ACIL ALLEN

2021-22 regulated electricity price review

Updating retail costs

Final report

About ACIL Allen

ACIL Allen is the largest independent, Australian owned economic and public policy consultancy.
We specialise in the use of applied economics and econometrics with emphasis on the analysis, development and evaluation of policy, strategy and programs. Our reputation for quality research, credible analysis and innovative advice has been developed over a period of more than thirty years

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Glossary of terms

ACCC	Australian Competition and Consumer Commission
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
ASX	Australian Stock Exchange
CARC	Customer acquisition and retention costs
CER	Clean Energy Regulator
CL	controlled load
CPI	Consumer Price Index
DER	Distributed Energy Resources
DLF	Distribution Loss Factor
DMO	Default Market Offer
EBITDA	Earnings before interest, tax, depreciation and amortisation
ESC	Essential Services Commission
GST	Goods and services tax
GWh	Giga Watthour (equal to 10^9 Watthours)
IPART	Independent Pricing and Regulatory Tribunal
kWh	kilo Watthour (equal to 1,000 or 10^3 Watthours)
LGC	Large-scale Generation Certificate
LRET	Large-scale Renewable Energy Target
MLF	Marginal Loss Factor

MWh	Mega Watthour (equal to 1,000,000 or 10^6 Watthours)
NEM	National Electricity Market
NSLP	Net System Load Profile
OTC	Over the counter
PV	PhotoVoltaic
QCA	Queensland Competition Authority
RPP	Renewable Power Percentage
SRES	Small-scale Renewable Energy Scheme
STC	Small-scale Technology Certificate
STP	Small-scale Technology Percentage
TEC	Total energy costs
TOU	Time of use
WEC	Wholesale energy costs

Executive summary

Following the introduction of full retail competition in the Queensland electricity market on 1 July 2007, all retail electricity customers in Queensland can choose either to:

— negotiate a market retail contract with a retailer and pay a price determined by that retailer, or

— remain on a standard retail contract with the price:

— for customers in south east Queensland, determined by the retailer, subject to the Australian Energy Regulator's determination of a Default Market Offer

— for customers in regional Queensland, determined by the Minister or the Queensland Competition Authority (QCA), where that function has been delegated by the Minister under section 90(1) of the *Electricity Act 1994.*

The QCA has received a delegation from the Minister to determine the regulated retail electricity prices for regional Queensland for 2021-22.

The QCA is proposing to adopt a similar approach to previous years to determine the regulated retail electricity prices through a build-up of energy, network and retail costs.

ACIL Allen was engaged by the QCA to update the existing retail cost estimates, as part of the 2021-22 review of regulated retail electricity tariffs, using approaches similar to those used for the 2016-17 review so that they reflect the retail costs based on current market data. However, there are a couple of key differences. The benchmarking of retail costs for residential and small business customers is:

— based on retail market offers in south east Queensland only, rather than including offers in other jurisdictions

— considers time of use, demand and load control tariffs, in addition to flat rate tariffs.

Additionally, there has been consideration of whether the retail costs estimated using a benchmarking approach need to be adjusted further to account for recent developments affecting retail electricity markets.

Retail costs for residential and small business customers

We estimated the efficient retailer costs for residential and small business customers by deconstructing the components of retail electricity market offers that are available in south east Queensland, and benchmarking the retail costs.

As illustrated in Figure ES 1, retail electricity tariffs comprise three broad components – network costs, energy costs and retailer costs (fixed and variable components). By deducting the network costs and energy costs from the retail electricity tariff, the retailer costs can be derived.

Figure ES 1   Components of the retail electricity tariff

Source: ACIL Allen
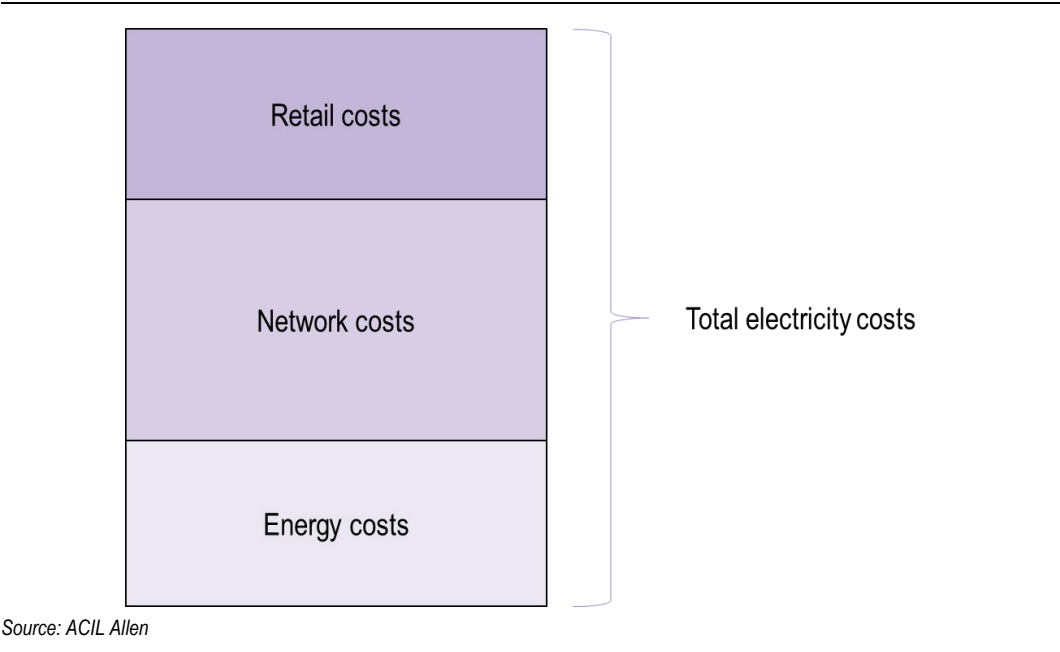
The retail electricity tariffs and network tariffs were available publicly. We estimated the energy costs using the same methodology that was adopted by the QCA in its determination of regulated retail tariffs for Queensland (or regional Queensland) between 2013-14 and 2020-21, and has been used to determine the regulated retail tariffs for 2021-22.

Residential flat rate tariffs

The 2020-21 average fixed and variable retail costs by retailer for their residential flat rate electricity tariffs, and the customer weighted average retail cost, are plotted in Figure ES2.

As expected, the variable component of the retail cost generally decreases as the fixed component increases, as it did in the last review of retail costs.

Figure ES 2   Fixed and variable components of retailer costs, residential flat rate tariffs, 2020-21

Note: Each purple dot represents a retailer and is the average retail cost across each of their tariffs

Source: ACIL Allen
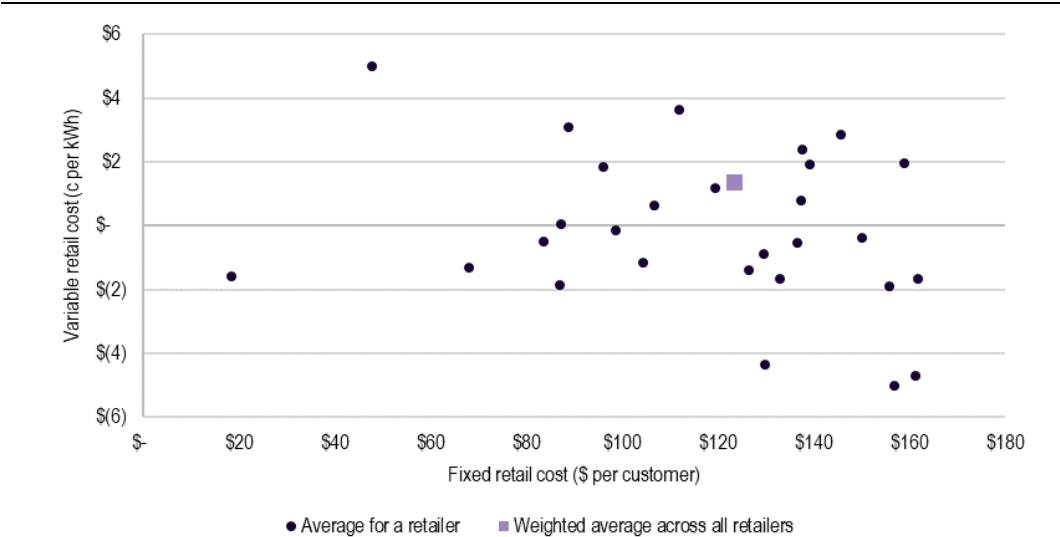
Table ES1 sets out the weighted average of the fixed and variable components of the retail costs for the residential flat rate tariffs for 2020-21.

Table ES 1   Fixed and variable components of retailer costs, residential flat rate tariffs, 2020-21

	Unit	Value
Fixed component	$ per customer / year	123.35
Variable component	c per kWh	1.37

Source: ACIL Allen

The customer weighted average retail cost for the residential flat rate tariffs includes a fixed component of $123.35 per customer per year and a variable (usage) component of 1.37 cents per kWh. The weighted mean of the retailer costs is dominated by the retailer costs of four of the 28 retailers – Origin Energy, EnergyAustralia, Alinta Energy and AGL – which represent around 86 per cent of the market offers for residential customers in Energex's electricity distribution area.

The customer weighted average of the fixed component of the retailer cost is slightly lower than the weighted mean of the fixed component from the 2016-17 review of retailer costs in nominal terms ($127.93), more so when considered in real terms. The customer weighted average of the variable component is lower than the variable component previously derived from the line of best fit (2.25 cents per kWh based on the weighted mean).

The reduction in the customer weighted average of the fixed retail costs is not consistent with the general movement in the national cost to serve published by AGL and Origin Energy. The reduction is driven largely by a substantial reduction in AGL's retail costs for residential customers on flat rate tariffs, despite an increase in AGL's published national cost to serve, with AGL representing approximately 23 per cent of the residential market offers in Energex's electricity distribution area. This is offset by an increase in Origin Energy's retail costs for residential customers, which is similar to the increase in Origin Energy's published national cost to serve.

The substantial reduction in the variable component of the retail costs arises from the methodology. If the energy costs are overstated, the variable component of the retail costs will be understated. The energy costs may be overstated as:

— The QCA uses the 95th percentile of a distribution of projected energy costs in its determinations.

— The methodology for calculating the energy costs considers the energy that is purchased by retailers based on the Net System Load Profile. This implicitly includes the value of energy exported from distributed energy resources (DERs) with accumulation meters but does not include the value of energy exported from DERs with interval/smart meters, nor does it account for the likelihood that different retailers have different mixes of customers in terms of meter type and DER installation, and pay different feed-in tariffs for the energy exported.

Any errors associated with potentially understating the retail costs will be netted out if the retail electricity tariffs for 2021-22 are determined using this estimate of the retail costs and the same approach to calculating the energy costs as used in previous years.

Small business flat rate tariff

The 2020-21 average fixed and variable retail costs by retailer for their small business flat rate electricity tariffs, and the customer weighted average retail cost, are plotted in Figure ES3.

Figure ES 3 Fixed and variable components of retailer costs, small business flat rate tariffs, 2020-21

● Average for a retailer ■ Weighted average across all retailers
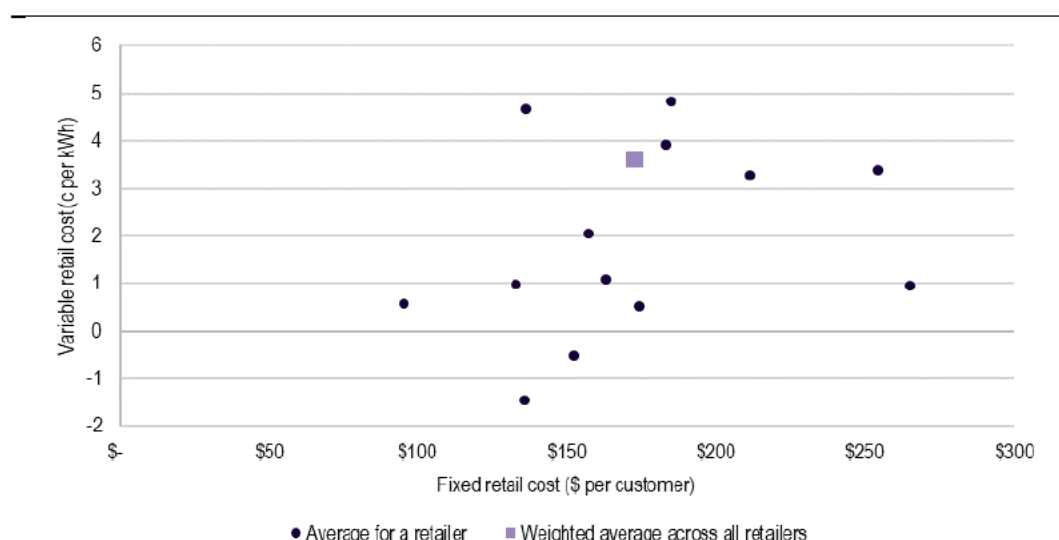
Note: Each purple dot represents a retailer and is the average retail cost across each of their tariffs
Source: ACIL Allen

Table ES2 sets out the fixed and variable components of the weighted average retail costs for the small business flat rate tariffs for 2020-21.

Table ES 2 Fixed and variable components of retailer costs, small business flat rate tariffs, 2020-21

	Unit	Value
Fixed component	$ per customer / year	$172.68
Variable component	c per kWh	3.63

Source: ACIL Allen

The weighted average retail cost for the small business flat rate tariffs includes a fixed component of $172.68 per customer per year and a variable volume component of 3.63 cents per kWh. The weighted averages are dominated by Origin Energy, which represents around 68 per cent of the market offers.

The customer weighted average of the fixed component of the retail cost is lower than the simple average of the fixed component from the 2016-17 review of retail costs in nominal terms ($181.56), more so when considered in real terms. The customer weighted average of the variable component is higher than the variable component previously derived from the line of best fit (2.58 cents per kWh based on the simple average).

This may represent a shift in retail costs from the fixed to the variable component, and a reduction in the average size of small business customer.

Demand, time of use and controlled load tariffs

We have not benchmarked the retail costs for time of use, demand and controlled load tariffs as the application of our methodology produced some anomalous results. The retailers have adopted different pricing strategies with the introduction of new network tariffs, resulting in a divergence in the retail costs produced. We expect that this is a transitional issue until the pricing strategies mature.

Bottom-up analysis – large customers

Given the absence of publicly available data for large customers, we estimated the retail costs for large customers based on information provided by the retailers. We issued an Information Request to retailers to obtain the retail costs that they forecast to be incurred in 2020-21 to supply electricity to large business customers (those that consume between 100 MWh and 4 GWh per annum) and very large business customers (those that consume more than 4 GWh per annum).

Information was provided by five retailers – all of these retailers provided information relating to large business customers, while only four retailers provided information relating to very large business customers.

Four of the five retailers expressed the retail costs with a fixed component and/or a variable (usage) component. Only one retailer also expressed the retail costs with a variable (demand) component. To ensure comparability of the information provided, we converted the demand component to a fixed component based on the average demand for that retailer's customers.

The retail costs submitted by two of the retailers for large business customers were significantly higher than submitted by the other three retailers. We therefore excluded those retailers from the analysis.

The fixed and variable components of the retail costs for large business customers are compared for three of the five retailers that provided information in the first pane of Figure ES 4. The retail costs for two of the retailers have been excluded as they are materially different. The fixed and variable components of the retail costs for very large business customers are compared for the four retailers that provided information in the second pane of Figure ES 4.

Figure ES 4   Fixed and variable components of retail costs, 2020-21
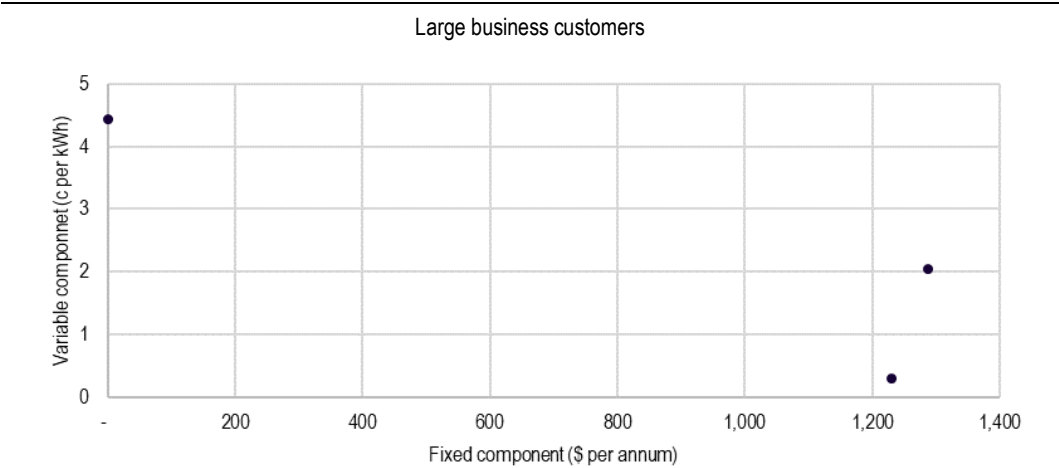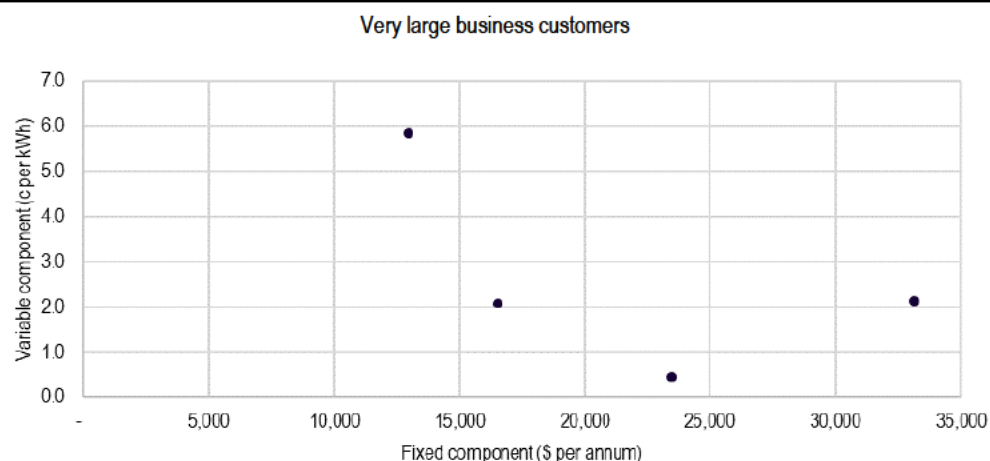
Source: ACIL Allen analysis based on retailers' information requests

The customer weighted average of the fixed and variable components of the retail costs for large and very large business customers (excluding the outliers) are set out in Table ES 3. While our analysis considered the customer weighted and energy consumption weighted averages, Table ES 3 provides only the customer weighted averages for consistency with our benchmarking analysis of retail costs for small customers.

Table ES 3   Fixed and variable components of retail costs, 2020-21

	Fixed component	Variable component
	$ per annum	c/kWh
Large business customers	1,285	2.0
Very large business customers	22,878	2.2

Source: ACIL Allen analysis based on retailers' information requests

While the data submitted by the retailers indicates that at least one retailer's retail costs for large customers are less than the QCA's 2020-21 determination, the retail costs submitted by other retailers vary significantly with some substantially higher. We note that there is some subjectivity in the costs that are provided as the retailers do not necessarily collect the data in the way that it has been requested. There is also an incentive for the retailers to submit high retail costs to increase the regulated retail prices for regional Queensland.

For these reasons, consistent with our conclusion from the 2016-17 review, there is insufficient evidence at this stage to vary the retail costs for large and very large customers.

Adjustments to the retail costs

The retail costs have been estimated for 2020-21. We considered whether an adjustment should be made for productivity improvements or for material additional costs associated with COVID-19, market developments or regulatory reform.

Productivity improvements

To identify whether there have been any productivity improvements in the fixed component of the retail costs, we considered the real movement in the retail operating costs over the period from 2014-15 to 2019-20, as published by AGL and Origin Energy, and over the period from 2007-08 to 2017-18, as reported by the Australian Competition and Consumer Commission (ACCC) as part of its 2017-18 inquiry into retail electricity prices.

Based on the small sample of publicly-available information, it cannot be concluded that there have been any productivity improvements in the retail operating costs over the period from 2014-15 to 2019-20. In fact, it would appear that there may have been a decline in productivity.

This is not consistent with the results from the benchmarking which indicates that there have been productivity improvements in the period from 2015-16 to 2020-21. However the reduction in the fixed component of the retail costs could be due to other changes including:

— a reduction in the average consumption by small business customers
— an overstatement of the energy costs, particularly given the uptake in energy that is purchased by retailers from distributed energy resources
— a more competitive retail electricity market.

We are of the view that there is insufficient evidence at this time that the retail costs should be adjusted for productivity improvements.

