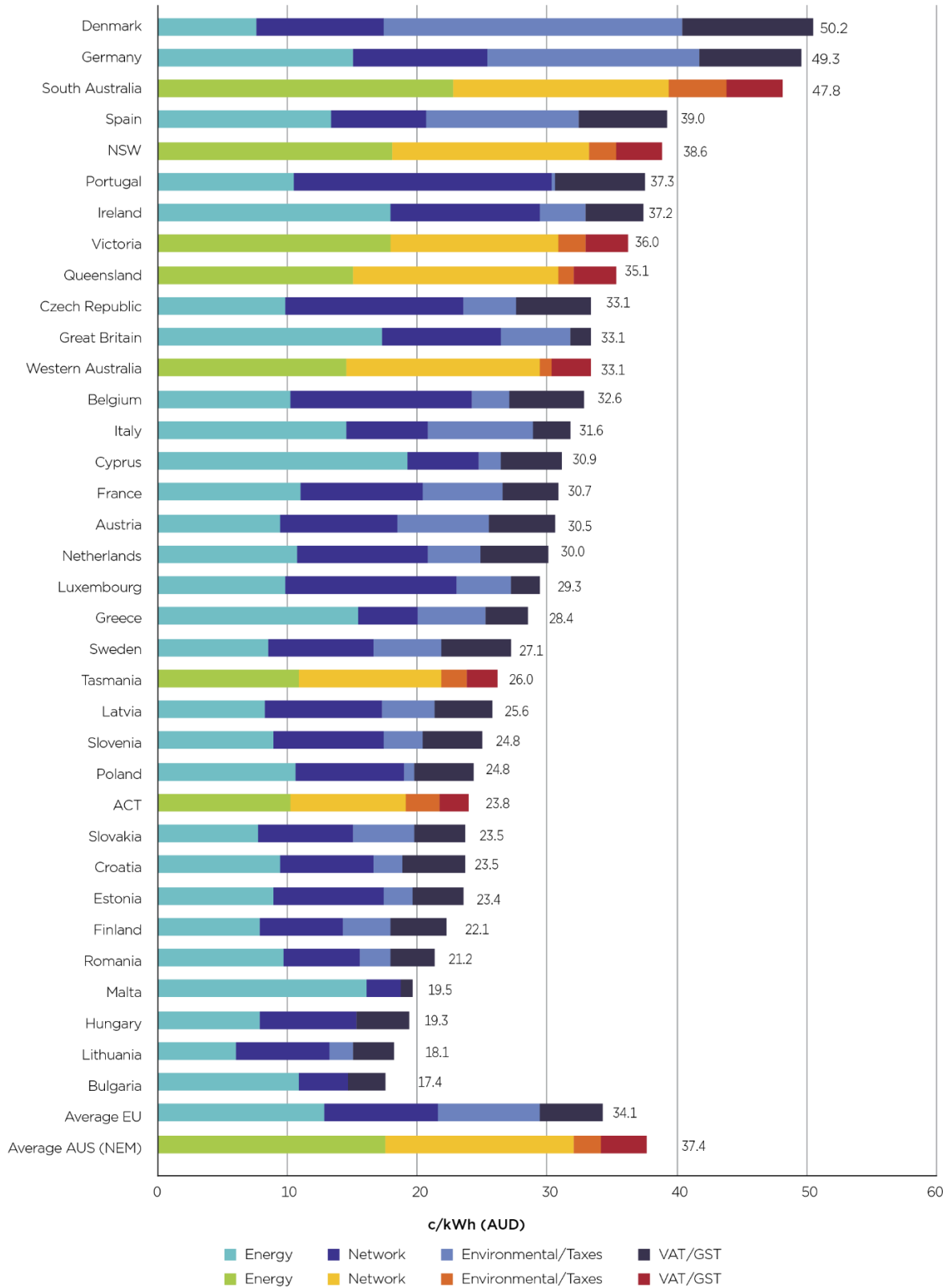
- The ACCC engaged a survey company to conduct a survey of over 4 000 consumers which enabled analysis of demographic and socioeconomic indicators and their relationship to electricity prices. For example:

Figure 3: Average effective unit charge (c/kWh) for residential non-solar survey respondents by target group (with and without concessions) (Figure 15.1 in the REPI Final Report)



- An external firm was engaged to report on Australia’s electricity prices compared with prices from other comparable jurisdictions. For example:

Figure 4: 2018 nominal international prices c/kWh, including GST (Figure 1.20 in the REPI Final Report)



A number of other agencies also report on electricity prices, including:

