



ICRC

independent competition and regulatory commission

Final decision

Retail electricity price
recalibration 2018–19

**Standing offer prices for the supply of
electricity to small customers**

Report 3 of 2018, June 2018

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.

We have responsibilities for a broad range of regulatory and utility administrative matters. We have 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. We also have responsibility for arbitrating infrastructure access disputes under the ICRC Act. In discharging our objectives and functions, we provide independent robust analysis and advice.

Our objectives are set out in section 7 and 19L of the ICRC Act and section 3 of the *Utilities Act 2000*.

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Executive summary

The Independent Competition and Regulatory Commission (the Commission) is responsible for setting regulated retail prices for the supply of electricity to small customers on ActewAGL Retail (AAR)'s regulated tariffs. The prices are determined as per the price direction for standing offer prices for the supply of electricity to small customers 1 July 2017 to 30 June 2020 (the price direction).

The price direction requires the Commission to undertake an annual price recalibration to determine the maximum average percentage by which AAR can increase its regulated retail tariffs for the period commencing 1 July 2018. This report sets out the Commission's decision on the annual price adjustment for 2018–19.

Commission's decision

The Commission's decision sets the average nominal increase in AAR's basket of regulated tariffs for 2018–19 at 14.29 per cent. This is a real increase (excluding inflation) in the regulated retail price of 12.16 per cent.

Pricing methodology

The Commission's pricing model determines the maximum average percentage change that AAR can apply to its suite of regulated retail tariffs on an annual basis. It does so by estimating three main cost categories:

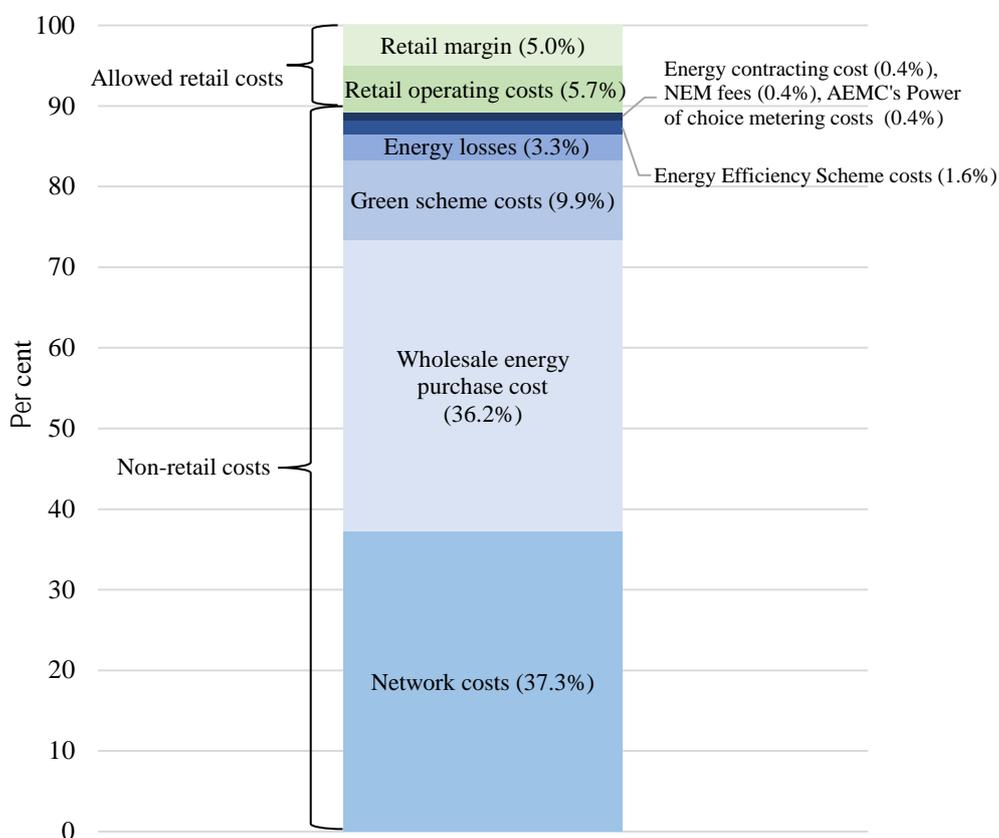
- The first category is wholesale electricity costs, which comprise energy purchase costs, green scheme costs, which comprise the Large-scale Renewable Energy Target (LRET) and the Small-scale Renewable Energy Scheme (SRES) costs, energy losses, energy contracting costs and National Electricity Market (NEM) fees. These costs comprise 50 per cent of AAR's total costs for 2018–19.
- The second category is network costs, which include transmission, distribution and jurisdictional scheme costs. These costs are regulated by the Australian Energy Regulator (AER) and are passed through to the retailer and in turn to consumers. They make up 37.25 per cent of the total costs for 2018–19.
- The third category is retail costs, which comprise retail operating costs, Energy Efficiency Improvement Scheme (EEIS) costs and a retail margin. These costs make up 12.34 per cent of the total costs for 2018–19.

The costs that are not regulated by the Commission and that the retailer cannot control include the cost of purchasing electricity from the NEM (except for the ability to implement different hedging strategies), the cost of complying with Australian and the Territory Government's environmental obligations, costs associated with energy lost in transmission and distribution, NEM fees, energy contracting costs, and the network charges.

The main costs over which the retailer has control relate to hedging, retail operating costs and retail margin; these are the main cost components over which the Commission has control. Retail operating costs and retail margin allowance only account for 10.73 per cent of the total costs for 2018–19. Hedging costs are a small but necessary component of energy purchase costs. Hedging costs account for 5.76 per cent of the total costs for 2018–19.

Figure ES.1 shows the proportion of each cost component in total costs for 2018–19. It shows that about 87 per cent of the total costs are related to wholesale electricity costs and network costs that are determined outside the control of the retailer or the Commission.

Figure ES.1 Cost components as a share of total cost in 2018–19



Notes Feed-in-tariff (FIT) costs are determined by the AER and passed on to AAR's customers through network costs.

Source: Commission's calculations.

Key drivers of the price increase

Table ES.1 sets out the nominal dollar amounts for the cost components used to determine the maximum allowed change in average regulated retail electricity prices for 2018–19.

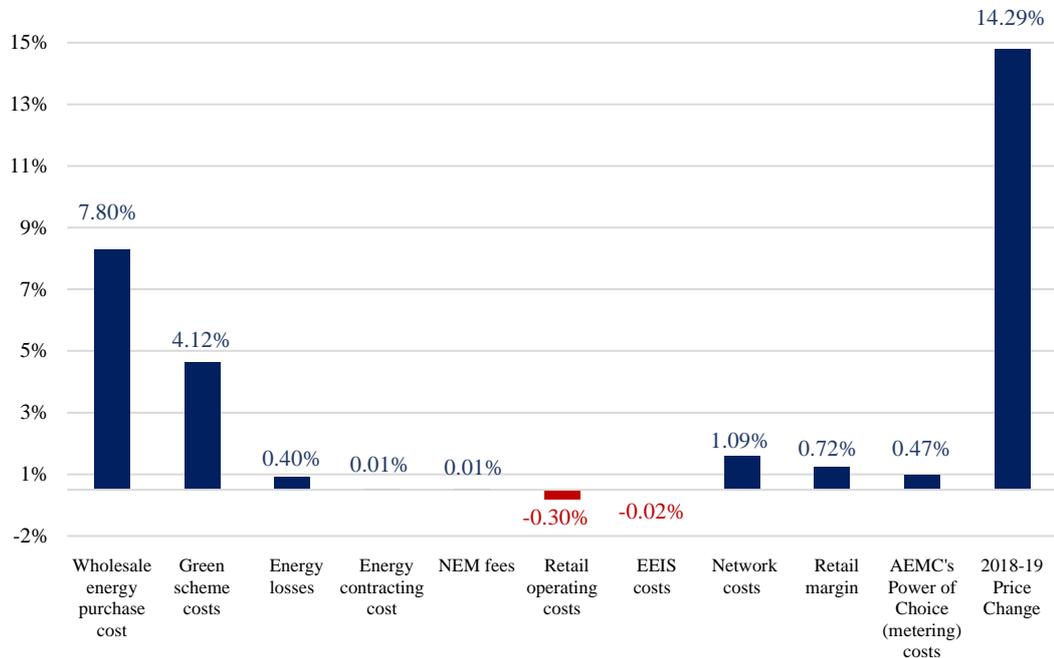
Table ES.1 Final decision on cost elements 2018–19 (with 2017–18 costs for comparison)

	2017–18 (\$/MWh)	2018–19 (\$/MWh)	Per cent change
Wholesale energy purchase cost	75.03	92.49	23.27
Green scheme costs	15.97	25.19	57.73
Energy losses	7.54	8.44	11.91
Energy contracting cost	0.89	0.90	1.89
NEM fees	0.89	0.90	1.89
Total energy purchase cost	100.32	127.93	27.52
Retail operating costs	15.25	14.58	-4.42
Energy Efficiency Scheme costs	4.16	4.11	-1.14
AEMC's Power of Choice (metering) costs		1.04	
Total retail costs	19.41	19.73	1.66
Network costs	92.88	95.32	2.63
Total energy + retail + network costs	212.61	242.98	14.29
Retail margin	11.27	12.88	14.29
Total cost and maximum average price change	223.88	255.86	14.29

Notes: Green scheme costs include the costs of complying with the Australian Government's LRET and SRES.

Figure ES.2 shows the contribution of the various cost components to the total percentage change in average regulated nominal prices from 2017–18 to 2018–19. The key drivers of the price increase are higher electricity purchase costs and increases in the costs of complying with the Australian Government's green schemes (LRET and SRES).

Figure ES.2 Components of the change in regulated retail electricity prices between 2017–18 and 2018–19



Source: Commission's calculations.

Wholesale electricity purchase costs

The wholesale electricity purchase cost accounts for nearly 36 per cent of the total cost base for 2018–19, and contributes 7.80 percentage points of the total change of 14.29 per cent.