Additional material costs that may be incurred in 2021-22

The methodology that is used to estimate the 2021-22 retail cost component of the retail electricity prices for regional Queensland – by benchmarking the retail electricity costs for 2020-21 – means that the retailers' forecasts of the additional retail costs that would be incurred in 2020-21 as a result of COVID-19, market developments or regulatory reform are included in the estimate of the retail costs for 2020-21. The key issue in estimating the retail costs for 2021-22 is whether:

— the costs associated with COVID-19, market developments or regulatory reform will be materially different in 2021-22 relative to the costs that were forecast for 2020-21[1]
— the movement in costs is effectively captured by assuming the costs are escalated by CPI.

Performance indicators published by the Australian Energy Regulator indicate that the retailers have incurred higher costs during 2019-20 as a result of COVID-19, principally with the increase in debt. However, the performance indicators indicate that these COVID-19 related costs have stabilised and the RBA's economic outlook indicates that they are likely to decrease. We would expect that the COVID-19 related costs for 2021-22 would not be materially higher than the COVID-19 related costs that are incorporated in the benchmarked retail costs for 2020-21.

A number of regulatory reforms were identified that may result in the retailers incurring material additional costs in 2021-22 relative to 2020-21. However, no information was provided to substantiate the magnitude of the additional costs. As a result, we have no firm basis on which to conclude that additional costs associated with regulatory reform will be incurred in 2021-22 relative to 2020-21.

Conclusion

In conclusion, our analysis indicates that there is no compelling evidence to indicate that the retail costs should be indexed for productivity improvements or for material additional costs associated with COVID-19, market developments or regulatory reform.

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[1] Noting that these costs would have been forecast for the 2020-21 retail tariffs using data from quarter 3 2019-20.

Introduction 1

Following the introduction of full retail competition in the Queensland electricity market on 1 July 2007, all retail electricity customers in Queensland can choose either to:

— negotiate a market retail contract with a retailer and pay a price determined by that retailer, or

— remain on a standard retail contract with the price:

  — for customers in south east Queensland, determined by the retailer, subject to the Australian Energy Regulator's determination of a Default Market Offer

  — for customers in regional Queensland, determined by the Minister or the Queensland Competition Authority (QCA), where that function has been delegated by the Minister under section 90(1) of the *Electricity Act 1994*.

The QCA has received a delegation from the Minister to determine the regulated retail electricity prices for regional Queensland for 2021-22.

The QCA is proposing to adopt a similar approach to previous years to determine the regulated retail electricity prices through a build-up of energy, network and retail costs. The two components of the retail cost are the retail operating cost (ROC) and the retail margin. The QCA has previously defined ROC and the retail margin as follows:

> *ROC are the costs associated with services provided by a retailer to its customers and typically include the costs associated with customer administration, call centres, corporate overheads, billing and revenue collection, IT systems, regulatory compliance, and customer acquisition and retention (CARC).[2]*

> *The retail margin compensates retailers for their exposure to systematic risk associated with providing customer retail services.[3]*

The retail margin has historically been set relative to the retailers' EBITDA (earnings before interest, tax, depreciation and amortisation) and therefore includes an allowance for tax, depreciation and amortisation, and a return to the retailers.

ACIL Allen was engaged by the QCA to estimate the efficient retail costs as part of the 2016-17 review of regulated retail electricity tariffs. We used a benchmarking approach based on publicly available market data and a bottom-up approach based on confidential data provided by the retailers to estimate retail costs for residential and small business customers. The estimated retail costs each comprised a variable component (cost per energy consumed) and a fixed component (cost per customer).

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[2] Queensland Competition Authority, *Regulated retail electricity prices for 2015-16, Final determination*, June 2015, page 27

[3] Ibid, page 31

The retail cost for residential and small business customers was indexed for the 2017-18, 2018-19, 2019-20 and 2020-21 reviews of regulated retail electricity tariffs, with the variable component remaining as the same percentage of variable costs and the fixed component escalated by the forecast change in CPI.

The retail cost for large customers (those consuming more than 100 MWh per annum) was also reviewed as part of the 2016-17 review of regulated retail electricity tariffs. However, there was no compelling evidence at that time to change the retail cost from the QCA's previous determinations.

We were engaged by the QCA to update the existing retail cost estimates, as part of the 2021-22 review of regulated retail electricity tariffs, using approaches similar to those used for the 2016-17 review so that they reflect the retail costs based on current market data. However, there are a couple of key differences. For the 2016-17 review, the benchmarking approach to estimating the retail cost for residential and small business customers drew on:

— Publicly available data on retail market offers in south east Queensland, New South Wales, South Australia and Victoria – with the increase in the number of retail market offers available in south east Queensland, the benchmarking for the update of the retail cost estimate for the 2021-22 review is based on retail market offers in south east Queensland only.

— Tariff types – the analysis for the 2016-17 review was based on flat rate tariffs only. With the introduction of new tariffs since 2016-17, the 2021-22 review includes analysis of flat rate, time of use, demand and load control tariffs for residential and small business customers.

In addition, the 2021-22 review considers:

— updating the retail cost estimate for large customers using a bottom-up approach

— whether the updated retail costs estimated using a benchmarking approach need to be adjusted further to account for recent developments affecting retail electricity markets. This includes adjustments related to productivity improvements, the effects of COVID-19 and network tariff reforms or other regulatory or operating environment changes that are likely to materially affect retailers' costs to serve customers in 2021-22.

A methodology paper, which set out the methodology we proposed to estimate the retail costs for different customer segments, was published by the QCA, in conjunction with its Interim Consultation Paper, on 12 January 2021.[4] Submissions on the methodology paper were taken into consideration in finalising the methodology for this report.[5]

Purpose and overview of this paper

The purpose of this paper is to provide updated estimates of the retail costs for residential, small business and large business customers in south east Queensland, to be applied in regulating the retail electricity prices in regional Queensland in 2021-22.

The methodology that has been adopted to update the retail cost estimates for electricity customers in Queensland is described in chapter 2.

The inputs to the benchmarking analysis for residential and small business customers are provided in chapter 3 and the results from the benchmarking analysis are provided in chapter 4. In chapter 5, we discuss whether the results from the benchmarking analysis should be adjusted for any recent developments.

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[4] Available at https://www.qca.org.au/project/customers/electricity-prices/regulated-electricity-prices-for-regional-queensland-2021-22/

[5] Available at https://www.qca.org.au/project/customers/electricity-prices/regulated-electricity-prices-for-regional-queensland-2021-22/

Our assessment of the retail cost estimates for large business customers, based on data provided by the retailers, is provided in chapter 6.

Chapter 7 draws together the analysis in chapters 4, 5 and 6 and summarises our recommendations on the retail costs for residential, small business and large business customers.

Methodology 2

This chapter describes the methodology that has been adopted to update the retail cost estimates for residential, small business and large business customers.

Section 2.1 provides an overview of the methodology to update the retail cost estimates for residential and small business customers using a benchmarking approach, section 2.2 provides an overview of the methodology to update the retail cost estimate for large business customers and section 2.3 provides an overview of the approach to considering the effect of recent developments affecting retail electricity markets.

2.1 Methodology – residential and small business customers

This section describes the methodology that was used to update the retail cost estimates for residential and small business customers using a benchmarking approach.

Consistent with the 2016-17 review, we updated the retail cost estimates for residential and small business customers by deconstructing the components of each of the retail electricity tariffs and then benchmarking the retail costs. This review considered the retail electricity tariffs in south east Queensland only.

As illustrated in Figure 2.1, retail electricity tariffs comprise three broad components – network costs, energy costs and retail costs (fixed and variable components). By deducting the network costs and energy costs from the total retail electricity tariffs, the retail costs can be derived.

Figure 2.1   Components of the retail electricity tariff
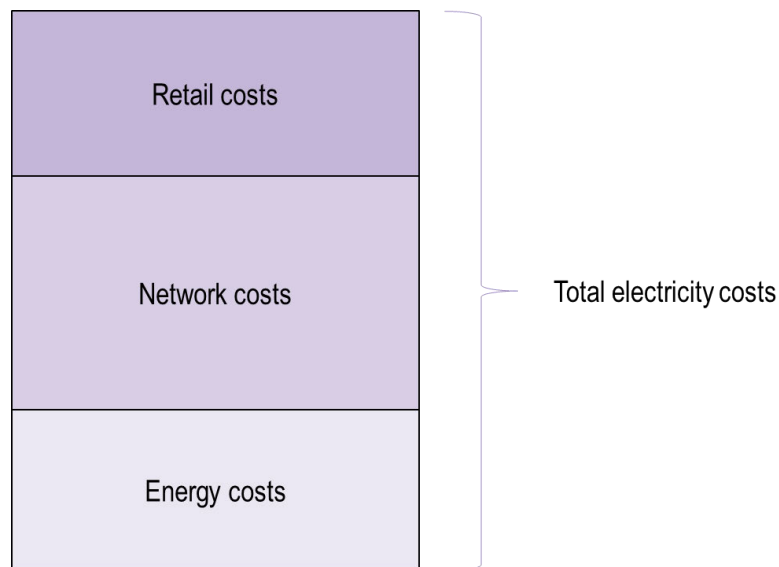
Source: ACIL Allen

The three broad components of the retail electricity tariffs, as well as the retail electricity tariffs themselves, are discussed in the following sections – the retail electricity tariffs are discussed in section 2.1.2, the network costs in section 2.1.3, the energy costs in section 2.1.4 and the retail costs in section 2.1.5.

Concern regarding the benchmarking methodology

In its submission on the Draft Determination, Energy Queensland raised concerns that the methodology departs from best practice methodology. It referred to the Australian Energy Market Commission's (AEMC's) 2013 report on a best practice retail price methodology[6], which identified two approaches:

 – *a benchmarking approach which involves examining publicly available information on retail operating costs, either from publicly listed companies and/or other regulatory decisions; or*
 – *a bottom-up approach which involves requesting retailers to provide information on their operating costs.*[7]

Energy Queensland noted that the AEMC recommended that a regulator use both methods to assess an efficient retailer cost. It referred to our approach as a top-down methodology rather than a benchmarking methodology, and accordingly was of the view that the approach is not consistent with the AEMC's advice.

We are of the view that the approach used for this review is a benchmarking approach. As discussed in the 2016-17 review, retail offers can now be benchmarked in a way that they could not when the AEMC released its report in 2013. There has been an increase in the number of active

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[6] Australian Energy Market Commission, *Advice on best practice retail price methodology, Final report,* 27 September 2013, page 61

[7] Energy Queensland submission on Draft Determination, page 11

electricity retailers and the number of market offerings, which can be used to benchmark the retail cost component of the retail offers.[8]

We used both a benchmarking approach and a bottom-up approach in the 2016-17 review. The data obtained through the bottom-up approach was highly variable. The benchmarked retail costs were within the range of the costs obtained through a bottom-up approach.

A bottom-up approach was used for this review to estimate a retail cost for large customers. The data provided by the retailers was again highly variable, and therefore of little value.

Concern regarding excess retailer margins

In its submission on the Methodology Paper, CANEGROWERS noted that:

> *The risks and size of any excess retailer margins in observed retail prices should have declined following the ACCC retail price enquiry and the introduction of the Default Market Offer (DMO), since this and other measures were intended to reduce the opportunity for retailers to exercise market power.*

> *Nevertheless, as we have previously noted, a key limitation of a deductive approach for estimating retailer costs is that it is unable to identify any excess retailer margins incorporated into observed retail prices. This is because any residual between observed prices and quantified costs is deemed to represent a retailer cost, even in cases where there is no associated cost.[9]*

We note the concerns raised by CANEGROWERS. However, any assumption that all retail electricity prices in south east Queensland include excess retailer margins explicitly assumes that the retail electricity market is not effectively competitive. The number of retailers operating in south east Queensland, the number of market offers available and the distribution of the retail costs indicate that the market is likely to be effectively competitive. The methodologies adopted by us in estimating the retail costs and by the QCA to incorporate these costs in retail electricity prices seek to address the concern raised by CANEGROWERS in two ways:

1. Any outlier retail costs are removed from our benchmarking analysis. By doing so, any retail tariffs that may include excess retail margins are excluded.
2. In determining the standing offer adjustment, the QCA compares the tariff that results from including the retail costs from our analysis, with the Default Market Offer (DMO) determined by the AER. If our analysis produced excess retail margins, these would be removed as part of this comparison and adjustment.

Limiting the analysis to standing offers only

Energy Queensland did not agree with the use of market offers only in the benchmarking analysis. It was of the view that:

> *… standing offers attract higher cost inputs as a result of the additional services provided by these contract types. Consequently, it is not appropriate to use market offers to set standing offer prices.[10]*

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[8] ACIL Allen Consulting, *Regulated Retail Prices for 2016-17, Estimating the Efficient Retailer costs*, 13 May 2016, page 4

[9] CANEGROWERS submission on the Methodology Paper, Attachment, page 7

[10] Energy Queensland submission on the Draft Determination, page 12

We note that the QCA explicitly includes a standing offer adjustment in the regulated retail tariffs to:

> *… reflect the additional value that standard contracts provide compared to market contracts, for example, through additional protections contained in their terms and conditions.[11]*

In its Draft Determination, the QCA specifically considered whether the assessment of retail costs and standing offer adjustment should be combined and concluded that:

> *… the objective (and information) for assessing these matters is different. … As such, we are satisfied the information we have used to assess the standing offer is appropriate and, given the separate nature and information used for this assessment, duplication of costs is not an issue that arises.[12]*

2.1.2 Retail electricity tariffs

The starting point for our benchmarking analysis was the competitive retail electricity market offers that are available in south east Queensland. These market offers were used to calculate the annual retail electricity bills for residential and small business customers.

The retail electricity bills were calculated separately for:

— residential customers on a:
  — flat rate tariff
  — time of use tariff
  — demand tariff
  — load control tariff
— small business customers on a:
  — flat rate tariff
  — time of use tariff
  — demand tariff
  — load control tariff.

We used the retail market tariffs that were offered for the 2020-21 financial year in south east Queensland, as published on the Australian Energy Regulator's (AER's) Energy Made Easy website.

The retailers offer a range of competitive market tariffs to residential and small business customers. We included all published tariffs, except those which had expired prior to 1 October 2020. We noted that many tariffs that expired prior to 1 October 2020 were only valid for days or weeks, and appeared to be replaced by similar tariffs with minor differences. These differences appeared to be due to changes in the presentation of the data on the AER's Energy Made Easy website rather than fundamental changes to the tariffs themselves.

Where the analysis indicated that a tariff was an outlier (resulting in electricity bills that are more than two standard deviations from the mean), we removed those tariffs from our analysis. In its submission on the Methodology Paper, Energy Queensland noted that new entrants may initially offer very low prices to establish market share and established retailers may respond by artificially lowering their prices so as to protect market share.[13] By removing outliers from the analysis, if a retailer's pricing strategy results in low retail tariffs with commensurately low retail costs, they are removed from the analysis.

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[11] Queensland Competition Authority, *Draft determination, Regulated retail electricity prices for 2021-22, Regional Queensland*, March 2021, page 46

[12] Ibid, page 49

[13] Energy Queensland submission on the Methodology Paper, pages 13-14

Some of the costs to serve retail electricity customers are a fixed cost – for example, the cost to invoice a customer and the cost to manage customers through a call centre. They are the same regardless of energy consumption or demand. These costs are expected to be reflected in the fixed component of the retail cost, but may be reflected in the variable component of the retail electricity tariff by some retailers.

Where the cost to serve is reflected in the variable usage or demand component of the retail electricity tariff, the retailer will convert the cost to serve to a per consumption or per demand charge. It is expected this conversion will be done based on the average consumption or average demand for customers on a particular tariff so that the costs are not over or under recovered.

The average consumption and demand, where applicable, varies across tariffs and therefore the rate at which the variable component of the cost to serve is converted to a per consumption or per demand charge varies across tariffs. We therefore calculated the total retail electricity bills for each of the tariffs based on the average consumption and demand for residential and small business customers that is relevant to each tariff.

The retail electricity bills were calculated exclusive of GST.

Treatment of discounts

Many retailers offer incentives and discounts that are not included in the retailers' published electricity tariffs. Retailer incentives can be in the form of, for example, cash incentives, frequent flyer points or percentage discounts on customer bills. Some incentives are unconditional on customer actions while other incentives are contingent on customers paying their bills on time, agreeing to online billing or paying via direct debit. The length of time over which discounts to bills are applied to retail tariffs can be limited and some discounts are only available when the contract is first entered into (upfront discounts).

In calculating customers' retail electricity bills, we factored in all quantifiable conditional and unconditional discounts that are available to customers. We amortised upfront discounts over a period consistent with the rate of customer switching.

We also included payment fees and annual membership fees, but assumed that late payment fees and fees for paper bills do not apply. We assumed that any customer signing up to these particular offers would seek to avoid these extra charges. Where a refundable deposit was required, we included an annual fee on that deposit based on a rate of 6.45 per cent.[14]

2.1.3   Network costs

Network costs, which are regulated by the AER, comprise:

— network tariffs, which recover costs associated with the use of the distribution and transmission networks
— jurisdictional scheme amounts, where these are not included in the network tariffs
— metering charges.

Network tariffs for residential and small business customers are publicly available. We used the network tariffs that apply in 2020-21 in Energex's distribution area. We sought to choose the network tariff that corresponds to each of the tariff types included in our analysis. While this was relatively straight forward for flat rate retail tariffs, it was more complicated for time of use and demand retail tariffs as there were multiple network tariffs that could apply.

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[14] Consistent with the discount rate used by the QCA.

Consistent with our approach for calculating overall customer retail electricity bills, we calculated the network costs based on the average consumption and demand that was relevant to that tariff, exclusive of GST.

The jurisdictional scheme amounts recover the costs associated with Feed-in Tariff payments made to customers with solar PV systems. Jurisdictional scheme amounts related to Feed-in Tariff payments are included in the network tariffs.

Our analysis of network costs also includes the "standard" metering charges that are paid by residential and small business customers in 2020-21. We excluded the additional costs and charges that may be incurred where the "standard" meter is replaced with a smart meter.

With regards to metering, the analysis assumes that the standard Energex metering charges apply. If a new meter is installed, then both the associated costs and charges for that meter are excluded from our calculations.

2.1.4   Energy costs

The costs for energy purchased from the National Electricity Market (NEM) comprise:

— wholesale energy costs (WEC)

— costs of complying with the Renewable Energy Target (RET)

— NEM fees, ancillary services charges and costs of meeting prudential requirements

— energy losses incurred during the transmission and distribution of electricity to customers.

We used the same methodology to estimate these energy costs for Queensland as adopted for the QCA in its determination of regulated retail tariffs for Queensland (or regional Queensland) between 2013-14 and 2020-21, and has been used to determine the regulated retail tariffs for 2021-22.

The approach to estimating energy costs is designed to simulate the wholesale energy market from a retailing perspective, where retailers hedge the pool price risk by entering into electricity contracts with prices represented by the observable futures market data. Other energy costs are added to the wholesale energy costs and the total is then adjusted for network losses.

There is a risk of double counting costs or not including costs when estimating the retail cost. By using the same methodology to estimate the energy costs as used by the QCA in determining regulated retail tariffs, this risk is mitigated. If we used a different approach to estimate the energy cost to that used by the QCA in determining regulated retail tariffs, the energy cost could be higher (or lower) resulting in a lower (or higher) retail cost.

Energy Queensland raised a concern regarding our:

> … conclusion that using the wholesale energy cost component to offset an underestimation in retail costs is a reasonable pricing methodology.[15]

Our approach does not use the wholesale energy cost component to offset an underestimation in retail costs. Rather, by using the same approach to calculating the wholesale energy cost component for the benchmarking and for setting regulated retail tariffs, it ensures that costs are treated consistently for the purposes of the benchmarking and for setting regulated retail tariffs. If the approach used to estimate wholesale energy costs for the purposes of benchmarking is different to the approach used to regulate retail tariffs then there is a risk that:

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[15] Energy Queensland submission on the Draft Determination, page 11

— the wholesale electricity costs used for the benchmarking include a particular cost that is then excluded from the retail costs. If the wholesale electricity costs used for regulating retail tariffs do not include that particular cost, then the sum of the wholesale electricity costs and retail cost will be lower than they would otherwise be.

— the wholesale electricity costs used for the benchmarking do not include a particular cost that is then included in the retail costs. If the wholesale electricity costs used for regulating retail tariffs include that particular cost, then the sum of the wholesale electricity costs and retail cost will be higher than they would otherwise be.

Our approach mitigates this risk.

Described below is an outline of our approach for quantifying each of the energy cost components. Further details on the approach to calculating costs for energy purchased from the NEM is provided in ACIL Allen's June 2020 report to the QCA, *Estimated Energy Costs, 2020-21 Retail Tariffs*.

Timing of the analysis

In estimating the costs associated with purchasing energy from the NEM, we used the forecasts based on market modelling we undertook for the QCA in estimating the 2020-21 energy costs for Queensland. This modelling includes NEM fees and ancillary service charges, prudential costs and energy losses.

For internal consistency, we used retail electricity tariffs that would have been set by retailers using similar forecasts of energy. If retail electricity tariffs are used that were set at a different time, there could be variances in the retail cost estimates as a result of those timing differences.

Wholesale energy costs

As with the 2013-14 to 2019-20 reviews of wholesale energy costs, we continued to use the market hedging approach for estimating the WEC for 2020-21.

