Default market offer prices 2022–23

Final determination

May 2022

AUSTRALIAN ENERGY REGULATOR

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1 Executive summary

This is our final determination for retail electricity default market offer (DMO) prices to apply from 1 July 2022 to 30 June 2023, known as DMO 4.

The DMO is the maximum price an electricity retailer can charge a standing offer customer each year. A customer might be on a standing offer if they have never switched to a retailer's market offer or for a range of other reasons.[1]

The objectives of the DMO price[2] are to:

- reduce unjustifiably high standing offer prices and continue to protect consumers from unreasonable prices
- allow retailers to recover their efficient costs of providing services, including a reasonable retail margin and costs associated with customer acquisition and retention
- maintain incentives for competition, innovation and investment by retailers, and incentives for consumers to engage in the market.

To meet these objectives, we base the DMO price on the costs that retailers incur to supply customers. These include the costs to purchase electricity (wholesale costs), costs to transport that electricity to customers (network costs), the costs to comply with government environmental schemes (environment costs) and costs associated with serving retail market customers, such as billing and provision of hardship services (retail costs).

Recognising that the DMO must allow retailers to make a reasonable profit and enable competition and market engagement, the price also includes an allowance for these factors.

Our draft determination, released in February 2022, set out our intention to:

- Adopt a cost build-up approach for all elements of the DMO determination – our view was that this provides greater transparency on the cost drivers in a market in which the pace of change continues to accelerate and helps ensure costs are reasonable.
- Transition to a consistent 10% retail allowance for residential customers and a 15% retail allowance for small business customers – these allowances encompass a retailer profit margin and an allowance to meet the DMO objectives, which were previously part of the 'residual' component of the DMO.

  This shift ensures that, looking forward, the policy objectives can be met consistently across regions. This is important in addressing the very low retail margins in some regions and very high margins in others, which were in place previously.

  To minimise potential impacts of a sudden change on retailers and customers, we intended to transition to these targets over the next 3 years, so that they were in place by the 2024–25 (DMO 6) determination.

1 See section 3.1.

2 The DMO objectives are set out in several sources including: Treasurer's and Minister for Energy's request to the AER to develop a DMO, 2018; the ACCC Retail Electricity Pricing Inquiry final report, 2018; the Explanatory Statement accompanying the DMO Regulations, 2019.

- Adjust the usage benchmark we use to calculate the annual price for small business customers. The available information suggested 10,000kWh per year better represented these customers than the previous 20,000kWh per year benchmark.
- Adjust elements of the wholesale cost methodology – while we continue to assume that retailers will adopt risk management strategies that minimise their exposure to the volatile spot market, we proposed adjusting elements of the forecast settings to reduce the likelihood of overestimating retailers' wholesale costs. Our draft determination view was that reducing the margin for error in our estimates balanced the risks to retailers with the need to protect customers from unnecessarily high prices.

While wholesale prices were rising in the forecasts used for the draft determination, this has accelerated since then. Factors contributing to increases in the draft forecasts included a reduction in thermal generation resulting from unplanned outages and higher coal and gas costs, slowing of investment in new capacity, and increasingly 'peaky' demand driving up the cost of hedging for retailers. These conditions have persisted and been compounded by the ongoing war in Ukraine, which has led to significant pressure on coal and gas prices globally; extreme weather in NSW and Queensland, which has affected coal supplies and electricity demand; and further unplanned outages at multiple generators. As a result, there have been very significant increases in wholesale futures prices for all DMO regions but in particular NSW and Queensland.

A number of retailers told us that these factors have elevated their wholesale market financial risk. Additionally, some saw parallels between the current Australian market conditions and recent events in the United Kingdom's (UK) retail market, where wholesale price surges and the retail price cap were among factors contributing to the collapse of several retailers.

We have reviewed the UK events and market conditions. Our view is that some key factors that contributed to the UK issues, specifically the difference in business models adopted by retailers and some of their hedging strategies, are not prevalent in the Australian market. We recognise the increased risk environment, but consider our DMO approach adequately takes these risks into account. In particular, we note:

- even in a period of higher uncertainty, the forecast settings provide a significant margin of error against underestimating wholesale costs – particularly in light of the other risk-averse assumptions embodied in the forecast methodology
- the change to the final DMO publication date to 26 May means that the wholesale cost takes into account the current risk assumptions as foreseen by the market
- the DMO allowances for residential and small business customers are set high enough that even a retailer with higher than average costs will be able to make a reasonable profit.

Taking into account the long-term interests of consumers, as well as the current market risks, our view is that the approach outlined above is fair and balances the DMO objectives.

Consequently, we have not changed our position on the key issues set out above since the draft determination. However, we have made adjustments to:

- use AEMO's fee proposals for the coming year instead of the past year

- take into account legacy costs retailers incur following the removal of some accumulation meters.

The draft determination noted that we would seek a peer review of ACIL Allen's wholesale cost forecasting approach. This was to examine how well it performs given changes in the market, such as increased uptake of rooftop and grid-scale solar. These are having a large impact on spot prices and challenging the extent to which standard contracting products enable retailers to manage risk.

