



ICRC

independent competition and regulatory commission

Issues Paper: Framework and Approach

Standing offer prices for the supply of electricity to small customers from 1 July 2020

Report 12 of 2019, September 2019

The Independent Competition and Regulatory Commission is a Territory Authority established under the *Independent Competition and Regulatory Commission Act 1997* (the ICRC Act). The Commission is constituted under the ICRC Act by one or more standing commissioners and any associated commissioners appointed for particular purposes. Commissioners are statutory appointments. Joe Dimasi is the current Senior Commissioner who constitutes the Commission and takes direct responsibility for delivery of the outcomes of the Commission.

The Commission has responsibilities for a broad range of regulatory and utility administrative matters. The Commission has responsibility under the ICRC Act for regulating and advising government about pricing and other matters for monopoly, near-monopoly and ministerially declared regulated industries, and providing advice on competitive neutrality complaints and government-regulated activities. The Commission also has responsibility for arbitrating infrastructure access disputes under the ICRC Act. In discharging its objectives and functions, the Commission provides independent robust analysis and advice.

The Commission's objectives are set out in section 7 of the ICRC Act and section 3 of the *Utilities Act 2000*.

Correspondence or other inquiries may be directed to the Commission at the following address:

Independent Competition and Regulatory Commission
PO Box 161
Civic Square ACT 2608

The Commission may be contacted at the above addresses, by telephone on (02) 6205 0799, or by fax on (02) 6207 5887. The Commission's website is at www.icrc.act.gov.au and its email address is icrc@act.gov.au.

How to make a submission

This Issues paper provides an opportunity for stakeholders to provide feedback and evidence to inform the development of the draft report. It will also ensure that relevant information and views are made public and brought to the Commission's attention.

Submissions on the issues paper close at **5pm Friday 11 October 2019**, and can be emailed to the Commission at icrc@act.gov.au.

Alternatively, submissions may be made online through the form on the Commission's website: www.icrc.act.gov.au or mailed to the Commission's address below.

Independent Competition and Regulatory Commission
PO Box 161
Civic Square ACT 2608

The Commission encourages interested parties to make submissions in either Microsoft Word format or PDF (OCR readable text format – that is, they should be direct conversions from the word-processing program, rather than scanned copies in which the text cannot be searched).

The Commission is guided by and believes strongly in the principles of openness, transparency, consistency, and accountability. Public consultation is a crucial element of the Commission's processes. It is the Commission's preference that all submissions it receives be treated as public and be published on the Commission's website unless the author of the submission indicates clearly that all or part of the submission is confidential and not to be made available publicly. Where confidential material is submitted, the Commission prefers that this be under a separate cover and clearly marked 'In Confidence'. The Commission will assess the author's confidentiality claim and discuss appropriate steps to ensure that confidential material is protected while maintaining the principles of openness, transparency, consistency and accountability.

The Commission secretariat may be contacted at the above addresses, by telephone on (02) 6205 0799 or by fax on (02) 6207 5887. The Commission's website is at www.icrc.act.gov.au.

Contents

How to make a submission	ii
1 Introduction	1
1.1 Background to the investigation	1
1.2 Purpose of the issues paper	2
1.3 Commission's role and objectives	2
1.4 What do the terms of reference ask the Commission to consider?	3
1.5 Indicative investigation timeline	5
1.6 Structure of the issues paper	5
2 Commission's pricing model and inputs	6
2.1 Price control approach	6
2.2 Pricing model	7
3 Transparency and comparability of electricity offers in the ACT	18
3.1 Proposed approach	18
3.2 Electricity offers and bills in the ACT	19
3.3 Recent regulatory developments in other jurisdictions	22
3.4 Current regulatory arrangements in the ACT	27
3.5 Potential implications for the ACT	28
4 Consolidated list of questions	32
Appendix 1 Background: the ACT retail electricity market	33
Appendix 2 Terms of reference	37
Abbreviations and acronyms	40
References	41

List of tables

Table 1.1	Indicative timeline for the retail electricity price investigation	5
Table 2.1	Components of the 2019–20 retail electricity price	10
Table 3.1	Retail electricity offers as at 19 February 2019	21
Table 3.2	Comparison of retail electricity standing offers and annual bills as at 19 February 2019	21
Table 3.3	Comparison of retail electricity market offers and prices as at 19 February 2019	22
Table 3.4	Default market offer prices from 1 July 2019	25
Table 3.5	VDO prices for residential customers	26

List of figures

Figure 2.1	The Commission’s electricity pricing model	9
Figure A1.1	Electricity customer numbers, 31 March 2019	33
Figure A1.2	Customers on standing offers, January 2016 to September 2019	34
Figure A1.3	Retail market share for small customers (residential and business), March quarter 2019	35
Figure A1.4	Retail market share for small customers, January 2017 to March 2019	36

List of boxes

Box 1.1	Section 7 and 19L: Commission objectives	2
Box 1.2	Section 20(2): Commission’s considerations	3
Box 1.3	Terms of reference: what the Commission has been asked to consider	4

1 Introduction

1.1 Background to the investigation

The Independent Competition and Regulatory Commission (Commission) is a statutory body set up to regulate prices, access to infrastructure services and other matters in relation to regulated industries. The Commission is the independent regulator in the ACT and is responsible for setting regulated retail prices for the supply of electricity to small customers¹ on ActewAGL's regulated tariffs.

The Commission undertakes price investigations in accordance with Part 3 of the *Independent Competition and Regulatory Commission Act 1997* (ICRC Act or the Act), and issues price directions under Part 4 of the Act.

On 28 May 2019 the Treasurer gave the Commission terms of reference under the ICRC Act to make a price direction for the supply of electricity by ActewAGL to customers on its regulated retail tariffs for the four year regulatory period commencing 1 July 2020.² The current price direction sets the maximum prices that ActewAGL can charge for its regulated retail tariffs from 1 July 2017 to 30 June 2020.

In addition, the terms of reference require the Commission to investigate whether changes are needed in the Territory to improve the comparability of electricity offers (including standing offers and market offers). This has come in the context of the Australian Energy Regulator (AER) implementing a Default Market Offer (DMO) in jurisdictions where retail electricity prices are not regulated, and the Victorian Government implementing a Victorian Default Offer (VDO). An important objective of both the DMO and VDO is to make it easier for consumers in these jurisdictions to compare electricity offers.

As part of this price investigation the Commission intends to implement the updated methodology from its 2018–19 electricity model and methodology review (methodology review). The review found that the Commission's model was methodologically sound and simple to implement. The review also identified some areas for improvement and the Commission therefore made decisions to change how some cost categories are estimated. The Commission intends to use the updated methodology in this price investigation. As part of this price investigation the Commission will determine the inputs to the methodology and seek stakeholder feedback in these inputs

This issues paper begins the consultation process to: (a) determine retail electricity prices from 1 July 2020 to 30 June 2024, and (b) identify whether changes are needed in the Territory to improve the transparency and comparability of electricity offers, and

¹ A small customer consumes less than 100MWh of electricity over any period of 12 consecutive months.

² See Appendix 2 for a full copy of the terms of reference.

the type of changes that would be appropriate. It sets out the Commission's proposed approach to the investigation and discusses specific issues for the investigation.

1.2 Purpose of the issues paper

There are several reasons for this issues paper. The first is to alert stakeholders that the Commission is undertaking an investigation into retail electricity prices, and to seek stakeholder input on any issues they consider relevant.

The second purpose is to describe the Commission's approach to the price investigation and for looking at options to improve the transparency and comparability of electricity offers in the ACT.

The third purpose is to inform stakeholders of those issues that the Commission has identified as relevant to this price investigation, based on the terms of reference and recent developments in electricity markets and regulatory arrangements.

1.3 Commission's role and objectives

In carrying out its functions under the ICRC Act, the Commission has the following objectives set out in section 7 and 19L (Box 1.1).

Box 1.1 Section 7 and 19L: Commission objectives

Section 7:

- (a) to promote effective competition in the interests of consumers;
- (b) to facilitate an appropriate balance between efficiency and environmental and social considerations;
- (c) to ensure non-discriminatory access to monopoly and near-monopoly infrastructure.

Section 19L:

To promote the efficient investment in, and efficient operation and use of regulated services for the long term interests of consumers in relation to the price, quality, safety, reliability and security of the service.

When making a price direction, in addition to the terms of reference and legislative objectives, the Commission is also required to have regard to the provisions set out in section 20(2) of the ICRC Act (Box 1.2).

Box 1.2 Section 20(2): Commission's considerations

- (a) the protection of consumers from abuses of monopoly power in terms of prices, pricing policies (including policies relating to the level or structure of prices for services) and standard of regulated services; and
- (a) standards of quality, reliability and safety of the regulated services; and
- (b) the need for greater efficiency in the provision of regulated services to reduce costs to consumers and taxpayers; and
- (c) an appropriate rate of return on any investment in the regulated industry; and
- (d) the cost of providing the regulated services; and
- (e) the principles of ecologically sustainable development mentioned in subsection (5);
- (f) the social impacts of the decision; and
- (g) considerations of demand management and least cost planning; and
- (h) the borrowing, capital and cash flow requirements of people providing regulated services and the need to renew or increase relevant assets in the regulated industry; and
- (i) the effect on general price inflation over the medium term;
- (j) any arrangements that a person providing regulated services has entered into for the exercise of its functions by some other person; and
- (k) any arrangements that a person providing regulated services has entered into for the exercise of its functions by some other person.

1.4 What do the terms of reference ask the Commission to consider?

The terms of reference require the Commission to consider the following matters in this investigation (Box 1.3). The terms of reference are similar to those received by the Commission for the 2017–20 electricity price investigation. The key difference is that the new terms of reference includes an additional clause—clause 4(4)—which is shown as point four in Box 1.3. This clause requires the Commission to consider whether changes are needed in the Territory to improve the transparency and comparability of electricity offers.