We utilised our:

— stochastic demand model to develop 49 weather influenced simulations of hourly demand traces for each of the tariff profiles – using temperature data from 1970-71 to 2018-19 and demand data for 2016-17 to 2018-19

— stochastic outage model to develop 11 hourly power station availability simulations

— energy market models to run 539 simulations of hourly pool prices of the National Electricity Market (NEM) using the stochastic demand traces and power station availabilities as inputs

— analysis of contract data to estimate contract prices

— hedge model, taking the above analyses as inputs, to estimate a distribution of hedged prices for each tariff class.

We then analysed the distribution of outcomes produced by the above approach to provide a risk adjusted estimate of the WEC for each tariff class.

We relied on the Australian Energy Market Operator (AEMO) as a source for the various demand data required for the analysis. The QCA provided ACIL Allen with access to ASX Energy data and OTC data from TFS Australia for the purpose of estimating contract prices.

The peak demand and energy forecasts for the demand profiles were referenced to the 2018 and 2019 AEMO demand forecasts for Queensland and took into account past trends and relationships between the Net System Load Profiles (NSLPs) and the Queensland region demand. It was our assessment that the AEMO medium series demand projection for 2020-21 provided in AEMO's 2019 Electricity Statement of Opportunities was the most reasonable demand forecast for the purposes of that analysis.

Renewable energy policy costs

Energy costs associated with the Large-scale Renewable Energy Target (LRET) and the Small-scale Renewable Energy Scheme (SRES) were estimated using price information from brokers TFS, information published by the Clean Energy Regulator (CER) and modelling by ACIL Allen. Retailer compliance with these schemes operates on a calendar year basis and hence estimates were required for both the 2020 and 2021 calendar years, with the costs averaged to estimate the 2020-21 financial year costs for Queensland.

To estimate the costs to retailers of complying with both the LRET and SRES, we used the following elements:

— historical Large-scale Generation Certificate (LGC) market forward prices for 2020 and 2021 from brokers TFS[16]

— the published Renewable Power Percentage (RPP) for 2020 of 19.31 per cent, as published by the CER

— estimated RPP value for 2021 of 19.44 per cent[17]

— the binding Small-scale Technology Percentage (STP) for 2020 of 24.40 per cent, as published by the CER

— estimated STP value for 2021 of 22.15 per cent[18]

— CER clearing house price[19] for 2020 and 2021 for Small-scale Technology Certificates (STCs) of $40/MWh.

Other energy costs

Market fees and ancillary service costs were estimated based on data and policy documents published by AEMO.

Prudential costs, both for AEMO and representing capital used to meet prudential requirements to support hedging, take into account:

— the AEMO assessed maximum credit limit

— the future risk-weighted pool price

— participant-specific risk adjustment factors

— AEMO published volatility factors

— futures market prudential obligation factors, including:

   — the price scanning range

   — the intra commodity spread charge

   — the spot isolation rate.

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[16] TFS data includes prices up to and including 8 May 2020.

[17] The estimated RPP value for 2021 was estimated using ACIL Allen's estimate of liable acquisitions and the CER-published mandated LRET target for 2021.

[18] The estimated STP value for 2021 was estimated using ACIL Allen's estimates of STC creations and liable acquisitions in 2021.

[19] Although there is an active market for STCs, ACIL Allen is not compelled to use market prices. This is mainly because historical prices might not be the best indicators of future prices as the market is designed to clear every year – so, in theory, prices could be $40 or at least very close to it. This assumes that the CER provides an accurate forecast of created certificates underpinning the STP for the next year.

Energy losses

The estimated wholesale energy costs resulting from the analysis were referenced to the Queensland Regional Reference Node. These estimates were adjusted for transmission and distribution losses associated with transmitting energy from the Regional Reference Node to end-users.

Distribution Loss Factors (DLF) for Energex and average Marginal Loss Factors (MLF) for transmission losses from the node to major supply points in the distribution networks were applied to the wholesale energy cost estimates to incorporate losses.

The MLFs and DLFs used to estimate losses for 2020-21 were based on the final 2020-21 MLFs and the final DLFs published by AEMO on 1 April 2020.

2.1.5   Retail costs

For each retail electricity tariff, we deducted the energy costs and network costs from the total retail electricity costs to derive the retail costs. We analysed the benchmarking sample to assess whether there were any outliers, which were removed from the sample.

When we estimated the retail costs in the 2016-17 review, we identified a relationship between the fixed and variable costs using regression analysis. The retail costs were estimated based on:

— fixed component – the average (mean) value of the fixed component in the benchmarking sample for each tariff type

— variable component – the variable component that equated to the fixed component on the line of best fit for the tariff type.

We used a similar approach to update the retail cost estimates, however, there were a couple of important differences.

1. Demand tariffs – the retail costs for demand tariffs included two variable components – one based on the energy consumption and one based on the demand.

2. Sample of retail market offers – we previously analysed the retail market offers for nine retailers and benchmarked the lowest cost tariff for each retailer. In this analysis, we were asked to include all market offers in our analysis. As a consequence, the analysis included a large number of market offers with some offered by relatively small retailers, some of which had multiple market offers. Averaging the retail costs across all market offers biased the results towards the multiple market offers of the very small retailers. To mitigate the effects of this bias, we benchmarked the average (mean) of the retail costs for each retailer. We also estimated the fixed and variable component of the retail costs using the customer weighted average of the fixed and variable components of the retail costs. In the previous review the customer weighted average could only be calculated by making a number of assumptions. The data are now publicly available to calculate the customer weighted average.

We considered whether any adjustments should be made to the benchmarked retail costs for residential and small business customers based on the adjustments discussed in section 2.3.

In its submission on the Methodology Paper, Energy Queensland submitted that the:

> *… methodology fails to consider the different operating models of contestable retailers such as those offering digital platforms only, or those who offshore retail activities such as contact centres or billing (options unavailable to Ergon Energy Retail).[20]*

By considering the fixed and variable components of retail costs, rather than the traditional categorisation of retail operating costs and retail margin, we are implicitly accommodating a range

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[20] Ergon Energy submission on the Methodology Paper, page 13

of different operating models. There is a trade-off between the fixed and variable components of the retail costs, and ultimately judgement needs to be exercised as to the appropriate balance between the two components to be included in the regulated retail price.

2.2 Methodology – large customers

This section describes the methodology that was adopted to update the retail cost estimates for large business customers (those consuming between 100 MWh and 4 GWh per annum) and very large business customers (those consuming more than 4 GWh per annum) using a bottom-up approach.

We issued an Information Request to retailers to obtain the retail costs that they forecast to be incurred in 2020-21 to supply electricity to large and very large business customers. The cost information was requested by the following cost categories:

— customer service and contract management – call centre, account managers, other customer service costs

— billing and payment – standard billing operations; bad debts, credit and collections; other billing and payment costs

— acquisition and retention – channel costs, back office costs, marketing costs, other acquisition and retention costs

— IT systems (operating cost only) – customer information and billing system, metering data system, other

— energy procurement costs (the costs of procuring energy and excluding the cost of wholesale energy purchased, hedge costs and prudential costs, which are included in the energy costs)

— regulatory compliance costs

— regulatory fees

— support and overheads

— depreciation

— amortisation

— interest, tax, and return on assets

— other.

We recognised that retailers may allocate these costs to large and very large business customers using different cost drivers. Accordingly, we requested the cost data on a per customer basis and/or per MWh basis and/or per MW basis.

Where the retailer was not able to quantify the costs in this way, we requested information to drive an activity-based approach to derive the retail costs for large and very large business customers. This included requesting information on the activities undertaken by the retailers, the number of FTEs undertaking those activities and/or the estimated time to undertake each activity.

The information provided by the retailers was analysed to derive a fixed and variable component of the retail cost for large and very large business customers. To enable us to analyse the data, we also requested the number of customers supplied by the retailer, the average consumption and the average demand for large and very large business customers.

We requested information from the retailers on the expected movement in costs from 2020-21 to 2021-22 and considered whether any adjustments should be made based on the discussion on adjustments in section 2.3.

2.3 Methodology – adjustments for recent developments

This section describes the methodology for assessing whether any adjustments should be made to the retail cost estimates derived for residential and small business customers using a benchmarking approach (as described in section 2.1) and derived for large and very large business customers using a bottom-up approach (as described in section 2.2).

2.3.1 Assessing productivity improvements

The fixed component of the retail cost has been escalated each year since 2016-17 by the forecast CPI.

We used publicly available cost to serve data (for example those published by AGL and Origin Energy) and other information that is publicly available to analyse the real movement in the cost to serve over the last five years. This was used to derive an estimate of the productivity improvements.

2.3.2 Additional material costs that may be incurred in 2021-22

To estimate additional material costs that are likely to be incurred by retailers in 2021-22, we adopted the following broad approach:

1. identify the obligations/circumstances that have changed
2. identify the processes and activities that have changed as a consequence
3. quantify the volume of that change in activity
4. estimate a unit cost for that activity
5. estimate the total change in costs associated with that activity.

When assessing potential additional material costs, we took care to consider the extent to which the costs are:

— additional to those already incorporated in the published retail electricity tariffs for 2020-21
— expected to persist through 2021-22.

An example of a circumstance that has changed is COVID-19. The AER's "Weekly retail market dashboards – COVID-19" provide an indication of the types of activities for which the volume of activity has changed as a consequence of COVID-19. These include:

— disconnections
— customers on payment plans
— deferred debt
— bad debt
— call centre activity.

We analysed the potential for changes in retail costs as a result of COVID-19, and other obligations/circumstances that have changed, as set out above.

Benchmarking inputs 3

This chapter describes the input data for the benchmarking analysis. The input data relating to retail electricity tariffs is set out in section 3.1, the network costs in section 3.2, and the energy costs in section 3.3.

3.1 Retail electricity tariffs

We obtained a data set of retail electricity tariffs for residential and small business customers from the QCA for the first and second quarters of 2020-21. The data set provided by the QCA replicated the information on the AER's Energy Made Easy website. The retail tariffs included:

— flat rate tariffs, that is, tariffs that do not change by the time of day

— time of use tariffs, which have multiple rates depending on the time of day that energy is consumed

— demand tariffs, which include a tariff component that varies based on the maximum demand during each month

— controlled load (CL) tariffs, which apply to specific types of loads that operate during off-peak times such as water heating and pool pumps.

As discussed in section 2.1.2, we removed tariffs that had expired prior to 1 October 2020 and any outlier offers.

The number of retail electricity tariffs that remained after the filtering process is summarised in Table 3.1. A full list of tariffs used in our benchmarking analysis is provided as Appendix A.

Table 3.1   Number of retail electricity tariffs by type, Energex distribution area

	Residential			Small business			CL 31	CL 33
	Flat rate	TOU	Demand	Flat rate	TOU	Demand		
1st Energy	1	1	0	1	0	0	2	1
AGL	6	6	0	0	2	2	0	0
Alinta Energy	6	0	6	0	4	4	0	0
amaysim Energy	2	0	0	1	0	0	0	0
Amber Electric	1	0	0	0	0	0	1	0
Blue NRG	0	0	0	40	37	8	32	32
Bright Spark Power	0	0	0	0	1	0	0	0
Click Energy	2	0	0	0	3	0	0	0
CovaU	2	1	4	1	2	8	0	0
Diamond Energy	1	0	0	0	1	0	0	0

	Residential			Small business			CL 31	CL 33
	Flat rate	TOU	Demand	Flat rate	TOU	Demand		
Discover Energy	3	0	2	3	3	2	0	0
Dodo Power & Gas	1	1	0	0	0	0	0	0
Elysian Energy	1	0	1	0	1	0	0	0
Energy Locals	2	1	0	0	1	0	0	0
EnergyAustralia	4	0	0	0	1	1	0	0
Future X Power	1	1	0	3	1	0	1	1
Glow Power	1	0	0	0	1	0	0	0
Locality Planning Energy	2	0	4	3	0	0	0	0
Mojo Power	2	0	0	0	0	0	0	0
Nectr	2	0	0	0	0	0	2	2
Next Business Energy	0	0	0	0	1	2	0	0
Origin Energy	22	12	0	3	6	0	12	12
Powerclub	4	2	0	5	2	0	4	0
Powerdirect	1	1	0	1	1	0	0	0
Powershop	2	1	0	4	2	0	1	1
ReAmped Energy	7	3	0	1	1	0	8	8
Red Energy	4	2	0	1	3	1	2	2
Simply Energy	4	2	0	0	1	0	2	2
Sumo	1	1	2	0	1	0	0	0
TOTAL	**85**	**35**	**19**	**67**	**76**	**28**	**67**	**61**

Source: ACIL Allen based on tariff offers published on AER's Energy Made Easy website

As our analysis is based on estimates of wholesale electricity costs developed previously for the QCA, it is important that we use retail tariffs that would have been developed based on those same wholesale electricity cost projections. Retail tariffs could have subsequently been updated based on later projections of wholesale electricity costs. If these later tariffs were to be used, a series of wholesale electricity cost projections would have been required that were produced when the retail tariffs were being developed.

Accordingly, to the extent possible we used the data for quarter 1. However, there were some tariffs (particularly demand tariffs) for which there were relatively few offers in quarter 1, and so quarter 2 data were used instead. We compared the quarter 1 and quarter 2 data to satisfy ourselves that the variable charges were consistent between the two datasets.

3.1.1 Average consumption

The average consumption and demand varies across the different tariff types, and therefore the rate at which the variable component of the cost to serve is converted to a per consumption or per demand charge varies across the tariff types. In calculating the total customer electricity bills we used the average consumption and demand for the relevant tariff type in Energex's distribution area, which were provided to us by the QCA.

The average consumption for residential customers and small business customers for each tariff type, is shown in Table 3.2.

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Table 3.2   Average consumption by tariff type, 2019-20

Tariff type	Average consumption (kWh per annum)	Load profile	Average demand (kW per month)
Residential customers			
Flat rate	5,051	N/A	N/A
Time of Use	9,724	Peak 16.1%, Shoulder 49.9%, Off peak 34%	N/A
Demand*	4,691	N/A	11.1
Small business customers			
Flat rate	13,220	N/A	N/A
Time of Use	30,881	Peak 49%, Off-peak 51%	N/A
Demand	70,936	N/A	16.9
Controlled load tariffs			
Super economy load control	1,823	N/A	N/A
Economy load control	1,825	N/A	N/A

* The residential demand consumption was estimated using average growth of 2.5 per cent in consumption of residential usage applied to 2018-19 values.
Source: QCA

While the electricity consumed varies from month to month, our analysis indicates that the electricity consumption on a quarterly billing cycle for small customers is relatively consistent through the year. For the purposes of our analysis, the electricity consumption is assumed to be consistent through the year.

The load profile provided to us for the time of use tariffs for business customers was based on Energex's network tariff, with a:

— peak period from 7 am to 9 pm on weekdays

— off-peak period at all other times.

Some retail time of use tariffs for small business customers had three time periods – peak, shoulder and off-peak period, with different times specified for these periods. We estimated the load profile for these non-standard business time of use tariffs, as set out in Table 3.3.

Table 3.3   Load profile for non-standard business time of use tariffs

Retailer	Time periods	Assumed load profile
Blue NRG	Peak: 7 am to 9 am and 5 pm to 8 pm weekdays Off-peak: 9 am to 5 pm and 8 pm to 10 pm weekdays Shoulder: All other times	Peak 17.5%, Shoulder 34.1%, Off-peak 48.4%
Powershop (BT114)	Peak: 4 pm to 9 pm Off-peak: 9 am to 4 pm Shoulder: 9 pm to 9 am	Peak 22.7%, Shoulder 45.5%, Off-peak 31.8%
Powershop (BT115)	Peak: 4 pm to 9 pm weekdays Off-peak: 9 am to 4 pm Shoulder: 9 pm to 9 am weekdays, 4pm – 9 am weekends	Peak 17.5%, Shoulder 50.7%, Off-peak 31.8%

Retailer	Time periods	Assumed load profile
Red Energy	Peak: 4 pm to 9 pm weekdays Off-peak: 9 am to 4 pm Shoulder: 9 pm to 9 am weekdays, 4pm – 9 am weekends	Peak 17.5%, Shoulder 50.7%, Off-peak 31.8%

Source: ACIL Allen analysis

3.1.2   Treatment of discounts and fees

Where retailers have offered discounts on one or more components of the retail electricity bill, we have calculated the retail electricity bills net of these discounts. Where the discounts apply to the usage charges, we have applied the discount to the variable component of the bill. Where the discounts apply to the total electricity bill, we have applied the discounts to the variable and fixed components of the bill.

Where retailers have offered upfront discounts, we have amortised the discounts over a period of time, based on the rate of churn in Queensland, and applied the discount to the fixed component of the bill.

We sourced the churn rate for Queensland from AEMO's NEM Monthly Retail Transfer Statistics. As the churn rates are on a jurisdiction basis rather than an electricity distribution area basis, the churn rate will be understated for Energex's distribution area, as the churn rate is likely to be higher than the churn rate for Queensland. We expect this error to be immaterial given the extent to which retail costs are averaged in our benchmarking.

We converted the churn rate to the implied period of time a customer will stay with a retailer. We then amortised the discount over this period using a discount rate of 6.45 per cent to calculate a capital recovery rate. The capital recovery rate is the proportion of the discount that has been applied in each year in determining the net retail electricity bill.

The assumed switching rates and capital recovery factors are shown in Table 3.4.

Table 3.4   Factors for applying upfront discounts to retail electricity bills

	Queensland
Annualised churn rate	13%
Implied average period a customer stays with one retailer (years)	7.69
Capital recovery factor	0.17

Note: Assumes a weighted average cost of capital of 6.45%
Source: ACIL Allen analysis

Compared to the benchmarking analysis that was undertaken as part of the 2016-17 review, fewer inducements were offered in 2020-21.

Some tariffs included additional payments, for example, credit card payment fees and annual membership fees. These were treated as negative discounts. When calculating payment processing fees, we assumed that 45 per cent of customers pay by credit card, 45 per cent by debit card and 10 per cent by other means (for example, Australia Post).

Energy Queensland questioned our assumption that 45 per cent of customers in south east Queensland pay by credit card, 45 per cent by debit card and 10 per cent by other means (for example, Australia Post).[21] We note that the results are not sensitive to changes in these assumptions. For example, if the assumptions are changed to 25 per cent by credit card, 25 per

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[21] Energy Queensland submission on the Draft Determination, page 14

cent by debit card and 50 per cent by other means, there is a 1 cent per annum variation in the fixed charge and no change in the variable charge (to two decimal places).

One retailer charges a refundable deposit. We assumed an additional annual payment based on a return on the deposit, based on a rate of return of 6.45 per cent.

3.2 Network and metering costs

The network tariffs and metering charges that have been used to calculate the network component of the retail electricity bills are set out in Table 3.5 for flat rate tariffs, in Table 3.6 for time of use tariffs, in Table 3.7 for demand tariffs and in Table 3.8 for controlled load tariffs. Energex made a number of changes to its network tariffs from 1 July 2020, with some tariffs grandfathered and new tariffs introduced. These are discussed below and have made the choice of network tariffs more complex than in the 2016-17 review.

Table 3.5   Network tariffs and metering charges, flat rate tariffs

	Residential flat	Small business flat
Network tariffs		
Fixed Charge ($/day)	0.511	0.689
Volume Charge ($/kWh)	0.08384	0.08899
Metering charges		
Metering ($/day)	0.10346	0.10346

Source: Energex, EGX Attachment 1 - Network tariff tables 2020-21 final v2.1_0.xlsx

The flat rate network tariffs have been grandfathered from 1 July 2020. Energex introduced a new small business wide inclining fixed tariff for small business customers consuming more than 20 MWh per year with an accumulation meter. The tariff has a number of inclining fixed blocks.

Table 3.6   Network tariffs and metering charges, time of use tariffs

	Residential time of use	Business time of use
Network tariffs		
Fixed Charge ($/day)	0.511	0.689
Volume Peak Charge ($/kWh)	0.16030	0.102
Volume Off Peak Charge ($/kWh)	0.05706	0.06691
Volume Shoulder Charge ($/kWh)	0.07437	N/A
Metering charges		
Metering ($/day)	0.10346	0.10346

Source: Energex, EGX Attachment 1 - Network tariff tables 2020-21 final v2.1_0.xlsx

We used the residential time of use network tariff and the small business time of use network tariff. However, we also note that Energex has a residential time of use energy network tariff and a small business time of use energy tariff.

Table 3.7   Network tariffs and metering charges, demand tariffs

	Residential demand	Business demand
Network tariffs		
Fixed Charge ($/day)	0.499	0.468
Peak Demand ($/kW/month)	6.531	7.724
Volume ($/kWh)	0.03419	0.04722
Metering charges		
Metering ($/day)	0.07045	0.07045

Source: Energex, EGX Attachment 1 - Network tariff tables 2020-21 final v2.1_0.xlsx

We used the residential demand tariff and the small business demand tariff. However, we also note that Energex has a residential transitional demand tariff, a small business transitional demand tariff and a small business demand tariff that is closed to new customers.

The transitional demand tariffs have a lower peak demand charge and a higher volume charge than the demand tariffs that we have used. These are the default network tariffs for all new customer connections and existing customers that upgrade to a smart meter after 30 June 2020.

The small business demand tariff that is now closed has lower fixed and volume charges.