We engaged Frontier Economics to undertake this review.[3] Frontier's review reassures us that ACIL Allen's market-based methodology meets the DMO objectives and is practical, transparent and provides price stability compared with other approaches.

However, Frontier also notes that multiple assumptions within the methodology tend to result in wholesale costs being overestimated relative to what the most efficient retailers could expect to achieve. In our view, this affirms our decision to adjust some settings to reduce the risk of overestimation while still providing a significant risk margin against underestimation.

Frontier identified a range of forecasting approaches that could potentially be used to strengthen the methodology as the market evolves. These require careful consideration and we will work with stakeholders to examine these over the coming year.

DMO 4 prices

Compared with last year, standing offer customers will face price increases in real terms.

- NSW residential customers will see increases of 2.9% to 12.1% above expected inflation,[4] depending on whether they have controlled load (8.5% to 18.3% increases in nominal terms).
- Residential customers in south-east Queensland will see increases above expected inflation of 5.5% to 6.8% (11.3% to 12.6% increases in nominal terms).
- Residential customers in South Australia face increases above expected inflation of 1.7% to 3.8%, depending on whether they have controlled load (7.2% to 9.5% increases in nominal terms).

For small business customers, DMO 4 prices are not directly comparable with DMO 3 prices due to the new usage benchmark. However, when compared using the previous benchmark:

- prices for NSW customers will see increases of 4.3% to 13.5% above expected inflation (10% to 19.7% increases in nominal terms)
- south-east Queensland prices would be 6.9% above expected inflation (12.8% in nominal terms)
- South Australian prices would be 0.2% above expected inflation (5.7% in nominal terms).

[3] Frontier Economics, *Review of retail wholesale energy cost estimation methodology: Final Report for the Australian Energy Regulator*, 31 March 2022.

[4] We have used the RBA's forecast inflation for 2021-22 of 5.5%, Reserve Bank of Australia, *Statement on Monetary Policy*, May 2022.

Factors influencing DMO prices

Rising wholesale costs are the main cause of the increase in the DMO price. In addition to the drivers described above, in DMO 4 wholesale costs will also be impacted by:

- in south-east Queensland, increased frequency control ancillary service (FCAS) charges, as well as costs relating to the activation of the Reliability and Emergency Reserve Trader (RERT) scheme in February 2022
- the inclusion of AEMO directions costs in South Australia.

Network costs have fallen slightly for the Ausgrid (NSW) region and more significantly for the Energex (south-east Queensland) region. Return of over-recovered revenue was a key factor in both regions, while reduced costs for transmission and the Queensland Government's Solar Bonus Scheme contributed to Energex's larger reductions.

Cost pass-throughs, efficiency incentive payments and higher transmission costs are among the factors driving higher network costs in the Essential (NSW), Endeavour (NSW) and SAPN (South Australia) regions.

Higher demand for large-scale generation certificates (LGCs) and Small-scale Renewable Energy Scheme certificates has seen environment costs for NSW increase slightly since last year, but this has had a negligible impact on the DMO price.

The transition to consistent retail allowances across regions moderates the price increases in NSW, where the effective retail allowances were previously higher. The shift to standardised allowances contributes a small amount to price rises in South Australia and south-east Queensland but this effect is moderated by the transitional pathway for allowances.

DMO policy objectives

The adjusted methodology and the resulting DMO 4 prices deliver on the DMO policy objectives:

- The DMO price protects standing offer customers against unreasonable prices in an environment of rising living costs. In particular, in NSW, the retail allowance component of many standing offer customers' bills will be significantly lower than previous years as it moves towards a consistent level across all jurisdictions.

  The lower forecast error margin reduces the likelihood the wholesale estimate will overstate retailers' costs. We considered that the previous setting resulted in higher than necessary prices, given the other cautious forecast settings.

- The retail allowances are above those set by jurisdictional regulators aiming to determine an efficient retail margin, ensuring that retailers can recover their costs and make a reasonable profit margin.

  In South Australia, the retail allowance will be higher than the low level of previous years, which we were concerned may not allow retailers to achieve a reasonable profit margin.

  We have carefully considered retailers' operating and other underlying costs and reflected these in setting the DMO price. Our later wholesale data also ensures that the current market outlook is factored into the wholesale estimates.

- The retail allowances ensure the DMO remains a ‘fall back’ price well above market offers. It means retailers can continue to offer discounts and compete on price under the cap, while the large savings available for switching to market offers provide good incentives for customers to engage in the market.

Customers who shop around will continue to save on their bills. Based on offers available in May 2022, residential customers switching from the DMO 4 price to the median market offer could save between $294 and $443 depending on their network region, while small business customers could save between $733 and $1,308.

2 DMO 2022–23 final prices

2.1 DMO final prices

DMO prices for 2022–23 for each customer type in each distribution region are set out in Table 2.1. The table also shows the changes from DMO 3 in both real terms (that is, adjusted for forecast inflation) and nominal terms.