- ABS measures electricity costs as part of the CPI—including retailer surveys relating to electricity prices in capital cities. The ABS CPI for electricity is the longest running electricity price series in the NEM.
- AEMC Residential Electricity Price Trends Report—provides advice on what factors are driving changes in electricity prices in the near term. To estimate price changes the AEMC uses real offer data and also estimates price trends for the next three years based on publicly available data and wholesale market modelling.
- AEMC Retail Energy Competition Review—analyses market factors in retail electricity and gas markets including customer activity (switching and consumer sentiment), consumer outcomes (typical savings achieved when switching retailers), ease of market entry and exit, independent rivalry and prices.
- AER report on the performance of the retail energy market—reports retailer market performance information and residential prices based on the AER’s electricity bill benchmark, and includes representative low income costs and affordability metrics.
- AER State of the energy market—includes information on retail prices using pricing for residential single rate offers published on the Energy Made Easy and Victorian Energy Compare websites.
- Essential Services Commission of South Australia—South Australia Energy Retail Offer Prices—provides generally available residential and small business offers for small consumers in South Australia.
- ESC Victoria—Victorian Energy Market Report—provides generally available residential and small business offers for small consumers in Victoria.
- IPART—monitors and reports annually on competition in the retail electricity market in NSW, including price reporting. The report uses its own data, plus AEMC data to calculate residential and small business standing offers and most common market offers.
- QCA—in addition to its price-setting function for regional Queensland, monitors and reports annually on retail prices in the south east Queensland retail electricity market.
- OTTER—produces reports that review the service standards and pricing of the Tasmanian energy supply industry. These reports include prices for residential and small business consumers based on adjusted annual consumption data.
- St Vincent de Paul Tariff Tracking project—reports at least annually on retail electricity prices on a state-by-state basis across the NEM looking at standing and market offers by retailer and highlighting differences between network regions.
- ECA SME Retail Tariff Tracker project—collects retail offers available to small businesses from the AER’s Energy Made Easy website and directly from retailers (commenced 2017).
- The Brotherhood of St Laurence conducts or commissions research into energy issues, including energy affordability, sometimes partnering with other bodies.

In consultation with the COAG Energy Council, ESB is developing a Strategic Energy Plan for the NEM. The Strategic Energy Plan consists of five high-level outcomes each supported by a number of key objectives. ESB is currently undertaking a public consultation process for developing metrics to assess the outcomes and objectives of the Strategic Energy Plan.⁶ There is a degree of overlap between the measures being considered by the ESB and the areas the ACCC is likely to monitor.

With regards to the retail price monitoring activities already in place, there is likely to be a number of metrics that are not currently reported that would inform policy debate and the

⁶ COAG Energy Council, *Consultation on Proposed Metrics for Strategic Energy Plan*, <http://www.coagenergycouncil.gov.au/publications/consultation-proposed-metrics-strategic-energy-plan>

assessment of competitive dynamics in the retail sector and the NEM more broadly. These may include the measures discussed above from the ACCC's REPI report, of the breakdown of retail prices; the proportion of customers on different discount offers; and the demographic breakdown of prices. The ACCC will consider the most valuable additional metrics to seek from industry under this Inquiry.

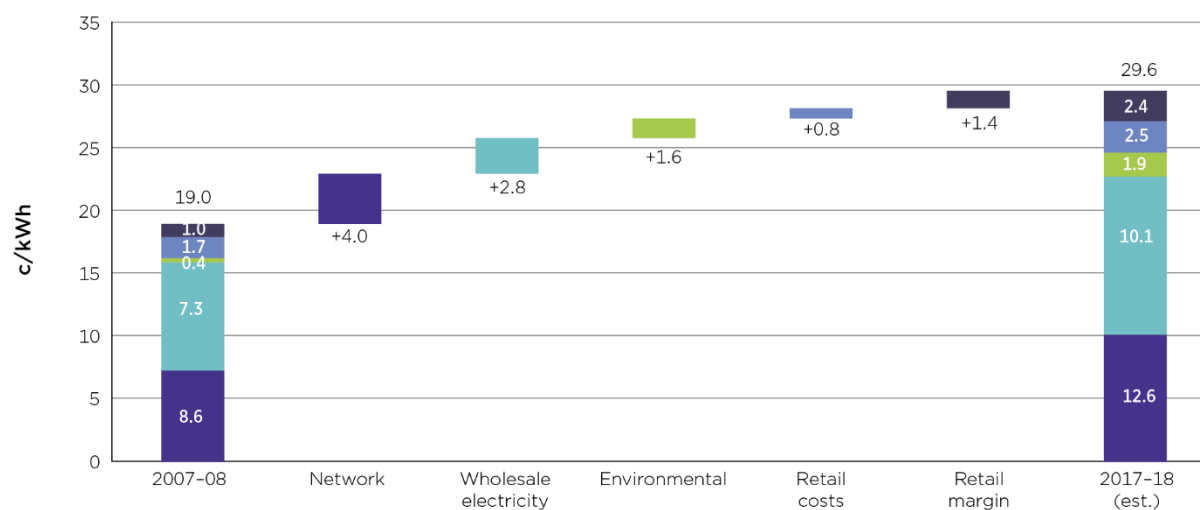
The ACCC welcomes views from stakeholders on:

- 3) Which retail price data collected and reported on in REPI (as set out above) was insightful and should be produced on an ongoing basis as part of the monitoring function.
- 4) Is there retail price data not reported on in REPI that would be useful to understanding how well the retail market is functioning?
- 5) Are there different approaches to the analysis of REPI or other data that would be more useful than the analysis reported in REPI?