Box 1.3 Terms of reference: what the Commission has been asked to consider

- 1.** The Commission must consider:
 - (a)** The direct impact on electricity costs of government policies and pass through of costs and savings to regulated prices including, but not restricted to:
 - (i) the ACT retailer obligations under the Energy Efficiency Improvement Scheme (EEIS);
 - (ii) the Commonwealth Government's Large-scale Renewable Energy Target (LRET) and Small-scale Renewable Energy Scheme (SRES); and
 - (iii) any other schemes implemented to address climate change relevant to electricity pricing.
 - (iv) any other policies or schemes that may directly impact on pricing in the retail or wholesale electricity market.
 - (b)** The efficient and prudent cost of managing risk in the cost of purchasing electricity for the period of the price direction
- 2.** The Commission must identify and report on the efficient costs of complying with the *Energy Efficiency (Cost of Living) improvement Act 2012* for the period that the determination is being made.
- 3.** The Commission must identify and report on the cost allowance of the ACT Feed-in Tariffs (small and large scale) for the period that the determination is being made.
- 4.** The Commission must consider whether changes could be made in the Territory to promote improved transparency and comparability of both regulated pricing offers for small customers who consume less than 100 MWh of electricity, and unregulated market offers.
 - (a)** In considering this matter, the Commission should consider relevant findings and recommendations outlined in the Australian Competition and Consumer Commission's *2018 Retail Electricity Pricing Inquiry – Final Report*.
- 5.** The Commission must release its final report within the period of 1 March 2020 to 5 June 2020, to provide sufficient time for ActewAGL Retail to make any necessary changes to its billing system and to provide information on the new tariffs to customers for implementation from 1 July 2020.

1.5 Indicative investigation timeline

The Commission proposes to adopt the indicative timeline set out in Table 1.1.

Table 1.1 Indicative timeline for the retail electricity price investigation

Task	Date
Terms of reference	28 May 2019
Release of issues paper	2 September 2019
Workshop on the transparency and comparability of electricity offers	Late September
Submissions on issues paper close	11 October 2019
Draft report and proposed price direction	February 2020
Public hearing	March 2020
Submissions on draft report close	March 2020
Final report and price direction	June 2020

The Commission intends to hold a workshop to discuss ideas for improving the transparency and comparability of electricity offers in late September 2019. The workshop will assist the Commission and stakeholders to understand the issues and explore potential options. It may also assist stakeholders in preparing submissions to this issues paper.

The closing date for submissions on the issues paper is 11 October 2019. Written submissions received by the closing date will be considered in the development of the draft report and the proposed price direction. The Commission is required under section 17(4)(b) of the ICRC Act to conduct a public hearing for all price regulation investigations. The Commission intends to conduct a hearing after the release of the draft report to give interested stakeholders an opportunity to ask questions and provide feedback on the Commission's draft decisions.

1.6 Structure of the issues paper

The remainder of this paper is structured as follows.

- Chapter 2 discusses the Commission's form of control and its approach to determining inputs to the pricing model.
- Chapter 3 sets out the Commission's approach to investigating the transparency and comparability of electricity offers.
- Chapter 4 is a consolidated list of questions.
- Appendix 1 provides an overview of recent developments in the ACT retail electricity market.
- Appendix 2 reproduces the terms of reference.

2 Commission's pricing model and inputs

The Commission's form of regulation comprises a price control mechanism that is informed by a cost-index model and includes pass-through arrangements. The price control mechanism sets out how and when a price change can be applied to ActewAGL's regulated retail electricity tariffs. The cost-index model is used to determine the maximum allowable price change across the basket of regulated tariffs from one year to the next. The pass-through arrangements provide for the treatment of certain unexpected events, beyond the control of ActewAGL, that occur after the price direction has been made.

2.1 Price control approach

The key elements of the Commission's current regulatory approach are described below.

2.1.1 Length of the regulatory period

As specified in the terms of reference, the price direction will be for the four-year period of 1 July 2020 to 30 June 2024.

2.1.2 Form of price control

The Commission currently applies a weighted average price cap form of regulation. This means that the Commission determines the maximum allowable average percentage change that ActewAGL can apply to its suite of regulated tariffs. This approach allows ActewAGL to decide how to adjust the individual prices for its different standing offers, as long as the total adjustment does not exceed the maximum allowable percentage change for the overall price cap, as determined by the Commission.

As part of this investigation the Commission will review the amount of discretion that ActewAGL has in applying the maximum percentage increase to its standing offer tariffs. In doing so the Commission will consider whether changes would contribute to improving the transparency and comparability of electricity offers in the ACT (discussed in chapter 3). For example, the Commission will consider whether the regulated standing offer rates should be used as reference prices in the ACT and whether the Commission should determine those rates.

The Commission is seeking feedback on:

How much discretion should ActewAGL have when applying the maximum percentage increase, as determined by the Commission, to its suite of regulated tariffs? How would this contribute to improving the transparency and comparability of electricity offers?

2.1.3 Annual recalibrations

As specified in the terms of reference, the Commission will be required to undertake three annual recalibrations for the regulatory period commencing 1 July 2020. The first will determine regulated retail electricity prices for 2021–22, the second will determine prices for 2022–23, and the third will determine prices for 2023–24.

The annual recalibration process involves updating certain parameters of the retail electricity cost-index model to determine regulated retail prices. This process draws on, for instance, more recent forward price and load data relating to the wholesale cost of energy, updated network costs and updated estimates of green scheme costs. The recalibration process can also incorporate additional costs from a pass-through event.

2.1.4 Cost pass-through arrangements

Pass-through arrangements typically apply to events that are unexpected, or whose extent was uncertain, and that are beyond the control of the regulated entity. The Commission currently allows for pass-through arrangements for a range of regulatory change and tax change events.³ Pass-through reviews for these regulatory and tax change events are undertaken as part of the annual recalibration process.

2.2 Pricing model

2.2.1 Overview of pricing model

The Commission’s pricing model determines the maximum average percentage change that ActewAGL can apply to its suite of regulated tariffs on an annual basis. It does so by estimating the individual cost components that would be incurred by an efficient standalone incumbent retailer in the same position as ActewAGL when providing electricity supply services to customers on the regulated tariff.

As described earlier, the Commission reviewed the electricity pricing model as part of its 2018–19 methodology review.⁴ The review found that the Commission’s model was methodologically sound and simple to implement. The review also identified some

³ The details of the current pass-through provisions are contained in ICRC 2017.

⁴ For more details, see ICRC 2019b.

areas for improvement and the Commission therefore made a decision to change how some cost categories are estimated. The Commission intends to use the updated methodology in this price investigation. The Commission consulted with stakeholders on the new methodology during the review. As part of this price investigation the Commission will determine the inputs to the methodology and seek stakeholder feedback on these inputs.

The Commission's pricing model relies on cost benchmarks for three main cost categories:

- *wholesale energy costs*: which comprise energy purchase costs, costs of the Large-scale Renewable Energy Target (LRET) and Small-scale Renewable Energy Scheme (SRES), energy losses, and National Electricity Market (NEM) fees;
- *network costs*: which include transmission and distribution costs; and
- *retail costs*: which comprise retail operating costs and Energy Efficiency Incentive Scheme (EEIS) compliance costs.

Once these three cost categories are estimated, they are added together and multiplied by a retail margin (to provide a profit allowance) to produce total costs to be recovered in dollars per megawatt hour (\$/MWh). This cost is then compared to the total costs calculated for the previous year. This produces a maximum allowable percentage

change that ActewAGL can apply to its regulated retail tariffs. The cost categories are shown in Figure 2.1.

Figure 2.1 The Commission's electricity pricing model

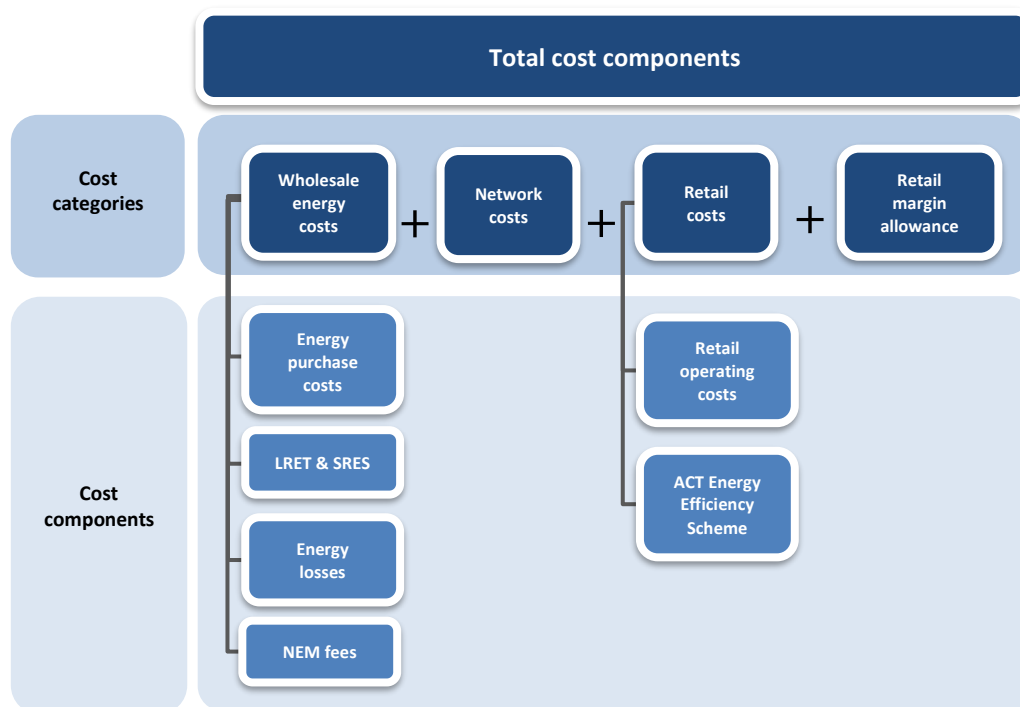


Table 2.1 presents the costs for 2019–20 based on the methodology used in the 2017–20 electricity price investigation.

Table 2.1 Components of the 2019–20 retail electricity price

	2019–20 (\$/MWh)	% of total cost
Energy purchase cost	92.01	35.65%
National green scheme costs	25.73	9.97%
Energy losses	3.81	1.48%
Energy contracting cost*	0.92	0.36%
NEM fees	0.92	0.36%
Total energy purchase cost	123.39	47.82%
Network costs (excluding ACT Government scheme costs)	73.96	28.66%
ACT Government scheme costs	28.28	10.96%
Total network costs	102.24	39.62%
Retail operating costs	14.41	5.58%
Energy Efficiency Scheme costs	4.00	1.55%
AEMC's Power of Choice (metering) costs	1.02	0.39%
Total retail costs	19.43	7.52%
Total energy + retail + network costs	245.06	94.96%
Retail margin	12.99	5.04%
Total cost	258.05	100%

*As part of the 2018–19 methodology review the Commission decided that energy contracting costs would no longer be a separate cost category in the electricity pricing model. These costs will instead be accounted for in the retail operating cost allowance.

Source: ICRC 2019a.

As part of this price investigation the Commission will examine the appropriate average electricity consumption to use when reporting estimated annual bills in the price determination and the annual price recalibrations. The Commission has previously used an average residential consumption of 8,000 kWh and notes that the AER uses an average consumption level of 7,010 kWh in the ACT⁵ and the AEMC has recently used 7,151 kWh.⁶

2.2.2 Components of the current pricing model

This section briefly describes the cost components of the Commission's pricing model and discusses specific issues relevant to the next regulatory period. To assist stakeholders in understanding the current version of the model, this section also highlights the improvements made by the Commission as part of the 2018–19 methodology review.