The final DMO prices are based on the most recent data available. Since the draft determination, higher contract prices have flowed through to the DMO wholesale cost calculations, resulting in higher prices than the draft determination.

The small business DMO prices in the table are based on our new annual usage benchmark of 10,000 kWh per year. Due to this change, DMO 3 and DMO 4 prices are not directly comparable. However, to provide an indication of the year-on-year change, we have compared the DMO 3 small business price with a nominal DMO 4 price calculated at 20,000 kWh per year.

Table 2.1 DMO 2022–23 final determination prices, including changes from DMO 3 in nominal and real terms*

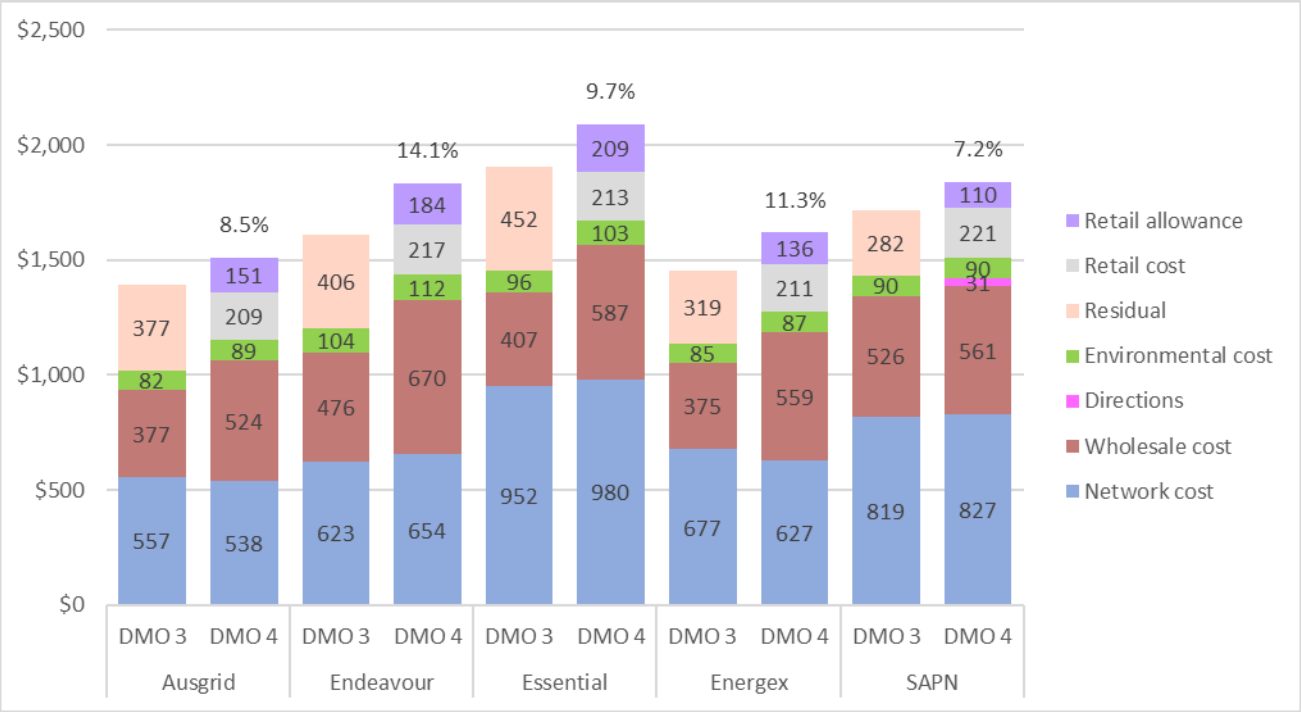
Distribution zone		Residential without CL	Residential with CL	Small business without CL
Ausgrid (NSW)	DMO price	$1,512	$2,122	$4,360
	for annual usage of	3,900 kWh	Flat rate 4,800 kWh + CL 2,000 kWh	10,000 kWh
	Change y-o-y	+$119 (8.5%)	+$210 (11.0%)	+$690 (10.0%)
	Change y-o-y (real)	+$42 (2.9%)	+$105 (5.2%)	+$310 (4.3%)
Endeavour (NSW)	DMO price	$1,836	$2,383	$3,782
	for annual usage of	4,900 kWh	Flat rate 5,200 kWh + CL 2,200 kWh	10,000 kWh
	Change y-o-y	+$227 (14.1%)	+$369 (18.3%)	+$1,130 (19.7%)
	Change y-o-y (real)	+$139 (8.2%)	+$258 (12.1%)	+$815 (13.5%)
Essential (NSW)	DMO price	$2,092	$2,490	$4,901
	for annual usage of	4,600 kWh	Flat rate 4,600 kWh + CL 2,000 kWh	10,000 kWh
	Change y-o-y	+$185 (9.7%)	+$219 (9.6%)	+$1,146 (14.7%)
	Change y-o-y (real)	+$80 (4.0%)	+$94 (3.9%)	+$717 (8.7%)
Energex (SE QLD)	DMO price	$1,620	$1,961	$3,446
	for annual usage of	4,600 kWh	Flat rate 4,400 kWh + CL 1,900 kWh	10,000 kWh
	Change y-o-y	+$165 (11.3%)	+$220 (12.6%)	+$705 (12.8%)
	Change y-o-y (real)	+$85 (5.5%)	+$124 (6.8%)	+$402 (6.9%)
SAPN (SA)	DMO price	$1,840	$2,275	$4,539
	for annual usage of	4,000 kWh	Flat rate 4,200 kWh + CL 1,800 kWh	10,000 kWh
	Change y-o-y	+$124 (7.2%)	+$198 (9.5%)	+$459 (5.7%)
	Change y-o-y (real)	+$30 (1.7%)	+$84 (3.8%)	+$17 (0.2%)