3.2.1.2. *Effect of wholesale prices on retail prices*

The main way in which the ACCC examined this issue in REPI was through the 'cost stack' analysis that showed the contributors to the increases in retail prices over time. This data, collected from retailers, produced a view of how much wholesale price increases had contributed to the overall price increase over a ten year period. For example:

Figure 5: Change in average residential customer effective prices (c/kWh) from 2007-08 to 2017-18, NEM-wide, real \$2016-17, excluding GST (Figure 1.3 in the REPI Final Report)

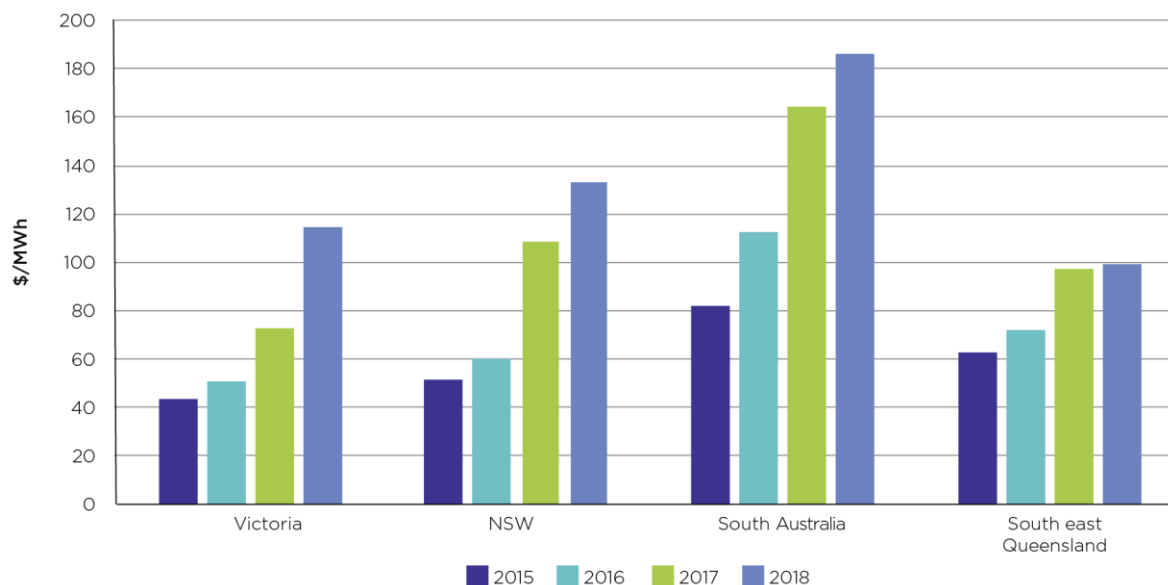


| | 2007-08 | 2017-18 estimate | Change | Increase in cost of component | Component increases as a share of total growth |
|-----------------------|---------|------------------|--------|-------------------------------|--|
| Network | 8.6 | 12.6 | 4.0 | 46% | 38% |
| Wholesale electricity | 7.3 | 10.1 | 2.8 | 39% | 27% |
| Environmental | 0.4 | 1.9 | 1.6 | 446% | 15% |
| Retail costs | 1.7 | 2.5 | 0.8 | 48% | 8% |
| Retail margin | 1.0 | 2.4 | 1.4 | 134% | 13% |
| Total cost stack | 19.0 | 29.6 | 10.6 | 56% | n/a |

Source: ACCC analysis based on retailers' data.

In addition, at section 5.4 of the REPI final report, the ACCC examined the practices of vertically integrated businesses in the NEM. The ACCC collected data on mass market transfer prices charged by integrated business' wholesale trading arms to their retail business. This enabled the ACCC to report data such as:

Figure 6: Average mass market transfer price, by region (\$/MWh) (Figure 5.9 in the REPI Final Report)



In order to monitor this issue on an ongoing basis the ACCC considers it will need to establish a robust way of measuring the relationship between wholesale and retail prices. In REPI, the ACCC found that wholesale prices make up 34% of retail prices on average across the NEM. However the proportion of retail prices made up by wholesale costs differs across regions and changes over time. Measuring the relationship between wholesale and retail prices is complicated by the way in which retailers hedge their wholesale position with financial contracts over a period of time. In effect, the wholesale cost of supplying electricity today is a function of the retailers' decisions over the past two years to take positions on contracts that are linked to future wholesale spot prices.

The ACCC invites comments on:

- 6) The best way to measure the relationship between wholesale and retail prices over time, including:

- (a) How wholesale prices affect retail prices and the ways in which this can be measured
 - (b) What types of monitoring or analysis would best reveal the relationship between wholesale and retail prices
- 7) What types of data are necessary to undertake this analysis

3.2.2. Wholesale market prices

The direction requires the ACCC to monitor wholesale market prices including the contributing factors to these such as input costs, bidding behaviour and any other relevant factors.

The ACCC notes that the AER already has a significant role in monitoring the wholesale electricity market, including its wholesale market performance monitoring functions.⁷ The AER publishes reports on wholesale market activity in the NEM, with more detailed analysis and reporting of extreme prices (above \$5000 per megawatt hour) and the effectiveness of competition and the efficient operation of the NEM.