⁵ AER 2019.

⁶ AEMC 2018a, p 4.

Energy purchase costs

Energy purchase costs are the costs incurred by the incumbent retailer in purchasing electricity from the wholesale electricity market. Due to the high volatility inherent in the wholesale electricity market, retailers hedge their exposure to risk by forward purchasing electricity in the contract market or by taking positions in the futures market. This reduces the risk of price volatility for the retailer, contributing to financial stability.

As part of the methodology review the Commission reviewed its energy purchase cost model, giving particular attention to the hedging strategy. The Commission found that using a mix of derivatives to hedge risk was more cost effective and less risky compared to the former approach of using base swap contracts only. Therefore, the energy purchase cost model now assumes that the retailer's hedging strategy uses base swap, peak swap and base cap contracts. The Commission's approach to estimating energy purchase costs includes four steps which are outlined below.

Step 1: Determine an appropriate contract position

The 'contract position' is the amount of quarterly base swap, peak swap and base cap contracts that the retailer is assumed to use. As outlined in the methodology review, the Commission intends to use a heuristic linked to electricity demand to determine the contract position (a heuristic is a guide or rule of thumb). This is the same approach taken by the Queensland Competition Authority (QCA) and Victorian ESC. As an example, the QCA's heuristic is as follows:

- the base swap volume is set to equal the 70th percentile of the off-peak period hourly demands across all 47 demand sets for the quarter;
- the peak swap contract volume is set to equal the 90th percentile of the peak period hourly demands across all 47 demand sets minus the base contract volumes for the quarter; and
- the cap contract volume is set at 105 per cent of the median of the annual peak demands across the 47 demand sets minus the base and peak contract volumes.

As part of the methodology review the Commission considered available heuristics and did not find one that was based on the ACT's load profile. The Commission intends to develop a suitable heuristic for the ACT using a similar method as adopted by other regulators. This will involve running a model over five years of demand data to get an average efficient contract position.

The Commission is seeking feedback on:

The Commission is seeking feedback on its approach to estimating the heuristic (i.e. rules) for determining an appropriate contract position.

The Commission does not expect large changes in the load profile to occur within relatively short periods of time and therefore does not consider annual updates are warranted. However, because the heuristic will be linked to the ACT load, the contract positions will change annually as the ACT load data is updated. Data on the ACT load is available from the Australian Energy Market Operator (AEMO).⁷

Step 2: Determine contract prices

The contract price refers to the forward price of the particular hedging instrument (base swap, peak swap and base cap contracts). The contract price used by the Commission is the 23-month average of forward prices from Australian Stock Exchange (ASX) market data. This averaging period reflects the fact that retailers typically hedge in advance of the year in which they supply customers. It also smooths out both upward and downward fluctuations in forward prices and consequently in wholesale energy purchase costs and retail prices. This method is consistent with balancing economic efficiency and environmental and social considerations as required under the ICRC Act.

The Commission intends to use the 23-month averaging period between 1 June to 30 April. This averaging period is one month earlier than the 23-month period used in previous price investigations, which averaged over the period from 1 July to 31 May. The earlier period will assist the Commission to finalise the cost-index model ahead of the release of the Commission's final decision in early June in each year of the regulatory period.

The Commission is seeking feedback on:

Do you have any comments on the proposed dates for the averaging period?

Step 3: Develop the half-hourly profile of load and spot prices

To determine energy purchase costs, load and spot price data are required. As stated in the Commission's final report on its methodology review, the Commission intends to use the most recent five calendar years of load and spot price data from AEMO. The five-year period will be updated annually as part of the annual price recalibrations. The Commission uses calendar year data because complete financial year data is not available before each annual price recalibration.

The half-hourly spot prices for each quarter will be scaled up to the average base swap forward price for the quarter less the forward price margin. This ensures that spot prices are in line with future expectations. The forward price margin (also known as a contract premium) is set at five per cent in the Commission's model.

⁷ Data is available from <https://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Data/Market-Management-System-MMS/Generation-and-Load>.

The Commission intends to continue using a forward price margin of five per cent. As part of the methodology review, Frontier Economics advised that this margin was appropriate.⁸ The Commission also notes that the Victorian ESC, in determining the VDO, used a forward price margin of five per cent.⁹

During this price investigation the Commission will need to determine an appropriate period for calculating an average forward price for the purpose of scaling spot prices. An averaging period is needed to smooth out day-to-day volatility in forward prices. The Commission notes that the Victorian ESC, in developing the VDO, scaled spot prices to the 40-day average of forward prices. This was based on the advice of Frontier Economics that the 40-day averaging period was a good indicator of market expectations for future spot prices.¹⁰ The Commission notes that a longer averaging period would include older forward price data that may no longer reflect market expectations of future prices.

The Commission is seeking feedback on:

What is an appropriate period for averaging forward prices for the purpose of scaling spot prices?

Step 4: Calculate settlement payments and difference payments

The final step is to use the data described above to calculate settlement and difference payments for each half-hour trading interval of the full five-year period to determine the total cash flow. The total cash flow is then divided by the total load for the same five years to determine energy purchase costs on a dollar per megawatt hour basis.

Volatility allowance

A typical hedging strategy adopted by the hypothetical retailer leaves some residual level of exposure to volatile spot prices because buying contracts to cover all possible spot price and demand scenarios can be very expensive. The residual risk can be accounted for by holding some working capital (i.e. cash) to fund spot market purchases in the event that electricity demand is larger than accounted for by the hedging strategy. The cost of holding this working capital is known as a volatility allowance.

As part of the methodology review the Commission decided to provide an allowance for volatility. The allowance will be determined using a benchmarking approach and will consider other regulatory investigations. The recent ESC decision on the VDO

⁸ ICRC 2019c.

⁹ ESC 2019a.

¹⁰ Frontier Economics 2019a, pp. 5-6.

included a volatility allowance that ranged from \$0.12 MWh to \$0.18 MWh across the five distribution zones in Victoria.¹¹

The Commission is seeking feedback on:

What benchmarks should the Commission consider in determining the volatility allowance?

LRET and SRES costs

The LRET and the SRES are national environmental obligations imposed by the Australian Government that create financial incentives for investment in renewable energy sources. The schemes require electricity retailers to purchase and surrender Large-scale Generation Certificates (LGC) and Small-scale Technology Certificates (STC) to the Clean Energy Regulator in percentages set by the regulator each year.¹²

The Commission applies a market-based approach for determining efficient LRET and SRES costs. The model determines LGC and STC prices based on publicly available spot price data averaged over an 11-month period. The Commission adds a holding cost to the certificates to account for the financing costs associated with holding these certificates between the purchase date and surrender date. Following its consideration during the methodology review, the Commission assumes that these certificates are purchased evenly throughout a year. Under this assumption, the average amount of time the certificates are held is equal to half a year. The financing costs of holding certificates is equal to the cost of debt. As such, the Commission intends to use the cost of debt for half a year as the holding costs for the certificates.

The Commission will determine the cost of debt parameter as part of this price investigation. In determining an appropriate cost of debt parameter, the Commission intends to consider the cost of debt faced by businesses in relevant regulated industries, where available. As part of determining the weighted average cost of capital (WACC) in the Commission's price investigation to set regulated water and sewerage services prices, the Commission determined a cost of debt. The Commission assumed the cost of debt was equal to the yield on BBB rated Australian corporate bonds (specifically, it is the average of the RBA broad-BBB rated 10 year curve and the Bloomberg Value Service broad-BBB rate 10 year curve).¹³

In addition, the NSW Independent Pricing and Regulatory Tribunal (IPART) reports the cost of debt for water and transport businesses (including rail, bus, light rail and

¹¹ ESC 2019b, p 25. The standard deviation is a statistical measure of volatility.

¹² More information on the LRET and the SRES schemes can be found on the Clean Energy Regulator's website: www.cleanenergyregulator.gov.au/Renewable-Energy-Target/Pages/default.aspx.

¹³ ICRC 2018.

ferries) as part of its WACC Biannual Updates.¹⁴ The Commission also notes that the ESC, in determining the VDO, assumed a cost of debt of 5.31 per cent.¹⁵

The Commission is seeking feedback on:

Is the regulatory cost of debt for the ACT's water business an appropriate indicator of the cost of debt for an efficient electricity retailer in the ACT? What other cost of debt measures could the Commission use?

Energy losses

Some electricity is lost in transporting from generators to customers via transmission and distribution networks. Retailers purchase additional electricity to allow for these losses. The loss factors are calculated by AEMO, and are used by all regulators to determine the energy loss allowances where regulated tariffs apply. The Commission determines the energy losses component by applying AEMO's transmission and distribution loss factors to the energy purchase cost component, LRET and SRES costs and the NEM fees. The Commission has been applying this approach since 2014 and made a decision to continue using this method in the methodology review.

The Commission notes that on 5 February 2019 the AEMC received a rule change request from Adani Renewables to revise the existing methodology to calculate loss factors. The AEMC intends to release its final determination on 19 December 2019.¹⁶ The Commission will use the new loss factors if the AEMC changes its methodology.

NEM fees

The NEM is managed by the AEMO, which recovers its costs from market participants. Its costs relate to running market institutions and procuring ancillary services to fulfil its obligations under the National Electricity Rules, which are recovered through NEM fees and ancillary services fees, respectively.

As outlined in its final decision on the methodology review, the Commission intends to calculate ancillary fees for the first year of the regulatory period using AEMO's ancillary service payments data averaged over a 52-week period. The Commission intends to determine NEM fees for the first year of the regulatory period using observed AEMO cost data. For subsequent years of the regulatory period, these costs will be indexed to the Consumer Price Index (CPI).

¹⁴ IPART 2019.

¹⁵ Frontier Economics 2019b, p 25.

¹⁶ AEMC 2019a, p 2.

Network costs

The network costs are the transmission and distribution charges paid by ActewAGL. Transmission and distribution charges are determined by the AER and released each year around June. The Commission passes through these charges.

Retail operating costs

Retail operating costs are the efficient costs incurred by the retailer in providing retail services to its customers. As stated in the methodology review, the Commission intends to continue using a benchmarking approach to estimate these costs. The benchmark will be informed by the findings from current regulatory investigations and analysis, including the work by the ACCC and Victorian ESC.