The Commission's methodology uses average forward price data to calculate energy purchase costs. Daily forward prices increased rapidly from mid-2016 to mid-2017 (Figure ES.3). While there has been some stabilisation in forward prices since then, the average prices remain at high levels. The Commission's methodology uses a 23-month averaging period to calculate the wholesale energy purchase cost component. This approach reflects retailer behaviour in buying wholesale electricity under two year contracts. It also smooths out larger changes in regulated retail prices. This means that regulated retail prices increase more slowly than wholesale prices when wholesale prices are increasing rapidly. But it also means that retail prices will take longer to stabilise (or fall) when wholesale prices stabilise (or fall). In 2018–19, some of the effects from the rapid price increases in 2016–17 will continue to flow into the 2018–19 wholesale energy purchase cost component used in determining the nominal increase in regulated retail prices.

Figure ES.3 ASX futures market data for wholesale electricity, July 2016 to May 2018



Source: ASX data.

Australian Government's green scheme costs

The Australian Government's green scheme costs account for nearly 10 per cent of the total cost base, and contribute 4.12 percentage points of the total change of 14.29 per cent.

In order to calculate the cost of complying with the Australian Government's renewable energy schemes, the Commission uses renewable energy targets set by the Clean Energy Regulator (CER) and spot market data. As published by the CER, the 2018 Renewable Power Percentage and Small-scale Technology Percentage are higher than those reported for the previous year. In particular, the Small-scale Technology Percentage for 2018 is 17.08 per cent, which is a 112 per cent increase from the estimated Small-scale Technology Percentage of 8.06 per cent announced in 2017. This increase is due to the higher than expected creation of 7.2 million Small-scale Technology Certificates in 2017, largely driven by a substantial demand for residential solar photovoltaic systems. Further adding to this is historically high average spot prices.

Network costs

Network costs contribute 1.09 percentage points of the total change of 14.29 per cent.

Only a small component of the 2018–19 price increase is due to network costs, as network costs for 2018–19 have been updated according to the enforceable undertaking agreed between the AER and Evoenergy. The undertaking allows a large proportion of

network costs to increase by the CPI until the AER remakes its determinations for ACT Distribution Network Service Providers (DNSP).

Retail costs

The Commission's decision incorporates a pass-through adjustment of \$1.04 per MWh to account for the costs that AAR incurred in 2016–17 and 2017–18 to comply with Power of Choice (PoC) regulatory changes. These changes were initiated by the Australian Energy Market Commission (AEMC) to encourage competition in the provision of metering services. The PoC changes, which came into force on 1 December 2017 required retailers to make a number of changes to their existing systems and procedures to facilitate the provision of advanced (smart) metering services.

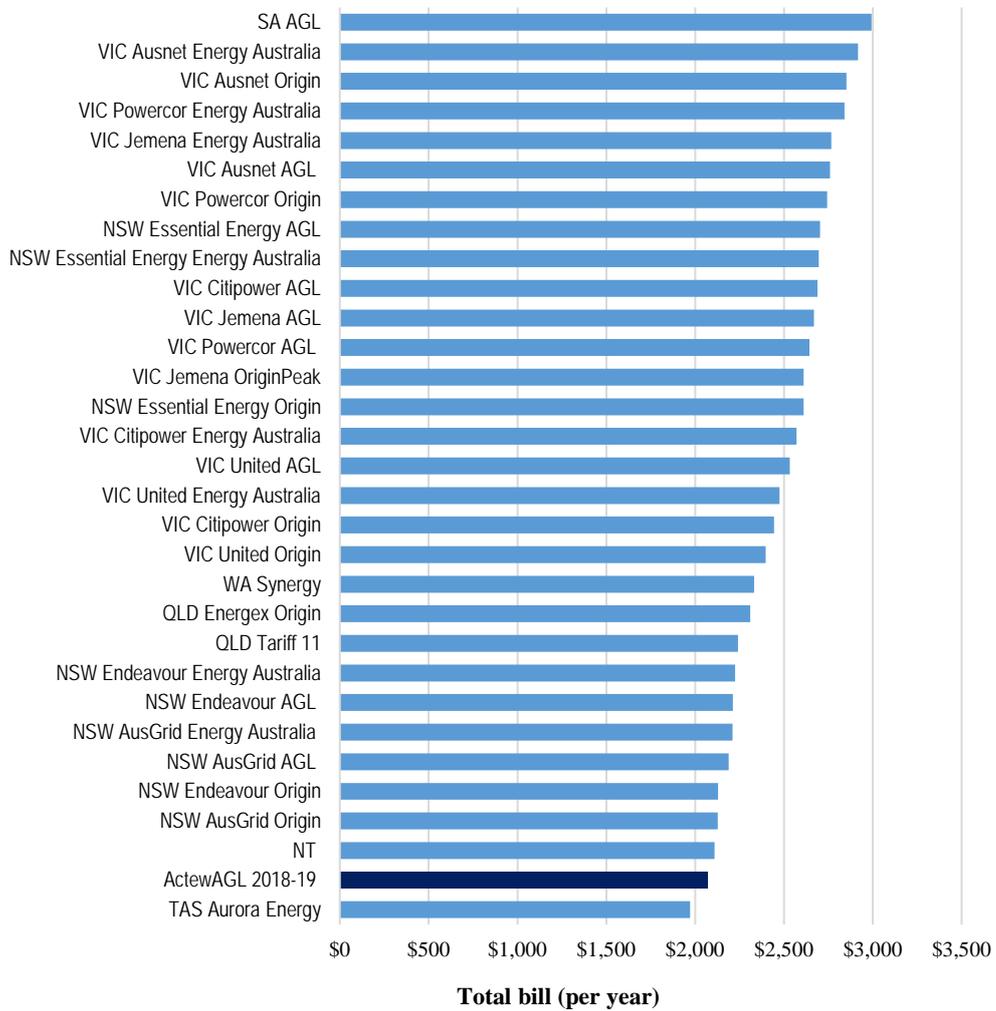
In regard to retail costs, which are the main cost components over which the Commission has some control, two aspects of the Commission's 2017–20 retail electricity price decision have partly offset the impacts of the wholesale electricity market conditions and regulatory changes on the 2018–19 price. In its price determination, the Commission did not include a competition allowance or a Customer Acquisition and Retention Cost (CARC) allowance, which would have increased retail operating costs. The Commission also reduced AAR's retail margin - how much profit they can make – from 6.04 to 5.3 per cent.

Impact on customers

If AAR increases prices by the full 14.29 per cent, this would translate to an annual bill increase of \$175 for a small residential customer consuming 4,000 kWh, and \$423 for a large residential customer consuming 12,000 kWh. For an average residential household consuming about 8,000 kWh per year, the annual bill would increase by \$299 in 2018–19. In the case of non-residential customers, the annual increases range from \$456 for a small non-residential customer consuming 10,000 kWh to \$1,614 for a large non-residential customer consuming 40,000 kWh. The impact on an average non-residential customer consuming about 25,000 kWh would be an increase of \$1,035 in their annual bill.

Recent reports comparing retail electricity prices across Australian jurisdictions suggest that ACT customers pay considerably less for their electricity than consumers in other jurisdictions. The Office of the Tasmanian Economic Regulator (OTTER)'s 2018 report comparing electricity prices across jurisdictions found that annual electricity bills for residential customers in the ACT were the lowest in Australia in 2017. Based on the Commission's update of prices across jurisdictions, ACT consumers' bills for residential standing offer contracts are likely to remain amongst the lowest in Australia (Figure ES.4).

Figure ES.4 Comparison of residential standing offer electricity bills across jurisdictions based on annual consumption of 7,500 kWh



Notes: All prices as at 1 June 2018. Refer to OTTER (2018) for further information on the calculation method. The average AAR 2018–19 bill is based on the Commission's assumption that all retail prices in the regulated basket of tariffs are increased by 14.29 per cent.

Source: OTTER (2018) and the Commission's calculations.

1 Introduction

1.1 Background

The Independent Competition and Regulatory Commission (the Commission) was established to regulate prices, access and other matters in relation to industries involving the provision of electricity, water and sewerage services. The Commission is responsible for setting regulated retail prices for the supply of electricity to small customers on ActewAGL Retail (AAR)'s regulated tariffs.

On 22 June 2016, the Treasurer gave the Commission Terms of Reference for a price direction for the supply of electricity by AAR to customers on its regulated retail tariffs for the period 1 July 2017 to 30 June 2020. On 7 June 2017, the Commission released its final report and price direction.

The price direction requires the Commission to undertake an annual price recalibration to determine the maximum prices that AAR can charge for its regulated retail tariffs for the period commencing 1 July 2018.

This report sets out the Commission's final decision on the annual price recalibration for 2018–19.

1.2 Structure of the report

The remainder of this report is structured as follows:

- Chapter 2 describes the annual recalibration process set out in the 2017–20 price direction.
- Chapter 3 establishes the efficient costs of supplying electricity to customers on AAR's regulated tariff in accordance with the Commission's methodology.
- Chapter 4 sets out the Commission's final decision on the maximum allowed change in AAR's regulated retail electricity prices for 2018–19. It also analyses the impact of the price change on customer bills.
- Chapter 5 provides a summary and comparison of residential electricity prices across Australian jurisdictions.
- Appendix 1 reproduces the Terms of Reference.
- Appendix 2 provides further statistical information.

2 Annual price recalibration process

2.1 The assessment process

Clause 8.1 of the 2017–20 price direction sets out an annual recalibration process for the 2018–19 and 2019–20 regulatory years as follows:

- (a) On or before 10 May, AAR must submit to the Commission the following information:
 - (i) Calculation of costs associated with achieving environmental objectives for the year in question, including the Australian Government’s Large-scale Renewable Energy Target (LRET), Small-scale Renewable Energy Scheme (SRES) and the ACT Energy Efficiency Improvement Scheme (EEIS) costs, and any proposed adjustments.
 - (ii) Full accounting of all proposed pass-through event costs that may be claimed under clause 9 and its sub-clauses.
- (b) AAR must submit to the Commission for verification the updated network cost allowance for the regulated customer load as soon as Evoenergy’s (previously ActewAGL Distribution) network charges are approved by the Australian Energy Regulator (AER).
- (c) As per clause 8.4, the Commission will determine the energy purchase cost component based on data available up to 31 May.
- (d) As per clause 8.2, the Commission will determine the value of Y^t , which is the percentage by which the weighted average price cap may adjust. The Commission will provide its determination to AAR on or before 7 June, although this date may be extended if approved network charges have not been published by the AER in time for the Commission to adhere to this date.
- (e) ActewAGL Retail must provide the Commission with its proposed schedule(s) of standing offer prices including the associated weighted average price cap calculations.
- (f) Subsequent to clause 8.1(e) occurring, the Commission will – subject to an assessment that the proposals are consistent with the price direction – approve the proposed prices within two business days of receipt of the proposed schedule(s).