Table 3.8   Network tariffs and metering charges, flat rate tariffs, controlled load tariffs

	Economy (T31)	Super Economy (T33)
Network tariffs		
Fixed Charge ($/day)	N/A	N/A
Volume ($/kWh)	0.04888	0.03888
Metering charges		
Metering ($/day)	0.03015	0.03015

Source: Energex, EGX Attachment 1 - Network tariff tables 2020-21 final v2.1_0.xlsx

We have used the economy and super economy network tariffs rather than the small business primary control load tariff. The small business primary load control tariff has a fixed charge, a higher volume charge and a higher metering charge than the economy and super economy network tariffs.

3.3 Energy costs

The total energy costs comprise:

— wholesale energy cost at the Queensland reference node

— renewable energy cost at the Queensland reference node

— other costs at the Queensland reference node

— adjustments for transmission and distribution losses.

Further details on the energy costs are provided in ACIL Allen's June 2020 report to the QCA *Estimated Energy Costs, 2021-21 Retail Tariffs*.

The total energy costs that have been used to determine the energy costs in the benchmarking analysis of retail electricity tariffs are set out in Table 3.9.

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Table 3.9   Total energy costs, 2020-21 final determination

	WEC at Qld reference node	Renewable energy costs at Qld reference node	Other costs Qld reference node	Total transmission & distribution loss factor (MLF x DLF)	Network losses	TEC at the customer terminal
Flat rate tariff – residential and small business						
Time of use tariff – residential and small business	80.9	14.3	3.99	1.06	5.95	**$105.14**
Demand tariff – residential and small business						
Controlled load tariff T31	63.49	14.3	3.99	1.06	4.91	**$86.69**
Controlled load tariff T33	65.35	14.3	3.99	1.06	5.02	**$88.66**

Source: ACIL Allen's June 2020 report to the QCA, Estimated Energy Costs, 2021-21 Retail Tariffs.

Benchmarking analysis

4

The retail costs included in the residential and small business retail electricity bills in the benchmarking dataset are analysed in this chapter.

We first outline how the fixed and variable components of the retail costs can be calculated for each retail electricity bill considered, in section 4.1.

We discuss the fixed and variable components of the retail costs that are calculated for each residential and small business flat rate tariff electricity bill in the dataset in section 4.2. The average fixed and variable components for each retailer for each flat rate tariff are set out in Appendix C.

In section 4.3 we discuss the analysis we have undertaken of time of use, demand and controlled load tariffs, and explain why the retail costs for these tariffs have not been benchmarked.

4.1 Calculating the fixed and variable components of the retail costs

The various components of a retail electricity bill are illustrated in Figure 4.1.

As illustrated in Figure 4.1, a retail electricity bill comprises two components:

— a fixed component, which is based on a fixed or standing (or cents per day) charge

— a variable component, which is based on a consumption (or cents per kWh) charge and the electricity consumed

— a demand component (where relevant), which is based on the peak consumption per half hour period ($ per kW per month).

The retail electricity bills for each market offer were calculated based on the retail tariff, net of discounts, and the average consumption for that customer segment in that electricity distribution area, as per formula (1).

$$
\begin{aligned}
Retail\ bill = {}& Fixed\ charge\ per\ year\ net\ of\ discounts \\
& + Variable\ charge\ net\ of\ discounts \\
& \times\ annual\ consumption \\
& + Demand\ charge\ net\ of\ discounts\ (where\ applicable) \\
& \times peak\ demand\ per\ month \times 12
\end{aligned}
\tag{1}
$$

The network costs (N) similarly have a fixed and a variable component and were calculated for each retailer in each electricity distribution area as per formula (2).

$$
\begin{aligned}
N = {}& Fixed\ network\ charge\ per\ year + Metering\ cost \\
& + Variable\ network\ charge \times annual\ consumption \\
& + Demand\ network\ charge \times peak\ demand\ per\ month \\
& \times\ 12
\end{aligned}
\tag{2}
$$

Figure 4.1 Components of a retail electricity bill
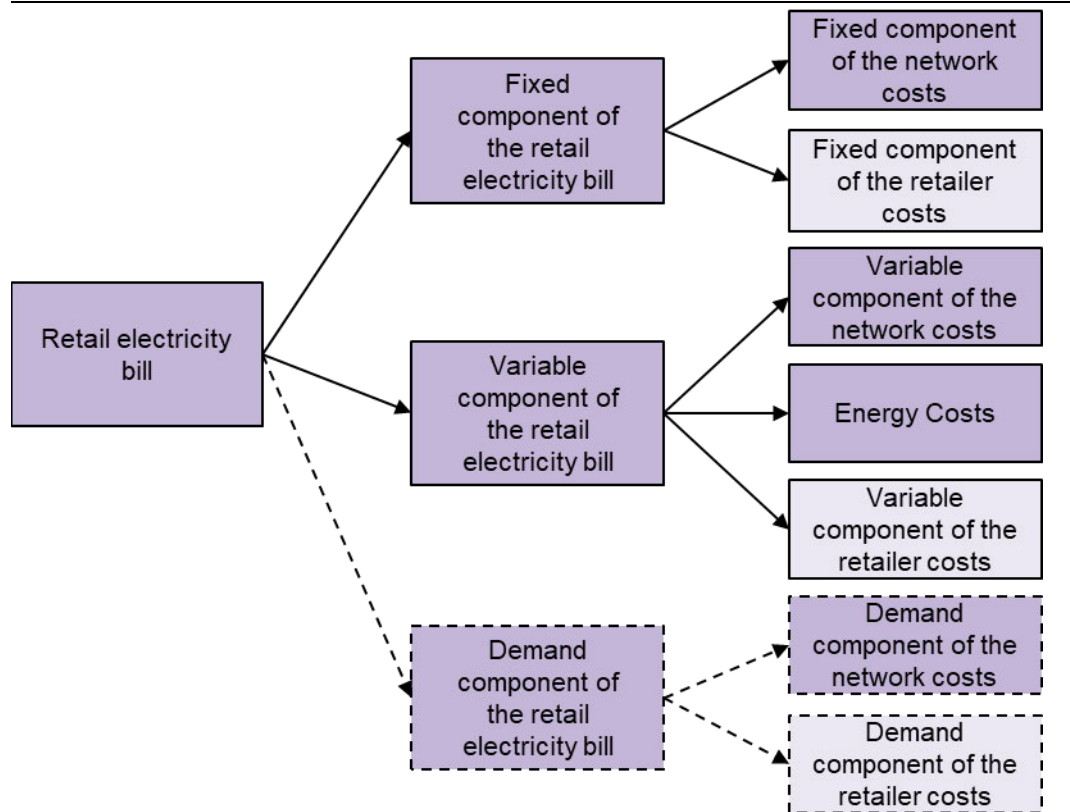
Source: ACIL Allen

As illustrated in Figure 4.1, the fixed component of the retail bill comprises:

— the fixed component of the network costs, including metering costs (N_f)

— the fixed component of the retail costs (R_f).

The fixed component of the retail costs was calculated for each retail tariff by deducting the fixed component of the network costs from the fixed component of the retail bill, as per formula (3).

$$R_f = Fixed\ component\ of\ the\ retail\ bill - N_f \qquad (3)$$

As illustrated in Figure 4.1, the variable (usage) component of the retail bill comprises:

— the variable (usage) component of the network costs (N_v)

— the total energy costs (E)

— the variable (usage) component of the retail costs (R_v).

The variable (usage) component of the retail costs was calculated for each retail tariff by deducting the variable (usage) component of the network costs, and the total energy costs, as per formula (4).

$$R_v = Variable\ (usage)\ component\ of\ the\ retail\ bill - N_v - E \qquad (4)$$

Lastly, as illustrated in Figure 4.1, the demand component of the retail bill for demand tariffs comprises:

— the demand component of the network costs (N_d)

— the demand component of the retail costs (R_d).

The demand component of the retail costs was calculated for each retail tariff by deducting the demand component of the network costs, as per formula (5).

$$R_d = Demand\ component\ of\ the\ retail\ bill\ -\ N_d \qquad (5)$$

4.2 Benchmarking retail costs – flat rate tariffs

This section analyses the fixed and variable components of the retail costs by retailer for each flat rate tariff. We estimated the fixed and variable components of the retail costs based on the customer weighted average of the fixed and variable components of each of the retailers' retail costs.

The customer weighted averages are based on the number of customers (either residential or small business) in Queensland on market contracts for each retailer for the first quarter of 2020-21 as published by the AER. The customer numbers are provided as Appendix B.

4.2.1 Residential flat rate tariffs

The 2020-21 average fixed and variable retail costs by retailer for their residential flat rate electricity tariffs, and the customer weighted average retail cost, are plotted in Figure 4.2.

There is some variance in the average retail costs of the different retailers with the fixed retail components varying from $18 to $162 per customer per year, and similarly the variable component varying from -5.0 cents per kWh up to 5.0 cents per kWh.

The variable costs are negative for some retailers as they are likely to have made different assumptions in relation to the energy costs to those used in the benchmarking analysis. The energy costs that have been used are based on the 95th percentile of a distribution of projected energy costs.[22] When setting their retail electricity tariffs, retailers may have chosen a lower percentile, resulting in a lower energy cost and a lower retail tariff.

Additionally, retailers are increasingly procuring some of their wholesale energy from distributed energy resources, including rooftop solar PV systems. The proportion of energy purchased in this way may be higher for some retailers than for others. The retailers may be paying less for this energy than the assumed total energy costs, with some retailers paying less for this energy than other retailers.

As expected, the variable component of the retail cost generally decreases as the fixed component increases, as it did in the last review of retail costs.

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[22] Queensland Competition Authority, *Technical appendices – Final determination, Regulated retail electricity prices for 2020-21, Regional Queensland*, June 2020, page 20

Figure 4.2 Fixed and variable components of retail costs, residential flat rate tariffs, 2020-21
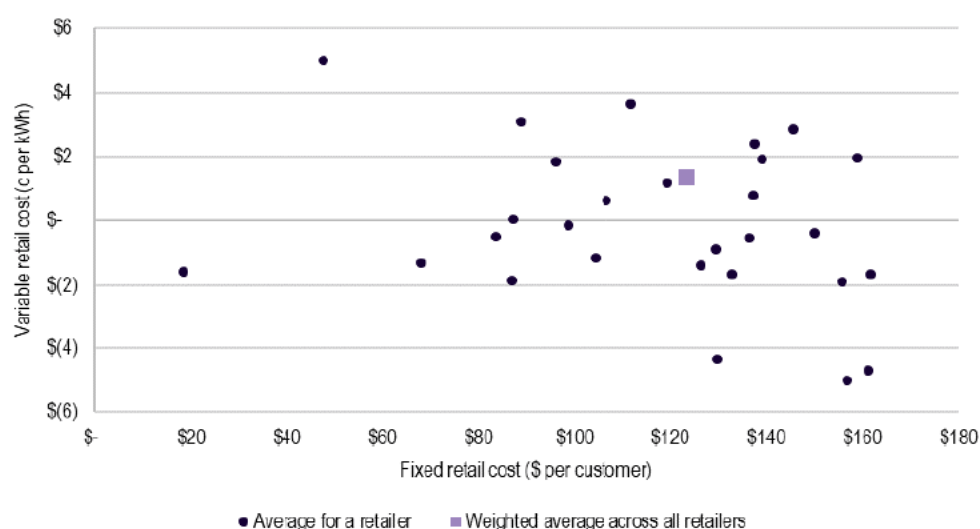
Note: Each purple dot represents a retailer and is the average retail cost across each of their tariffs
Source: ACIL Allen

Table 4.1 sets out the weighted average of the fixed and variable components of the retail costs for the residential flat rate tariffs for 2020-21.

Table 4.1 Fixed and variable components of retail costs, residential flat rate tariffs, 2020-21

	Unit	Value
Fixed component	$ per customer / year	123.35
Variable component	c per kWh	1.37

Source: ACIL Allen

In the 2016-17 review, the simple average was used rather than the weighted average because the difference between the simple and weighted average was not material, but a number of assumptions were made to calculate the weighted average. In this review, the data were publicly available to calculate the weighted average. For this reason, we are of the view that the weighted average is more robust in this review than the last review.

Furthermore, the simple average equally weights the retail costs for each of the 28 retailers, some of which have very low retail costs but only supply a relatively small number of customers. Eleven of the 28 retailers supply fewer than 1,000 customers, and 19 of the 28 retailers supply fewer than 10,000 customers. In the last review, only retail offers for the largest nine retailers as well as Click Energy in south east Queensland were used in the analysis. These retailers had more than 10,000 customers.

In the last review we used the line of best fit to identify the relationship between the fixed and variable components. However, similarly to the calculation of the simple average, the line of best fit treats the retail costs equally for each retailer; it does not take into consideration that some of the retailers have very low retail costs but only supply a small number of customers. The last review did not include retailers with a very small number of customers.

The weighted average retail cost for the residential flat rate tariffs includes a fixed component of $123.35 per customer per year and a variable (usage) component of 1.37 cents per kWh. The weighted average of the retail costs is dominated by the retail costs of four of the 28 retailers –

Origin Energy, EnergyAustralia, Alinta Energy and AGL – which represent around 86 per cent of the market offers for residential customers in Energex's electricity distribution area.

The customer weighted average of the fixed component of the retail cost is slightly lower than the simple average of the fixed component from the 2016-17 review of retail costs in nominal terms ($127.93), more so when considered in real terms. The customer weighted average of the variable component is lower than the variable component previously derived from the line of best fit (2.25 cents per kWh based on the simple average).

The reduction in the fixed component of the retail costs is not consistent with the general movement in the national cost to serve published by AGL and Origin Energy, as discussed in section 5.1.2. The reduction is driven largely by a substantial reduction in AGL's retail costs for residential customers on flat rate tariffs, despite an increase in AGL's published national cost to serve, with AGL representing approximately 23 per cent of the residential market offers in Energex's electricity distribution area. This is offset by an increase in Origin Energy's retail costs for residential customers, which is similar to the increase in Origin Energy's published national cost to serve.

The substantial reduction in the variable component of the retail costs arises from the methodology. If the energy costs are overstated, the variable component of the retail costs will be understated. The energy costs may be overstated as:

— The QCA uses the 95th percentile of a distribution of projected energy costs in its determinations.

— The methodology for calculating the energy costs considers the energy that is purchased by retailers based on the Net System Load Profile. This implicitly includes the value of energy exported from distributed energy resources (DERs) with accumulation meters but does not include the value of energy exported from DERs with interval/smart meters, nor does it account for the likelihood that different retailers have different mixes of customers in terms of meter type and DER installation, and pay different feed-in tariffs for the energy exported.

Any errors associated with potentially understating the retail costs will be netted out if the retail electricity tariffs for 2021-22 are determined using this estimate of the retail costs and the same approach to calculating the energy costs as used in previous years.

4.2.2   Small business flat rate tariffs

The 2020-21 average fixed and variable retail costs by retailer for their small business flat rate electricity tariffs, and the customer weighted average retail cost, are plotted in Figure 4.3.

There are fewer retailers offering small business flat rate tariffs than offering residential flat rate tariffs, with only 13 retailers offering small business flat rate tariffs.

There is some variance in the average retail costs of the different retailers with the fixed retail components varying from $95 to $265 per customer per year, and the variable component varying from -1.45 cents per kWh to 4.8 cents per kWh.

Figure 4.3 Fixed and variable components of retail costs, small business flat rate tariffs, 2020-21
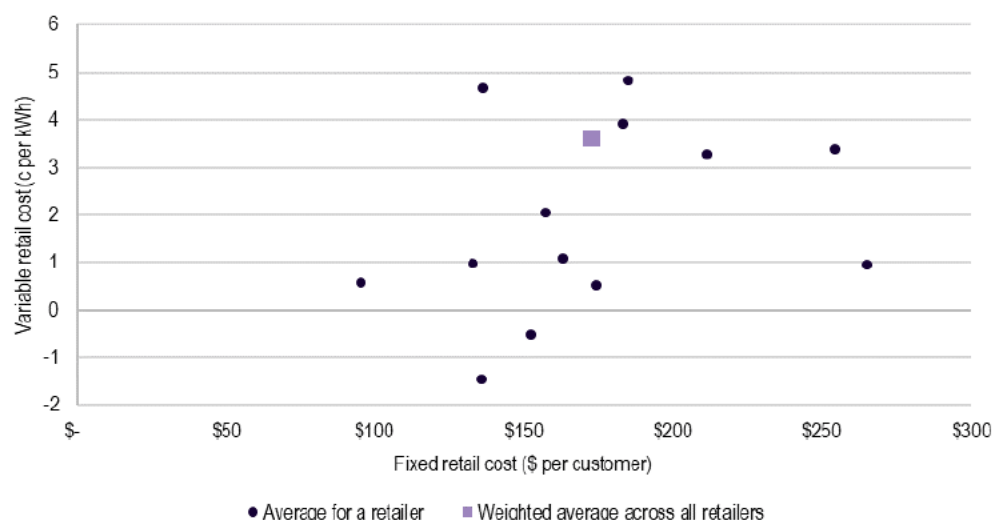
Note: Each purple dot represents a retailer and is the average retail cost across each of their tariffs
Source: ACIL Allen

Table 4.2 sets out the fixed and variable components of the weighted average retail costs for the small business flat rate tariffs for 2020-21.

Table 4.2 Fixed and variable components of retail costs, small business flat rate tariffs, 2020-21

	Unit	Value
Fixed component	$ per customer / year	$172.68
Variable component	c per kWh	3.63

Source: ACIL Allen

Consistent with the approach for residential customers, we did not use a weighted average in the 2016-17 review but are of the view that the weighted averages are more robust in this review as data are publicly available.

The weighted average retail cost for the small business flat rate tariffs includes a fixed component of $172.68 per customer per year and a variable volume component of 3.63 cents per kWh. The weighted averages are dominated by Origin Energy, which represents around 68 per cent of the market offers.

The customer weighted average of the fixed component of the retail cost is lower than the simple average of the fixed component from the 2016-17 review of retail costs in nominal terms ($181.56), more so when considered in real terms. The customer weighted average of the variable component is higher than the variable component previously derived from the line of best fit (2.58 cents per kWh based on the simple average).

This may represent a shift in retail costs from the fixed to the variable component, and a reduction in the average energy used by small business customers on a flat rate tariff.

4.3 Analysis of time of use, demand and controlled load tariffs

We also analysed the retail costs associated with time of use, demand and controlled load tariffs for residential and small business customers. However, the application of our methodology produced some anomalous results for the following reasons:

— For some tariffs, a relatively small number of retailers offered those tariffs resulting in a small dataset. This is particularly the case for residential time of use tariffs, and demand tariffs for residential and small business customers (refer to Table 3.1).

— Our methodology uses the total energy costs as determined by the QCA for the 2020-21 regulated retail tariffs. The total energy costs do not differentiate between peak, off-peak and shoulder times (refer to Table 3.9). Additionally, the peak, off-peak and shoulder times, and the prices during those times, vary across retailers, and for some retailers across tariffs (refer to Table 3.3).

— With the recent introduction of more complex network tariffs and the grandfathering of the simplified demand and time of use network tariffs, it is not possible to apply a consistent methodology in assigning the appropriate network tariffs when doing the top-down benchmarking analysis (refer to section 3.2).

— The rationale behind the retailers' strategies for passing on network charges and tariff structures for the time of use and demand retail tariffs is not clear. Retailer behaviour in relation to these new network tariffs is inconsistent and means it is difficult to develop a consistent approach to the allocation of network tariffs to each retail tariff group.

— There is a lack of appropriate consumption data for the time of use and demand tariffs—the latest consumption data available is for 2019–20, which relates to the grandfathered network tariffs that are closed to new customers. No consumption data are available for the newly introduced more complex network tariffs (refer to section 3.1.1).

— In the case of controlled load tariffs, retailers have adopted different strategies in passing through metering costs.

We expect that these are transitional issues. We would expect more consistency in the results from the analysis as:

— retailers' strategies for setting time of use and demand retail tariffs mature

— more consumption data that relate to the new network tariffs are available

— total energy costs are determined for peak, off-peak and shoulder times, and include consideration of the energy costs incurred by retailers purchasing energy from DER with interval/smart meters).

For these reasons, our benchmarking analysis is focused only on flat rate tariffs, consistent with the 2016-17 review.

Adjustments for recent developments

5

This chapter considers whether any adjustments should be made to the benchmarked fixed component of the retail costs as a result of productivity improvements (which are considered in section 5.1) and other additional material costs that are expected to be incurred in 2021-22 (which are considered in section 5.2).

5.1 Assessing productivity improvements

In its submission on the Methodology Paper, Energy Queensland noted that:

> … the AER is considering whether it is appropriate to include a productivity improvement factor in the [Default Market Offer] DMO price setting for 2022 to account for efficiency improvements. Retailers across the NEM have expressed concern to the AER that despite best endeavours to reduce costs, the impost of market and regulatory reform, combined with the impact of the COVID-19 pandemic, has led to an overall increase in retail costs. Consequently, Energy Queensland cautions against imposing a productivity factor in the current economic climate and during a period of material regulatory change.[23]

This section considers whether the escalation of the fixed component of the retail costs should account for productivity improvements.