* Real comparisons with DMO 3 are based on RBA 2021–22 inflation forecast of 5.5% in its May 2022 Statement on Monetary Policy.
Note: DMO 3 and 4 prices for small business are not directly comparable due to the new usage benchmark. Percentage and dollar changes in this table are based on a comparison of the DMO 3 small business price and a nominal DMO 4 price calculated at 20,000 kWh per year.

The Regulations require that the DMO prices are indicative prices based on a set model annual usage. They are not a 'maximum bill'. Individual customers' bills will vary depending on how much electricity they use, their distribution region and how their retailer has set the fixed and variable charges on their standing offer. As required under the Regulations, we have specified DMO prices as annual prices, based on the model annual usage (which is discussed in Chapter 8 of this report).[5] Under the Regulations, retailers must structure their tariffs to not exceed the DMO annual price for the model annual usage.[6]

Figure 2.1 illustrates the change in DMO price components between DMO 3 and DMO 4 for residential customers without controlled load. Appendix F contains the full set of these figures for each customer type.

Figure 2.1 Change in DMO price components for DMO 4, residential without controlled load, nominal



2.2 Analysis of DMO prices against the policy objectives

Ensuring the DMO price balances the objectives is our primary goal in setting the price. Our analysis, set out below, indicates that the adjusted methodology and the resulting DMO 4 prices continue to do so.

Objective – Protect consumers from unjustifiably high prices

Consumers in DMO regions will continue to receive protection from unjustifiably high prices that existed before the DMO came into effect in 2019. In DMO 4 we are making additional changes to protect customers from high retail allowances in a way that is fair across all regions.

5 Regulations s. 16.
6 Regulations s. 10.

Under previous DMO determinations, the residual component varied widely across the regions and in some regions was very high. For instance, in DMO 3:

- The DMO price for most residential standing offer customers in NSW regions included effective retail allowances of around 13%.
- For most small business standing offer customers in NSW, the DMO price included effective retail allowances of 20% to 29%. For those in south-east Queensland's Energex region the effective allowance was 18%.

We were concerned that these allowances provided a return to retailers that was not proportionate to the risks they faced in those markets, were higher than needed to facilitate competition and engagement, and resulted in customers paying more than necessary to meet the DMO objectives.

The move to 10% and 15% retail allowances, for residential and small business customers respectively, addresses these concerns.

In the longer term, consistency in the margin across all customer types and regions will ensure retailers cannot make unreasonable profits from different sets of customers.

In addition, the move to a full cost build-up methodology allows for greater scrutiny on all retailer costs. This will ensure cost drivers can be analysed and assessed so only reasonable costs are passed on to consumers.

Objective – Retailers can recover their efficient costs

The careful consideration given to each cost driver and the approach to the retail allowance means retailers can recover the costs they incur to serve customers, including costs they incur for advanced meters, and bad and doubtful debt.

The move to a later DMO publication date should increase stakeholder confidence that the DMO price will accurately reflect retailers' underlying costs because we have used:

- more current wholesale data than previous years, meaning the wholesale estimates better capture the expected market outlook for 2022–23
- approved network pricing as the basis for the DMO 4 network cost component, removing any risk associated with our use of proposed prices.

The new methodology also means any changes in retail costs over time will be reflected in future DMO prices due to our use of annually updated ACCC data.

Objective – Retailers can make a reasonable profit

The retail allowances that we have set – 10% of the DMO bill for residential customers and 15% for small business customers – will enable retailers to make a reasonable profit.

These allowances are well above:

- the 5% to 6% range allowed as a reasonable profit margin by other Australian regulators that aim to set prices that reflect the efficient costs of a retailer

- the 3% and 5% reported by the ACCC as the average profit margin across the national electricity market's competitive markets for residential and small business customers respectively.[7]

The retail allowance will initially be 6% in DMO 4 for residential customers in South Australia and 8.4% in south-east Queensland, as the first step in the transition to a 10% retail allowance by DMO 6. These initial lower allowances enable retailers to make a reasonable profit, noting that the 6% retail allowance in South Australia is significantly higher than:

- the nominal equivalent allowance under previous DMO determinations for South Australia (1.3% to 4% in DMO 3)
- the −1% profit available in the competitive South Australian market.[8]

Objective – Retailers have incentives to compete, innovate and invest

The gap between the DMO price and market offer prices, as well as the new products and services marketed by retailers, remains significant and shows that retailers have incentives to compete on price and offer discounts, innovate and invest.