The price direction also provides for the maintenance of current prices into the new regulatory year in the event the AER does not approve network costs in time to allow the Commission to determine the maximum average percentage change in prices for the new prices to apply on 1 July.

2.2 Calculating the value of the Y factor

The Y factor (Y^t) is the maximum average percentage charge the AAR can apply to its suite of regulated retail tariffs, where t refers to the relevant financial year. Clause 8.2 of the price direction requires the Commission to determine Y^t to be the percentage change in the cost-index calculated from the components listed in Table 2.1.

Table 2.1 Components of the cost-index model

Component	Method
Energy purchase cost (\$/MWh)	As determined by the Commission at the time of the recalibration using the energy purchase cost model
LRET and SRES costs (\$/MWh)	Estimates from AAR for 2018–19, which are verified and applied using the Commission's methodology
Energy Efficiency Improvement Scheme	Estimates from AAR for 2018–19, subject to a prudence and efficiency assessment, with costs determined using the Commission's methodology
Energy losses (per cent)	Based on Australian Energy Market Operator (AEMO)'s estimates for 2018–19
Energy contracting costs (\$/MWh)	Previous year's value adjusted by the change in the Consumer Price Index (CPI)
NEM fees (\$/MWh)	Previous year's value adjusted by the change in the CPI
Retail operating costs (\$/MWh)	Adjust the previous year's value by the change in the CPI, and convert this to a per MWh allowance based on customer numbers and energy usage at each annual price recalibration exercise
Network costs (\$/MWh)	As determined and approved by the AER and applied by AAR to the standard retail contract customer load, and subsequently verified by the Commission
Cost pass-through (\$/MWh)	Cost pass-through verified by the Commission in current dollars as adjusted by the change in the CPI
Retail margin (per cent)	Set the retail margin at 5.3 per cent for the 2017–2020 regulatory period

Note: Change in the CPI is calculated as per clause 8.3.

Source: ICRC (2017b).

2.3 Calculation of the change in the Consumer Price Index

Clause 8.3 of the price direction requires the Commission to calculate the percentage change in the CPI for any relevant year t using the following formula, using the Australian Bureau of Statistics all groups index for the weighted average of eight capital cities:

$$\Delta CPI_t = \frac{CPI_{June(t-2)} + CPI_{Sept(t-1)} + CPI_{Dec(t-1)} + CPI_{March(t-1)}}{CPI_{June(t-3)} + CPI_{Sept(t-2)} + CPI_{Dec(t-2)} + CPI_{March(t-2)}} - 1$$

The Commission has calculated the change in the consumer price index to be applied in 2018–19 as 1.89 per cent:

$$\Delta CPI_{2018-19} = \frac{110.7+111.4+112.1+112.6}{108.6+109.4+110.0+110.5} - 1 = 0.0189$$

2.4 Information provided by ActewAGL Retail

2.4.1 Main submission

AAR provided the Commission with its main submission on 10 May 2018 as required under Clause 8.1(a) of the price direction. The submission included information on the costs associated with the Australian and Territory Governments' environmental schemes.

2.4.2 Pass-through costs for 2018–19

As per clause 9.1 of the price direction, AAR may make an application to the Commission for consideration of a pass-through event as part of the annual recalibration process. Pass-through applications may be made for regulatory change events.

On 23 April 2018, AAR submitted a confidential application to the Commission for consideration of a pass-through event for the costs arising from the PoC changes. AAR incurred these costs in 2016–17 and 2017–18 in order to comply with PoC regulatory obligations.¹ The PoC changes came into force on 1 December 2017 necessitating retailers to make a number of changes to the existing systems and procedures to allow competition in the provision of metering and related services. AAR proposed to recover \$5.04 million as pass-through costs.

On 3 May, 11 May and 21 May 2018, the Commission requested further information from AAR on its proposed pass-through costs, and the processes and practices that it utilised in delivering PoC compliance requirements. AAR subsequently provided the Commission with additional information that the Commission needed to complete its assessment.

2.4.3 Customer numbers and electricity usage

Customer numbers and energy usage for the regulated load for the year to 31 March 2018 were provided on 21 May 2018. This data is required for calculating the retail operating cost allowance.

2.4.4 Network costs

In the absence of AER's remade decision for the ACT's DNSPs, an enforceable undertaking was agreed in May 2018 between the AER and Evoenergy (previously known as ActewAGL Distribution). The AER published Evoenergy's enforceable undertaking and the pricing proposal for 2018–19 on 18 May 2018. AAR subsequently provided the Commission with its 2018–19 network cost allowance proposal for the regulated ACT customer load on 21 May 2018 followed by revised versions on 23 and 31 May 2018.

¹ ActewAGL Retail, 2018: 12.

3 Efficient costs for 2018–19

This chapter presents the Commission’s determination of the efficient costs of supplying electricity to small customers on AAR’s regulated tariffs using the Commission’s pricing model.

3.1 Pricing model

The Commission’s pricing model determines the maximum average percentage change that AAR can apply to its suite of regulated retail tariffs on an annual basis.² It does so by estimating three main cost categories:

- Wholesale electricity costs, which comprise wholesale energy purchase costs, LRET and SRES costs, energy losses, energy contracting costs and NEM fees.
- Network costs, which include transmission, distribution and jurisdictional scheme costs. These costs are regulated by the AER and are passed through to the retailer and in turn to consumers.
- Retail costs, which comprise retail operating costs, EEIS costs and retail margin.

The Commission’s estimation of each of these cost categories and their components are discussed below.

3.2 Estimation of major cost categories

3.2.1 Wholesale energy purchase cost

Energy purchase costs are the costs incurred by retailers in purchasing electricity from the wholesale electricity market. As prices in the wholesale electricity market are volatile, retailers hedge their cost exposure by forward purchasing electricity in the contract market, or by taking positions in the futures market.

The Commission’s wholesale energy purchase cost model determines a benchmark cost of purchasing electricity based on observed market outcomes and a conservative hedging strategy.³ This requires estimates of the forward price of electricity in the wholesale electricity market, and a risk premium associated with the cost of hedging.

² The Commission’s pricing model is described in detail in its final report on standing offer prices for the supply of electricity to small customers from 1 July 2017 to 30 June 2020, which was released in June 2017. See for details ICRC, 2017c: 7–36.

³ Explained in detail in ICRC, 2017c: 17–23.

Price direction requirements

Clause 8.4 of the price direction requires the Commission to calculate energy purchase costs for 2018–19 as follows:

$$EPC_s = FP_s \times [(1 - M_s) \times LS_s + M_s \times LR_s] \text{ and}$$

$$EPC = \sum_{i=1}^4 w_s \times EPC_s$$

where the following are defined for each quarter s :

EPC_s denotes the energy purchase cost.

FP_s denotes the forward price.

M_s denotes the forward price margin.

LS_s denotes the load shape.

LR_s denotes the load ratio.

w_s denotes the quarterly load weight.

EPC without the subscript denotes the annual energy purchase cost.

The Commission's wholesale energy purchase cost model has two key elements: the forward price FP and the uplift factor $[(1 - M_s) \times LS_s + M_s \times LR_s]$. The forward price represents the cost of pre-purchasing electricity to be delivered at a later date. The uplift factor is calculated using load shape, load ratio and forward price margin, and is applied to the forward price to reflect the retailer's hedging cost.

Forward price

The forward price of wholesale electricity in the Commission's model for 2018–19 is calculated using the Australian Stock Exchange (ASX) futures market price data averaged over a 23-month period from 1 July 2016 to 31 May 2018.

Table 3.1 shows the forward prices for each calendar year quarter for the 2017–18 and 2018–19 financial years.

Table 3.1 Quarterly forward wholesale electricity prices, 2017–18 and 2018–19 (dollars per MWh)

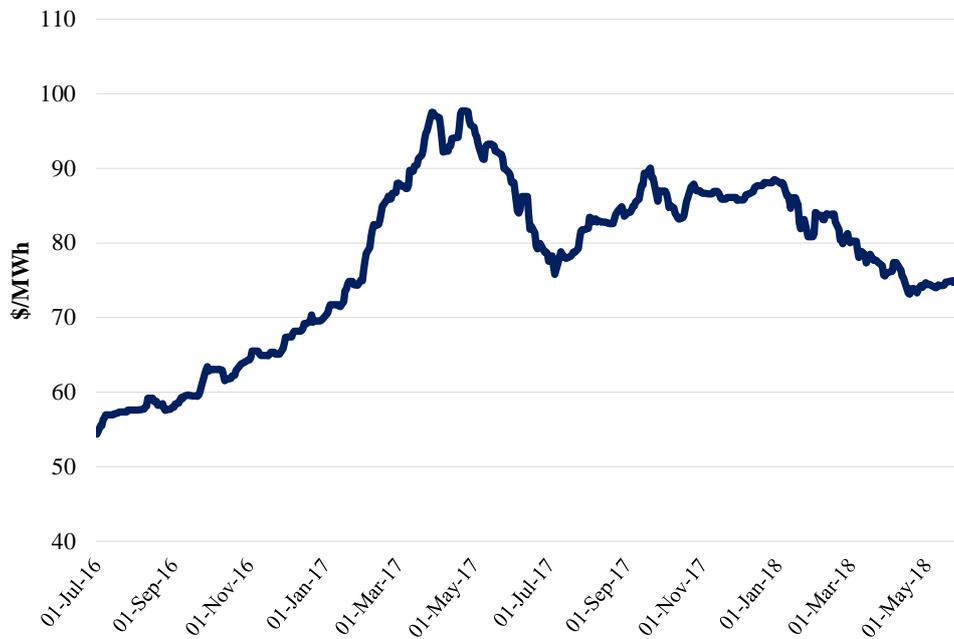
	Q3	Q4	Q1	Q2
2017–18	63.13	63.13	63.13	63.13
2018–19	77.76	77.76	77.76	77.76

Source: Commission's calculations.