To the extent possible, the ACCC intends to work with other agencies such as the AER and the AEMC, where possible, to harness their work in analysing the wholesale market. Notably, the direction given to the ACCC by the Treasurer notes that the ACCC should make use of publicly available data produced by agencies including the AER, AEMO and the AEMC.

Where the ACCC produces its own analysis of wholesale market prices this should complement rather than duplicate the work of other agencies. The ACCC expects to have to undertake some data collection of its own either where other agencies do not collect and report on certain aspects of the market or where there are legal or practical issues with the ACCC drawing on their data (for example legal restrictions preventing data sharing between the agencies).

The ACCC welcomes any views from stakeholders on:

- 8) Analysis of the wholesale market that the ACCC could produce to complement the existing work of other agencies monitoring wholesale prices.

3.2.3. Generation and retail profits

The direction requires the ACCC to monitor the profits being made by electricity generators and retailers and the factors that have contributed to these.

In respect of retail profits, the ACCC conducted this type of analysis in REPI through its cost stacks. For example, the ACCC was able to show through this analysis that retail profits were between 3 and 11 per cent of an average residential bill (depending on the region).

The ACCC sees merit in continuing this type of analysis into the future to monitor changes in retail profits and to understand the drivers of any changes.

In terms of wholesale profits, again there is likely to be overlap here with the work of the AER and the ACCC intends to work with the AER to limit duplication to the extent possible, and to leverage the AER's work in this area.

⁷ The AER intends to release a report on the performance of the wholesale market in December 2018.

There is considerable vertical integration between wholesale and retail in the NEM. This poses challenges for measuring wholesale- or retail-specific profits, as profits can be allocated between each function of the business via transfer pricing. The ACCC will consider the best way to measure the profitability of vertically integrated businesses.

Monitoring of wholesale profits will also need to take into account other factors, such as the energy-only structure of the NEM (see section 3.2.2 for more detail), which can result in all generators earning higher revenues during periods of high prices. Fuel costs and supply issues have also proven significant in recent years.

The ACCC welcomes any views from stakeholders on:

- 9) Analysis of retailer and generator profitability. In the case of wholesale profitability, what analysis could the ACCC produce to complement existing work monitoring generators or retailers?

3.2.4. Contract market liquidity

The direction requires the ACCC to monitor contract market liquidity, including assessing whether vertically integrated electricity suppliers are restricting competition and new entry.

The ACCC reported on a number of contract market measurements in the REPI report, including:

- The different hedging strategies used by retailers in practice, including where retailers sourced hedging contracts and how much internal generation vertically integrated players use. This reporting also revealed that some small retailers operate with little hedging in place at all.
- The ACCC undertook a detailed review of the 'over the counter' (OTC) market, including measuring participation levels, trading volumes and trade frequency. The ACCC was able to compare price outcomes in the OTC market to those in the ASX market, and also investigate the different experiences of large and small retailers in trading for contracts.

The REPI Final Report also set out a number of findings regarding contract (or 'hedging') markets in the NEM. In particular:

- The OTC market remains a significant platform for contracting, and provides particular niche contract types that are important for small retailers.
- Smaller retailers are less able to effectively manage risk through contract markets and this has limited the expansion of small retailers.
- Vertically integrated players generally prioritise wholesale profits over retail competitiveness.
- Contract market liquidity is particularly problematic in South Australia.

The ACCC seeks stakeholder views on:

- 10) What methodology should the ACCC use in its approach to monitoring hedge contract markets? Are there specific metrics or pieces of information that are not currently reported that would be informative for market participants and policy makers? What types of data or information would be most valuable, and who should they be sought from?
- 11) The value of the types of contract market measurements reported on in REPI, and which, if any, or these measurements should be prioritised to be monitored on an ongoing basis.

3.3. Expectations of market outcomes and market participant behaviour

The ACCC is required to provide information in its first report about expectations of market outcomes and market participant behaviour. In other words, the ACCC's report will cover how we expect the electricity market to function. In part, this will draw on the competition analysis undertaken in the REPI Final Report.

We note that the REPI Final Report also made a range of policy recommendations, which (if implemented) will impact on market functioning and participant behaviour. As set out in section 4 of this paper, the ACCC will monitor the impact of these policies (and any other relevant policy changes). However, the expectations at question in this section focus on what sort of competitive dynamics and observable behaviour the ACCC considers to be reflective of well-functioning markets.

3.3.1. Principles and background

Electricity is a particularly complex sector to set out expectations regarding market outcomes and participant behaviour because it is supplied in part by market forces and in part by regulated infrastructure. Each segment of the electricity supply chain has its own market dynamics (or regulatory challenges), which affect outcomes for end users.

In general, competitive markets are meant to drive prices down until they approach the cost of production. This in turn rewards producers that are most efficient, and incentivises investment in lower-cost production technology. A well-functioning market incentivises businesses to compete for customers on price and quality, and provides accurate information to consumers to assist them to choose the best provider for their needs.

Effective regulation caps the returns earned by monopoly infrastructure while maintaining incentives to make appropriate investments and provide the quality of service the community expects.