The Federal Government has directed the ACCC to report on prices, profits and margins in the supply of electricity in the NEM. For retail operating costs, these include an analysis of total and average cost-to-serve retailer costs and Customer Acquisition and Retention Costs (CARC) costs. The terms of reference require the ACCC to provide its reports every six months from 31 March 2019 until 31 August 2025. The next report is due by 30 September 2019.

The ESC released its final determination on the VDO in May 2019. The ESC used a benchmarking approach for estimating retail operating costs and considered the ACCC's 2018 findings, market data, data provided by stakeholders and recent regulatory decisions in making the draft decision. The ESC allowed a retail operating cost allowance plus a CARC allowance.

The ESC's consultant, Frontier Economics, found that the retail operating cost allowance based on historical data fell between \$84 to \$129 per customer (based on Australia-wide data). The ESC's final decision determined an amount of \$134 per customer for the 2019-20 retail operating costs, which included an allowance of \$10 per customer for additional costs of operating in the Victorian market and new regulatory obligations for the first VDO period.¹⁷

The Commission is seeking feedback on:

What benchmarks should the Commission consider in determining the retail operating cost allowance?

The retail operating cost allowance is converted to an allowance per MWh using customer numbers and energy usage. The Commission updates the retail operating cost component as part of the annual price recalibrations to account for changes in ActewAGL's customer numbers and the CPI.

¹⁷ ESC 2019a.

EEIS costs

The ACT Government's EEIS places a mandatory obligation on all active retailers in the ACT to promote energy efficiency measures in households and small businesses. The current EEIS, which was initially legislated to expire in 2020, has been modified and extended to 2030.¹⁸

The Commission determines the EEIS cost allowance using cost estimates provided by ActewAGL, subject to a forward-looking prudence and efficiency assessment. Since the Commission's methodology relies on forecast and estimated costs in advance of the actual cost being incurred, provision is made for an ex-post adjustment (that is, a true up to account for the actual costs of complying with the EEIS).

Retail margin

The retail margin represents the return on the investments made by the incumbent retailer in providing retail electricity services. Once the aforementioned cost categories are estimated, they are added together and multiplied by the retail margin to produce the total cost.

The Commission set the retail margin in the last two regulatory periods drawing on research undertaken by SFG Consulting for IPART in 2013.¹⁹ For the 2017–20 regulatory period, the retail margin was decreased to 5.3 per cent in light of substantial increases in other cost components.

As stated in the methodology review, the Commission intends to adopt a benchmarking approach to determine the retail margin. As with the retail operating cost allowance, the choice of benchmark will be informed by current regulatory investigations and analysis which are described above. The Commission notes that Frontier Economics, as part of its advice to ESC on the VDO, estimated a range for the retail margin of between 4.8 per cent and 6.1 per cent using an expected returns approach.²⁰

The Commission may also undertake a comparative assessment of retail margins in comparable industries, including gas and telecommunications.

The Commission is seeking feedback on:

What are appropriate benchmarks for determining the retail margin for an efficient electricity retailer? Is there other information that the Commission should use to inform its decision on the retail margin?

¹⁸ ACT Government 2019.

¹⁹ IPART 2013, p 94.

²⁰ Frontier Economics 2019b. The expected returns approach seeks to estimate the margin that is required in order to compensate investors in the business for systematic (i.e. non diversifiable) risk. It involves estimating the profit margin which is expected to provide a return to equity holders consistent with their risk exposure.

3 Transparency and comparability of electricity offers in the ACT

3.1 Proposed approach

As part of this investigation the Commission will assess the transparency and comparability of electricity offers in the ACT. The Commission intends to do this by examining how offers and discounts are marketed in the ACT, both for standing offers and market offers.²¹ The Commission will focus on examining those aspects that have been identified as causing confusion amongst consumers in other jurisdictions based on recent investigations by the Australian Energy Market Commission (AEMC), Australian Competition and Consumer Commission (ACCC) and the Victorian Government's review of the electricity retail market in Victoria (known as the Thwaites Review). This includes examining:

- whether retailers use a consistent reference price when advertising offers and discounts;
- whether discounts are applied in a consistent way across retailers; that is, whether discounts apply to the total bill or only to electricity usage; and
- the extent to which headline prices and discounts are conditional.

The Commission will also gather information on offers from electricity retailers operating in the ACT. The Commission will use the information to understand the approach retailers in ACT take to marketing and explaining offers, including the issues outlined in the dot points above.

The Commission will identify whether potential changes could be implemented, either by electricity retailers or by the ACT Government, to improve the transparency and comparability of offers. In doing so the Commission will consider the advantages and limitations of recent regulatory developments in other jurisdictions, as well as the different market context in the ACT.

The remainder of this chapter discusses the range of offers in the ACT, recent regulatory developments in other jurisdictions, existing measures to improve the transparency and comparability of offers, and the potential implications for the ACT.

²¹ A standing offer is an offer that customers are placed on if they do not select a market offer.

The Commission is seeking feedback on:

Do you have any comments on the Commission's proposed approach to examining how offers and discounts are marketed in the ACT?

Should the Commission consider any other factors when assessing the transparency and comparability of offers in the ACT?

3.2 Electricity offers and bills in the ACT

The Commission is responsible for setting regulated retail prices for the supply of electricity to small customers on ActewAGL's regulated standing offer tariffs (as described in chapter 2). These regulated standing offer rates influence the level of market offer rates. In the ACT around 60 per cent of consumers are on standing offer rates.

The regulation of standing offer prices in the ACT has meant that some of the issues in deregulated markets that provided the motivation for the DMO and VDO may not be as prevalent in the ACT (these recent policy changes are discussed in section 2.3 ahead). For instance, the key objectives of these policy changes have been to:²²

- reduce retail prices (and retail margins), which were perceived to be too high – particularly for inactive and vulnerable customers; and
- promote improved transparency and comparability of retail pricing offers for electricity consumers.

The ongoing regulation in the ACT has meant that retailers have had a reduced ability to increase standing offer rates compared to those in other jurisdictions. This has contributed to the ACT having relatively lower retail electricity prices (as discussed below). It has also meant that retailers in the ACT have been unable to use inflated standing offer rates as a reference point for discounting, which is one of the aspects that has contributed to consumer confusion in other jurisdictions (discussed in section 2.3 ahead). Nevertheless, comparing offers and discounts in the ACT may still be difficult for consumers depending on how offers are marketed and the information that is provided to consumers.

This section outlines the range of offers available to consumers in the ACT based on the Commission's preliminary analysis of retailer websites and Energy Made Easy.²³ As described above, the Commission will also gather information on offers from electricity retailers operating in the ACT to inform the investigation.

²² AER 2019b, p 6.

²³ Background information on the ACT retail electricity market is provided in Appendix 1.

Types of offers and tariff structures in the ACT

The Commission's preliminary analysis indicates there are many different types of electricity offers in the ACT. These can be classified as standing offers or market offers. For both, there are offers with:

- flat rate tariffs – these include a fixed supply charge and a usage charge;
- time-of-use tariffs – these include a fixed supply charge and different usage charges depending on the time of use;
- step tariffs – these include a fixed charge and different usage charges depending on the amount of electricity consumed; and
- demand tariffs – these include a fixed charge, a usage charge and a demand charge (based on the consumer's peak demand).

For flat rate, time-of-use and step tariffs there are offers with controlled load and uncontrolled load. A controlled load is electricity supplied to specific appliances, such as electric hot water systems or slab or underfloor heating, which are often separately metered.

For flat rate, time-of-use and step tariffs there are also different supply charges depending on the type of meter installed at the premises (smart meter or basic meter).

The large variety of offers and factors to consider (such as type of meter and whether the consumer has a controlled or uncontrolled load) may contribute to making offers difficult for consumers to compare.

Number of offers and range of prices

The Commission's preliminary analysis indicates that there is a relatively large number of electricity offers in the ACT. As described earlier, these offers are generally priced at a lower level compared to those in other jurisdictions given the ongoing regulation in the ACT.

Table 3.1 show the number of single rate and time of use offers available to residential electricity consumers in Canberra, Sydney, Brisbane, Adelaide, Melbourne and Hobart, sourced from the Energy Made Easy and the Victorian Energy Compare websites.²⁴ These offers are a mixture of standing offer and market contracts and are for both controlled and non-controlled loads. The table indicates that Canberra's residential electricity users have many offers to choose from, albeit fewer compared to Sydney, Melbourne, Brisbane and Adelaide.

²⁴ Price comparisons on the Energy Made Easy website are only available for jurisdictions where the National Energy Retail Law has commenced, which is not the case in Victoria.

Table 3.1 Retail electricity offers as at 19 February 2019

	Single rate	Time of use	Total
Canberra	54	26	80
Sydney	104	153	257
Brisbane	97	91	188
Adelaide	94	0	94
Melbourne	96	184	280
Hobart	3	3	6

Source: EME and Victorian Energy Compare websites.

Table 3.2 shows the estimated annual bills (including discounts) for a range of standing offers available to residential customers in Canberra, Sydney, Brisbane, Adelaide, Melbourne and Hobart as at 19 February 2019 (based on a residential household consuming 8,000 kWh per year).²⁵ It shows that the average annual standing offer bill in the ACT was the lowest across the six selected capital cities (for both single rate offers and time-of-use offers). The price spread (the difference between the minimum and maximum standing offer bill) was also lowest in the ACT for both single rate offer and time-of-use offers.

Table 3.2 Comparison of retail electricity standing offers and annual bills as at 19 February 2019

Capital city	Single rate offers				Time-of-use offers			
	Number	Average price, \$	Price range (min-max), \$	Price spread, \$	Number	Average price, \$	Price range (min-max), \$	Price spread, \$
Canberra**	12	\$2,371	\$2,146 - \$2,522	\$377	5	\$2,228	\$2,077 - \$2,397	\$320
Sydney	21	\$3,327	\$2,511 - \$4,964	\$2,454	24	\$3,378	\$2,670 - \$4,964	\$2,294
Brisbane	18	\$2,799	\$2,454 - \$3,561	\$1,107	16	\$2,935	\$2,534 - \$3,686	\$1,153
Adelaide*	19	\$4,292	\$3,298 - \$6,060	\$2,762	0	N/A	N/A	N/A
Melbourne	26	\$3,148	\$2,625 - \$4,679	\$2,054	47	\$3,213	\$2,465 - \$4,827	\$2,362
Hobart**	1	\$2,476	N/A	N/A	1	\$2,397	N/A	N/A

* Retailers in South Australia do not offer time-of-use plans. All plans are single rate. Source: www.canstarblue.com.au. ** Standing offers in Hobart and the ACT are regulated.

Note: all prices are inclusive of GST and discounts (if applicable) and are based on average annual consumption of 8,000 kWh.

Source: EME and Victorian Energy Compare websites.