The daily forward prices rapidly increased from mid-2016 to mid-2017 (Figure 3.1). While there has been some stabilisations since then, the average prices remain at historically high levels. Since the Commission's methodology uses a 23-month

averaging period to calculate the wholesale energy purchase cost component, some of the effects of the rapid price increases in 2016–17 continue to flow into the 2018–19 wholesale energy purchase cost component.

Figure 3.1 ASX futures market data for wholesale electricity 1 July 2016 to 31 May 2018



Source: ASX data.

Uplift factor

A key element of the Commission’s wholesale energy purchase cost model is the uplift factor, which is applied to the forward price. The uplift factor, which comprises the load shape, the load ratio and the forward price margin, represents the retailer’s hedging cost.

Forward price margin

The forward price margin (M) captures the observation that forward prices generally exceed average spot prices. It is set at five per cent.

Load shape

The load shape reflects the extent to which the level of the load and the spot prices move together, and is measured by the ratio of the load-weighted spot price to the time-weighted spot price. The weight on the load shape ($1 - M$) reflects the general effect of load on prices.

The load shape is calculated using NSW spot prices and the net system load profile for Evoenergy, both reported by the AEMO.

The quarterly average load shapes for 2017–18 and 2018–19 are shown in Table 3.2.⁴

Table 3.2 Quarterly average load shape, 2017–18 and 2018–19

	Q3	Q4	Q1	Q2
2017–18 (average 2003–04 through 2016–17)	1.106	1.085	1.189	1.109
2018–19 (average 2003–04 through 2017–18)	1.102	1.081	1.203	1.101

Source: Commission's calculations.

Load ratio

The load ratio, also often described as the load profile, is measured by the ratio of peak load to average load. The load ratio component can be interpreted as spike in peak demand.

Load ratio for each quarter is calculated as the maximum of the observed ratio of the quarterly maximum load to the quarterly average load using the AEMO data. To complete the calculation of the load ratio, the Commission adds 0.1 to the observed maximum to allow for the possibility of a higher peak. The load ratio for 2017–18 and 2018–19 are shown in Table 3.3.⁵

Table 3.3 Quarterly load ratio, 2017–18 and 2018–19

	Q3	Q4	Q1	Q2
Load ratio 2017–18	2.130	2.857	2.725	2.552
Load ratio 2018–19	2.130	2.857	2.973	2.552

Source: Commission's calculations using data from the AEMO load profiles.

Load weights

Quarterly load weights are required to calculate the annual average energy purchase cost. The load weight for each quarter is equal to the historical average load in that quarter divided by the sum of the historical average load for all four quarters. The historical average load for a quarter is the simple average of the loads for that quarter for the period 2003–04 through 2017–18. The load used is the net system load profile for Evoenergy as reported by the AEMO. The quarterly load weights for 2017–18 and 2018–19 are shown in Table 3.4.

Table 3.4 Quarterly load weights, 2017–18 and 2018–19

Year	Q3	Q4	Q1	Q2
Load weights 2017–18	0.325	0.198	0.196	0.281
Load weights 2018–19	0.326	0.197	0.196	0.282

Source: Commission's calculations using data from the AEMO load profiles.

⁴ The underlying quarterly load shape data from 2003–04 through 2017–18 is presented in Appendix 2.

⁵ The underlying data is presented in Appendix 2.

Uplift factor over time

Table 3.5 shows the annual load shape and ratio and the resulting uplift factor over the period 2009–10 to 2018–19. The uplift factor has trended down from 2012–13, except in 2018–19 that reports a marginal increase, reflecting a reduction in the Commission’s estimates of hedging costs on average.

Table 3.5 Annual uplift factor, 2009–10 through 2018–19

Year	Load shape	Load ratio	Uplift factor
2009–10	1.158	2.128	1.207
2010–11	1.160	2.203	1.212
2011–12	1.153	2.215	1.207
2012–13	1.153	2.253	1.208
2013–14	1.141	2.316	1.200
2014–15	1.132	2.374	1.194
2015–16	1.125	2.474	1.192
2016–17	1.120	2.473	1.188
2017–18	1.119	2.510	1.188
2018–19	1.117	2.557	1.189

Source: Commission’s calculations.

Wholesale energy purchase costs for 2017–18 and 2018–19

Table 3.6 shows the wholesale energy purchase cost calculated for 2017–18 in the Commission’s previous determination.

Table 3.6 Wholesale energy purchase cost, 2017–18

Component	Q3	Q4	Q1	Q2
Forward price (\$/MWh) (A)	63.13	63.13	63.13	63.13
Load shape (B)	1.11	1.09	1.19	1.11
Load ratio (C)	2.13	2.86	2.73	2.55
Forward price margin (D)	0.05	0.05	0.05	0.05
Uplift factor ($E = (1 - D) \times B + D \times C$)	1.16	1.17	1.27	1.18
Energy purchase cost (\$/MWh) ($A \times E$)	73.04	74.10	79.94	74.56
Annualised load-weighted energy purchase cost				75.03

Source: ICRC (2017c).

Table 3.7 shows the calculated wholesale energy purchase cost for 2018–19. The quarterly load weights from Table 3.4 are multiplied by the quarterly cost estimates in Table 3.7 and summed to give the 2018–19 annualised energy purchase cost. The 2018–19 wholesale electricity purchase cost is 23.27 per cent higher than that for the previous year.

Table 3.7 Wholesale energy purchase cost, 2018–19

Component	Q3	Q4	Q1	Q2
Forward price (\$/MWh) (A)	77.76	77.76	77.76	77.76
Load shape (B)	1.10	1.08	1.20	1.10
Load ratio (C)	2.13	2.86	2.97	2.55
Forward price margin (D)	0.05	0.05	0.05	0.05
Uplift factor (E = (1 – D) × B + D × C)	1.15	1.17	1.29	1.17
Energy purchase cost (\$/MWh) (A × E)	89.67	91.00	100.42	91.29
Annualised load-weighted energy purchase cost				92.49

Source: Commission's calculations.

3.2.2 Large-scale Renewable Energy Target and Small-scale Renewable Energy Scheme 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.⁶ 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 regulation each year.⁷ Renewable Power Percentage (RPP) and Small-scale Technology Percentage (STP) are those annual targets to achieve national LRET and SRES targets by 2030, respectively.⁸

The Commission applies a market-based approach⁹ for determining efficient LRET and SRES costs based on daily spot price data averaged over a 11-month period. The Commission's methodology includes a 10 per cent per year holding cost, a five per cent mark-up cost, and a cost adjustment to account for the difference between the estimated and the actual renewable percentages. Key data inputs into the Commission's determination are provided in Table 3.8.

⁶ These obligations are separate to the ACT Government's renewable energy target.

⁷ More information on the LRET and the SRES schemes can be found on the Clean Energy Regulator's website: <http://www.cleanenergyregulator.gov.au/About/Accountability-and-reporting/administrative-reports/tracking-towards-2020-encouraging-renewable-energy-in-australia>.

⁸ The RPP and STP represent the proportion of a retailer's total MWh of electricity purchased for which it is required to surrender LGCs. More information on the RPP can be found on the Clean Energy Regulator's website at <http://www.cleanenergyregulator.gov.au/RET/Pages/Scheme%20participants%20and%20industry/The-renewable-power-percentage.aspx>. Information on the STP can be found at <http://www.cleanenergyregulator.gov.au/RET/Pages/Scheme%20participants%20and%20industry/The-small-scale-technology-percentage.aspx>.

⁹ Full details of the Commission's approach can be found in the draft and final reports on standing offer prices for the supply of electricity to small customers from 1 July 2017: ICRC, 2017a: 50–53 and ICRC 2017c: 87–89.

Table 3.8 LRET and SRES data, 2018 and 2019

	2018	2019
Renewable Power Percentage ^a	16.06	17.52
Average LGC spot price (\$/certificate)	85.99	84.19
Small-scale Technology Percentage	17.08	12.13
Average STC spot price (\$/certificate)	39.95	36.41

Notes: ^a A non-binding value is provided for 2019.

Sources: Clean Energy Regulator (2018) and ICAP price data.

LRET

The price for LGCs for calendar year 2018, averaged over the 11-month period from 1 July 2017 to 31 May 2018, is \$84.19. This is 2.08 per cent lower than that for calendar year 2017. Using the Commission’s approach, the key data inputs in Table 3.8 produce a LRET allowance for 2018–19 of \$16.46 per MWh. This is before any adjustments to account for the differences between the actual and estimated RPP numbers used in the 2017–18 decision.

SRES

While the average price of STCs for calendar year 2018 has fallen by about 8.9 per cent from 2017, the STC spot prices have remained high. Further adding to this increase is rising STPs. The STP for 2018 is 17.08 per cent, which is a 112 per cent increase from the estimated STP of 8.06 per cent announced in 2017. The increase is due to the over-creation of 7.2 million STCs in 2017, largely driven by a substantial demand for residential solar photovoltaic systems.¹⁰

For 2018–19, the Commission’s approach produces a SRES allowance of \$6.57 per MWh before any cost adjustments to account for the differences between the actual and estimated STPs.¹¹

Cost adjustment

The Commission’s approach allows for a cost adjustment for any differences between the actual and estimated STP and RPP numbers used in the 2017–18 decision. The Commission has calculated adjustments of \$0.20 and \$1.97 per MWh to be included in the LRET and SRES cost allowances for 2018–19, respectively.

¹⁰ Clean Energy Regulator, 2018: Available at <http://www.cleanenergyregulator.gov.au/RET/Scheme-participants-and-industry/the-small-scale-technology-percentage>.

¹¹ Full details of the Commission’s approach can be found in the 2017 draft and final reports on standing offer prices for the supply of electricity to small customers: ICRC, 2017a: 23-26; ICRC 2017c:45-47.