Electricity is also an essential service, which means customers generally cannot opt out of purchasing. Therefore, market outcomes and participant behaviour can have significant impacts on the safety and hardship of vulnerable consumers. This makes it particularly important that electricity is delivered efficiently and fairly because as noted in the REPI Final Report vulnerable consumers can be more severely impacted by rising electricity prices. It also makes it important that customers, market participants and governments have a clear understanding about the support that is available to vulnerable customers.

3.3.2. The role of price volatility in the wholesale market

In setting up a monitoring framework and defining expectations of market outcomes and market participant behaviour it is important to recognise the structure and design features of the NEM's wholesale market. As an 'energy-only' market, generators in the NEM are only paid for the energy they produce. When an energy-only market is operating effectively, generators will offer their capacity into the market at a price where they can cover their fuel and operating costs.

Generators then rely on periods of spot price volatility (high prices) to cover fixed costs and make returns on capital investment. The NEM is designed to incentivise new entry or expansion through price signals in the spot market such that frequent or persistent higher prices would ordinarily be a signal for new investment. A price cap of \$14 500/MWh places a limit on exposure to extremely high prices, but is designed to be high enough to encourage new investment.

Similarly, if demand decreases relative to supply, this will put downward pressure on prices which in turn should prompt high-cost generators to exit, temporarily or permanently, from the market.

The NEM relies heavily on effective competition to drive efficient price outcomes, with a minimal overlay of rules that limit the way in which generators can bid into the market other than the price caps and good faith rebidding rules. Neither of these rules limit participants from using any market power they may have to raise prices in the market.

As noted in the REPI Final Report, it is difficult to distinguish high prices which are simply an efficient signal for new investment, and high prices which persist because the market is not working effectively due to a lack of efficient entry taking place. The NEM has, until recently, appeared to have operated well in respect of eliciting a market response to signals of an over- or under-supply of generation capacity.

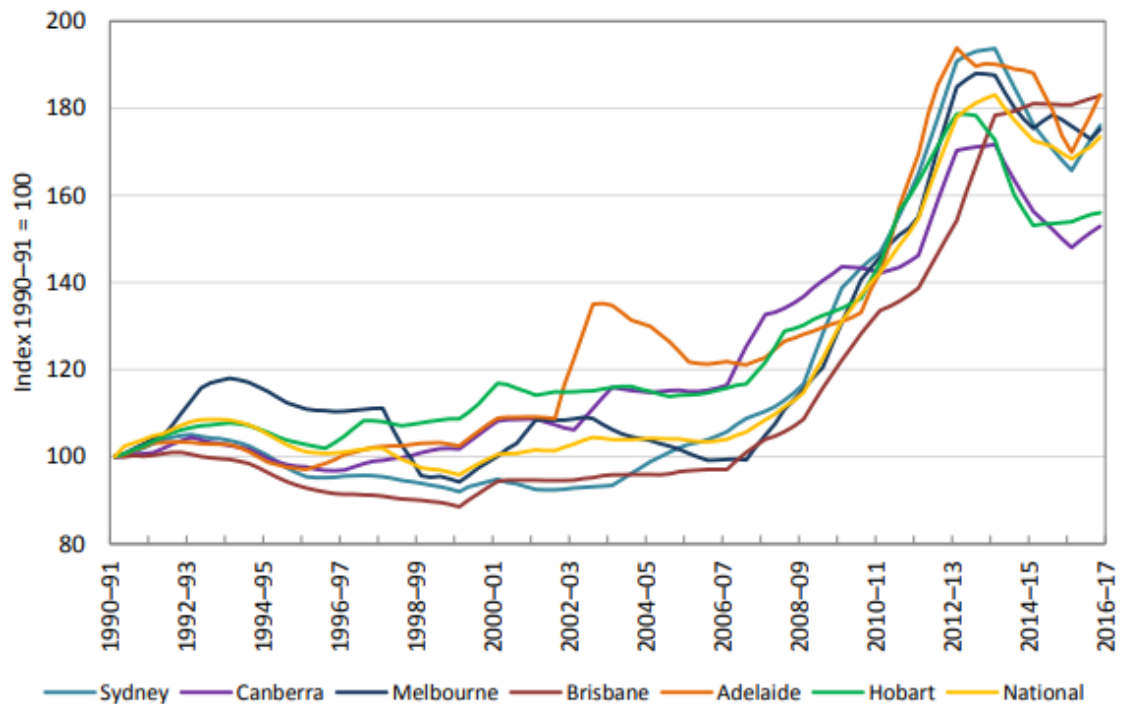
However, over the past two years, wholesale prices have risen well above historic levels. While some of this price rise has been driven by increases in gas and coal fuel costs, supply conditions have also tightened following the closure of a number of generators, including the Northern and Hazelwood power stations.

The REPI Final Report also noted that to the extent that higher prices are being driven by a tighter supply-demand balance, and these conditions are forecast to persist, these price signals should lead to an investment response. In this regard, one area the ACCC will likely monitor is the market's response to periods of high prices in the wholesale market. An insufficient investment response may indicate there are barriers to entry that pose a risk to effective competition in the wholesale market. However, the ACCC recognises that these issues are complex and that consideration will need to be given to other factors, such as the policy environment and technological developments.