5.1.1 2016-17 review of retail costs

As part of our 2016-17 estimate of the efficient retail costs, we identified two broad approaches to indexing the fixed component of the retail costs for future years. One approach was to rerun the benchmarking models with the latest information on energy costs, network tariffs and retail tariffs to update the retail costs. The second approach was simply to index the fixed component of the retail costs that was estimated for 2016-17.

In its 2013 advice on best practice retail price methodology, the AEMC identified several alternatives for how retailer operating costs could be escalated:

— use of a general cost escalator – either the CPI or a wage index
— use of a specific cost index, targeted to electricity retail operating costs.[24]

The AEMC identified that a productivity improvement factor could also be considered, to take into account that retailers become more efficient in providing services for customers.

The AEMC recommended that costs be escalated using CPI rather than a wage index as it considered that the wage index does not reflect non-labour costs and does not account for

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[23] Energy Queensland submission on the Methodology Paper, page 15

[24] Australian Energy Market Commission, *Advice on best practice retail price methodology, Final report,* 27 September 2013, page 61

improvements in labour productivity. The AEMC considered that it would be administratively complex to develop a specific cost index.

To estimate the efficient retail costs for 2016-17, we benchmarked retail electricity tariffs from 2015-16 to derive a fixed retail cost for 2015-16. We reviewed the information published at that time by AGL and Origin Energy in their annual reports on the retail operating costs. We noted that the information published was not directly comparable, as they account for costs differently, but noted that they both provide the movement in costs from one year to the next.

On the basis of the information published by AGL and Origin Energy and the information provided by retailers as part of the review, we recommended that the fixed component of the retail cost for 2016-17 be set at the same level as the fixed retail cost benchmarked for 2015-16.[25]

We further recommended that:

> *In the absence of any other information, further benchmarking could be undertaken to assess the indexation of the fixed retailer cost in future years. If benchmarking is not undertaken, it is proposed that the fixed retailer cost be indexed by CPI in subsequent years.[26]*

Accordingly, the fixed component of the retail cost has been escalated each year since 2016-17 by the forecast CPI.

5.1.2   Productivity improvements since 2016-17

AGL and Origin Energy continue to publish information on their retail operating costs, which can be used to assess productivity improvements from 2016-17. We have not identified any other retailer that publishes similar information.

As part of its 2017-18 inquiry into retail electricity prices, the Australian Competition and Consumer Commission (ACCC) analysed the components of the retail electricity price for residential consumers, including retail costs and margins, using data obtained from the retailers.

To identify whether there have been any productivity improvements in the fixed component of the retail costs, we considered the real movement in the retail operating costs over the period from 2014-15 to 2019-20, as published by AGL and Origin Energy, and over the period from 2007-08 to 2017-18, as reported by the ACCC. We also considered the movement in the benchmarked retail costs from the 2016-17 review to the 2021-22 review, and the AER's conclusion on productivity improvements in its determination on the DMOs for 2021-22.

Retail operating costs as published by AGL and Origin Energy

AGL publishes a cost to serve, which is calculated based on the number of accounts, and the cost to grow, which is calculated based on the number of accounts acquired and retained. To enable AGL's costs to be compared with Origin Energy's costs, and to present the costs in a comparable way to the fixed component of the retail costs, we have calculated the cost to grow on the basis of the number of accounts rather than the number of accounts acquired and retained.

Origin Energy publishes a cost to serve which comprises a cost to maintain and a cost to acquire/retain. All costs are calculated on the basis of the number of customers.

The costs to serve for AGL and Origin Energy over the period from 2014-15 to 2019-20 are illustrated in real 2020 dollars in Figure 5.1.

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[25] ACIL Allen Consulting, *Regulated Retail Prices for 2016-17, Estimating the Efficient Retailer Costs*, 13 May 2016, page 58

[26] ibid

Figure 5.1   Fixed retail costs published by AGL and Origin Energy, 2014-15 to 2019-20
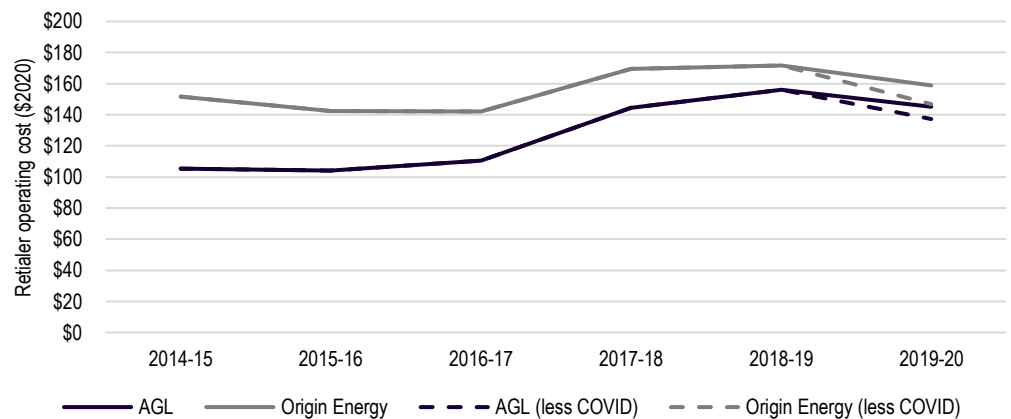
Source: ACIL Allen analysis based on annual reports published by AGL and Origin Energy

AGL's retail operating costs were relatively flat in real terms from 2014-15 to 2016-17, but then increased from 2016-17 to 2018-19 before declining from 2018-19 to 2019-20. AGL attributed the increase in costs from 2016-17 to 2018-19 to:

— an increase in prices, resulting in higher bad and doubtful debts
— increased labour costs as a result of reorganisation activities and increasing customer facing staff in response to higher market activity
— investment in its Customer Experience Transformation program
— entry into the Western Australian gas market
— continued brand investment
— increased sales channel and marketing campaign costs.[27]

The decrease in costs from 2018-19 to 2019-20 was attributed to:

— non-recurrence of one-off debt forgiveness actions in the prior year
— efficiency improvements
— offset by the increase in the allowance for expected credit loss to reflect the heightened delinquency risk relating to COVID-19 and the COVID-19 support program.[28]

Origin Energy's retail operating costs declined in real terms from 2014-15 to 2016-17, increased from 2016-17 to 2017-18, and declined from 2018-19 to 2019-20.

Similarly to AGL, Origin Energy attributed the increase from 2016-17 to increased competitive activity, higher bad and doubtful debts reflecting rising energy prices and more customers on payment plans, and data analytics to support its customer strategy and increased digital interactions.[29] The reduction in costs from 2018-19 to 2019-20 was attributed to operating cost savings and lower leasing charges offset by measures to support customers financially impacted by COVID-19 and an increase in its bad and doubtful debt provision.[30]

In real terms, AGL's retail operating costs have increased by 6.6 per cent per annum from 2014-15 to 2019-20 and by 9.6 per cent per annum from 2016-17 to 2019-20. Origin Energy's retail

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[27] AGL Annual Report 2018, page 31; AGL Annual Report 2019, page 48

[28] AGL Annual Report 2020, page 43

[29] Origin Energy Annual Report 2018, page 30

[30] Origin Energy Annual Report 2020, page 31

operating costs have increased by 1.0 per cent per annum from 2014-15 to 2019-20 and by 3.8 per cent per annum from 2016-17 to 2019-20. However, these increases include higher costs associated with COVID-19 in 2019-20.

Origin Energy has stated that the additional costs that it incurred in 2019-20 due to COVID-19 were $43 million. If these costs are deducted, Origin Energy's retail operating costs have decreased in real terms by 0.6 per cent per annum from 2014-15 to 2019-20 and increased by 1.1 per cent per annum from 2016-17 to 2019-20.

AGL did not provide any breakdown of the additional retail operating costs that it incurred in 2019-20 as a result of COVID-19 or the costs associated with its entry to the Western Australia gas market or investment in its Customer Experience Transformation Program. The underlying profits of AGL were impacted by $38 million of COVID-19 costs[31], but these costs were associated with its wholesale operations as well as its retail operation. If it is assumed that the majority of these costs (80 per cent) were associated with AGL's retail operations, AGL's retail operating costs have increased in real terms by 5.4 per cent per annum from 2014-15 to 2019-20 and by 7.5 per cent per annum from 2016-17 to 2019-20.

Retail operating costs as reported by the ACCC

The ACCC's analysis, based on retailers' data, indicates that across the National Electricity Market (NEM) the retail costs increased from $108 in 2007-08 to $138 in 2017-18 (in $2016-17), which is a real increase of 2.5 per cent per annum.[32] The retail costs increased from 2007-08 to 2013-14, decreased from 2013-14 to 2014-15 and remained relatively consistent in real terms from 2014-15 to 2017-18.[33]

In south-east Queensland, the retail costs increased from $125 in 2007-08 to $147 in 2017-18 (in $2016-17), which is a real increase of 1.6 per cent per annum.[34] The retail costs increased from 2007-08 to 2010-11 and remained relatively consistent in real terms from 2013-14 to 2017-18.[35]

The ACCC made a number of recommendations to reduce the retail operating costs, including:

— reducing bad debts
— aligning the regulatory regime in Victoria with the rest of the NEM
— minimising changes to the regulatory regime
— reducing the overall complexity and level of prescription of the regulatory regime[36]
— reducing the costs associated with commercial comparators and switching services
— reducing wasted acquisition costs through save and win-back offers
— sustained funding for advertising and awareness raising campaigns for government comparison websites.[37]

To date, there has been no material change in response to these recommendations. As discussed further in section 5.2.2, bad debts reduced following the ACCC's inquiry, but have increased over

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[31] AGL Annual Report 2020, page 67

[32] ACCC, *Restoring electricity affordability and Australia's competitive advantage, Retail Electricity Pricing Inquiry – Final Report*, June 2018, page 6

[33] Ibid, page 221

[34] Ibid, page 19

[35] Ibid, page 37

[36] Ibid, page 226

[37] Ibid, page 232

the last year as a result of COVID-19. Victoria continues to operate a separate regulatory regime for energy retailers and the regulatory regime continues to evolve.

Comparison of benchmarking results to last review

The retail costs benchmarked for customers on flat rate tariffs as part of this review are compared, in nominal dollars and real dollars, with the retail costs estimated in the 2016-17 review in Table 5.1.

Table 5.1   Comparison of estimated retail costs – 2016-17 and 2021-22 reviews

Component	2016-17 review	2021-22 review	Real annual change
Residential flat rate tariffs			
Nominal dollars	$127.93	$123.35	-2.0%
Real June 2020 dollars	$136.14		
Small business flat rate tariffs			
Nominal dollars	$181.56	$172.68	-2.2%
Real June 2020 dollars	$193.21		

Source: ACIL Allen analysis

The fixed component of the retail cost has decreased by 2.0 per cent per annum in real terms for residential customers and by 2.2 per cent per annum in real terms for small business customers. This is not consistent with the information published by AGL and Origin Energy, as illustrated in Figure 5.1.

The reduction in the fixed component could be due to a shift in retail costs from the fixed to the variable component. This is certainly the case for the average small business customer for whom the total retail costs have increased by 0.3 per cent per annum in real terms,[38] despite the reduction in the fixed component.

The situation is less clear for residential customers as the variable component of the retail costs has also decreased. As discussed in section 4.2.1, this may be a function of the methodology as the energy costs may be overstated resulting in an underestimate of the variable component of the retail costs. This will not have a net impact on the total retail price as the energy costs will be similarly overstated in determining the regulated retail price for 2021-22, as discussed in section 2.1.4. However, as a result, we cannot conclude that there have been productivity improvements despite the real reduction in the fixed retail costs from the 2016-17 review to the 2021-22 review.

AER's consideration of productivity improvements in the determination of the DMOs for 2021-22

The Australian Energy Regulator (AER) regulates a Default Market Offer (DMO) for customers in south-east Queensland, New South Wales and South Australia. The AER also considered productivity improvements as part of its determination of the DMOs for 2021-22. It did not apply a productivity adjustment to the DMO.

- *Publicly available ACCC industry data and retailer annual reports did not provide enough detail about capital and other costs we would need in order to understand whether cost reductions were due to productivity increases.*

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[38] Noting that the average consumption for a small business customer has reduced from 2015-16 to 2020-21.

– *ABS productivity data suggests productivity growth in the electricity retail sector is not materially different from the overall economy. A productivity factor based on this data would be zero, that is, it would have no effect.*[39]

5.1.3   Conclusion

Based on the small sample of publicly-available information, it cannot be concluded that there have been any productivity improvements in the retail operating costs over the period from 2014-15 to 2019-20. In fact, it would appear that there may have been a decline in productivity.

This is not consistent with the results from the benchmarking which indicates that there have been productivity improvements in the period from the 2016-17 review to the 2020-21 review. However the reduction in the fixed component of the retail costs could be due to other changes including:

— a reduction in the average consumption by small business customers
— an overstatement of the energy costs, particularly given the uptake in energy that is purchased by retailers from distributed energy resources
— a more competitive retail electricity market.

With benchmarking having been done only twice, it is difficult to draw any firm conclusions on potential future productivity improvements. In its submission on the Methodology Paper, Energy Queensland suggested the retail costs be assessed in 12 months, or no longer than three years.[40] We recommend that the benchmarking be updated when the energy costs take into consideration the energy purchased from distributed energy resources.

We are of the view that there is insufficient evidence at this time that the retail costs should be adjusted for productivity improvements. This is consistent with the AER's conclusion on productivity improvements as part of its recent decision on the DMOs for 2021-22.

5.2   Additional material costs that may be incurred in 2021-22

In its submission on the Methodology Paper, Energy Queensland raised concerns about using the 2020-21 financial year as the base year for the benchmarking analysis. It noted that:

… the impacts of the COVID-19 pandemic and the Government stimulus packages have skewed certain customer metrics which are a key input in setting retail costs for the next five years. … retailers such as Ergon Energy Retail are operating under restricted debt recovery provisions as per the AER's Statement of Expectations, yet are carrying the cash-flow risk for the entire electricity supply chain while simultaneously experiencing a further deterioration in payment arrears as Government stimulus measures cease.[41]

This section considers other additional material costs, including the impacts of COVID-19, that were not forecast to be incurred in 2020-21, are expected to be incurred in 2021-22 and for which an adjustment should be made to the fixed component of the retail costs for 2021-22.

5.2.1   Additional costs included in other regulatory determinations

As indicated above, the AER regulates a DMO for customers in south-east Queensland, New South Wales and South Australia. In addition, the Essential Services Commission (ESC) regulates

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[39] Australian Energy Regulator, *Final Determination, Default Market Offer Prices 2021-22*, 27 April 2021, page 42

[40] Energy Queensland submission to Methodology Paper, page 15

[41] Ibid, page 14

the Victorian Default Offer. As part of these determinations, they have determined the retail operating costs.

The AER and ESC have consulted on additional material retail operating costs that may be incurred and which may not be included in their determination of retail operating costs.

The AER's consideration of additional retail operating costs

In its determination of the DMO, the AER considers whether an adjustment to the DMO is required to take into consideration any retail operating costs that are:

— due to an exogenous change in a retailer's operating environment that is mandatory and would be incurred by an efficient and prudent retailer within the relevant DMO determination period

— not compensated in other parts of their forecasts or other DMO cost elements

— lead to a material overall change in the retail costs of an efficient and prudent retailer.[42]

In its determination of the DMOs for 2021-22, the AER considered the following potential step changes in costs:

— the impact of COVID-19

— the Consumer Data Right reforms

— 5 minute settlement (5MS)

— installation of advanced meters.

In relation to the costs associated with the impact of COVID-19, the AER identified that the retailers' costs in the 2020-21 DMO would likely increase due to:

— an increase in bad and doubtful debts

— increased costs with staff working from home, closure of international call centres, and increases in the volume and complexity of communication with customers.[43]

The AER made no adjustment for the 2020-21 DMO based on the information available at the time and the considerable uncertainty about specific impacts in the 2020-21 period. It estimated an additional average cost of $9 per customer for 2021-22, based on the movement in bad debt provisions by AGL, Origin and EnergyAustralia, but was of the view that this additional cost was not sufficiently material to justify an adjustment to the DMO.[44]

Its decision on materiality was based on whether the DMO would continue to meet its policy objectives – to enable retailers to recover efficient costs and make a reasonable profit, to provide incentives for retailers to compete, innovate and invest, and to provide incentives for consumers to engage in the market.

In making this assessment, it noted that its top-down approach to determine the DMO is different to that adopted by other regulators, including the QCA.

The AER similarly concluded that the cumulative costs associated with the Consumer Data Right, 5 minute settlement and installation of advanced meters were not material.[45]

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[42] Australian Energy Regulator, *Final Determination, Default Market Offer Prices 2021-22*, 27 April 2021, page 40

[43] Ibid, pages 55-56

[44] Ibid, page 58

[45] Ibid, page 61

The ESC's consideration of additional retail operating costs

The ESC included an additional $6 per customer in the 2021 Victorian Default Offer for increases in bad debts associated with COVID-19, reflecting a temporary rather than permanent change to efficient costs.

The increase was based on public and independently audited statements issued by Origin Energy, AGL and Red/Lumo Energy that bad debts had increased by approximately $10, $5 and $4 per customer (national), respectively.[46] This public information was supported by information collected from retailers which showed average arrears for Victorian residential and small business customers had increased during the pandemic by around 10 per cent and 23 per cent, respectively.[47]

The ESC noted that subdued economic conditions that will affect bad debts are likely to persist for some time, referring to the Reserve Bank of Australia's November 2020 Quarterly Statement on Monetary Policy that employment will not return to pre-pandemic levels until the end of 2022. It also noted that total hours worked is likely to remain below pre-pandemic levels through 2021, also contributing to low wages growth.[48]

The ESC engaged EY to investigate the effect of the pandemic on retailers' costs. It found that, of the costs considered:

> *… increased call centre costs, were most likely to continue being incurred in 2021, but the extent to which there will be a notable and consistent effect on costs is uncertain. Given that increases to call centre costs so far have been noticeable, but not significant, EY found it is unlikely that the effect on costs in 2021 will be significant.[49]*

The ESC also included an adjustment of $0.21 per customer in 2021 for additional operating costs to comply with the five-minute settlement rule change. On the basis of information provided to the ESC, it estimated an additional amount of $0.84 per annum per customer, adjusted to reflect the commencement of the obligation in October 2021.[50]

5.2.2 Consideration of additional retail operating costs for Queensland

The methodology that is used to estimate the 2021-22 retail cost component of the retail electricity prices for regional Queensland – by benchmarking the retail electricity costs for 2020-21 – means that the retailers' forecasts of the additional retail costs that would be incurred in 2020-21 as a result of COVID-19, market developments or regulatory reform are included in the estimate of the retail costs for 2020-21. The key issue in estimating the retail costs for 2021-22 is whether:

— the costs associated with COVID-19, market developments or regulatory reform will increase or decrease in 2021-22 relative to the costs that were forecast for 2020-21

— the movement in costs is effectively captured by assuming the costs are escalated by CPI.

That is, any adjustments to the retail costs for material changes in costs need to consider the movements and forecast movements in the retail costs from the reference point for determining those costs. In the case of the QCA's determination, the reference point is the retail costs included in the retail electricity tariffs in 2020-21. In the case of the AER's DMO determination, the reference point is the retail operating costs included in the retail electricity tariffs as of October 2018.[51] In the

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[46] Essential Services Commission, *Victorian Default Offer 2021, Final Decision*, 25 November 2020, page 30

[47] Ibid, pages 30-31

[48] Ibid, page 31

[49] Ibid, page 32

[50] Ibid, page 33

[51] The retail electricity tariffs as at October 2018 were used as the basis for the AER's first DMO determination in April 2019.

case of the ESC's determination, the reference point is the retail operating costs estimated by the Independent Pricing and Regulatory Tribunal (IPART) in 2013.[52]

As the reference points for determining the retail operating costs are quite different, the consideration of additional material costs will also be different. The AER will need to consider any additional material costs that are forecast to be incurred in 2021-22 that were not included in retail electricity prices as of October 2018. The ESC will need to consider any additional material costs that are forecast to be incurred in 2021-22 that were not included in the 2013 estimate of retailer operating costs. The QCA will need to consider any additional material costs that are forecast to be incurred in 2021-22 that were not included in the retail electricity prices for 2020-21.

COVID-19 related costs

The first cases of COVID-19 were detected in January 2020 (the third quarter of 2019-20), with lockdowns commencing in March 2020.

AER's performance indicators

The AER publishes various performance indicators that illustrate the impact of COVID-19 on the retailers' operations. In our draft report, we found that the performance indicators indicated that the retailers incurred higher costs during 2019-20 as a result of COVID-19, principally with the increase in debt but the RBA's November 2020 economic outlook indicated that they would be likely to decrease. At the time of our draft report, we expected that the COVID-19 related costs for 2021-22 would not be materially higher than the COVID-19 related costs that are incorporated in the benchmarked retail costs for 2020-21.