Our analysis suggests that the DMO price will provide retailers with significant flexibility to have different pricing strategies and offer discounts below the DMO price.

While this ability is more constrained for retailers in South Australia in DMO 4 and 5, due to the incremental transition to a higher retail allowance, competition has been reasonably strong in South Australia despite the historically low profit margins available to retailers there. The move to a consistent 10% retail allowance over the next 3 determinations should increase the capacity for retailers to compete, innovate and invest in this market.

The 10% and 15% allowances are lower than what has been historically available to retailers in NSW, but these will not impact retailers' capacity to offer substantial discounts below the DMO price and compete for market share. As of May 2022 the median market offer:

- in the Ausgrid (NSW) region is 22% below the DMO 4 price, while the lowest offer is 34% below
- in the Endeavour (NSW) region is 24% below the DMO price, while the lowest offer is 33% below
- in the Essential Energy (NSW) region is 21% below the DMO price, while the lowest offer is 30% below
- in the Energex (south-east Queensland) region is 20% below the DMO price, while the lowest offer is 28% below
- in the SAPN (South Australia) region is 16% below the DMO price, while the lowest offer is 30% below.

[7] ACCC media release, 13 December 2021 - https://www.accc.gov.au/media-release/cost-of-supplying-electricity-to-households-at-an-eight-year-low

[8] ACCC, *Inquiry into the National Electricity Market November 2021 report*, Appendix E.

Objective – Consumers have incentives to engage in the market

The substantial gap between DMO 4 and market offer prices in each area, and the range of retailers and services on offer, indicates there are still strong incentives for DMO customers to shop around and switch to a market offer.

When switching from the DMO 4 price to the lowest market offer (as of May 2022), residential customers would stand to save annually:

- in NSW, between $508 (Ausgrid) and $624 (Essential)
- in south-east Queensland, $456
- in South Australia, $554.

When switching from the DMO 4 price to the lowest market offer, small business customers would stand to save:

- in NSW, between $1,366 (Endeavour) and $1,767 (Ausgrid)
- in south-east Queensland, $1,134
- in South Australia, $1,428.

3 Background to the DMO

The AER is the independent regulator for Australia's national energy market. Our functions include regulating electricity networks and covered gas pipelines in all jurisdictions except Western Australia. We enforce the laws for the National Electricity Market (NEM) and spot gas markets in southern and eastern Australia. We monitor and report on the conduct of market participants and the effectiveness of competition.

We protect the interests of household and small business consumers by enforcing the National Energy Retail Law (NERL). Our retail energy market functions cover New South Wales (NSW), South Australia, Tasmania, the Australian Capital Territory (ACT) and Queensland.

Our objectives include:

- protecting vulnerable consumers, while enabling consumers to participate in energy markets
- effectively regulating competitive markets, primarily through monitoring and reporting, and enforcement and compliance.

Under the Competition and Consumer (Industry Code – Electricity Retail) Regulations 2019 (the Regulations), our role is to set the DMO price each year for regions that have no retail price regulation – NSW, south-east Queensland and South Australia.

3.1 Policy context for the DMO

The purpose of the DMO as identified by the ACCC at its conception is to act as a fallback for those who are not engaged in the market and should not be a low-priced alternative to a market offer.[9] The policy objectives of the DMO are that it should:

- reduce unjustifiably high standing offer prices and continue to protect consumers from unreasonable prices
- allow retailers to recover their efficient costs of providing services, including a reasonable retail margin and costs associated with customer acquisition and retention
- maintain incentives for competition, innovation and investment by retailers, and incentives for consumers to engage in the market.

Customers on standing offers

The Australian Energy Market Commission (AEMC) and ACCC have identified that customers on standing offers (Table 3.1) are those who:

- have not taken up a market offer since the introduction of retail competition in that jurisdiction
- are supplied under a retailer's 'obligation to supply' (for example, if a poor credit history means other retailers will not supply them)[10]

9 ACCC, *AER Default market offer, Submissions to the draft determination*, 20 March 2019, p.1–2.
10 Unlike other retailers, under s. 22 of the NERL Local Area Retailers cannot refuse to supply customers.

- have moved into a premise and receive supply from the existing retailer supplying the premises but are yet to contact the retailer[11]
- have defaulted to a standing offer following the expiry of a market contract.[12]

The majority of customers on standing offers are served by 'Tier 1' retailers – AGL Energy, EnergyAustralia and Origin Energy.

Table 3.1 Customers on standing offers in DMO areas

Region	Residential customers (number and %)	Small business customers (number and %)
NSW	331,070 (9.8%)	57,411 (17.8%)
South-east Queensland	158,113 (10.7%)	21,686 (19.8%)
South Australia	62,198 (7.8%)	13,631 (15.7%)
Total standing offer customers	551,381 (9.8%)	92,728 (17.9%)

Note: South-east Queensland figures extrapolated from all Queensland by excluding Ergon customers. Other retailers have customers in regional Queensland so figure is approximate. Standing offer customers calculated by subtracting market offer customers from total customers.
Source: AER Retail Market Performance update, Quarter 3 2021–22.