3.3.3. Findings from the ACCC's REPI Final Report

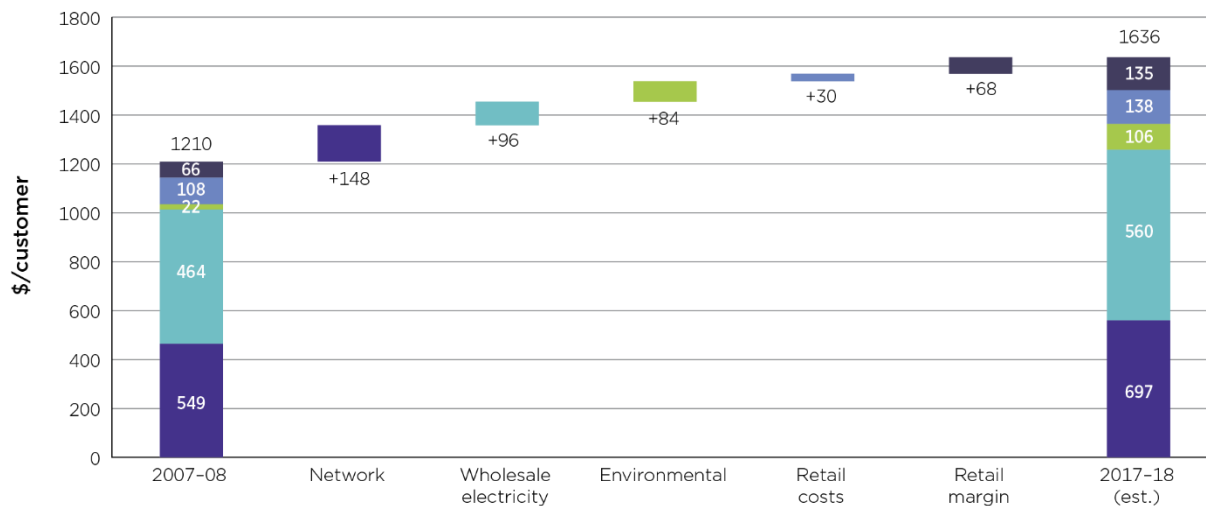
In the lead up to the ACCC's REPI, retail prices for electricity had increased significantly (see Figure 7 below). Collecting information and data from market participants allowed the ACCC to report on the contribution of each segment of the supply chain to those price increases. For example, the increase in prices across the NEM between the financial years 2007-08 and 2017-18, broken down by supply chain segment is shown below in Figure 8. The ACCC was also able to analyse the behaviour of market participants that contributed to these price increases.

Figure 7: Retail price index (inflation adjusted) – Australian capital cities (Figure 1.2 in the REPI Preliminary Report)



Note: Consumer price index electricity series, deflated by the consumer price index for all groups.
 Source: ABS, Consumer Price Index 6401.0, Australia.

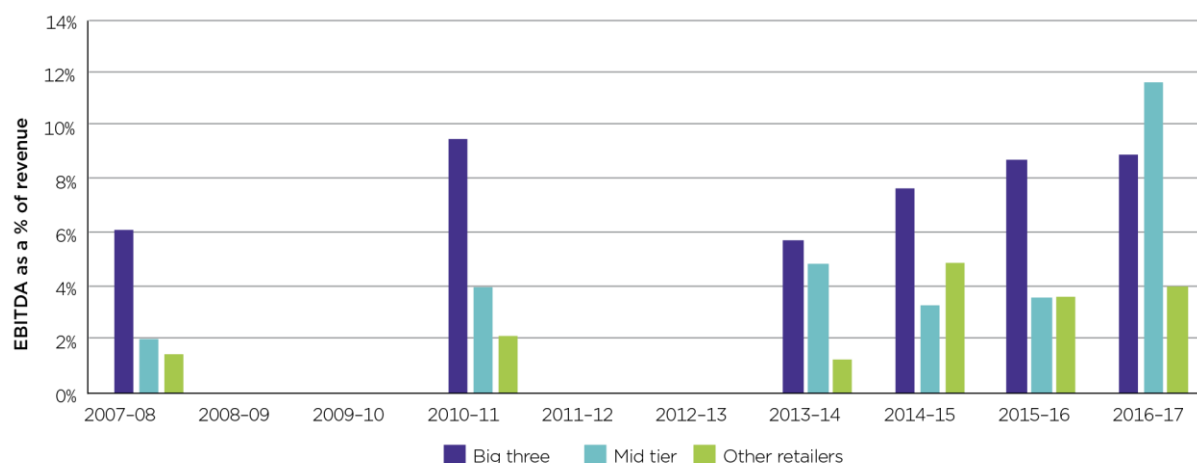
Figure 8: Change in average residential customer bill from 2007-08 to 2017-18, NEM-wide, real \$2016-17, excluding GST (Figure 1.2 in the REPI Final Report)



The ACCC reported on a number of market issues, including

- Retail margins have remained high, even as retail competition has seemingly intensified with the entry of many new retailers and prominent marketing campaigns (See Figure 9).