Etrog Consulting, on behalf of thirteen community sector organisations, concurred with our finding, based on a consideration of consumer impacts.[53]

However, Energy Queensland did not agree with our conclusion. It submitted that:

While Energy Queensland acknowledges that COVID-19 related cost indicators in 2020-21 have not been as high as initially expected at this point in time, this is the result of the Queensland Government's $200 COVID-19 household utility relief payment and the $50 Asset Ownership Dividend paid to customers' electricity accounts in 2020, which masked the real level of debt owed by customers, and reduced the bad debt of retailers. In addition, the Commonwealth Government's JobSeeker and JobKeeper subsidy programs were instrumental in keeping hardship numbers stable. With these stimulus packages falling away, Ergon Energy Retail is now seeing increases in key debt indicators pointing to the need to increase provision for bad debt which will flow to retail costs.[54]

It referred to the AER's Retail Energy Market Performance update for Quarter 2 (Q2) 2020-21 released on 7 April 2021 which identified that across the ACT, NSW, Queensland and South Australia, compared to Q2 2019-20, there was an increase in:

— the number of residential gas and electricity customers in debt

— average residential gas and electricity debt

— the number of small business gas and electricity customers in debt

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[52] IPART's estimate was used by the ACT's Independent Competition and Regulatory Commission to regulate retail electricity tariffs in the ACT, which was then used by the ESC. IPART's estimate has been indexed by CPI and in the case of the ESC's decision on the Victorian Default Offer, has been adjusted to add costs associated with the Victorian regulatory regime.

[53] Etrog Consulting submission to the Draft Determination, page 4

[54] Energy Queensland submission to the Draft Determination, pages 12-13

— average small business debt for gas and electricity.

We have updated the performance indicators published by the AER that were included in our draft report to include the Q2 data. Figure 5.2 illustrates the performance indicators that we consider are probably most relevant, noting that the AER does not publish the number of calls to the retailers' call centres, which may also be of relevance.

There are a number of performance indicators that are relevant to debt. Figure 5.2 provides the performance indicators relevant to hardship customers and combines a number of indicators published by the AER into two indicators – the total debt for residential customers and the total debt for small business customers. These two indicators include the number of customers in debt (hardship and non-hardship customers) and the average debt for these customers (hardship and non-hardship), and provide a higher level view of the movement in debt, which is the most relevant in terms of assessing the impact of COVID-19 on the retailers' costs.

The performance indicators are illustrated annually from 2015-16 to 2018-19 and quarterly from the first quarter of 2019-20, for:

— the relevant NEM jurisdictions (the ACT, New South Wales, Queensland and South Australia)[55]

— Queensland

— AGL (across the relevant NEM jurisdictions)

— Origin Energy (across the relevant NEM jurisdictions).

The performance indicators for AGL and Origin Energy provide context for their published retail operating costs, which are incurred on a national basis, as illustrated in Figure 5.1. The performance indicators for the relevant NEM jurisdictions and for Queensland provide an indication of the impact of COVID-19 on retailers in Queensland compared to retailers in the other relevant NEM jurisdictions, and provide context for any commentary by the AER.

Where the underlying data is provided in dollars, they have been converted to real dollars. As appropriate, quarterly data have been multiplied by four so that they can be compared with annual data. All performance indicators are presented relative to the performance in 2015-16 (which is given a value of 100) to provide an indication as to how they have moved since the last review of the retail costs.

Figure 5.2   Retailers' performance relative to 2015-16, 2015-16 to quarter 2 (Q2) 2020-21

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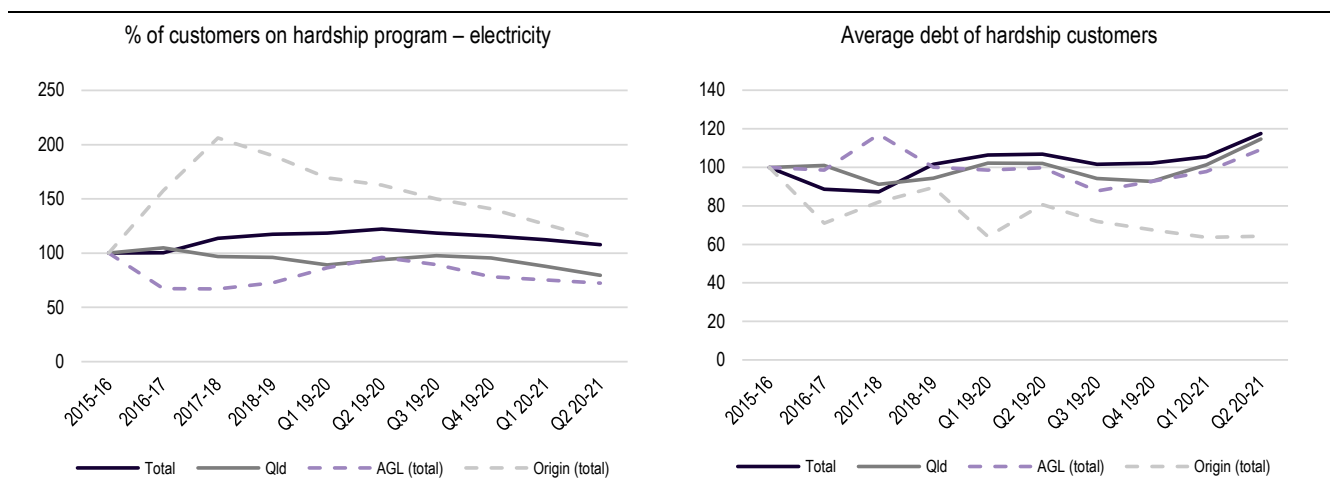
[55] Those NEM jurisdictions subject to retail regulation by the AER

Total debt, residential

Total debt, small business

Complaints as a % of customers - residential

Complaints as a % of customers – small business

Disconnections as a % of customers - residential

Disconnections as a % of customers – small business
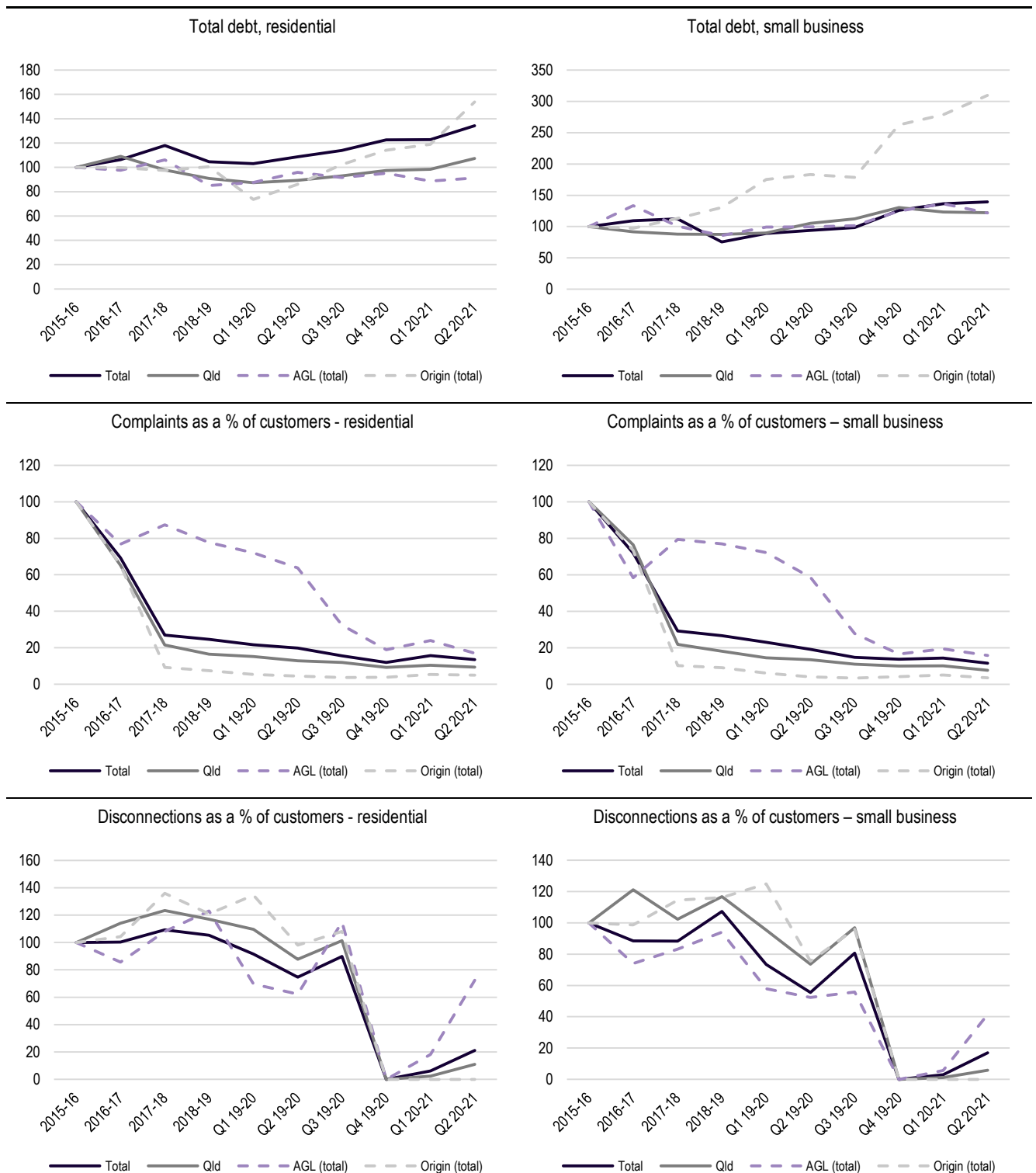
Note: All data presented relative to a base year (2015-16 = 100); Total debt for residential customers includes hardship and non-hardship debt
Source: AER, Retail energy market performance update for quarter 2, 2020-21

Across the relevant NEM jurisdictions, the percentage of electricity customers in retailers' hardship programs increased from 2016-17 to 2017-18, but has remained relatively constant since, with no material change as a result of COVID-19. In Queensland, the percentage of electricity customers in retailers' hardship programs was relatively consistent from 2015-16 to the fourth quarter 2019-20, and has been decreasing since.

The percentage of Origin Energy's electricity customers in its hardship program increased very substantially from 2015-16 to 2017-18, and has been declining since. This increase from 2015-16

to 2017-18 may have contributed to the increase in Origin Energy's cost to serve during this period. The percentage of AGL's electricity customers in its hardship program decreased from 2015-16 to 2016-17, returned to its 2015-16 level by quarter 2 2019-20 and has since been declining.

The average debt of hardship customers generally decreased from 2015-16 to 2017-18 , returned to 2015-16 levels during the first half of 2019-20, and has then been increasing. In contrast, the average debt of Origin Energy's hardship customers has been declining since 2018-19, contributing to its decrease in the cost to serve from 2018-19 to 2019-20.

Our draft report noted that the total debt associated with residential customers (hardship and non-hardship) was decreasing prior to COVID-19 but had been increasing from the first quarter of 2019-20. We noted that the total debt declined from quarter 4 2019-20 to quarter 1 2020-21, more so for AGL's customers than across the relevant NEM jurisdictions and Queensland. However, the most recent performance indicators indicate that the total debt associated with residential customers increased from quarter 1 2020-21 to quarter 2 2020-21. The total debt associated with Origin Energy's residential customers has continued to increase from quarter 4 2019-20 to quarter 2 2020-21.

The total debt associated with small business customers, except Origin Energy's customers, has remained relatively constant from 2015-16 to quarter 3 2019-20. The total debt has increased since across the relevant NEM jurisdictions, with a slight decrease in quarters 1 and 2 2020-21 for Queensland small business customers. The total debt associated with Origin Energy's small business customers has increased significantly from 2017-18 to quarter 1 2019-20 and from quarter 3 2019-20 to quarter 2 2020-21.

Other than for AGL's customers, the number of complaints decreased very significantly from 2015-16 to 2017-18 and has continued to decline slightly since. The number of complaints by AGL's customers declined from 2015-16 to 2016-17, remained relatively high until quarter 2 2019-20 after which there has been a significant decline in the number of complaints, with a small increase from quarter 4 2019-20 to quarter 1 2020-21 before returning to quarter 4 2019-20 levels in quarter 2 2020-21. There has been a steady decline in the number of complaints made by Queensland customers from 2017-18.

One of the protections for customers during COVID-19 has been an expectation by the AER that electricity customers in financial difficulties would not be disconnected, other than at their request. This protection was extended to the end of March 2021, and subsequently to the end of June 2021.[56]

The sharp decrease in the number of disconnections from quarter 3 2019-20 to quarter 4 2019-20, resulting from this expectation, is evident in Figure 5.2**.** There has been an increase in the number of disconnections from quarter 4 2019-20, particularly by AGL, but the number of disconnections in Queensland remains significantly below the pre-COVID levels.

Economic outlook

The Reserve Bank of Australia's (RBA's) November 2020 Statement on Monetary Policy was referred to in our draft report. We noted that the RBA was forecasting an improvement in economic activity in 2021-22 relative to 2020-21, as set out in Table 5.2. The RBA's May 2021 Statement on Monetary Policy forecasts stronger economic activity than the November 2020 Statement on Monetary Policy, as also set out in Table 5.2. In November 2020, GDP growth was expected to increase from -2 per cent in 2020-21 to 4 per cent in 2021-22. It is now expected to increase from 1 per cent in 2020-21 to 5 per cent in 2021-22. In November 2020, the unemployment rate was

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[56] AER Statement of Expectations of energy businesses: Protecting customers and the energy market during COVID-19, available at https://www.aer.gov.au/publications/corporate-documents/aer-statement-of-expectations-of-energy-businesses-protecting-customers-and-the-energy-market-during-covid-19

expected to decrease from 7½ per cent at the end of 2020-21 to 6½ per cent at the end of 2021-22. It is now expected to decrease from 5¼ per cent at the end of 2020-21 to 4¾ per cent at the end of 2021-22.

Table 5.2 Output growth and inflation baseline forecasts

	Year ended					
	December 2020	June 2021	December 2021	June 2022	December 2022	June 2023
November 2020						
GDP growth	-4%	6%	5%	4%	4%	
Unemployment rate	8%	7½%	6½%	6½%	6%	
CPI inflation	½%	2¼%	1%	1¼%	1½%	
May 2021						
GDP growth	-1.1%	9¼%	4¾%	4%	3½%	3%
Unemployment rate	6.8%	5¼%	5%	4¾%	4½%	4½%
CPI inflation	0.9%	3¼%	1¾%	1¼%	1½%	2%
	Year Average					
	2020	2020-21	2021	2021-22	2022	2022
GDP growth						
November 2020	-4%	-2%	3%	4%	4%	
May 2021	-2.4%	1%	5¼ %	5%	4%	3¼%

Source: Reserve Bank of Australia, Statement on monetary policy, November 2020 (Table 6.1) and May 2021 (Table 5.1)

Reflecting on the improving economic outlook, the RBA stated in its February 2021 Statement on Monetary Policy that:

> *The recovery in the domestic economy has been sustained over recent months, supported by better health outcomes and a further expansion in monetary and fiscal policy in the second half of last year. In the baseline scenario, forecasts for GDP and employment growth have been upgraded relative to the November Statement, largely reflecting a stronger start for forecasts. As a result, GDP and employment are expected to reach their pre-pandemic levels over the course of 2021, around 6-12 months earlier than previously expected. The unemployment rate is likely to have already peaked and is now expected to decline steadily to around 5¼ per cent by mid 2023.[57]*

In its May 2021 Statement on Monetary Policy, the RBA stated that:

> *The Australian economy is transitioning from recovery to expansion phase earlier and with more momentum than anticipated. The unique features of the pandemic and policy response have seen the economy rebound much faster than in previous downturns. Along with favourable health outcomes and the removal of restrictions on activity, this snap-back in activity has been supported by extraordinary fiscal and monetary support. GDP growth in the December quarter 2020 was stronger than expected and the recovery in activity and the labour market again exceeded expectations in the March quarter. GDP is now expected to have reached its pre-pandemic level in the March quarter 2021 and there were more people*

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[57] Reserve Bank of Australia, *Statement on Monetary Policy*, February 2021, page 61

employed in March than before the pandemic. The unemployment rate has declined quickly, to 5.6 per cent in March, a little above the rate before the pandemic.[58]

Conclusion

We considered the likelihood of additional COVID-19 related costs to be incurred in 2021-22 relative to the costs forecast for 2020-21 by considering changes in the financing costs associated with the level of debt and changes in bad debt.

Changes in financing costs associated with debt

The AER's performance indicators indicate that the retailers incurred higher costs during 2019-20 as a result of COVID-19, principally with the increase in debt. At the time of our draft report, the COVID-19 related costs appeared to have stabilised to Q1 2020-21 with the RBA forecasting an improvement in economic conditions.

Despite the forecast improvement in economic conditions, the most recent performance indicators indicate that these COVID-19 related costs in Queensland have increased for residential customers from quarter 1 2020-21 to quarter 2 2020-21, and remained stable for small business customers.

The most recent weekly update published indicates that the level of debt by residential and small business customers at a national level has remained stable during quarter 3 2020-21.[59] Weekly updates are not provided on a jurisdictional basis, but we note a similar trend for movement in total residential debt at the national level and for Queensland to quarter 2 2020-21, and an improvement in total small business debt in Queensland relative to the national level. In the absence of any further information, we assume that these trends will be similar in quarter 3 2020-21, that is, that the level of residential debt in Queensland is similar in quarter 3 2020-21 to quarter 2 2020-21, and the level of small business debt in Queensland is lower in quarter 3 2020-21 than quarter 2 2020-21.

The RBA's May 2021 forecast indicates that economic conditions have improved during 2020-21, indicating a return by GDP to a pre-COVID level in the March quarter 2021 and more people employed in March 2021 than before the pandemic. For these reasons, it is expected that the level of debt will decrease from quarter 2 2020-21 to quarter 4 2021-22 and so the financing costs associated with the level of debt will not be materially different in 2021-22 to those costs forecast for 2020-21.

Changes in bad debt

The AER noted that:

– *AGL has reduced its provisioning for bad and doubtful debts due to COVID-19 in the 2020-21 year, from approximately $10 to $9 per customer*
– *Origin Energy maintained its COVID-19 provisioning from the 2019-20 year at approximately $10 per customer*
– *EnergyAustralia reported an increase of about $11 per customer in bad and doubtful dets from 2019 to 2020.[60]*

The provisioning for bad debts by the three largest retailers indicates that there does not appear to be any change in bad debts from 2020-21 to 2021-22.

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[58] Reserve Bank of Australia, *Statement on Monetary Policy*, May 2021, page 71

[59] Australian Energy Regulator, COVID-19 Retail Market Data Dashboard at 26 April 2021

[60] Australian Energy Regulator, *Final Determination, Default Market Offer Prices 2021-22*, 27 April 2021, page 58

Other additional material costs

In its submission on the Methodology Paper, Energy Queensland noted that:

> … *the review makes no real effort to consider the costs of regulatory reform which retailers such as Ergon Energy Retail are absorbing. Since the last retail cost review in 2016, we have been forced to invest in large systems and processes in response to major regulatory initiatives such as Power of Choice (PoC), 5MS and Global Settlements (GS). This is in addition to the increasing trend in rule changes and other reforms both made and underway (e.g. the Consumer Data Right, the Wholesale Demand Response Mechanism, Meter Installation Timeframes, Better Bills and Maintaining Life Support Customer Registration etc.). The cost of implementing these constant changes, together with ongoing material compliance costs, must be factored into retail costs as a failure to comply with these reforms results in significant civil penalties and reputational risks.*[61]

The retail costs that were estimated based on the 2015-16 retail electricity tariffs implicitly included all the costs associated with regulatory reform at that time. The retail costs that are estimated based on the 2020-21 retail electricity tariffs implicitly include all the costs associated with regulatory reform in that year.

If there are costs associated with regulatory reform in a particular year that are materially different to those in the base year then there needs to be explicit consideration of those incremental costs. While Energy Queensland identified a range of regulatory reforms in its submission on the Methodology Paper, it did not identify any specific reforms that will occur in 2021-22 that will result in material incremental costs relative to those that have been incurred in 2020-21. Accordingly, no adjustment was made to the retail costs in our draft report.

In its submission on the Draft Determination, Energy Queensland stated that it:

> … *is increasingly frustrated by the reluctance of regulators to consider regulatory costs imposed on retail businesses in retail price outcomes. Retailer costs associated with recent reforms such as Five Minute Settlement (5MS), Global Settlement, Power of Choice, the Consumer Data Right, the Wholesale Demand Response Mechanism, Bill Contents and Billing Requirements and the AER's Statement of Expectation have, or will have, significant financial impacts on retail cost.*
>
> …
>
> *Consequently, we recommend the QCA reconsider its decision with respect to the recovery of regulatory costs with the intent to incorporate these regulatory costs within the retail costs allowance.*[62]

Energy Queensland did not provide any additional supporting material with its submission.