The Regulations also prescribe a mandatory industry code with DMO provisions requiring:[13]

- standing offer prices for small customers not to exceed a price determined by the AER[14]
- small customers be told how a retailer's prices compare with the AER determined annual price[15]
- the most prominent price related feature in an advertisement is not a conditional discount, and any conditions on other discounts are clearly displayed.[16]

Under these requirements, the DMO price acts as 'reference price', against which customers can easily compare market offers. The ACCC is responsible for enforcement and compliance with these provisions.

3.2 DMO regulatory framework

The legislative framework for implementing DMO prices is contained in the Competition and Consumer (Industry Code—Electricity Retail) Regulations 2019.

11 AEMC, *Advice to COAG Energy Council: Customer and competition impacts of a default offer*, 20 December 2018, p. 15.
12 Section 10 of the Regulations makes clear the DMO price only applies to customers on an electricity retailer's standing offer. It does not apply to customers who are on ongoing market contracts where discounts have expired. In practice these customers may be paying a retailer's standing offer prices. We do not know how many customers may be in this situation.
13 The Code for the purposes of Part IVB of the Competition and Consumer Act 2010.
14 Regulations s. 10.
15 Regulations s. 12.
16 Regulations s. 14.

Part 3 of the Regulations confers price setting functions on the AER. Specifically, we are required to determine:

- how much electricity a broadly representative small customer of a particular type in a particular distribution region would consume in a year and the pattern of that consumption[17] (the model annual usage)[18]
- a reasonable total annual price for supplying electricity (in accordance with the model annual usage) to small customers of a type in a region (the DMO price).[19]

The DMO price applies to residential and small business customers on standing offers in NSW, South Australia and south-east Queensland.[20]

The Regulations set out that we must determine DMO prices for:

- residential customers – on flat rate or time of use (TOU) tariffs
- residential customers with controlled load – these are separately metered tariffs used for appliances such as electric hot water storage systems, pool pumps or underfloor heating
- small business customers – on flat rate tariffs.[21]

Each category includes customers with solar tariffs.[22]

The Regulations require us to consider a range of specific factors in determining a reasonable annual price. These include wholesale electricity, network and retail costs, costs to acquire, retain and serve customers, the principle that a retailer should be able to make a profit, and other matters we consider relevant.[23]

3.3 DMO regulations review

The Australian Government commenced a review of the DMO Regulations in September 2021.

The review has now concluded with outcomes including:[24]

- amending the regulations to change the date for the DMO determination from 1 May to the first business day after 25 May to provide more time for the AER to include the most recent network costs in the final price determination

17 The AER is not required to determine the pattern of consumption in the case of small business customers.
18 Regulations, s. 16(1)(a).
19 Regulations, s. 16(1)(b).
20 Section 8 of the Regulations specifies that the instrument would not apply in a distribution region if any standing offer prices, or maximum standing office prices, for supplying electricity in the year in the region to a small customer are set by or under a law of a State or Territory.
21 Small business customers are those who use less than 100 MWh per annum.
22 We are not required to determine an annual price and usage for customers on other tariff types, such as, tariffs with a demand charge, small business controlled load and TOU tariffs, tariffs offered in embedded networks.
23 Regulations, s. 16(4).
24 See https://www.energy.gov.au/government-priorities/energy-programs/price-safety-net

- to further consult on amending the name of the reference price and how best to extend price cap protection provided by the DMO to customers in embedded networks
- undertaking another review of the Code 2 years after the implementation of the Consumer Data Right for Energy for initial retailers, in 2024.

While most of the changes are relevant to DMO 5 and beyond, the amended final date applies to our DMO 4 determination.

The main impacts of this change on our DMO 4 determination are:

- We have used approved network prices, meaning the DMO network component will reflect actual network costs retailers will face in 2022–23. Many retailers have been concerned about our use of proposed prices in previous years.
- Our wholesale and environment forecasts are based on a later cut-off for wholesale market data (13 May). This means our estimates will reflect more current market trends and developments that will impact prices in the forecast period.

3.4 Our consultation process

In making our final determination we have undertaken a consultation process consistent with section 17(1) of the Regulations.

- On 25 October 2021 we published a Position Paper and received 16 submissions.
- On 10 November 2021 we held an online stakeholder forum attended by approximately 80 stakeholders. Presentations from the forum were published on our website.
- On 18 February 2022 we published a draft determination and received 18 submissions. A list of submitters is included at Appendix A.
- On 9 March 2022 we held an online stakeholder forum attended by about 80 stakeholders. Presentations from the forum were published on our website.
- We published our consultant ACIL Allen's wholesale forecasting methodology report on our website.

We have had regard to the submissions and information received through our consultations and the advice from our consultants in making our determination.

4 Network costs

4.1 Overview

Network costs in a retail electricity bill represent the cost of transporting electricity through transmission and distribution networks.