Table 3.3 shows the estimated annual bills (including discounts) for a range of market offers available to residential customers in Canberra, Sydney, Brisbane, Adelaide, Melbourne and Hobart as at 19 February 2019. It shows that the average annual market offer bill in the ACT was the lowest across the six selected capital cities (for both single rate offers and time-of-use offers).

²⁵ It should be noted that these price comparisons are based on data as at 19 February 2019; the prices presented in the table may have since changed.

Table 3.3 Comparison of retail electricity market offers and prices as at 19 February 2019

Capital city	Single rate offers				Time-of-use offers			
	Number	Average price, \$	Price range (min-max), \$	Price spread, \$	Number	Average price, \$	Price range (min-max), \$	Price spread, \$
Canberra	42	\$2,071	\$1,837 - \$2,385	\$548	21	\$2,022	\$1,803 - \$2,305	\$502
Sydney	83	\$2,536	\$2,123 - \$3,777	\$1,655	129	\$2,587	\$2,146 - \$3,892	\$1,746
Brisbane	79	\$2,348	\$2,054 - \$2,899	\$845	75	\$2,487	\$2,123 - \$3,070	\$947
Adelaide*	75	\$3,408	\$2,807 - \$4,690	\$1,883	0	N/A	N/A	N/A
Melbourne	70	\$2,269	\$1,723 - \$2,910	\$1,187	137	\$2,334	\$1,792 - \$2,476	\$1,301
Hobart	2	\$2,457	\$2,397 - \$2,499	\$103	2	\$2,377	\$2,317 - \$2,419	\$103

* Retailers in South Australia do not offer time-of-use plans. All plans are single rate. Source: www.canstarblue.com.au

Note: all prices are inclusive of GST and discounts (if applicable) and are based on average annual consumption of 8,000 kWh.

Source: EME and Victorian Energy Compare websites.

This finding is consistent with the AER's most recent State of the Energy Market report for 2018–19. The AER report found that electricity bills for customer on standing offers in the ACT are amongst the lowest in Australia. It is also consistent with recent research undertaken by St Vincent de Paul. St Vincent de Paul compared the ACT retail market to markets in Victoria, New South Wales, Queensland, South Australia and Tasmania. The research found that the total annual bill in the ACT is the lowest of these jurisdictions; this was true for customers on standing offers and for those on market offers.²⁶

3.3 Recent regulatory developments in other jurisdictions

Over recent months, new regulations have been introduced in retail electricity markets in Victoria, South Australia, New South Wales and South East Queensland (SEQ). The new regulations are intended to reduce prices for 'standing' or 'default' electricity products and to make it easier for customers to understand and compare different offers. The two key regulations have been the following:

- in April 2019, the AER introduced new DMO prices that will apply from 1 July 2019 to 30 June 2020 in NEM network distribution zones where there is no retail price regulation;²⁷ and
- from 1 July 2019, the Victorian Government introduced a new VDO to replace standing offers throughout the state.

This section describes these new arrangements and the key factors that led to their introduction.

²⁶ St Vincent de Paul and Alviss Consulting 2018.

²⁷ AER 2019a.

The Commission also notes that there are ongoing regulatory investigations. For example, the AEMC is currently investigating a rule change request to limit conditional discounts on energy offers.²⁸ The Commission will monitor regulatory developments during this price investigation.

3.3.1 Key drivers of recent retail market policy changes

Electricity offers were difficult for consumers to compare

In markets where price regulation no longer applied, retailers were using the price of standing offers as a reference point for advertising their market offers. This resulted in customer confusion and reduced the ability of customers to find the best deal for two reasons.²⁹ First, standing offers vary between retailers, making it difficult for consumers to compare offers between the retailers. Second, discounts to the standing offers were off different parts of the bill, with some retailers applying the discount to usage while others were applying it to the total bill.³⁰

Another factor that made offers difficult for consumers to compare was that retailers often made the headline discount and price on marketing material conditional. This added to the number of factors that consumers had to consider selecting the best deal.³¹

Many consumers were paying too much for their electricity

A second driver of the policy changes was that many consumers were paying more for their electricity than what would be expected under a competitive retail electricity market. The ACCC and the Victorian Government reviews into the retail electricity market found that the best offers in the market were achieved only by active consumers who switched regularly and remained engaged (that is, they were willing and able to invest the time and effort to find the best deals).³² They also noted that inactive customers who were either unable (for example, due to various factors such as language barriers) or unwilling (for example, due to the complexity) to engage in the market would often find themselves paying the most expensive prices.³³ They also noted that even for active customers, there were challenges in finding the best offer (as described above).

In addition, because standing offer rates were used as a reference point, retailers had an incentive to set those standing rates relatively high. By inflating the standing offer, a retailer could advertise an even higher percentage discount on its market offers, even if

²⁸ See <https://www.aemc.gov.au/news-centre/media-releases/consultation-starts-proposal-limit-conditional-discounts-energy-offers>, accessed 12 August 2019.

²⁹ AEMC 2018b, p v.

³⁰ ACCC 2019, p xi.

³¹ ACCC 2019, p xi.

³² Thwaites Review, p.ix.

³³ ACCC, p.xi.

the market offer price had not changed. In other words, setting the standing offer high provided a way for retailers to charge higher prices to customer who did not switch (disengaged customers), whilst marketing bigger percentages to those who were shopping around for better deals.³⁴

3.3.2 Measures to improve comparability and transparency

Following the ACCC and Thwaites inquiries, the Federal and Victorian Governments introduced new policy to address the problems that had been identified. Two of the policy objectives were to:³⁵

- reduce retail prices (and retail margins), which were perceived to be too high – particularly for inactive and vulnerable customers; and
- promote improved transparency and comparability of retail pricing offers for all electricity consumers.

In both cases this involved abolishing standing offers and placing restrictions on the way that prices are marketed. However, the ACCC and the Victorian Essential Services Commission (ESC) have gone about this in slightly different ways.

The AER's Default Market Offer

On 30 April 2019, the AER released its final determination on the DMO 'prices' to apply from 1 July 2019 in NSW, South Australia and SEQ. In determining the level of its DMO prices, the AER sought to balance two potentially competing objectives. Specifically, it wanted to reduce the prevailing level of standing offer prices, but without discouraging customers from shopping around or disincentivising investment and innovation by retailers.³⁶ Consequently, the ACCC indicated in its final report that the default offer should not be the lowest price in the market. The purpose of the default offer is to act as a more reasonable 'fall-back' option for disengaged consumers or for those requiring its additional protections.³⁷

For this reason, the ACCC recommended that DMO prices should fall somewhere between the then current standing offer prices and current market offers. The AER consequently set the DMO price as the midpoint between the median market offer and median standing offer.³⁸

The DMO 'price' is specified as an annual bill in dollar amounts, based on an assumed annual electricity usage. In other words, the DMO 'prices' do not assume a particular pricing structure; that is, they do not specify fixed and variable components.

³⁴ ACCC 2019, p xi.

³⁵ AER 2019b, p 6.

³⁶ AER 2019a, p.7.

³⁷ ACCC 2018, p 249.

³⁸ AER 2019a, p 15.

The DMO is specified in this way to make it easier for customers to understand the DMO ‘prices’ and to facilitate comparisons with standing and market offers that have different tariffs.³⁹ It also gives retailers flexibility to translate the annual amount into their own tariff structures. Specifically, provided that retailers structure their prices so that they do not exceed the annual DMO sum at the assumed usage level, then they will be compliant. Fifteen bespoke annual DMO prices have been estimated – one for each of the three broad categories of customer type (residential with and without controlled load, and small business) across the five different distribution regions (Table 3.4).

Table 3.4 Default market offer prices from 1 July 2019

Distribution region	Residential Annual Price without Controlled Load	Residential Annual Price with Controlled Load	Small business Annual Price
Ausgrid	\$1,467 for 3,900 kWh p.a.	\$2,059 for 6,800 kWh p.a.	\$7,371 for 20,000 kWh p.a.
Median saving [#]	\$129	\$200	\$878
Endeavour Energy	\$1,720 for 4,900 kWh p.a.	\$2,166 for 7,400 kWh p.a.	\$6,204 for 20,000 kWh p.a.
Median saving [#]	\$175	\$236	\$579
Energex	\$1,570 for 4,600 kWh p.a.	\$1,927 for 6,300 kWh p.a.	\$6,025 for 20,000 kWh p.a.
Median saving [#]	\$118	\$169	\$457
Essential Energy	\$1,957 for 4,600 kWh p.a.	\$2,375 for 6,600 kWh p.a.	\$8,045 for 20,000 kWh p.a.
Median saving [#]	\$181	\$231	\$709
SA Power Networks	\$1,941 for 4,000 kWh p.a.	\$2,420 for 6,000 kWh p.a.	\$9,120 for 20,000 kWh p.a.
Median saving [#]	\$171	\$219	\$896

[#] Median saving is the difference between the median standing offer price and the DMO price in that distribution zone, based on the model annual usage.

Source: AER 2019a.

To make it easier for customers to compare competing offers on a ‘like-with-like’ basis, these yearly DMO amounts must be used to set a reference bill amount from which all advertised discounts must be calculated and presented to customers. The DMO also requires that electricity retailers must not advertise a conditional discount as the most obvious price-related matter in the advertisement.⁴⁰

³⁹ AER 2019a.

⁴⁰ AER 2019a.

Because the DMO, and discounts to the DMO, are based on average electricity usage, they may not be representative of an annual bill for all consumers. In addition, because retailers can choose their own tariff structure (that is, the mix of variable and fixed charges), consumers need to account for their own usage level to know what the best deal is, if their usage differs from the average.

Victorian Default Offer

On 3 May 2019, the ESC provided its final advice on the level of the VDO to apply from 1 July 2019, which was accepted subsequently by the Victorian Government. The VDO consists of a fixed daily charge and a variable usage charge (in cents per kilowatt hour) (see Table 3.5). The VDO is also reported as an indicative annual bill, based on average consumption.

Table 3.5 VDO prices for residential customers

Distribution zone	Daily charge (\$ per day)	Variable charge structure	Variable charge (\$ per kWh)	Controlled load (if applicable) (\$ per kWh)
AusNet Services	\$1.1368	Block 1 (1020 kWh)	\$0.2763	\$0.2024
		Block 2 (>1020 kWh)	\$0.3113	
CitiPower	\$1.1055	Anytime	\$0.2325	\$0.1809
Jemena	\$1.0037	Anytime	\$0.2547	\$0.1618
Powercor	\$1.2333	Anytime	\$0.2403	\$0.1561
United Energy	\$0.9115	Anytime	\$0.2620	\$0.1873

Source: ESC 2019a.