Total allowance

The LRET and SRES allowances for 2017–18 and 2018–19 are summarised in Table 3.9. The allowance for 2018–19 per MWh is 57.73 per cent more than the allowance for previous year.

Table 3.9 LRET and SRES allowances, 2017–18 and 2018–19 (\$/MWh)

	2017–18	2018–19
LRET	13.43	16.46
SRES	3.46	6.57
Cost adjustment from previous year	-0.92	2.16
Total cost	15.97	25.19

Source: Commission's calculations.

3.2.3 Energy losses

Some electricity is lost in transporting it from generators to customers via transmission and distribution networks. The energy loss factors are calculated by the AEMO. They are used by all regulators to determine the energy loss allowances where regulated tariffs apply. The marginal loss factor and distribution loss factor, as reported by the AEMO for the ACT in 2018–19, are 1.0300 and 1.0467 respectively.¹² The Commission's methodology generates an energy loss cost component of \$8.44 per MWh for 2018–19.

3.2.4 Energy contracting costs

Energy contracting costs represent the costs incurred by the incumbent retailer in managing an electricity trading desk. The energy contracting cost allowance is adjusted by the annual change in the CPI for period.

The Commission has calculated an allowance of \$0.90 per MWh for energy trading and management costs for 2018–19. This is based on an adjustment of the 2017–18 cost allowance of \$0.89 per MWh for a change of 1.89 per cent in the CPI.¹³

3.2.5 National Electricity Market fees

The NEM is managed by the AEMO, which is funded through user fees that are paid by customers. The cost allowance for NEM fees is adjusted by the annual change in the CPI.

¹² AEMO, 2018b: Distribution loss factors notionally describe the average electrical energy losses for electricity transmitted on a distribution network between a distribution network connection point and a transmission network connection point. Marginal loss factors represent electrical transmission losses.

¹³ The CPI change is calculated using the Australian Bureau of Statistics all group index for the weighted average of eight cities from June quarter to March quarter.

The Commission has calculated an allowance of \$0.90 per MWh for NEM fees for 2018–19. This is based on an adjustment of the 2017–18 cost allowance of \$0.89 per MWh for a change of 1.89 per cent in the CPI.

3.2.6 Retail operating costs

Retail operating costs are the efficient costs incurred by the retailer in providing retail services to its customers.

The retail operating cost allowance for 2018–19 is calculated by adjusting the 2017–18 per customer allowance for the change in the CPI and converting it to an allowance for per MWh.

The CPI adjustment results in a per customer allowance of \$123.37 for 2018–19. This value is then converted into an allowance per MWh using customer numbers and energy usage information as provided by AAR for the year to 31 March 2018. This converts to an allowance of \$14.58 for 2018–19, which represents a 4.42 per cent decrease from 2017–18.

3.2.7 Energy Efficiency Improvement Scheme costs

The ACT Government’s EEIS scheme places a mandatory obligation on all active retailers in the ACT to promote energy efficiency measures in households and small businesses. The Scheme was established under the *Energy Efficiency Improvement (Cost of living) Act 2012* (EEIS Act).

Under the EEIS Act, retailers must calculate their annual energy savings targets and emissions multipliers that apply to their electricity sales. In order to meet their obligations under the EEIS Act, retailers are required to implement eligible activities determined by the EEIS Administrator.

As per the price direction, the EEIS cost allowance is calculated using cost estimates provided by AAR subject to a prudence and efficiency assessment.¹⁴ As the Commission’s methodology relies on forecast costs in advance of the actual cost being incurred, provision is made for an ex-post adjustment.

AAR provided the Commission with information on its EEIS compliance costs on 10 May 2018. Table 3.10 shows AAR’s forecast abatement costs for the EEIS. AAR expects to spend approximately \$9.43 million in 2018–19 to abate about 81,122 t CO₂-e at an average cost of \$116.27 per t CO₂-e.

¹⁴ The methodology is set out in ICRC, 2017a: 32–38 and ICRC, 2017c: 29–31.

Table 3.10 ActewAGL Retail EEIS abatement costs and targets, 2018–19

	Jul 2017–June 2018	July 2018–Jun 2019
Compliance costs (\$)	9,669,040	9,432,248
Energy Savings Obligation (t CO ₂)	81,082	81,122
Abatement cost (\$ per t CO₂-e)	119.25	116.27

Source: ActewAGL Retail (2018).

In its submission, AAR proposed a positive adjustment of \$0.11 for the difference between the forecast and actual costs.

Prudence and efficiency

Under the Commission’s methodology, the proposed expenditure will be deemed prudent if AAR can demonstrate that it is necessary to meet its legislative requirements under the EEIS Act. Expenditure will be deemed efficient if AAR has undertaken sufficiently robust decision-making processes to choose the lowest cost option. The latter will also be assessed by establishing a cost ceiling above which the forecast costs will be deemed inefficient.

In respect of the prudence of AAR’s proposed EEIS expenditure for 2018–19, the Commission assessed if it was necessary to meet its legislative requirements under the EEIS Act. The Commission determined that the decision to undertake expenditure was necessary as AAR is legally obligated to implement the scheme. The EEIS activities have been selected from a list of activities available for AAR to implement, as specified and accepted by the EEIS Administrator.

For its efficiency analysis, the Commission, on 16 May and 25 May 2018, requested more information from AAR on the processes and practices that AAR utilised in delivering its EEIS activities. Subsequently, AAR provided the Commission with information on the procurement and evaluation processes used to determine the most appropriate vendors to implement their abatement activities, and further information on the activities proposed to be delivered in 2018–19. The Commission assessed the information and determined that AAR undertook a sufficiently robust decision making process to meet its EEIS compliance requirements.

The Commission notes that the proposed costs were below the cost ceiling of \$10.32 per MWh determined by the Commission based on the schemes’ penalty rate for non-compliance (\$300 per CO₂-e), the energy saving target (8.6 per cent) and the emissions intensity factor (0.4).

The process followed by AAR also included the submission of an annual compliance plan for the EEIS Administrator’s approval. The EEIS Administrator’s approval of AAR’s 2018 compliance plan indicated that it followed a robust decision making process, supporting the Commission’s assessment of the efficiency of delivering EEIS activities.

Final decision

Having reviewed AAR's proposed expenditure subject to a prudence and efficiency analysis, the Commission estimated an allowance of \$4.11 per MWh for 2018–19 accounting for a positive adjustment of \$0.11 for the previous year.

Table 3.11 Forecast EEIS cost, 2018–19

	Cost allowance per tonne (\$)	Emissions factor	Energy savings target (per cent)	Cost per MWh (\$)	Half-yearly load weights (per cent)
Jul–Dec 2018	116.27	0.40	8.60	4.00	52.80
Jan–Jun 2019	116.27	0.40	8.60	4.00	47.20
Adjustment 2017–18				0.11	
2018–19 (\$/MWh)				4.11	

Source: Commission's calculations using ActewAGL Retail (2018).

3.2.8 Network costs

Network costs

Network costs include transmission, distribution and jurisdictional scheme costs. These costs are regulated by the AER. Consistent with the price direction, the Commission passes through the network charges determined by the AER and applied by AAR to the standard customer contract retail load.

As previously mentioned in Section 2.4.4, the AER published Evoenergy's enforceable undertaking containing the schedule of network charges for 2018–19 on 18 May 2018. AAR subsequently provided the Commission with its 2018–19 network cost allowance proposal for the regulated ACT customer load on 21 May 2018, followed by revised versions on 25 May and 31 May 2018. Table 3.12 shows Evoenergy's total network revenue for 2017–18 and 2018–19.

Table 3.12 ActewAGL Distribution and Evoenergy network revenue components, 2017–18 and 2018–19 (\$)

	2017–18	2018–19
Distribution use of system	132,574,000	135,725,505
Transmission use of system	31,639,395	47,000,901
ACT Government schemes	69,750,600	57,972,953
Total	233,963,995	240,699,359

Sources: ActewAGL Distribution (2017) and Evoenergy (2018).

Based on Evoenergy's approved network charges, AAR proposed a network cost allowance of \$95.32 per MWh for 2018–19. The Commission examined this proposal and determined an amount of \$95.32 per MWh as the network cost allowance for 2018–19.

Feed-in tariff compliance costs

As per the Terms of Reference, the Commission is required to identify and report on the cost allowance of the ACT Feed in Tariff (FiT) for 2018–19. The Commission reviewed Evoenergy’s enforceable undertaking and pricing proposal to the AER to identify and report on the FiT cost allowance. FiT costs are passed onto ACT customers through the network cost allowance.

As shown in Table 3.13, the estimated jurisdictional scheme costs for 2018–19 are \$57.97 million. Evoenergy has estimated total FiT costs of \$47.56 million for 2018–19 with \$15.55 million for the small and medium-scale scheme and \$32.01 million for the large-scale scheme. The total FiT costs account for 19.76 per cent of total network revenue for 2018–19.

Table 3.13 Jurisdictional scheme cost components, 2017–18 and 2018–19 (\$million)

Components	2017–18 (Actual)	2018–19 (Forecast)
FiT small, medium and large scale	55.88	47.56
Energy industry levy	1.43	1.60
Utilities Network Facilities Tax	7.62	7.95
Over (under) recovery for the financial year	4.82	0.86
Total	69.75	57.97

Source: Evoenergy (2018).

For ease of comparison with other components of the cost-index model, the FiT costs are presented on a per MWh basis in Table 3.14. This requires multiplying the network cost allowance by the proportion of total network costs that can be attributed to FiT costs. On this basis, using the final network cost allowance of \$95.32 the Commission has calculated an implied FiT cost allowance of \$18.83 per MWh for 2018–19. On average for ACT customers, this translates to \$150.67 per year, of which the large-scale FiT contributes \$101.41.

Table 3.14 Evoenergy estimated FiT costs, 2018–19

	2018–19 costs (\$million)	Per cent of total network revenue	\$/MWh
Feed-in tariff, small and medium-scale	15.55	6.46	6.16
Feed-in tariff, large-scale	32.01	13.30	12.68
Total	47.56	19.76	18.83

Sources: ActewAGL Distribution (2017) and the Commission’s calculations.