Figure 9: NEM-wide EBITDA as a percentage of revenue over time, by retailer, 2007-08 to 2016-17, residential customers (Figure 6.4 in the REPI Final Report)



- Similarly, REPI reported that the entry of numerous new retailers has not resulted in significant erosion of the market share of the big three retailers. Since 2012, the big three's market share has declined from 75.8 per cent of NEM customers to 66.6 per cent. New entry would usually be associated with undercutting margins and winning customer share. Monitoring may assist the ACCC to understand why reducing the barriers to entry in retail electricity does not appear to have resulted in significant changes to competitive dynamics in the retail sector.
- Retailers also appear to put significant resources into acquiring new customers and retaining customers that initiate a switch. While this can benefit customers that shop around regularly, it also results in price confusion and higher prices for customers that are not able to easily shop around.
- As set out in the REPI report, the connection between wholesale prices and retail prices is complex, as most retailers enter into hedging contracts that smooth their wholesale costs over time. Retail prices may therefore not adjust quickly to changes in wholesale prices. However, over time, a competitive retail market should ensure that consumers benefit from reductions in wholesale costs.
- In certain regions, large generators appear to be able to bid in a relatively unconstrained manner, particularly during peak demand periods. As noted above, energy-only markets are designed to allow for high prices when the supply-demand balance is tight, but this should incentivise new investment and entry. If very large generators can sustainably behave in a way to take advantage of high prices while deterring competitive entry, this may be an indication the market is not functioning appropriately.

3.3.4. Questions for comment

The ACCC welcomes comments from stakeholders on:

12) How an efficient electricity market can be expected to operate.

13) What specific measurements or thresholds of market outcomes or participant behaviour should be used in the ACCC's electricity market monitoring?

4. Monitoring the impact of policy developments

The direction requires the ACCC to monitor and take into consideration the effect of policy changes in the NEM, including those resulting from recommendations made by the ACCC in the REPI Final Report. These recommendations included:

- Abolishing the current retail 'standing' offers (which are not the same between retailers), and replacing them with a new 'default' offer consistent across all retailers, set at a price determined by the Australian Energy Regulator (AER).
- Requiring retailers to reference any discounts to the new 'default' offer pricing determined by the AER, making it easier for consumers to genuinely compare offers. Conditional discounts, such as pay-on-time discounts, must not be included in any headline discount claim.
- Voluntary write downs of network overinvestment, including by the NSW, Queensland and Tasmanian governments (or equivalent rebates).
- Premium solar feed-in-tariff schemes should be funded by state governments and the small scale renewable energy scheme should be phased out.
- Government support to make bankable new investment by new players in generation capacity to help commercial and industrial customers and drive competition.
- Restructuring of Queensland generators into three separately owned portfolios to improve competition.
- The introduction of market making obligations in South Australia's contracting market, and a repository of OTC hedge contract trades that provides de-identified trade information to the public.

The ACCC also expects other policy developments will have an effect on the market from time-to-time and this will be reflected in the ACCC's monitoring.

A number of other bodies have roles in assessing the implementation of policies affecting the electricity market. For example, the AEMC assesses the potential impact of policy changes through its rule change processes. The ESB is tasked with implementing the recommendations in the 2017 Independent Review into the Future Security of the National Electricity Market (the Finkel Review), part of which is overseeing a Strategic Energy Plan. The Strategic Energy Plan will likely include assessing the effect of existing and new policy tools in the electricity market. The ACCC intends to draw on the work of other review bodies and incorporate it into any assessment or recommendations the ACCC may make to Government.

An example of a policy likely to impact the market is that of the implementation of a default market offer price. The default market offer is intended to be a service, which all retailers in a distribution zone are obliged to offer customers that do not otherwise take up a market offer for the provision of electricity retail services.⁸

In relation to the default market offer, the Australian Government has directed the AER to develop mechanisms for:

- setting a maximum price for the default market offer in each network distribution region that does not have a regulated standing offer price (recommendation 30 and 49), and

⁸ Australian Energy Regulator, *AER Position Paper Default Market Offer Price*, November 2018, <https://www.aer.gov.au/system/files/AER%20position%20paper%20-%20Default%20Market%20Offer%20price%20v1.1%20-%20209%20November%202018.PDF>

- determine a reference bill amount for each network distribution region, from which headline discounts can be calculated (recommendation 32 and 50).⁹

The default market offer price and reference bill are scheduled to be determined by the AER by 30 April 2019 for a commencement date of 1 July 2019.¹⁰

The ACCC considers it will be important to monitor how the market participants including wholesalers, retailers and consumers respond to implementation of default market offer price in various jurisdictions.

The ACCC seeks feedback from interested parties on:

14) What policy issues are likely to impact on the functioning of the electricity market and should therefore be a focus of monitoring by the ACCC?

15) What methodological approaches could be undertaken by the ACCC in monitoring the impact of particular policy developments?

5. Process and timing for the collection of information

The ACCC is required to produce its first report by 31 March 2019, and then to report no less frequently than every six months. Where necessary, the ACCC may provide additional reports to address pressing or emerging issues. In practice, the ACCC expects to provide regular reports in around March and September each year. The ACCC envisages that the contents of these two yearly reports could broadly follow a regular pattern. For example, each year the March report could provide updated data and analysis on certain measurements, while the September report could do the same for other measurements. The measurements reported on in each report may evolve over the course of the Inquiry, but the intention is that most measurements will be reported on consistently in order to build up a time series. Another benefit of a regular reporting pattern is that stakeholders will know when they will be required to submit data and so will be able to manage this within their businesses.