Similar to the DMO prices, these yearly VDO tariffs must now be used as a reference point by retailers when advertising discounts for non-VDO plans in Victoria. Specifically, all plans must show the customer an annual yearly saving against the applicable VDO product, either as a dollar amount or a percentage discount. As with the DMO, this yearly saving is for a typical-usage customer in the relevant distribution area – the actual savings will vary from customer-to-customer depending on their usage.

The Victorian ESC is responsible for determining the VDO price each year and has commenced its next inquiry for the period from 1 January 2020.⁴¹

⁴¹ See <https://www.esc.vic.gov.au/electricity-and-gas/prices-tariffs-and-benchmarks/victorian-default-offer/victorian-default-offer-price-review-2020>.

The ESC has also imposed other obligations on retailers aimed to improve transparency. These do not feature in the AER's DMO framework. The ESC has created three new regulatory obligations on Victorian retailers that are intended to make it easier for electricity customers to compare offers and choose the best offer for their circumstances.⁴² First, retailers are required to regularly display their 'best offer' on customers' bills, along with advice on how to access it.⁴³ This information is to be presented prominently on bills every three months. Retailers are also required to personalise the information by using the customer's actual meter data to calculate the savings that may be available.

Second, the ESC has created a new 'bill change notice' that retailers must send to customers ahead of price changes.⁴⁴ These notices need to arrive at least five business days prior to any change taking effect, which allows customers to consider their options before their energy prices increase. Retailers are also required to display their best offer for customers on these bill change notices. The best offer notice on bills consequently gives customers a head-start in assessing whether there could be better plans available.

Third, the ESC has established a 'clear advice entitlement' that requires retailers to explain to customers any contractual terms that could lead to them paying more than they expect.⁴⁵ This could include conditional discounts, or discounts that expire after a period of time. The clear advice entitlement also requires retailers to tell customers about other deals that might suit them.⁴⁶

3.4 Current regulatory arrangements in the ACT

The Commission's regulatory approach involves applying a maximum average percentage change that ActewAGL can apply to its regulated tariffs, as described in chapter 2. ActewAGL offers a suite of regulated tariffs and so, provided the weighted average change in those tariffs does not exceed the maximum allowable percentage change, it will have complied with the regulations. In other words, unlike the DMO and VDO regimes, which each determine directly the maximum levels of reference tariffs that retailers may charge, the ACT arrangements do not place direct constraints on the overall levels of individual regulated prices. Rather, ActewAGL retains some discretion to alter the levels of its various regulated tariffs, provided that it stays within the overarching constraint of the weighted average price cap.

As described earlier, the ongoing regulation in the ACT has meant that retailers have had a reduced ability to increase standing offer rates compared to those in other jurisdictions. This has contributed to the ACT having relatively lower retail electricity

⁴² ECS 2018, p 3.

⁴³ ECS 2018, p 3.

⁴⁴ ECS 2018, p 3.

⁴⁵ ECS 2018, p 3.

⁴⁶ This entitlement will operate whenever a retailer (or their agent) is signing a customer up to an energy plan, irrespective of who initiated the contact or whether it was triggered by the best offer message.

prices. It has also meant that retailers in the ACT have been unable to use inflated standing offer rates as a reference point for discounting, which is one of the aspects that has contributed to consumer confusion in other jurisdictions. Nevertheless, comparing offers and discounts in the ACT may still be difficult for consumers depending on how offers are marketed and the information that is provided to consumers.

3.5 Potential implications for the ACT

This section summarises the features of the DMO and VDO that could be considered in the ACT, as well as the potential limitations of these regimes. It also discusses other existing measures to improve the transparency and comparability of offers, such as the consumer data right, the AER's rules on how offers are presented, comparison websites, and retailer websites.

Potential strengths and weaknesses of the DMO and VDO regimes

One of the features of the new DMO and VDO arrangements is that each provides a single, more robust reference point against which customers can assess prices (each in slightly different ways). The ACT does not currently have an equivalent benchmark. However, the DMO and VDO prices – and the discounts referenced against them – each have their limitations.

A key limitation is that the DMO and VDO prices can only show what a representative or 'average' customer would pay under certain assumptions (for example, with a particular usage pattern). Accordingly, for a customer to work out what they will pay under a DMO or VDO product, they will need to account for their own usage characteristics. Specifically:

- The amount that an individual customer will pay under the VDO regime will depend upon how much they consume. Depending on this factor, the consumer might end up paying above or below the indicative rate.
- There are even more variables driving what a customer will pay under a DMO plan. The bill will vary not only based on how much electricity is consumed but how the retailer has set the fixed and variable charges on the offer.
- Some customers may need to account for when they consume electricity, such as those on time-of-use or demand tariffs.

Similarly, the size of any discount that a customer will receive relative to the DMO and VDO prices will also vary depending on these factors.

Accordingly, although the new arrangements should help to reduce some of the difficulties that have existed previously around comparability of retail offers, some customers might still find it difficult to work out what they will save and choose the best offer for their circumstances.

The VDO arrangements may offer some advantages in this respect. The arrangements place additional obligations upon retailers to inform customers if there is an offer that better suits their needs. Specifically, retailers must periodically inform customers (at least once every three months) of whether they are getting the best deal from that retailer given their circumstances, give advanced warnings of price increases, and disclose important contractual conditions like conditions on any discounts. However, these requirements will not guarantee that a customer will find the best deal since:

- there might be better deals available from other retailers that would only be discovered through additional searching by the customers themselves; and
- some consumers may have difficulty understanding the additional information (for example, if a customer speaks English as a second language).

The DMO and VDO arrangements may make it easier for customers to compare electricity offers. It may therefore be worthwhile to consider whether some aspects of these arrangements would provide benefits for ACT consumers, noting that retail electricity prices are already regulated in the ACT.

The new arrangements have been introduced recently. It therefore remains to be seen whether the reforms will deliver the benefits intended. The untested nature of the recent reforms and the different market context in the ACT makes it important to assess the merits of making changes in the Territory

Other existing measures to improve transparency and comparability

There are a number of existing measures that aim to improve the transparency and comparability of electricity offers. The Commission will consider these as part of this investigation.

Consumer data right

On 26 November 2017, the Australian Government announced the introduction of a consumer data right in Australia. The consumer data right improves consumers' ability to compare and switch between products and services. It does this by requiring businesses to share consumer data with an accredited service provider such as a comparison website so that consumers can obtain more tailored and competitive services. Consumers need to consent and authorise their data to be shared under the consumer data right.⁴⁷

In May 2018, the Australian Government announced its intention to include energy data in the consumer data right. This will allow consumers to require a company such as their energy retailer to share their data with an accredited service provider (such as another retailer). The consumer data right will commence in the energy sector in the first half of 2020.⁴⁸

⁴⁷ See <https://www.accc.gov.au/focus-areas/consumer-data-right-cdr-0>.

⁴⁸ See <https://www.accc.gov.au/focus-areas/consumer-data-right-cdr/energy-cdr>.

Australian Energy Regulator rules on how offers are presented

The AER has made rules about what information must be presented to consumers and how it has to be presented to improve transparency and comparability. In states and territories which have commenced the National Energy Retail Law (which includes the ACT), energy retailers are required to have Basic Plan Information Documents for each of their offers. These factsheets help consumers compare offers by requiring all retailers to present information on their offers in the same way. They set out the prices, fees and charges and contract details that apply to each offer.⁴⁹

Comparison websites

There are electricity offer comparison websites that aim to help consumers select the best offer for their circumstances. The comparison websites can often tailor offers to a customer's usage level (provided the customer knows their usage level) or an average usage level that depends on household size.

The national government-run comparison website, Energy Made Easy, compares offers for customers in jurisdictions where the National Energy Retail law has commenced (this includes Tasmania, the ACT, South Australia, NSW and Queensland).⁵⁰ There are also a range of for-profit comparison websites.

The ability of comparison websites to inform consumers depends on whether consumers know about the website and can find and use the website effectively. Comparison websites have an advantage that they can compare offers based on a particular usage level. However, if usage data cannot be provided, comparison websites often assume an average usage. This may not be suitable for consumers whose electricity usage is different from the average customer.

Comparison websites generally do not show every available offer, although government-run comparison websites are generally more complete. Comparison websites that operate on a for-profit basis may only show offers from retailers that pay to have their offers advertised.

Retailer websites

In the ACT some retailers provide additional information on their website, above what is required by the AER, to assist customers to understand the range of electricity offers. This includes the provision of information sheets that include diagrams to help consumers understand each offer and whether it suits their circumstances. The Commission notes that not all retailers in the ACT offer additional information.

⁴⁹ See <https://www.aer.gov.au/consumers/my-energy-bill/tariff-and-fees-explained>.

⁵⁰ See <https://www.aer.gov.au/consumers/switching-retailers/online-comparison-tools>. Victoria has its own government-run comparison website.

The Commission is seeking feedback on:

What do you think are the main factors that make it difficult for consumers to compare offers and choose the offer best suited to their circumstances?

Do you have any suggestions for how to improve the transparency and comparability of offers in the ACT? Please explain how your suggested options would improve transparency and help consumers compare offers and choose the best offer for them.

4 Consolidated list of questions

The preceding chapters identified a number of questions on which the Commission is seeking feedback. The list is consolidated in this section.

This list is not exhaustive and submissions may address other issues that relate to the Terms of Reference. Submissions do not have to address all the questions set out by the Commission.