3.2.9 Retail margin

The retail margin is a profit margin that provides a return on the investment made by the incumbent retailer in providing retail electricity services.

The price direction requires the retail margin to be calculated at 5.3 per cent applied to all of the cost categories of the retail electricity cost-index model. This generates an allowance of \$12.88 per MWh for 2018–19.

3.3 Pass-through costs

On 23 April 2018, the Commission received a confidential submission from AAR for a pass-through event for the costs arising from the PoC regulatory changes. AAR incurred these costs in 2016–17 and 2017–18 in order to comply with PoC regulatory requirements. AAR proposed to recover the pass-through costs attributed to regulated customers of \$5.04 million¹⁵ in the 2018–19 financial year.

The Commission’s assessment

The Commission examined the information provided by AAR to assess its prudence and efficiency.

Prudence

Under the Commission’s approach, AAR’s expenditure will be deemed prudent if it is reasonably necessary to meet the PoC obligations.

As per clause 9 of the Price Direction, pass-through applications may be made for regulatory change events. A regulatory change event may result from a decision, or passing of legislation or regulation that took effect prior to 31 May 2017, but the material effect of the change being applied varies the nature, scope, standard or risk of providing services to small customers on or after 31 May 2017 and before 30 June 2020. Clause 9.5 includes PoC obligations within the list of regulatory change events.

It is clear that AAR is required to undertake this expenditure to meet its PoC obligations. As such, the decision to undertake expenditure is considered a prudent decision.

Efficiency

The Commission undertook an assessment of the robustness of the processes and practices undertaken by AAR to meet its PoC regulatory requirements, and whether the lowest-cost option was adopted in meeting its PoC obligations.

For this assessment, the Commission made three requests for more information from AAR on 3 May, 11 May, and 21 May on its proposed pass-through costs. In response, AAR provided the Commission with details of its decision making process to select external contractors for its PoC requirements, a detailed breakdown of costs, the costs

¹⁵The proposed amount was derived by converting the 2016–17 and 2017–18 values into 2018–19 dollars based on CPI of 1.28 and 1.95 per cent, respectively.

associated with large customers, and its reasons proposing to recover all costs in a single year.

The Commission reviewed AAR's pass-through application and concluded that the proposed expenditure is efficient based on the information available adjusted to remove costs associated with large customers.

Timing of pass-through cost recovery

The Commission did not accept AAR's request to pass-through all PoC-related costs in 2018–19, as most of the costs are capital expenditures. The Commission determined that the capital costs should be recovered over their estimated asset life of five years, consistent with established regulatory practice. For operating expenditure, the total costs are recovered in full in 2018–19.

The Commission determined an amount of \$5.02 million¹⁶ as total pass-through costs to be recovered over five years.

Allowable pass-through amount for 2018–19 and price effects

The Commission has determined that the approved pass-through amount for 2018–19 is \$1.15 million.

The Commission's decision adds \$1.04 per MWh to the Commission's cost-index model, which translates into 0.47 percentage points to the average price increase for 2018–19 compared to the 2.14 percentage point increase implied by AAR's proposal.

Recovery of future year amounts

In each year from 2019–20 to 2022–23, AAR will be required to make an application for the Commission's consideration for the remaining pass-through amounts.

The cost recovery period under the Commission's approach will go beyond the current regulatory period of 2017–20. For the first two regulatory years, the costs will be recovered under the provisions of the current price direction. The remaining costs are intended to be recovered during the next regulatory period assuming that the Commission receives Terms of Reference from the referring authority for setting prices for small customers on AAR's regulated retail tariffs for the next regulatory period commencing 1 July 2020.

¹⁶ Converted to 2018–19 dollars based on CPI of 1.89 per cent for the 2017–18 costs and 1.48 per cent for the 2016–17 costs.

4 Commission’s final decision and impact on customers

This chapter presents the Commission’s final decision on the maximum allowable average percentage change that AAR can apply to its suite of regulated tariffs for the 2018–19 regulatory year.

4.1 Commission’s final decision

The Commission’s final decision is that the average nominal increase in AAR’s basket of regulated tariffs for 2018–19 will be 14.29 per cent. This is equivalent to a real increase in the regulated retail price of about 12.16 per cent.

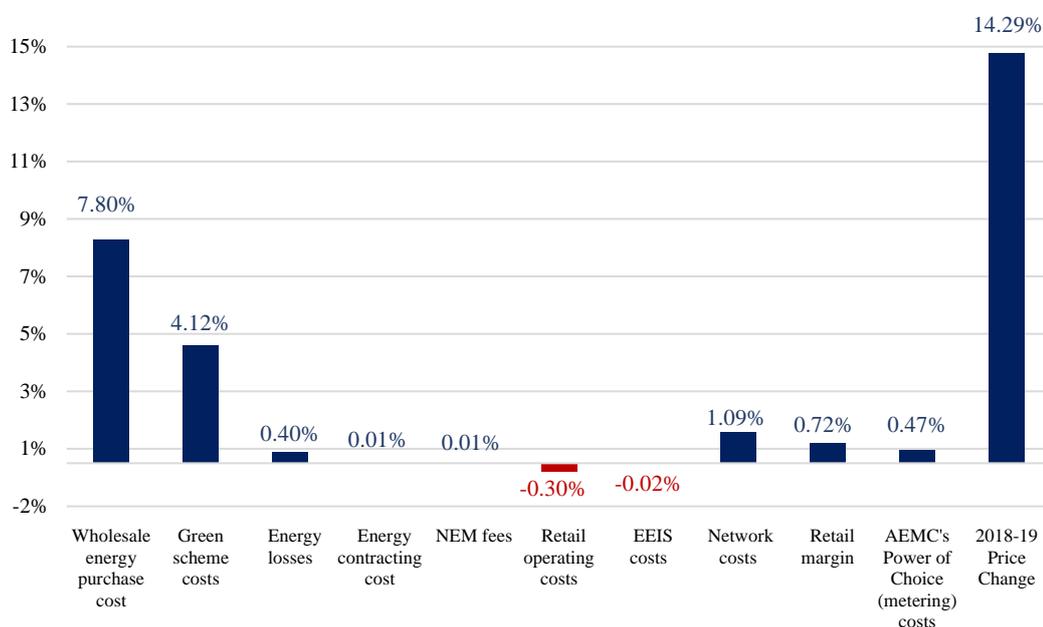
Table 4.1 sets out the Commission’s final decision on the cost components used to determine the maximum allowable average percentage change in the regulated retail electricity price for 2018–19.

Table 4.1 Final decision on cost elements, 2018–19

	2017–18 (\$/MWh)	2018–19 (\$/MWh)	Per cent change
Wholesale energy purchase cost	75.03	92.49	23.27
Green scheme costs	15.97	25.19	57.73
Energy losses	7.54	8.44	11.91
Energy contracting cost	0.89	0.90	1.89
NEM fees	0.89	0.90	1.89
Total energy purchase cost	100.32	127.93	27.52
Retail operating costs	15.25	14.58	-4.42
Energy Efficiency Scheme costs	4.16	4.11	-1.14
AEMC’s Power of Choice (metering) costs		1.04	
Total retail costs	19.41	19.73	1.66
Network costs	92.88	95.32	2.63
Total energy + retail + network costs	212.61	242.98	14.29
Retail margin	11.27	12.88	14.29
Total cost and Y^t	223.88	255.86	14.29

Source: Commission’s calculations.

Figure 4.1 shows the contribution of the various cost components to the total percentage change in prices from 2017–18 to 2018–19. The key drivers of the price increase are higher electricity purchase costs and increases in the costs of complying with the Australian Government’s renewable energy schemes. The wholesale electricity purchase cost contributes 7.80 percentage points of the total change of 14.29 per cent. The LRET and SRES costs contribute 4.12 percentage points of the total change.

Figure 4.1 Components of the change in regulated retail electricity prices 2017–18 to 2018–19¹⁷

Source: Commission's calculations.

Figure 4.2 shows the proportion of each cost component in total costs. Most of these costs are substantially outside the control of the retailer and the Commission. These costs include:

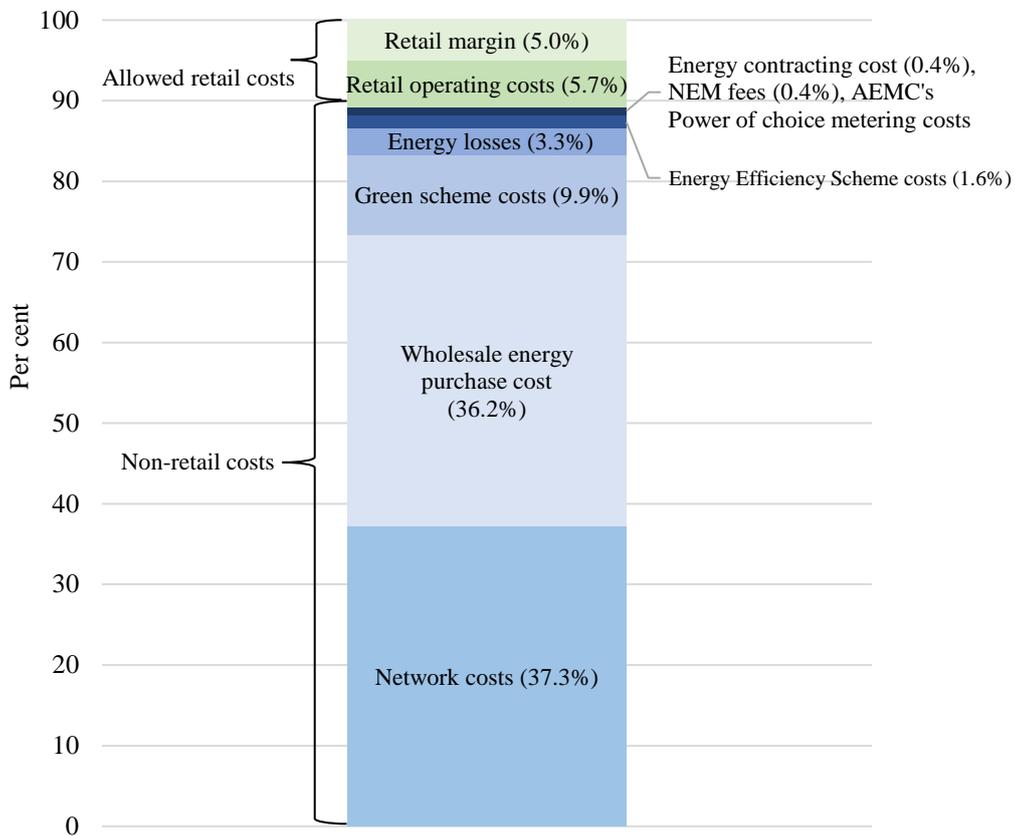
- the direct cost of purchasing electricity from the NEM (excluding the implementation of hedging strategies);
- the direct cost of complying with Australian and Territory government environmental obligations;
- direct costs associated with energy losses in transmission and distribution;
- NEM fees payable to the AEMO for operating the wholesale market;
- energy contracting costs (except for the ability to implement different contracting strategies); and
- network costs.