During its most recent determination on the DMO, the AER received a small number of confidential submissions on the costs associated with advanced meters, 5MS and the Consumer Data Right. It indicated that:

> … *the claimed total cost increases fall in a range:*
>
> – *$22 to $45 per residential customer, depending on region*
> – *$22 to $57 per small business customer.*[63]

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[61] Energy Queensland submission on the Methodology Paper, pages 14-15

[62] Energy Queensland submission on the Draft Determination, pages 13-14

[63] Australian Energy Regulator, *Final Determination, Default Market Offer Prices 2021-22*, 27 April 2021, page 45

However, it found that:

> *The limited nature of the data meant we could not estimate a total cost increase that we were confident would be representative of most retailers, and hence would be suitable as a reasonable estimate for the purposes of the step change framework.*[64]

Given the confidentiality of the information that was provided to the AER, we do not have access to the information to assess its relevance to the retail costs for Queensland in 2021-22. In particular, given the different reference points for the AER's DMO and the benchmarking of the 2020-21 retail electricity tariffs, it is unclear the extent to which the cost increases referred to above relate to cost increases from 2020-21 to 2021-22.

As a result, we have no firm basis on which to conclude that additional costs associated with regulatory reform will be incurred in 2021-22 relative to 2020-21.

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[64] Ibid, page 46

Retail costs for large customers 6

This chapter analyses the data provided by the retailers on the retail costs for large and very large business customers.

6.1 Information provided by the retailers

The retailers were requested to provide their actual retail costs for large customers (that consume between 100 MWh and 4 GWh per annum) and very large customers (that consume more than 4 GWh per annum) for 2020-21, and describe the expected movement in costs from 2020-21 to 2021-22. The type of information provided by each retailer is set out in Table 6.1.

Table 6.1   Information provided by the retailers

Retailer	Large customers	Very large customers	Movement in costs
Alinta	Yes	Yes	Yes
Energy Australia	Yes	Yes	Yes
Ergon Retail	Yes	Yes	No
Flow Power	Yes	Yes	No
QEnergy	Yes	No	No

Source: Retailers' information requests

In its submission on the Methodology Paper, Energy Queensland noted that:

> *Ergon Energy Retail has needed to forecast much of the data for the 2020-21 financial year, which introduces additional risk to the large customer retail cost calculation.*[65]

6.2 Retail costs for large customers

The retail costs for large customers were provided by five retailers. The structure of the retail costs varied by retailer with one having no fixed component and only one having a component based on peak demand.

To facilitate a comparison, the retail costs that were provided based on peak demand were converted to a fixed component based on the average peak demand ███████████████████ ██ ████████████████████

The fixed and variable components of the retail costs are compared for the five retailers in the first pane of Figure 6.1. On the scale of this chart, there are three retailers with similar retail costs for large customers and two that are significantly different – one with a very high fixed component and

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[65] Energy Queensland submission on the Methodology paper, page 14

one with a very high variable component ███████████████████████████. The retail costs for both of these retailers lie just outside the definition of an outlier (more than two standard deviations from the mean). Notwithstanding, the retail costs for these two retailers have been excluded from the second pane of Figure 6.1.

Figure 6.1   Fixed and variable components of retail costs, large customers, 2020-21

All retailers

Outliers excluded
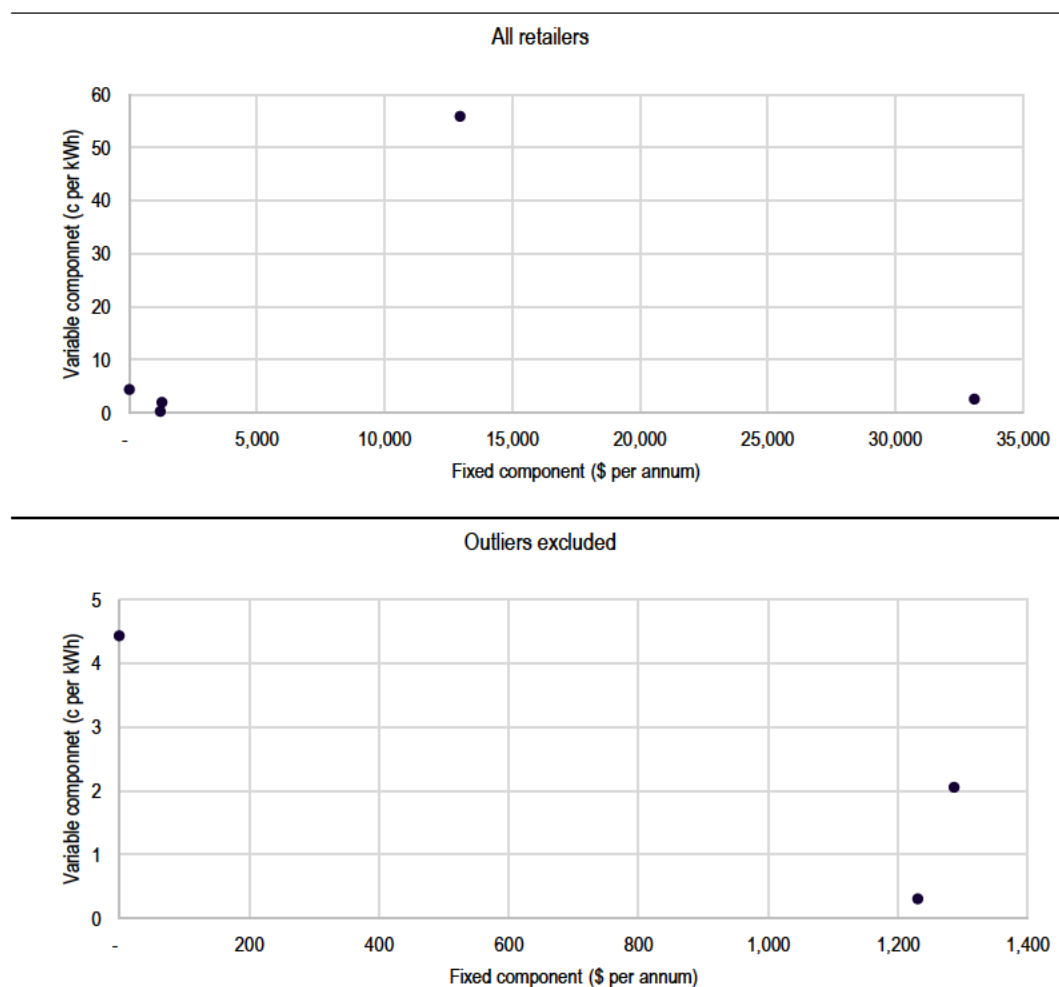
Source: ACIL Allen analysis based on retailers' information requests

The weighted average of the fixed and variable components of the retail costs for the three retailers included in the second pane of Figure 6.1 are set out in Table 6.2. The average has been calculated by weighting the number of large customers for each retailer and the energy consumed by those large customers.

Table 6.2   Fixed and variable components of retail costs, large customers, 2020-21

	Fixed component	Variable component
	$ per annum	c/kWh
Weighted average based on customer numbers	1,285	2.0
Weighted average based on energy consumption	1,283	2.0

Source: ACIL Allen analysis based on retailers' information requests

The fixed and variable components of the retail costs are similar using customer weightings and energy consumption weightings.

The retail costs that would be payable under Tariff 44, Tariff 45 and Tariff 46 are compared based on the retailers' costs and the QCA's 2020-21 determination in Figure 6.2. ████████████

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█████████████████████

Figure 6.2   Comparison of annual fixed and variable components of retail costs, large customers, 2020-21

Tariff 46
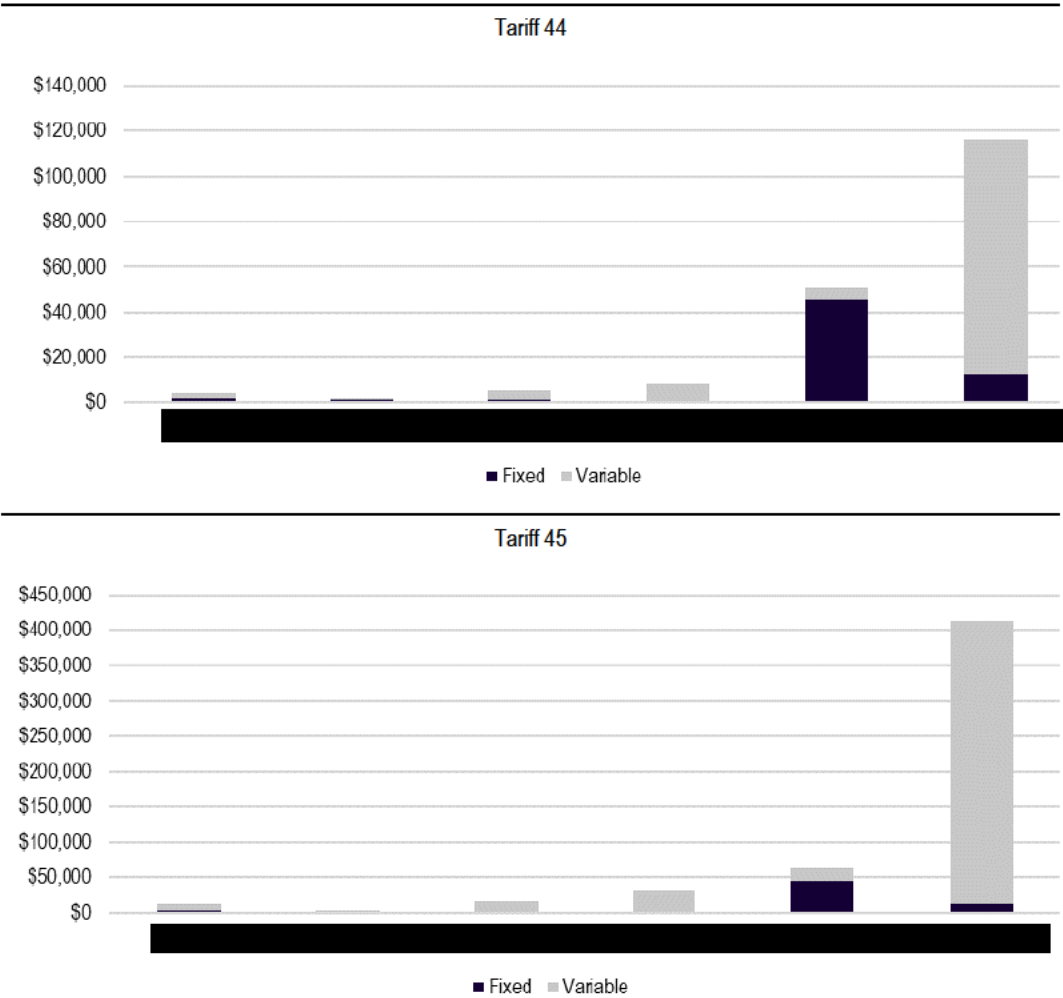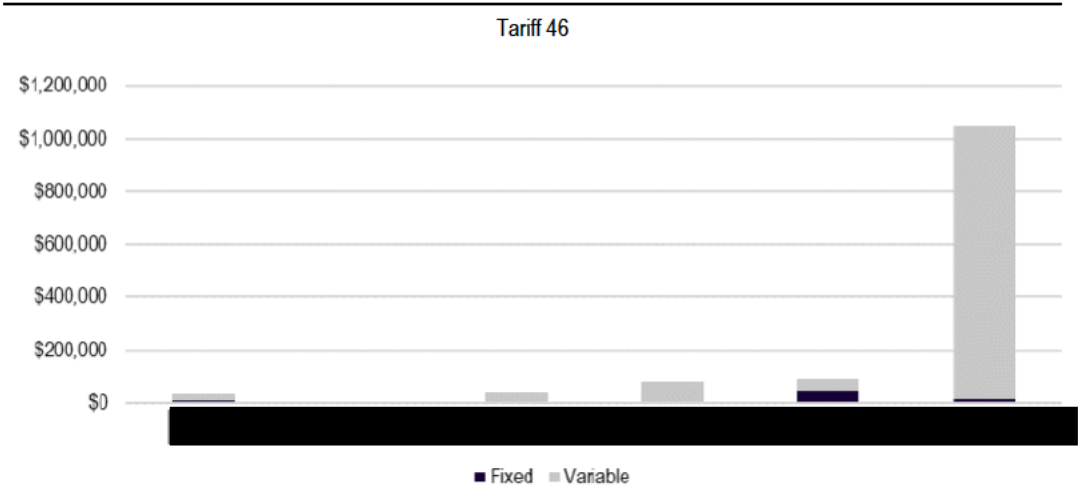
6.3 Retail costs for very large customers

The retail costs for very large customers were provided by four retailers. The structure of the retail costs varied by retailer with only one having a component based on peak demand.

To facilitate a comparison, the retail costs that were provided based on peak demand were converted to a fixed component based on the average peak demand. ███████████████████ ██ ██████

The fixed and variable components of the retail costs are compared for the four retailers in Figure 6.3. The diversity of the retail costs provided by retailers is less for very large customers than for large customers.

Figure 6.3   Fixed and variable components of retail costs, very large customers, 2020-21
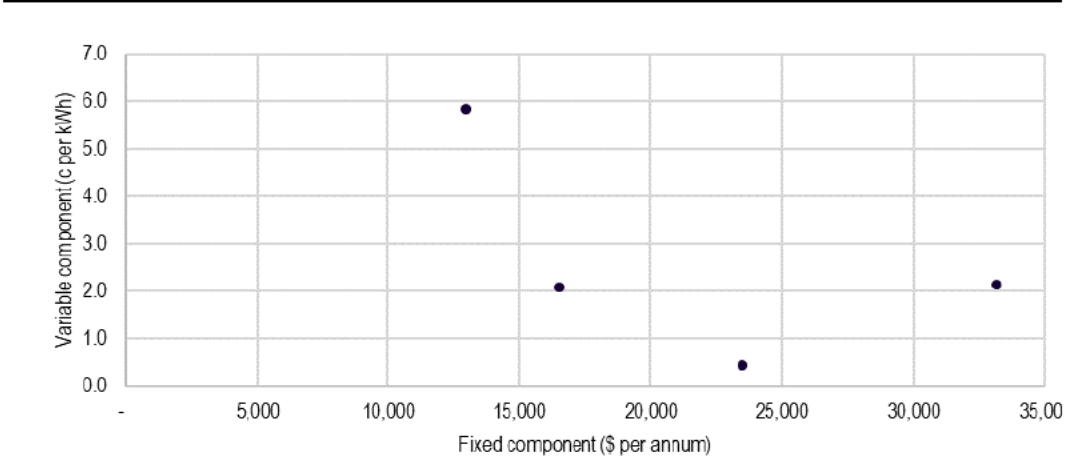
The weighted average of the fixed and variable components of the retail costs for the four retailers are set out in Table 6.2. The average has been calculated weighting by the number of very large customers for each retailer and the energy consumed by those very large customers.

Table 6.3   Fixed and variable components of retail costs, very large customers, 2020-21

|	Fixed component	Variable component
	$ per annum	c/kWh
Weighted average based on customer numbers	22,878	2.2
Weighted average based on energy consumption	29,376	2.2

Source: ACIL Allen analysis based on retailers' information requests

While the variable component of the retail costs is similar using customer weightings and energy consumption weightings, the fixed component is higher using an energy consumption weighting than using a customer weighting.

The consumption data for very large customers are not provided in the QCA's determination on the regulated retail prices for 2020-21 so it is not possible to compare the retail costs provided by the retailers with the previous determination.

6.4 Movement in costs

Only two of the retailers commented on the expected movement in retail costs from 2020-21 to 2021-22:

— ▮▮▮▮▮▮▮▮ indicated that its costs would decline as it recently changed vendors for its billing system for large and very large customers ▮▮.

— ▮▮▮ indicated that its retail costs in 2021-22 would be within ±10 per cent of the retail costs in 2020-21.

ACIL ALLEN

Updated retail costs

<div style="text-align: right; font-size: 3em;">7</div>

This chapter summarises our estimates of the retail costs for 2020-21.

7.1 Small customers

We have used a similar approach to the 2016-17 review to benchmark the retail costs for residential and small business customers on flat rate tariffs.

The average fixed and variable components of the retail costs for 2020-21, by retailer, and the customer weighted averages are plotted in the first pane of Figure 7.1 for residential customers and in the second pane for small business customers on flat rate tariffs.

Consistent with the benchmarking analysis from the previous review, the variable retail costs generally decrease as the fixed retail costs increase for residential customers. The variable retail costs generally increase as the fixed retail costs increase for small business customers. However, if the retail tariffs for two small retailers that have negative variable costs are removed, the variable retail costs generally decrease as the fixed retail costs increase.

Figure 7.1   Fixed and variable components of retail costs, residential flat rate tariffs, 2020-21
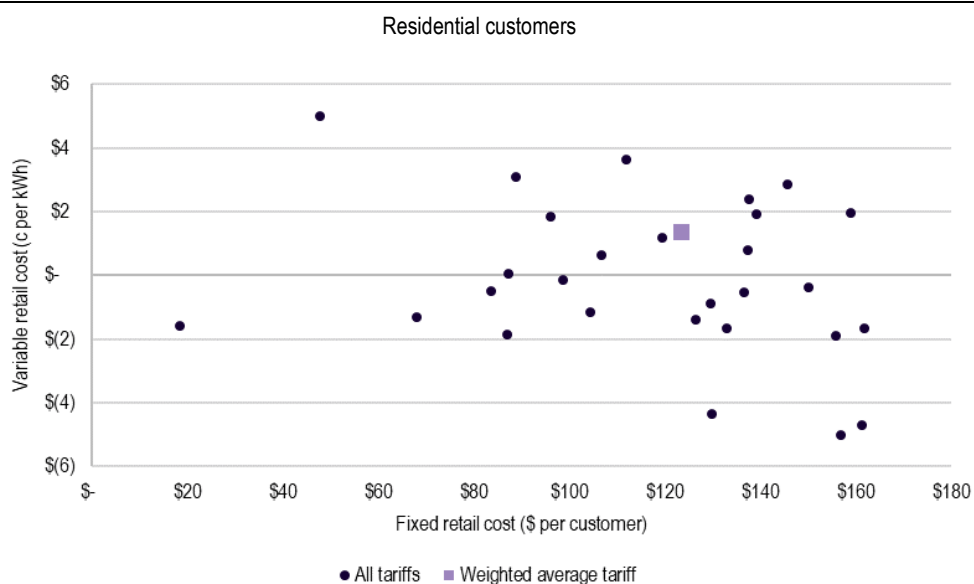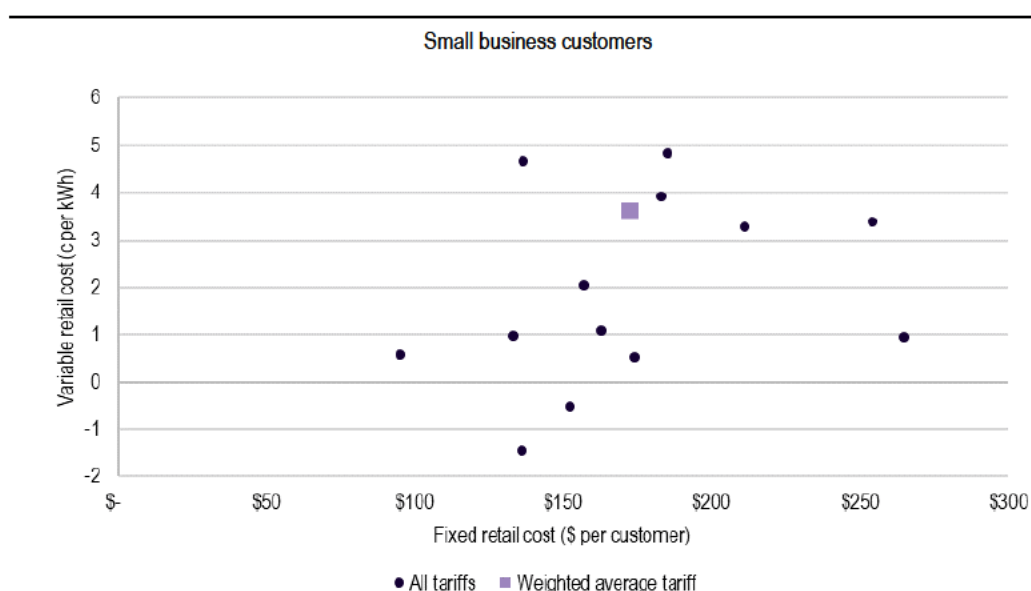
Small business customers

Note: Each purple dot represents a retailer and is the average retail cost across each of their tariffs

Source: ACIL Allen

In the 2016-17 review, we estimated the retail costs based on a simple average of the fixed component of the retail cost and the correlation between variable and fixed costs based on the simple average of the fixed costs. We have adopted a different approach in this review because:

1. While a number of assumptions were required to be made in the last review to calculate the weighted average, the data are publicly available for this review.

2. The simple average equally weights the retail costs for each of the retailers, some of which have very low retail costs but only supply a relatively small number of customers. In the previous review, we only used the data for the nine largest retailers operating in south-east Queensland, New South Wales, South Australia and Victoria, as well as Click Energy in south east Queensland. Accordingly, we did not include data for retailers with a very small number of customers.

3. Using the line of best fit similarly doesn't take into consideration the number of customers that are supplied by each retailer.

Table 7.1 sets out the customer weighted average of the fixed and variable components of the retail costs for residential and small business customers on a flat rate tariff.