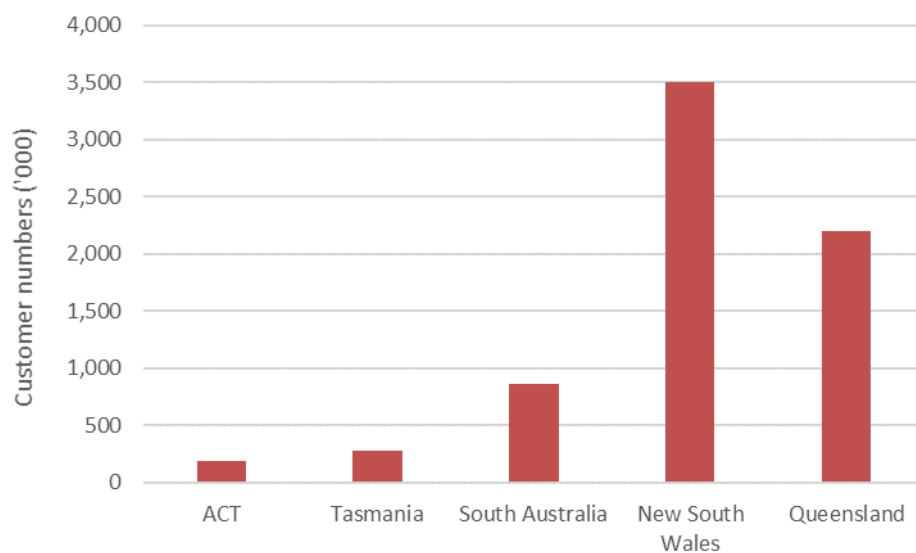
1. How much discretion should ActewAGL have when applying the maximum percentage increase, as determined by the Commission, to its suite of regulated tariffs? How would this contribute to improving the transparency and comparability of electricity offers?
2. The Commission is seeking feedback on its approach to estimating the heuristic (i.e. rules) for determining an appropriate contract position.
3. Do you have any comments on the proposed dates for the averaging period?
4. What is an appropriate period for averaging forward prices for the purpose of scaling spot prices?
5. What benchmarks should the Commission consider in determining the volatility allowance?
6. Is the regulatory cost of debt for the ACT's water business an appropriate indicator of the cost of debt for an efficient electricity retailer in the ACT? What other cost of debt measures could the Commission use?
7. What benchmarks should the Commission consider in determining the retail operating cost allowance?
8. What are appropriate benchmarks for determining the retail margin for an efficient electricity retailer? Is there other information that the Commission should use to inform its decision on the retail margin?
9. Do you have any comments on the Commission's proposed approach to examining how offers and discounts are marketed in the ACT?
10. Should the Commission consider any other factors when assessing the transparency and comparability of offers in the ACT?
11. What do you think are the main factors that make it difficult for consumers to compare offers and choose the offer best suited to their circumstances?
12. Do you have any suggestions for how to improve the transparency and comparability of offers in the ACT? Please explain how your suggested options would improve transparency and help consumers compare offers and choose the best offer for them.
13. Are there any other issues that the Commission should consider?

Appendix 1 Background: the ACT retail electricity market

Unlike other states and territories, the ACT relies almost entirely on electricity generated outside its border. Electricity is transported to the ACT by the New South Wales transmission network operator TransGrid. Within the ACT, electricity is distributed by Evoenergy, which holds the territory's only electricity distribution network licence. Similar to other distributors in the NEM, Evoenergy's charges are regulated by the AER.

The ACT retail market is small relative to other retail markets in the NEM, with around 188,000 small customers as at 31 March 2019 (see Figure A1.1).

Figure A1.1 Electricity customer numbers, 31 March 2019



Source: AER data.

Note: The AER does not report comparable data for Victoria.

EEIS and the feed-in-tariff scheme

There are jurisdictional requirements that are specific to operating in the retail electricity market in the ACT. Two ACT government policy schemes are particularly worth noting in this regard. These are the EEIS and the feed-in tariff scheme.

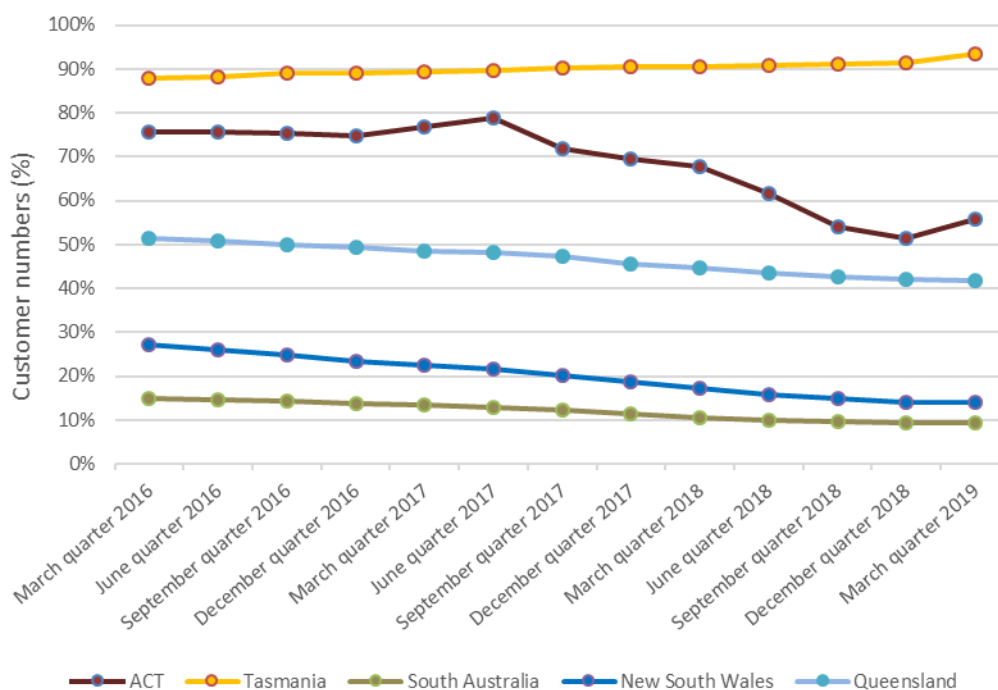
The EEIS, under the *Energy Efficiency (Cost of Living) Improvement Act 2012*, places a mandatory obligation on all active retailers in the ACT to promote energy efficiency measures in households and small businesses. It requires energy retailers to either undertake energy efficiency programs on behalf of their customers or pay a fee per tonne of carbon emitted for electricity sold in the ACT.

Under the *Electricity Feed-in (Renewable Energy Premium) Act 2008*, households and businesses can install solar rooftop panels to generate renewable energy, which is fed into the distribution network. The feed-in tariff scheme determines the rates at which these consumers are compensated for the electricity generated.

Small customer contract type

Small customers include residential and small business electricity consumers. Figure A1.2 shows the proportion of small customers on standard and market retail contracts in Queensland, New South Wales, South Australia, Tasmania and the ACT between the March quarter 2016 and the March quarter 2019. The figure shows that about 56 per cent of small customers in the ACT were on standing offer contracts in the March quarter of 2019. This is relatively high compared to the other jurisdictions, with the exception of Tasmania. While the proportion of customers in the ACT on standing offers is relatively high, it has been in decline in recent years. For instance, the proportion of customers in the ACT on standing offers was 76 per cent in the March quarter of 2016.

Figure A1.2 Customers on standing offers, January 2016 to September 2019



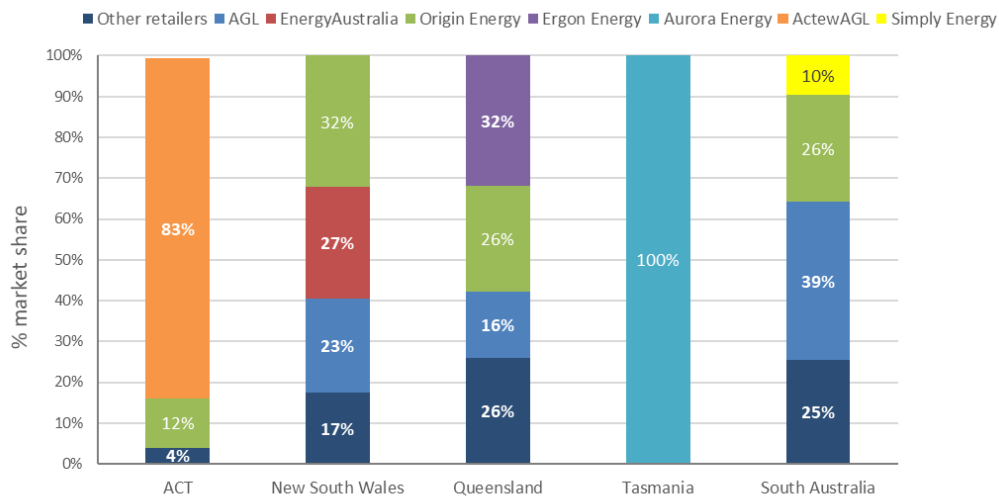
Source: AER data.

Small customer market share

Figure A1.3 shows the retail market share of small customers in the ACT, New South Wales, Queensland, Tasmania and South Australia for the March quarter of 2019. In South Australia, Queensland and New South Wales, three energy retailers account for

more than 70 per cent of the market. In the ACT, ActewAGL is the dominant retailer with around 156,546 or 83 per cent of small customers.

Figure A1.3 Retail market share for small customers (residential and business), March quarter 2019



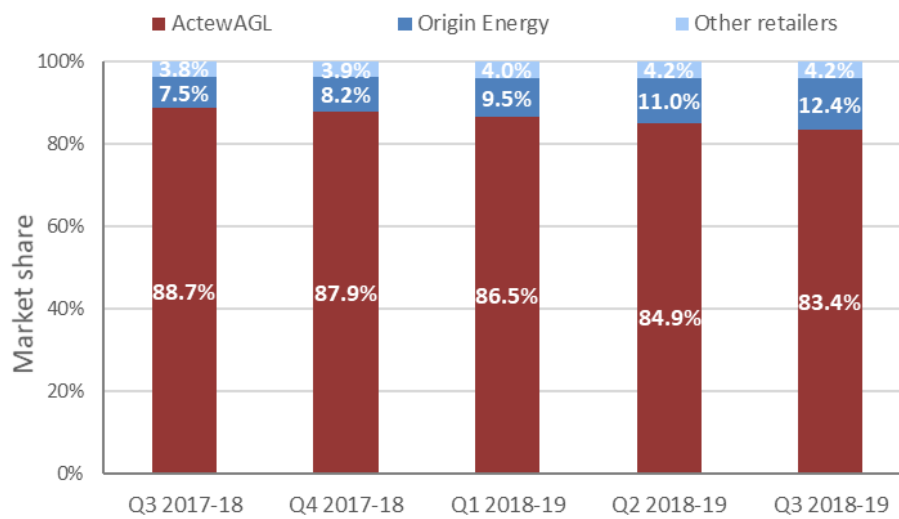
Source: AER data.

Note: 'Other retailers' are those with less than 10 per cent market share in each customer market.

Although ActewAGL is the dominant retailer in the ACT, its market share has been in decline in recent years. Figure A1.4 shows that ActewAGL's market share was 88.7 per cent in the third quarter of 2017–18. It has fallen by around one percentage point each quarter since then. The market share of Origin Energy has been increasing at about the same rate. As of March 2019, there were a total of eight retailers operating in the ACT.⁵¹

⁵¹ AEMC 2019b.

Figure A1.4 Retail market share for small customers, January 2017 to March 2019



Source: AER data.

Note: The market shares are based on residential and business customer numbers.

Appendix 2 Terms of reference

Australian Capital Territory

Independent Competition and Regulatory Commission (Price Direction for the Supply of Electricity to Certain Small Customers on Standard Retail Contracts) Terms of Reference Determination 2019

Disallowable instrument DI2019–72

Made under the Independent Competition and Regulatory Commission Act 1997 ('the Act'), Section 15 (Nature of Industry References) and Section 16 (Terms of Industry References).