The main costs over which the retailer has control relate to hedging, retail operating costs and retail margin; these are the main cost components over which the Commission has control. Retail operating costs and retail margin allowance only account for 10.73 per cent of the total costs for 2018–19. Hedging costs are a small

¹⁷ This chart shows the cumulative effect of the contribution of each of the components of the cost-index model in calculating the total change in AAR's regulated average retail prices of 14.29 per cent from 2017–18 to 2018–19.

but necessary component of energy purchase costs. Hedging costs account for 5.76 per cent of the total costs for 2018–19.

Figure 4.2 Cost components as a share of total cost 2018–19



Source: Commission's calculations.

4.2 Impact on customers

To assess the effects on residential and non-residential customers of the price recalibration for 2018–19, the Commission estimated the average annual bills payable by consumers with varying consumption levels. Table 4.2 presents estimated annual electricity bills for residential customers at different consumption levels. A small customer may be representative of a single person living in an apartment, an average customer may be representative of a small family in a townhouse, and a large customer may be representative of a large family in a detached house.

If AAR Retail increases prices by the full 14.29 per cent, then annual bill increases would range from \$175 for a small residential customer to \$423 for a large residential customer. For an average residential household consuming about 8,000kWh per year, the price increase would translate to an increase of \$299 in their annual bill.

Table 4.2 Estimated annual bill changes for different residential customers, 2018–19

	Annual usage (kWh)	Estimated annual bill 2017–18 (\$)	Estimated annual bill 2018–19 (\$)	Change (\$)
Large	12,000	2,962	3,385	423
Average	8,000	2,092	2,391	299
Small	4,000	1,221	1,396	175

Source: Commission's calculations.

Table 4.3 presents estimates of annual electricity bill increases for a range of typical non-residential customers. The increase in a typical bill for an average non residential customer using 25,000kWh is \$1,035.

Table 4.3 Estimated annual bill changes for different non-residential customers, 2018–19

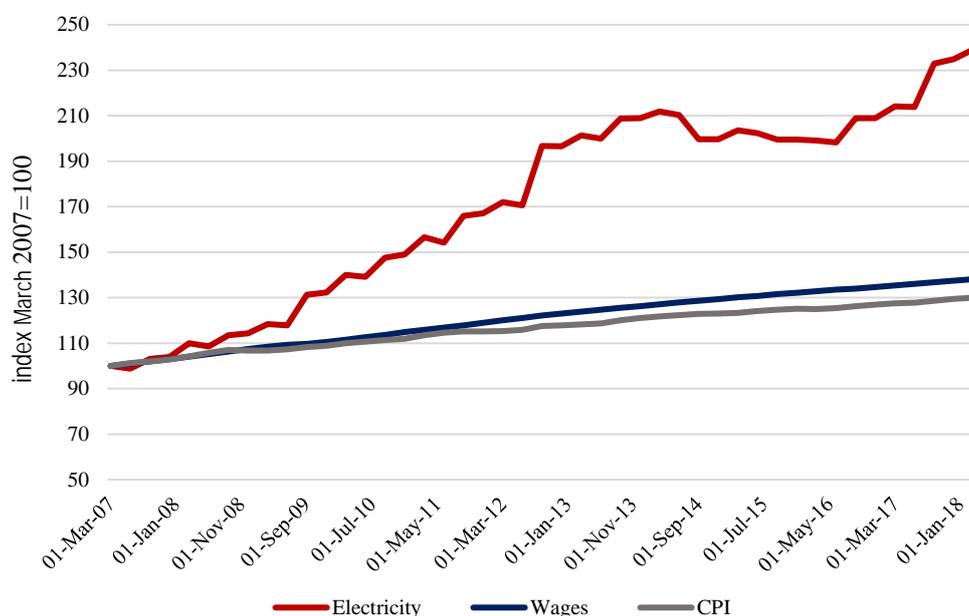
	Annual usage (kWh)	Estimated annual bill 2017–18 (\$)	Estimated annual bill 2018–19 (\$)	Change (\$)
Large	40,000	11,297	12,910	1,614
Average	25,000	7,244	8,279	1,035
Small	10,000	3,192	3,648	456

Source: Commission's calculations.

5 Comparison of residential electricity prices across Australian jurisdictions

Retail electricity prices in the NEM, which includes the ACT have increased significantly over the past decade. Retail electricity prices in all Australian states and territories have increased in real terms, that is, at a greater rate than the CPI (Figure 5.1).

Figure 5.1 All Australia electricity, wages and CPI growth between 2007 and 2018



Sources: ABS (2018a), ABS (2018b) and ABS (2018c).

Recent analysis by the Australian Competition and Consumer Commission (ACCC) indicates that drivers of increased electricity costs over the past decade have varied. Before 2015–16, the increases in residential bills were attributed to higher network costs, retailer operating costs, environmental scheme costs and in some cases, retailer margins.¹⁸ In recent years increases in wholesale electricity costs have been the main cause of higher electricity bills.¹⁹

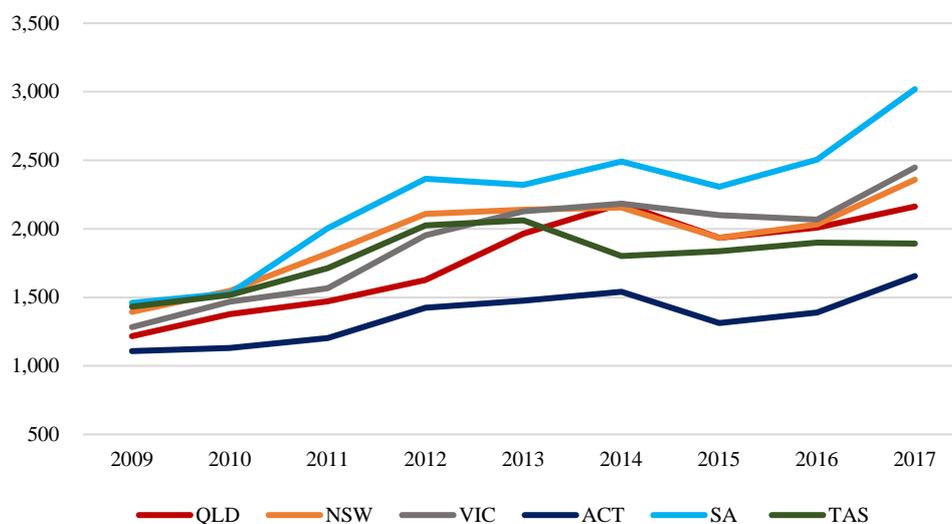
The Commission’s method of regulating retail prices in small customer contracts in the ACT is described in the Commission’s 2017–20 price determination. The method has the effect of reducing the impacts on household and small business bills of volatility in wholesale electricity prices. The 23-month averaging period for forward electricity

¹⁸ ACCC, 2017: 6.

¹⁹ AEMC, 2017: i.

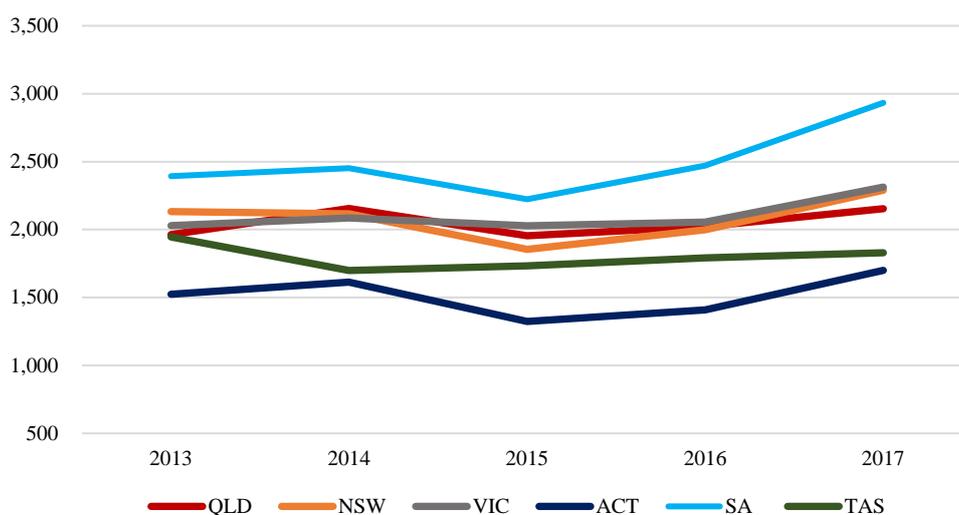
prices (described in Chapter 3) smooths out changes in the wholesale cost component used in determining the maximum percentage change in average regulated retail prices in the ACT. This has meant that ACT consumers have not experienced the same large price spikes that were experienced by consumers in other states and territories. Data provided by the St Vincent de Paul consumer group for 2009–17 showed ACT customers have been paying less for their electricity than consumers in other jurisdictions (Figure 5.2 and Figure 5.3).

Figure 5.2 Standing offer residential electricity bills consuming 6,000kWh per year, 2009–17 (\$)



Source: Based on data provided in St Vincent de Paul Society and Alvis Consulting (2017).