Under the National Electricity Rules (NER), the AER regulates network charges, approving network tariffs the distribution network businesses annually set for customer use of the network. Network tariffs are typically constituted of 2 components:

- Network Use of System (NUOS) charges, which largely recover the costs of providing transmission and distribution of electricity through network infrastructure. These include the costs of jurisdiction-specific schemes recovered across the entire customer base.
- Metering charges, which relate to the distribution network businesses' installation and maintenance of type 5 manually read interval meters and type 6 accumulation meters.

4.2 Draft determination

For the draft DMO 4 prices we used indicative network tariffs for 2022–23 submitted by distributors as part of their 2021–22 annual pricing proposals. We considered these the best available information at the time.

Our draft determination position was to use approved network tariffs for 2022–23 for the final DMO 4 price calculations, if available. Otherwise, we would use submitted network prices included in 2022–23 annual pricing proposals.

We decided in the draft determination to continue to base the DMO network costs on flat rate tariffs only, and not to extend our analysis to capture costs under TOU tariffs for residential customers. We considered our previous approach was reasonable given most customers are on flat rate tariffs, while altering our approach would add complexity and reduce transparency without providing major benefits to stakeholders.

We also said we would not adjust ('true up') network costs to reflect differences between estimated and actual network tariffs in previous periods. This change would also reduce transparency in the annual price calculation.

4.3 Stakeholder submissions

A number of retailers raised issues about the risks they face when we do not use approved tariffs, which were consistent with those raised in previous years. Origin, Red/Lumo and Alinta considered it was reasonable that the DMO price reflect actual network costs, and that any resulting underestimation should be addressed through a true up in the subsequent decision.[25]

[25] Origin, *Submission to DMO 4 draft determination,* 17 March 2022, p. 7-8; Red Energy and Lumo Energy, *Submission to DMO 4 draft determination,* 17 March 2022, p. 4; Alinta, *Submission to DMO 4 draft determination,* 17 March 2022, p. 1-2.

Origin considered that our draft determination to continue to use flat rate network tariffs only in our calculation of the DMO network component was reasonable. No submissions opposed this approach.

4.4 Final determination

The AER approved network pricing for the 5 DMO distribution regions between late April and early May 2022. Consistent with our draft position, we have used the approved flat rate network tariff prices to calculate the DMO network component in each region.

We note that these have varied from the indicative tariffs that were the basis of the draft network component. Final networks costs in DMO 4 are:

- in the Ausgrid (NSW) region, 0.5% lower to 2.1% higher than our draft estimates, depending on the customer type.
- in the Endeavour (NSW) region, 6.1% to 8.5% higher
- in the Essential (NSW) region, 5.6% to 5.7% higher
- in the Energex (south-east Queensland) region, 6.4% to 7.3% lower
- in the SAPN (South Australia) region, 1.8% to 2% higher.

Return of over-recovered revenue was a key factor in the decreases in the Ausgrid and Energex regions, while reduced costs for transmission and the Queensland Government's Solar Bonus Scheme contributed to Energex's larger reductions.

Cost pass-throughs, efficiency incentive payments and higher transmission costs are among the factors driving higher network costs in the Essential, Endeavour and SAPN regions.

The use of approved tariffs means the DMO 4 prices will reflect retailers' actual network costs for 2022–23, addressing retailers' concerns about the risks of using proposed prices.

While the use of approved prices means true ups are not relevant for DMO 4, our position remains not to use true ups. As we have set out in previous DMO decision documents, this would reduce transparency in the DMO calculation each year.

The revised DMO date of late May (discussed in section 3.3) means we will be able to use approved prices in the DMO every year other than in reset years.

The network tariffs that will be used to assess network costs are set out in Table 4.1 and network cost estimates resulting from this are included in the DMO charts in Appendix F, as well as the DMO price calculation model, published alongside the final determination.

Table 4.1 Network tariffs (with network codes) to assess the change in network costs

Distribution region	Residential flat rate	Residential controlled load	Small business flat rate
Ausgrid (NSW)	Residential Non TOU - EA010	EA030 – Controlled load 1 EA040 – Controlled load 2	EA050 Small business non-TOU
Endeavour (NSW)	Residential Energy (anytime) N70	Controlled load 1 N50 Controlled load 2 N54	General Supply N90
Energex (NSW)	Residential Flat NTC8400	Super Economy NTC9000 Economy NTC9100	Business Flat NTC8500
Essential (NSW)	Residential Anytime BLNN2AU	Energy Saver 1 BLNC1AU Energy Saver 2 BLNC2AU	Small Business Anytime BLNN1AU
SAPN (NSW)	Residential Single Rate RSR (SR)	Residential Single Rate RSR (controlled load)	Business Single Rate BSR

Total network costs for the 2022–23 DMO 4 are set out in Table 4.2, together with the costs used for the 2021–22 DMO 3 for comparison.