1 Name of instrument

This instrument is the *Independent Competition and Regulatory Commission (Price Direction for the Supply of Electricity to Certain Small Customers on Standard Retail Contracts) Terms of Reference Determination 2019**.

2 Interpretation

In this instrument:

“National Energy Retail Law (ACT)” has the same meaning as in the *National Energy Retail Law (ACT) Act 2012*.

“small customer” has the same meaning as in the *National Energy Retail Law (ACT)*.

“standing offer prices” has the same meaning as in the *National Energy Retail Law (ACT)*.

“ActewAGL Retail” means the partnership of Icon Retail Investments Limited (ACN 074 371 207) and AGL ACT Retail Investments Pty Ltd (ACN 093 631 586).

2 Commencement

This instrument commences on the day after it is notified.

3 Reference for investigation under Section 15

In accordance with section 15(1) of the Act, I provide a reference to the Independent Competition and Regulatory Commission (the ‘Commission’) to determine a price direction for the standing offer prices for the supply of electricity to small customers who consume less than 100MWh of electricity over any period of 12 consecutive months.

The price direction will be for the period of 1 July 2020 to 30 June 2024. The price direction must make provision for annual recalibrations to be undertaken by 30 June 2021, 30 June 2022 and 30 June 2023.

In accordance with 15(4) of the Act, the price direction determined by the Commission under this reference is to only apply to the electricity retailer *ActewAGL Retail*.

4 Terms of reference for investigation under section 16

In accordance with section 16(1) of the Act, I require that the Commission must consider the following matters in relation to the conduct of the investigation.

1. The Commission must consider:
 - a. The direct impact on electricity costs of government policies and pass through of costs and savings to regulated prices including, but not restricted to:
 - i. the ACT retailer obligations under the Energy Efficiency Improvement Scheme;
 - ii. the Commonwealth Government’s Large-scale Renewable Energy Target and Small-scale Renewable Energy Scheme;
 - iii. any other schemes implemented to address climate change relevant to electricity pricing; and
 - iv. any other policies or schemes that may directly impact on pricing in the retail or wholesale electricity market.
 - b. The efficient and prudent cost of managing risk in the cost of purchasing electricity for the period of the price direction.
2. The Commission must identify and report on the efficient costs of complying with the Energy Efficiency (Cost of Living) Improvement Act 2012 for the period that the determination is being made.
3. The Commission must identify and report on the cost allowance of the ACT Feed-in Tariffs (small and large scale) for the period that the determination is being made.

4. The Commission must consider whether changes could be made in the Territory to promote improved transparency and comparability of both regulated pricing offers for small customers who consume less than 100MWh of electricity, and unregulated market offers.
 - a. In considering this matter, the Commission should consider relevant findings and recommendations outlined in the Australian Competition and Consumer Commission's 2018 *Retail Electricity Pricing inquiry – Final Report*.
5. The Commission must release its final report within the period of 1 March 2020 to 5 June 2020, to provide sufficient time for ActewAGL Retail to make any necessary changes to its billing system, and to provide information on the new tariff to customers in time for implementation on 1 July 2020.

Andrew Barr MLA
Treasurer
28 May 2019

Abbreviations and acronyms

ACCC	Australian Competition and Consumer Commission
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
ASX	Australian Securities Exchange
CARC	Customer Acquisition and Retention Costs
CPI	Consumer Price Index
DMO	Default Market Offer
EEIS	Energy Efficiency Improvement Scheme
ESC	Victorian Essential Services Commission
ICRC	Independent Competition and Regulatory Commission
IPART	Independent Pricing and Regulatory Tribunal
LGC	Large-Scale Generation Certificate
LRET	Large-scale Renewable Energy Target
MWh	Megawatt hour
NEM	National Electricity Market
NSW	New South Wales
QCA	Queensland Competition Authority
SEQ	South East Queensland (Queensland)
SRES	Small-scale Renewable Energy Scheme
STC	Small-Scale Technology Certificate
TWh	Terawatt hour
VDO	Victorian Default Offer

References

- ACCC 2018, Restoring electricity affordability and Australia's competitive advantage: Retail Electricity Pricing Inquiry – Final report, Canberra: Australian Competition and Consumer Commission, available at https://www.accc.gov.au/system/files/Retail%20Electricity%20Pricing%20Inquiry%E2%80%94Final%20Report%20June%202018_0.pdf, accessed on 12 August 2019.
- ACT Government 2019, New Energy Efficiency Scheme to address climate change and reduce energy bills, available at https://www.cmtedd.act.gov.au/open_government/inform/act_government_media_releases/rattenbury/2019/january/new-energy-efficiency-scheme-to-address-climate-change-and-reduce-energy-bills, accessed on 25 July 2019.
- AEMC 2018a, Retail energy competition review – Final report, Sydney: Australian Energy Market Commission, available at <https://www.aemc.gov.au/sites/default/files/2018-06/Final%20Report.pdf>, accessed on 12 August 2019.
- AEMC 2018b, Retail energy competition review – Final report, Sydney: Australian Energy Market Commission, available at <https://www.aemc.gov.au/sites/default/files/2018-06/Final%20Report.pdf>, accessed on 12 August 2019.
- AEMC 2019a, National electricity amendment (transmission loss factors) rule, Sydney: Australian Energy Market Commission, available at <https://www.aemc.gov.au/sites/default/files/2019-06/Transmission%20loss%20factors%20Consultation%20paper%20ERC0251.pdf>, accessed on 25 July 2019.
- AEMC 2019b, Retail energy competition review 2019 – Jurisdiction: Australian Capital Territory, Sydney: Australian Energy Market Commission, available at <https://2019.aemc.gov.au/competition-review/jurisdiction/australian-capital-territory>, accessed on 25 July 2019.
- AEMO 2019, Quarterly energy dynamics Q1 2019, Melbourne: Australian Energy Market Operator, available at https://www.aemo.com.au/-/media/Files/Media_Centre/2019/QED-Q1-2019.pdf, accessed on 25 July 2019.
- AER 2019a, Final determination: Default market offer prices 2019–20, available at <https://www.aer.gov.au/system/files/AER%20Final%20Determination%20-%20Default%20Market%20Offer%20Prices%20-%20April%202019.pdf>, accessed on 12 August 2019.
- AER 2019, State of the Energy Market 2018, Melbourne: Australian Energy Regulator, available at <https://www.aer.gov.au/publications/state-of-the-energy-market-reports/state-of-the-energy-market-2018>, accessed on 20 July 2019.

- Clean Energy Regulator 2019, Large-scale generation certificate market update (February 2019), Canberra, available at <http://www.cleanenergyregulator.gov.au/RET/Pages/About%20the%20Renewable%20Energy%20Target/How%20the%20scheme%20works/Large-scale%20generation%20certificate%20market%20update%20by%20month/Large-scale-generation-certificate-market-update---February-2019.aspx>, accessed on 20 July 2019.
- CME Australia 2017, The retail electricity market for households and small businesses in Victoria: Analysis of offers and bills, CME carbon + energy markets, available at https://s3.ap-southeast-2.amazonaws.com/hdp.au.prod.app.vic-engage.files/4315/0252/0560/CME_-_electricity_-_analysis_of_offers_and_bills.pdf, accessed on 12 August 2019.
- ESC 2019a, 'Victorian Default Market Offer to apply from 1 July 2019: Final advice', Melbourne: ESC.
- ESC 2019b, 'Victorian Default Market Offer to apply from 1 July 2019: Draft advice', Melbourne: ESC.
- ESC 2018, Building trust through new customer entitlements in the retail energy market – Final decision, Melbourne: Essential Services Commission, available at https://www.esc.vic.gov.au/sites/default/files/documents/building-trust-through-new-customer-entitlements-in-the-retail-energy-market-retail-markets-review-final-decision-20181030_0.pdf, accessed on 12 August 2019.
- Frontier Economics 2019a, Wholesale electricity costs: a report for the Essential Services Commission, available at <https://www.esc.vic.gov.au/sites/default/files/documents/RPT%20-%20Frontier%20Economics%20-%20Final%20Report%20-%20Wholesale%20electricity%20costs%2020190419%20%282%29.PDF>, accessed 12 August 2019.
- Frontier Economics 2019b, Retail costs and margin: a report for the Essential Services Commission, available at <https://www.esc.vic.gov.au/sites/default/files/documents/RPT%20-%20Frontier%20Economics%20-%20Final%20Report%20-%20Operating%20costs%20and%20margin%2020190419%20%282%29.PDF>, accessed 12 August 2019.
- ICRC 2019a, Final decision: Retail electricity price recalibration 2019–20, Canberra: Independent Competition and Regulatory Commission.
- ICRC 2019b, Final report: Electricity model and methodology review 2018–19, Canberra: Independent Competition and Regulatory Commission.
- ICRC 2019c, Technical paper on energy purchase costs, Canberra: Independent Competition and Regulatory Commission.
- ICRC 2018, Final report: Regulated water and sewerage services prices 2018–23, Canberra: Independent Competition and Regulatory Commission.

- ICRC 2017, Final report: Standing offer prices for the supply of electricity to small customers 1 July 2017 to 30 June 2020, Canberra: Independent Competition and Regulatory Commission.
- ICRC 2014, Final report: Standing offer prices for the supply of electricity to small customers 1 July 2014 to 30 June 2017, Canberra: Independent Competition and Regulatory Commission.
- IPART 2019, WACC Biannual Update, available at <https://www.ipart.nsw.gov.au/files/sharedassets/website/shared-files/information-management-policy-biannual-market-update-%E2%80%93-sea/fact-sheet-wacc-biannual-update-august-2019.pdf>, accessed 20 August 2019.
- IPART 2013, Review of regulated retail prices for electricity, 2013 to 2016 – Draft report, Sydney: Independent Pricing and Regulatory Tribunal.
- Parliament of New South Wales 2018, Electricity supply, demand and prices in New South Wales, Sydney: Select committee on electricity supply, demand and prices in New South Wales, available at <https://www.parliament.nsw.gov.au/lcdocs/inquiries/2457/Electricity%20Supply,%20Demand%20and%20Prices%20in%20New%20South%20Wales%20-%20Final%20report.pdf>, accessed on 25 July 2019.
- St Vincent de Paul and Alviss Consulting 2018, The NEM – no guarantee for consumers, Melbourne: St Vincent de Paul Society, available at https://www.vinnies.org.au/icms_docs/298264_2018_NEM_-_No_guarantee_for_consumers.pdf, accessed on 5 July 2019.