Table 7.1 Fixed and variable components of retail costs, flat rate tariffs, 2020-21

	Fixed component	Variable component
	$ per customer / year	c per kWh
Residential customers	$123.35	1.37
Small business customers	$172.68	3.63

Source: ACIL Allen

We have not benchmarked the retail costs for time of use, demand and controlled load tariffs as the application of our methodology produced some anomalous results. The retailers have adopted different pricing strategies with the introduction of new network tariffs, resulting in a divergence in the retail costs produced. We expect that this is a transitional issue until the pricing strategies mature.

7.2 Large and very large business customers

The retail costs for large business customers (those that consume between 100 MWh and 4 GWh per annum) and very large business customers (those that consume more than 4 GWh per annum) have been estimated based on information provided by the retailers.

The fixed and variable components of the retail costs for large business customers are compared for three of the five retailers that provided information in the first pane of Figure 7.2. The retail costs for two of the retailers have been excluded as they are materially different. The fixed and variable components of the retail costs for very large business customers are compared for the four retailers that provided information in the second pane of Figure 7.2.

Figure 7.2   Fixed and variable components of retail costs, 2020-21
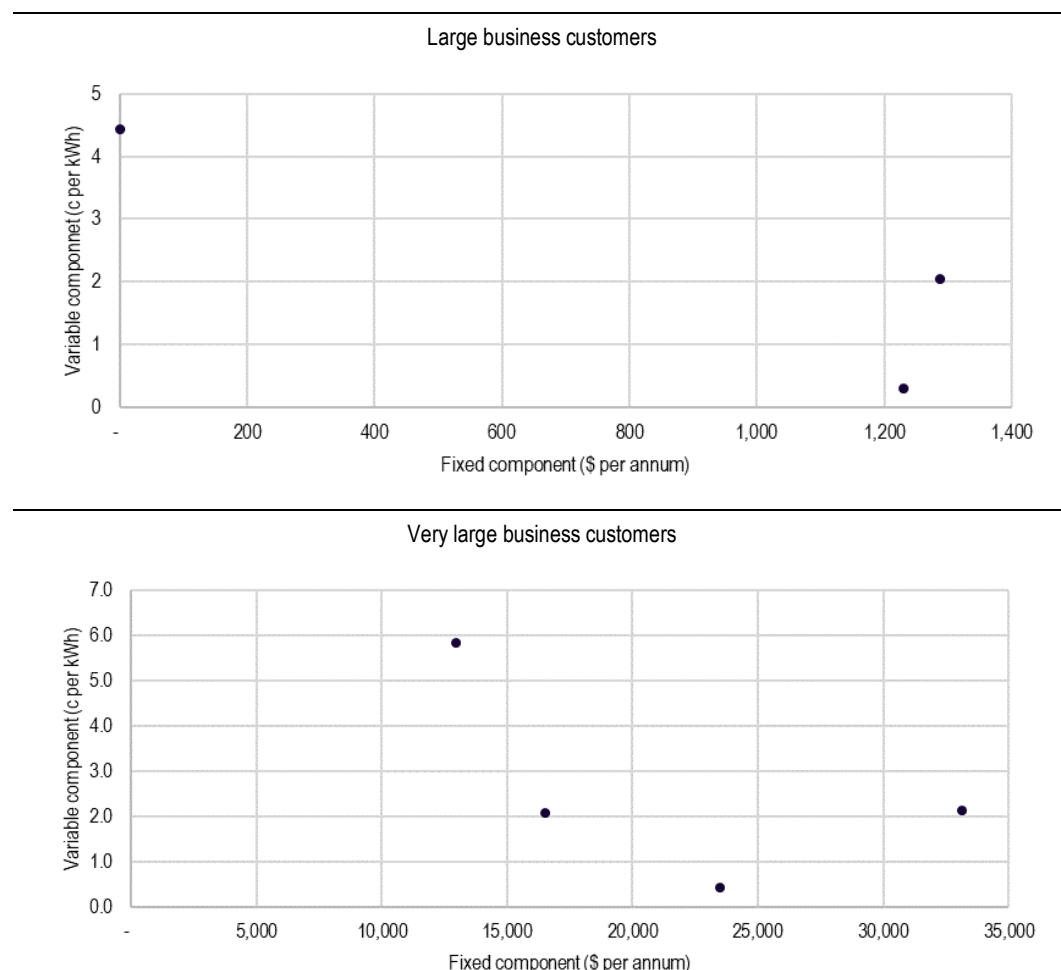
Source: ACIL Allen analysis based on retailers' information requests

The customer weighted average of the fixed and variable components of the retail costs for large and very large business customers (excluding the outliers) are set out in Table 7.2. While our analysis considered the customer weighted and energy consumption weighted averages, Table 7.2 provides only the customer weighted averages for consistency with our benchmarking analysis of retail costs for small customers.

Table 7.2   Fixed and variable components of retail costs, 2020-21

	Fixed component	Variable component
	$ per annum	c/kWh
Large business customers	1,285	2.0
Very large business customers	22,878	2.2

Source: ACIL Allen analysis based on retailers' information requests

While the data submitted by the retailers indicates that at least one retailer's retail costs for large customers are less than the QCA's 2020-21 determination, the retail costs submitted by other retailers vary significantly with some substantially higher. We note that there is some subjectivity in the costs that are provided as the retailers do not necessarily collect the data in the way that it has been requested. There is also an incentive for the retailers to submit high retail costs to increase the regulated retail prices for regional Queensland.

For these reasons, consistent with our conclusion from the 2016-17 review, there is insufficient evidence at this stage to vary the retail costs for large and very large customers.

7.3 Adjustments to the retail costs

The retail costs have been estimated for 2020-21. Our analysis indicates that there is no compelling evidence to indicate that the retail costs should be indexed for productivity improvements, COVID-19 related costs or for material additional costs associated with market developments or regulatory reform.

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Appendices

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Retail electricity tariffs used in the benchmarking analysis

A

The retail electricity tariffs that were included in our benchmarking analysis are listed in Table A.1.

Table A.1   Electricity retail offers including in the benchmarking analysis

Customer type	Tariff type	Retailer	Retail offer
Residential	Flat	1st Energy	1st Saver Plus - Single Rate
Residential	Flat	AGL	Electric Vehicle Plan (Residential)
Residential	Flat	AGL	Residential Essentials
Residential	Flat	AGL	Residential Seniors Fixed
Residential	Flat	AGL	Residential Essentials Saver
Residential	Flat	AGL	Residential Seniors Plus
Residential	Flat	AGL	Residential Solar Savers
Residential	Flat	Alinta Energy	Sports Pack Electricity Plan
Residential	Flat	Alinta Energy	HomeDeal - Single Rate and Solar
Residential	Flat	Alinta Energy	Sports Pack Electricity Plan + Solar
Residential	Flat	Alinta Energy	HomeDeal - Single Rate
Residential	Flat	Alinta Energy	Priority Plus - Single Rate and Solar
Residential	Flat	Alinta Energy	Priority Plus - Single Rate
Residential	Flat	amaysim Energy	amaysim Post-paid Electricity
Residential	Flat	amaysim Energy	amaysim Post-paid Solar
Residential	Flat	Amber Electric	Amber Plan 10
Residential	Flat	Click Energy	Click Flora
Residential	Flat	Click Energy	Click Flora Solar
Residential	Flat	CovaU	Freedom Plus Solar - Residential Energex Single
Residential	Flat	CovaU	Freedom Plus - Residential Energex Single
Residential	Flat	Diamond Energy	Everyday Renewable Saver
Residential	Flat	Discover Energy	Energex Residential Single Rate Economy Saver
Residential	Flat	Discover Energy	Energex Residential Single Rate Smart Saver
Residential	Flat	Discover Energy	Energex Residential Single Rate Solar Boost
Residential	Flat	Dodo Power & Gas	Residential Market
Residential	Flat	Elysian Energy	Elysian Market Residential Simple Plan (QEX)
Residential	Flat	Energy Locals	sonnenFlat Autonomy
Residential	Flat	Energy Locals	sonnenFlat Family

Customer type	Tariff type	Retailer	Retail offer
Residential	Flat	Energy Locals	sonnenFlat Economy
Residential	Flat	Energy Locals	sonnenFlat City
Residential	Flat	Energy Locals	Online Member - Anytime
Residential	Flat	Energy Locals	Local Member - Anytime
Residential	Flat	EnergyAustralia	No Frills
Residential	Flat	EnergyAustralia	Ultra Solar Plan
Residential	Flat	EnergyAustralia	Total Plan Home
Residential	Flat	EnergyAustralia	Total Plan Home - FiftyUp Club
Residential	Flat	Future X Power	Market Offer - Smart Flat
Residential	Flat	Globird Energy	GLOSAVE Residential (Flat Rate)-Energex
Residential	Flat	Globird Energy	EASYSAVE Residential (Flat Rate)-Energex
Residential	Flat	Glow Power	Saver - Single Rate
Residential	Flat	Kogan Energy	Kogan Energy Market Offer
Residential	Flat	Locality Planning Energy	LPE Mates Rate
Residential	Flat	Locality Planning Energy	LPE Mates Rate
Residential	Flat	Mojo Power	Single Minded
Residential	Flat	Mojo Power	All Day Breakfast
Residential	Flat	Nectr	Nectr Friends Clean
Residential	Flat	Nectr	Nectr GreenPower
Residential	Flat	Origin Energy	Origin Basic
Residential	Flat	Origin Energy	Origin Flexi - Supply Nation
Residential	Flat	Origin Energy	Origin Flexi
Residential	Flat	Origin Energy	Origin Solar Boost
Residential	Flat	Origin Energy	Origin Solar Boost Plus
Residential	Flat	Origin Energy	Origin Freedom
Residential	Flat	Origin Energy	Origin Flexi - iSelect
Residential	Flat	Origin Energy	Origin Flexi - One Big Switch
Residential	Flat	Origin Energy	Origin Solar Boost - Fifty Up
Residential	Flat	Origin Energy	Origin Flexi - Electricity Wizard
Residential	Flat	Origin Energy	Origin Flexi - Residential Connections
Residential	Flat	Origin Energy	Origin Flexi - Energy Watch
Residential	Flat	Origin Energy	Origin Flexi - Fifty Up
Residential	Flat	Origin Energy	Origin Solar Boost - One Big Switch
Residential	Flat	Origin Energy	Origin Flexi - CIMET
Residential	Flat	Origin Energy	Origin Max Saver - iSelect
Residential	Flat	Origin Energy	Origin Max Saver - Energy Watch
Residential	Flat	Origin Energy	Origin Home Support
Residential	Flat	Origin Energy	Origin Max Saver - Residential Connections
Residential	Flat	Origin Energy	Origin Max Saver - Online Special

Customer type	Tariff type	Retailer	Retail offer
Residential	Flat	Origin Energy	Origin Max Saver - Electricity Wizard
Residential	Flat	Origin Energy	Origin Max Saver - CIMET
Residential	Flat	Powerclub	Powerbank Home Flat + Solar + Smart
Residential	Flat	Powerclub	Powerbank Home Flat + Smart
Residential	Flat	Powerclub	Powerbank Home Flat + Solar
Residential	Flat	Powerclub	Powerbank Home Flat
Residential	Flat	Powerdirect	Powerdirect Residential Rate Saver
Residential	Flat	Powershop	PowershopLITE
Residential	Flat	Powershop	Shopper Market Offer
Residential	Flat	ReAmped Energy	ReAmped Handshake	Anytime
Residential	Flat	ReAmped Energy	ReAmped Classic	Anytime & Demand
Residential	Flat	ReAmped Energy	ReAmped Classic	Anytime
Residential	Flat	ReAmped Energy	ReAmped Solar	Anytime & Demand
Residential	Flat	ReAmped Energy	ReAmped Advance	Anytime & Demand
Residential	Flat	ReAmped Energy	ReAmped Advance	Anytime
Residential	Flat	ReAmped Energy	ReAmped Handshake	Anytime & Demand
Residential	Flat	ReAmped Energy	ReAmped Solar	Anytime
Residential	Flat	Red Energy	Living Energy Saver
Residential	Flat	Red Energy	Qantas Red Saver
Residential	Flat	Red Energy	Qantas Red Saver (Bundled)
Residential	Flat	Red Energy	Red EV Saver
Residential	Flat	Simply Energy	QLD Simply Choice Elec 17% Discount
Residential	Flat	Simply Energy	QLD Simply RACQ Elec 17% Discount
Residential	Flat	Simply Energy	QLD Simply Energy Saver Elec 16% Discount
Residential	Flat	Simply Energy	QLD SOHO Saver Elec 16% Discount
Residential	Flat	Sumo	Sumo Assure Advantage Residential
Small business	Flat	1st Energy	1st Saver Plus - Single Rate
Small business	Flat	AGL	Business Essentials Saver
Small business	Flat	AGL	Business Essentials
Small business	Flat	Alinta Energy	BusinessDeal - Single Rate
Small business	Flat	Alinta Energy	BusinessDeal - Single Rate and Solar
Small business	Flat	Alinta Energy	Priority Business - Single Rate and Solar
Small business	Flat	Alinta Energy	Priority Business - Single Rate
Small business	Flat	amaysim Energy	amaysim Post-paid Electricity - Business
Small business	Flat	Blue NRG	Blue Business Expert SR 8570
Small business	Flat	Blue NRG	Blue Business Expert SR 8550
Small business	Flat	Blue NRG	Blue Business Expert SR 8420
Small business	Flat	Blue NRG	Blue Business Expert SR 8450
Small business	Flat	Blue NRG	Blue Business Expert SR 8500
Small business	Flat	Blue NRG	Blue Business Expert SR 8520

Customer type	Tariff type	Retailer	Retail offer
Small business	Flat	Blue NRG	Blue Business Expert SR 8400
Small business	Flat	Blue NRG	Blue Saver QLD (General Usage - 8400)
Small business	Flat	Blue NRG	Blue Business Switch SR 8400
Small business	Flat	Blue NRG	Blue Saver QLD (General Usage - 8500)
Small business	Flat	Blue NRG	Blue Saver QLD (General Usage - 8500)
Small business	Flat	Blue NRG	Blue Business Switch SR 8470
Small business	Flat	Blue NRG	Blue Business Switch SR 8520
Small business	Flat	Blue NRG	Blue Business Switch SR 8570
Small business	Flat	Blue NRG	Blue Business Switch SR 8550
Small business	Flat	Blue NRG	Blue Business Switch SR 8420
Small business	Flat	Blue NRG	Blue Business Switch SR 8500
Small business	Flat	Blue NRG	Blue Business Switch SR 8450
Small business	Flat	Blue NRG	Blue Business Expert SR 8470
Small business	Flat	Click Energy	Click Business Pin
Small business	Flat	CovaU	Freedom Plus - Business Energex Single
Small business	Flat	CovaU	Freedom Plus Solar- Business Energex Single
Small business	Flat	Diamond Energy	Everyday Renewable Saver
Small business	Flat	Discover Energy	Energex Small Business Single Rate Solar Boost
Small business	Flat	Discover Energy	Energex Small Business Single Rate Smart Saver
Small business	Flat	Discover Energy	Energex Small Business Single Rate Economy Saver
Small business	Flat	Elysian Energy	Elysian Market Business Single Plan (QEX)
Small business	Flat	Energy Locals	Business Member - Anytime
Small business	Flat	EnergyAustralia	Total Plan Business
Small business	Flat	Future X Power	Market Offer - Business Smart Flat
Small business	Flat	Glow Power	Saver - Single Rate
Small business	Flat	Locality Planning Energy	LPE Business Advantage Plan
Small business	Flat	Locality Planning Energy	LPE Business Advantage Plan
Small business	Flat	Next Business Energy	Energex_Business Single Rate Wide_Assured2.5
Small business	Flat	Origin Energy	Origin Business Flexi Usage
Small business	Flat	Origin Energy	Origin Business Flexi
Small business	Flat	Origin Energy	Origin Business Basic
Small business	Flat	Origin Energy	Origin Business Solar Boost
Small business	Flat	Origin Energy	Origin Business Solar Boost Plus
Small business	Flat	Origin Energy	Origin Business Flexi - Supply Nation
Small business	Flat	Origin Energy	Origin Business Flexi - One Big Switch
Small business	Flat	Powerclub	Powerbank Bis Flat
Small business	Flat	Powerclub	Powerbank Bis Flat + Solar
Small business	Flat	Powerclub	Powerbank Bis Flat + Smart

Customer type	Tariff type	Retailer	Retail offer
Small business	Flat	Powerclub	Powerbank Bis Flat + Solar + Smart
Small business	Flat	Powerdirect	Powerdirect Business Rate Saver
Small business	Flat	Powershop	PowershopLITE
Small business	Flat	Powershop	Shopper Market Offer
Small business	Flat	Powershop	PowershopLITE
Small business	Flat	Powershop	PowershopLITE
Small business	Flat	Powershop	Shopper Market Offer
Small business	Flat	Powershop	Shopper Market Offer
Small business	Flat	ReAmped Energy	ReAmped Business | Anytime
Small business	Flat	Red Energy	Red Business Saver
Small business	Flat	Red Energy	Qantas Red Business Saver
Small business	Flat	Simply Energy	QLD Business Saver Elec 18% Discount
Small business	Flat	Sumo	Sumo Freedom Business

Source: ACIL Allen based on QCA's download from AER's energy made easy website

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Customer numbers by retailer

B

The number of customers by retailer as at the first quarter of 2020-21 as published by the AER is set out in Table B.1.

Table B.1   Number of customers on market contracts, quarter 1 2020-21

Retailer	Residential	Small business
1st Energy	3577	76
AGL	293518	16625
Alinta Energy	205118	8117
amaysim Energy	36848	1339
BlueNRG		481
CovaU	449	511
Diamond Energy	1813	531
Discover Energy	299	21
Dodo	9705	0
Elysian Energy	10	2
Energy Locals	2120	115
EnergyAustralia	104668	8209
ERM Power		71
Flow Systems	5255	392
Future X Power	230	40
GloBird Energy	360	2
Locality Planning Energy	23260	5309
Mojo Power	1114	3
Nectr Energy	2091	0
Next Business Energy	0	1142
OC Energy	640	28
Origin Energy	486509	31680
OVO Energy	733	0
People Energy	80	0
Power Club	241	66
Powerdirect	9585	3521
PowerHub	451	7

Retailer	Residential	Small business
Powershop	12601	1484
Qenergy	2017	3568
Real Utilities		18
ReAmped Energy	5450	64
Red Energy	47652	1697
Savant Energy	737	34
Simply Energy	14960	171
Sumo Power	355	0
The Embedded Networks Company	128	5
WinEnergy	131	0
Total	**1,272,705**	**85,329**

Source: AER, Retail market energy market performance update for quarter 1, 2020-21

B-2

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Average retail cost C

The average fixed and variable components of the retail costs, by retailer, are set out in Appendix C.1 for residential tariffs, and Appendix C.2 for small business tariffs.

C.1 Residential tariffs

The average fixed and variable components of the retail costs for flat rate tariffs, by retailer, for residential customers are set out in Table C.1.

Table C.1   Average fixed and variable components of retail costs, by retailer, residential flat rate tariff, 2020-21

Retailer	Fixed component	Variable (usage) component
	$ per customer / year	c per kWh
1st Energy	$150.21	-0.38
AGL	$ 87.32	0.05
Alinta Energy	$136.64	-0.54
amaysim Energy	$158.82	1.98
Amber Electric	$119.34	1.18
Click Energy	$137.32	0.80
CovaU	$137.74	2.39
Diamond Energy	$ 96.01	1.84
Discover Energy	$ 47.83	4.99
Dodo Power & Gas	$139.24	1.92
Elysian Energy	$156.92	-5.02
Energy Locals	$ 18.48	-1.59
EnergyAustralia	$ 88.71	3.10
Future X Power	$104.47	-1.17
Globird Energy	$129.77	-4.35
Glow Power	$132.87	-1.67
Kogan Energy	$161.38	-4.72
Locality Planning Energy	$161.78	-1.66
Mojo Power	$126.49	-1.38
Nectr	$ 68.07	-1.33
Origin Energy	$145.63	2.86

Retailer	Fixed component	Variable (usage) component
Powerclub	$155.91	-1.88
Powerdirect	$ 83.70	-0.50
Powershop	$129.51	-0.88
ReAmped Energy	$ 98.58	-0.14
Red Energy	$106.66	0.66
Simply Energy	$111.90	3.62
Sumo	$ 86.95	-1.84
Source: ACIL Allen analysis		

C.2 Small business tariffs

The average fixed and variable components of the retail costs for flat rate tariffs, by retailer, for small business customers are set out in Table C.2.

Table C.2 Average fixed and variable components of retail costs, by retailer, small business flat rate tariff, 2020-21

Retailer	Fixed component	Variable (usage) component
	$ per customer / year	c per kWh
1st Energy	$254.60	3.40
amaysim Energy	$211.42	3.28
Blue NRG	$152.76	-0.53
CovaU	$183.34	3.92
Discover Energy	$185.25	4.82
Future X Power	$174.28	0.53
Locality Planning Energy	$163.28	1.09
Origin Energy	$136.76	4.66
Powerclub	$136.32	-1.45
Powerdirect	$133.24	0.98
Powershop	$265.22	0.95
ReAmped Energy	$ 95.50	0.59
Red Energy	$157.51	2.05
Source: ACIL Allen analysis		