ACCC analysis of other specific issues may be included in each report from time to time, as they arise.

The ACCC is interested in stakeholder views on how to best structure the timing of monitoring activities within this reporting schedule. Certain measurements may be better suited to the March or September report. For example, some measurements may be captured on a financial year basis, which might suggest they are better suited to being reported on in the September report. On the other hand, for some of these financial year measurements, the three months between the end of June and end of September may not be sufficient for participants to finalise data, provide it to the ACCC, and to allow the ACCC to analyse and report on the information.

Information on potential measurements the ACCC may seek to monitor on a regular basis is set out in section 3.1.

The collection of monitoring information may also involve the regular issuing of information requests to market participants, including in the form of compulsory information gathering

⁹ Australian Treasurer and Minister of Energy, *Letter to AER*, <https://www.aer.gov.au/system/files/Letter%20to%20the%20AER%20Chair%20-%20default%20pricing.pdf>

¹⁰ Australian Energy Regulator, *AER Position Paper Default Market Offer Price*, November 2018, <https://www.aer.gov.au/system/files/AER%20position%20paper%20-%20Default%20Market%20Offer%20price%20v1.1%20-%20%209%20November%202018.PDF>

notices (s.95ZK notices). The ACCC will endeavour to structure these requests in a way to balance the need for certain types of data and information with the burden associated with responding to such requests.

The ACCC seeks feedback from interested parties on:

- 16) The proposed reporting schedule and how it may affect your business.
- 17) Other similar reporting requirements your business is subject to, and the degree to which the ACCC's monitoring activities could align with those requirements (or information could be shared between agencies to minimise duplicative requests).
- 18) Whether particular measurements are likely to be more suitable for the March or September report, given the time of year those measurements are typically produced by your business, and the time required to finalise and collate that information.
- 19) Factors that may impact the proposed schedule of information requests and reports, such as other regulatory obligations at similar times.
- 20) For information that needs to be requested from market participants, whether any information can be effectively captured via voluntary requests.
- 21) Any relevant issues regarding the timing of reporting such as the value of certain information being available at certain times of year.

Appendix A: Consolidated list of questions

The ACCC seeks stakeholder views on:

- 1) The appropriate analytical framework(s) for the ACCC's monitoring activities, including
 - (a) What frameworks are most relevant to the electricity market
 - (b) How the ACCC should incorporate these overarching frameworks into its monitoring activities
- 2) Current overlapping and inconsistent methodologies to market monitoring, and suggestions for preferred approaches.
- 3) Which retail price data collected and reported on in REPI (as set out above) was insightful and should be produced on an ongoing basis as part of the monitoring function.
- 4) Is there retail price data not reported on in REPI that would be useful to understanding how well the retail market is functioning?
- 5) Are there different approaches to the analysis of REPI or other data that would be more useful than the analysis reported in REPI?
- 6) The best way to measure the relationship between wholesale and retail prices over time, including:
 - (c) How wholesale prices affect retail prices and the ways in which this can be measured
 - (d) What types of monitoring or analysis would best reveal the relationship between wholesale and retail prices
- 7) What types of data are necessary to undertake this analysis
- 8) Analysis of the wholesale market that the ACCC could produce to complement the existing work of other agencies monitoring wholesale prices.
- 9) Analysis of retailer and generator profitability. In the case of wholesale profitability, what analysis could the ACCC produce to complement existing work monitoring generators or retailers?
- 10) What methodology should the ACCC use in its approach to monitoring hedge contract markets? Are there specific metrics or pieces of information that are not currently reported that would be informative for market participants and policy makers? What types of data or information would be most valuable, and who should they be sought from?
- 11) The value of the types of contract market measurements reported on in REPI, and which, if any, or these measurements should be prioritised to be monitored on an ongoing basis.
- 12) How an efficient electricity market can be expected to operate.
- 13) What specific measurements or thresholds of market outcomes or participant behaviour should be used in the ACCC's electricity market monitoring?
- 14) What policy issues are likely to impact on the functioning of the electricity market and should therefore be a focus of monitoring by the ACCC?
- 15) What methodological approaches could be undertaken by the ACCC in monitoring the impact of particular policy developments?

- 16) The proposed reporting schedule and how it may affect your business.
- 17) Other similar reporting requirements your business is subject to, and the degree to which the ACCC's monitoring activities could align with those requirements (or information could be shared between agencies to minimise duplicative requests).
- 18) Whether particular measurements are likely to be more suitable for the March or September report, given the time of year those measurements are typically produced by your business, and the time required to finalise and collate that information.
- 19) Factors that may impact the proposed schedule of information requests and reports, such as other regulatory obligations at similar times.
- 20) For information that needs to be requested from market participants, whether any information can be effectively captured via voluntary requests.
- 21) Any relevant issues regarding the timing of reporting such as the value of certain information being available at certain times of year.