Figure 5.3 Market offer residential electricity bills consuming 6,000kWh per year, 2013–17 (\$)



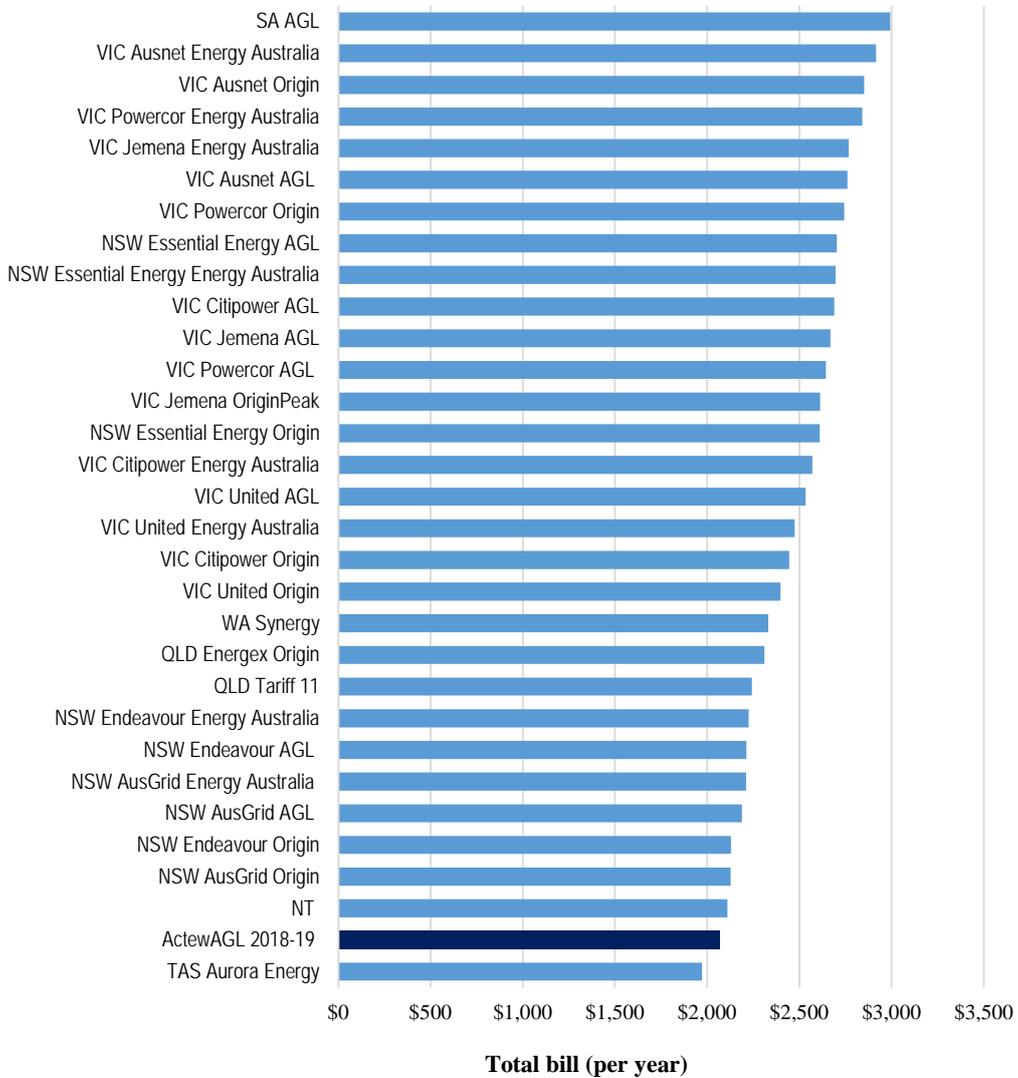
Source: Based on data provided in St Vincent de Paul Society and Alvis Consulting (2017).

At the time of this electricity price reset, forward electricity prices have been decreasing from historic highs. In other jurisdictions where retail electricity prices are unregulated and have increased more rapidly than ACT retail prices, decreases in forward electricity prices may contribute to stable or lower retail prices for electricity.

In contrast, in the ACT the forward electricity prices are smoothed over a 23-month period. This means that the earlier historically high forward prices will continue to flow through into the wholesale electricity price inputs used in calculating the maximum change in AAR's basket of regulated retail prices. As a result, the ACT's regulated retail prices will continue to increase in 2018–19 as higher wholesale prices over 2017 flow through into regulated retail prices.

However, despite this, ACT retail prices will remain among the lowest in Australia. (Figure 5.4).

Figure 5.4 Residential standing offer electricity bills based on annual consumption of 7,500 kWh



Notes: All prices as at 1 June 2018. Refer to OTTER (2018) for further information on the calculation method. The average ActewAGL 2018–19 bill is based on the Commission’s assumption that all retail prices in the regulated basket of tariffs are increased by 14.29 per cent.

Source: OTTER (2018) and Commission’s calculations.

Appendix 1 Terms of Reference

Australian Capital Territory

Independent Competition and Regulatory Commission (Price Direction for the Supply of Electricity to Small Customers on Standard Retail Contracts) Terms of Reference Determination 2016

Disallowable instrument DI2016–138

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. 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. Reference for investigation under Section 15

Under 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 2017 to 30 June 2020.

The price direction must make provision for annual recalibrations to be undertaken by 30 June 2018 and 30 June 2019.

Under section 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**.

3. Terms of reference for investigation under section 16

Under section 16(1) of the Act, I require that the Commission 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; and
 - iii. any other schemes implemented to address climate change relevant to electricity pricing.
 - 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 release its final report within the period of 1 January 2017 to 7 June 2017, to provide sufficient time to allow **ActewAGL Retail** to make any necessary changes to its billing system and to provide information on the new tariff to customers for implementation effective 1 July 2017.

Andrew Barr MLA

Treasurer

22 June 2016

Appendix 2 Statistical tables

Table A2.1 Quarterly load shape, 2003–04 through 2017–18

Year	Q3	Q4	Q1	Q2
2003–04	1.251	1.043	1.192	1.104
2004–05	1.148	1.164	1.207	1.082
2005–06	1.114	1.149	1.360	1.145
2006–07	1.161	1.080	1.207	1.387
2007–08	1.134	1.075	1.105	1.100
2008–09	1.123	1.096	1.294	1.119
2009–10	1.086	1.254	1.254	1.109
2010–11	1.067	1.024	1.561	1.036
2011–12	1.047	1.032	1.035	1.043
2012–13	1.065	1.040	1.032	1.048
2013–14	1.044	1.070	1.054	1.033
2014–15	1.050	1.039	1.065	1.052
2015–16	1.077	1.090	1.096	1.157
2016–17	1.113	1.034	1.378	1.005
2017–18	1.047	1.031		

Source: Commission's calculations using the AEMO load profiles and the AEMO aggregated price and demand data files.

Table A2.2 Quarterly load ratio, 2003–04 and 2017–18

Year	Q3	Q4	Q1	Q2
2003–04	1.786	2.156	1.702	2.013
2004–05	1.828	1.905	1.724	2.108
2005–06	1.808	1.960	1.888	2.063
2006–07	1.768	1.801	1.885	2.148
2007–08	1.927	1.708	1.891	1.863
2008–09	1.746	1.821	2.250	2.061
2009–10	1.764	2.172	2.236	2.196
2010–11	1.754	1.975	2.440	2.115
2011–12	1.868	2.137	2.039	2.001
2012–13	1.815	2.489	2.469	2.261
2013–14	2.030	2.193	2.621	2.322
2014–15	1.939	2.757	2.236	2.153
2015–16	1.996	2.505	2.625	2.452
2016–17	1.965	2.568	2.873	2.090
2017–18	1.972	2.509		
Maximum 2003–04 through Q4 2016–17	2.030	2.757	2.625	2.452
Maximum 2003–04 through Q4 2017–18	2.030	2.757	2.873	2.452

Source: Commission's calculations using data from the AEMO load profiles.

Table A2.3 Quarterly load weights, 2003–04 to 2018–19

Year	Q3	Q4	Q1	Q2
2003–04	109.621	71.384	64.911	93.947
2004–05	108.849	68.535	65.910	90.063
2005–06	110.759	70.952	70.791	104.097
2006–07	109.656	70.494	70.773	95.027
2007–08	110.995	68.837	68.338	94.735
2008–09	114.401	67.694	70.945	96.657
2009–10	109.033	73.936	68.545	94.249
2010–11	111.748	66.593	63.059	94.546
2011–12	102.113	62.356	59.446	94.205
2012–13	101.811	59.272	58.250	85.369
2013–14	95.348	59.536	60.486	84.287
2014–15	96.815	53.697	52.247	85.559
2015–16	100.400	53.046	58.531	81.687
2016–17	103.304	61.256	59.899	90.041
2017–18	107.831	55.745		
Average 2003–04 through Q4 2016–17	106.061	64.828	64.018	91.879
Average 2003–04 through Q4 2017–18	106.179	64.222	63.724	91.748

Source: Commission's calculations using data from the AEMO load profiles.

Abbreviations and acronyms

AAR	ActewAGL Retail
ACCC	Australian Competition and Consumer Commission
ACN	Australian Company Number
ACT	Australian Capital Territory
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
ASX	Australian Stock Exchange
CER	Clean Energy Regulator
Commission	Independent Competition and Regulatory Commission
CPI	Consumer Price Index
DNSP	Distribution Network Service Providers
EEIS	Energy Efficiency Improvement Scheme
EPC	Energy purchase cost
ICRC	Independent Competition and Regulatory Commission
ICRC Act	<i>Independent Competition and Regulatory Commission Act 1997 (ACT)</i>
IT	information technology
kWh	kilowatt hour
LGC	Large-scale Generation Certificate
LRET	Large-scale Renewable Energy Target
MLA	Member of the Legislative Assembly
MWh	megawatt hour
NEM	National Electricity Market

NSW	New South Wales
OTTER	Office of the Tasmanian Economic Regulator
PoC	Power of Choice (changes)
RPP	Renewable Power Percentage
SRES	Small-scale Renewable Energy Scheme
STC	Small-scale Technology Certificate
STP	Small-scale technology percentage
WACC	weighted average cost of capital

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