Table 4.2 Total network costs for 2021–22 and 2022–23, $ (incl. GST, nominal)

Distribution region	Tariff	2021–22	2022–23	Change year-on-year
Ausgrid (NSW)	Flat rate	557	538	-3.3%
	Controlled load	730	707	-3.1%
	Small business	2,303	2,259	-1.9%
Endeavour (NSW)	Flat rate	623	654	5.0%
	Controlled load	728	770	5.8%
	Small business	2,132	2,239	5.0%
Essential (NSW)	Flat rate	952	980	2.9%
	Controlled load	1,069	1,100	2.9%
	Small business	3,756	3,839	2.2%
Energex (SE QLD)	Flat rate	677	627	-7.4%
	Controlled load	767	708	-7.6%
	Small business	2,303	2,120	-7.9%
SAPN (SA)	Flat rate	819	827	1.0%
	Controlled load	1,008	1,016	0.8%
	Small business	3,549	3,587	1.1%

Total network costs contain a fixed and variable component and are a function of usage.
Small business comparison is at 20,000kWh

5 Wholesale energy costs

Wholesale energy costs (WEC), the costs retailers incur to purchase electricity, represent a significant proportion of customers' electricity bills – typically 30% to 40% depending on the region. Therefore, these costs have a major influence on the DMO price.

This section sets out how we have taken into account WEC in setting the DMO 4 price.

5.1 Overview

To calculate WEC, our consultant (ACIL Allen) simulates the costs a retailer incurs when buying energy in the NEM for a given year.[26] The costs combine hedging and spot market costs (WEC) and other fees related to participation in the NEM (other energy costs).

We refer to this as a 'market-based' forecast approach. Under the approach, WEC are influenced by energy supply and demand forecasts, an assumed strategy to manage exposure to the spot market (hedging strategy), and any residual exposure to forecast spot market prices.

The hedging strategy we seek to model is for a risk-averse retailer that has reduced its exposure to the possibility of very high spot market prices. We acknowledge that different retailers will use a range of hedging strategies, depending on their size, generation assets and market conditions, and that our strategy may not represent any specific retailer. However, in the absence of information about retailers' actual strategies, we consider a nominal risk-averse retailer is reasonable because, other than in unusual market conditions, most retailers would seek to reduce exposure to risk.

The strategy assumes that hedging occurs from the first trade recorded by ASX Energy for a given product (contract), with the risk-averse retailer progressively accumulating contracts over time to develop its final portfolio.

The supply-side forecast, which is broadly aligned with AEMO's Integrated System Plan, takes into consideration announced new investments, retirements, fuel costs and simulated thermal power generation availability.

The demand-side forecast is a function of AEMO's Electricity Statement of Opportunities central scenario, an estimated uptake of rooftop solar photovoltaic (PV) systems and weather simulations in respect to their impact on demand and availability of renewable resources.

ACIL Allen takes the above demand-side and supply-side forecasts to produce a distribution of around 500 simulated spot market price outcomes, representative of volatility in the spot market. The cost of implementing the hedging strategy in each scenario is then calculated. The hedging strategy is the same for all scenarios.

[26] The AER contracts ACIL Allen to provide consultancy services relating to the wholesale and environmental cost elements of the DMO. ACIL Allen produces a companion report discussing its wholesale and environmental cost forecasting approach in more detail, that is published alongside the draft and final DMO determinations.

Distribution loss factors (DLF) for each network area and average marginal loss factors (MLF) for transmission losses from the node to major supply points in the distribution networks are applied to the WEC estimates to incorporate any losses.

Other energy costs include hedging costs, AEMO NEM management fees, Reliability and Emergency Reserve Trader (RERT) costs and ancillary services charges for services to manage power system safety, security and reliability.

Details of ACIL Allen's wholesale cost forecasting methodology and resulting wholesale energy costs forecasts are set out in its Default Market Offer 2022–23 final determination technical report.[27]

5.2 Draft determination

Our draft determination was to:

- Retain the previous assumptions in relation to hedge book build and hedging strategy.
- Adjust the forecast settings to reduce the likelihood of overestimating wholesale costs.

  As noted above, ACIL Allen's methodology simulates around 500 possible spot market price outcomes and applies the assumed hedging strategy to each of these. The result is a distribution of possible hedged prices our assumed retailer could face, where prices around the median represent those that are most likely to eventuate and those at the extreme high and low ends very unlikely to occur.

  Therefore, prices above the median (50th percentile) provide a margin for error against underestimation.

  Our draft determination was to adopt the 75th percentile estimate of ACIL Allen's modelled price outcomes, rather than our previous 95th percentile estimate.

  We considered that this balanced the risk of over and underestimating the wholesale price. While the 95th percentile estimate covered retailers for almost all potential price outcomes, the 75th percentile more appropriately balanced the cost to consumers while providing a very low risk of underestimating costs to retailers.
- Include AEMO directions costs in the WEC in South Australia for the first time. These are costs incurred when AEMO directs generators to operate for system security, which are passed onto retailers. We considered these are costs a prudent retailer is likely to incur during the DMO 4 period.

We did not make any changes to our approach in response to feedback from some stakeholders about the South Australian wholesale market or negative prices. Our view was that we did not have access to reliable public information on which to base new estimates, but we noted we were open to considering further information.

[27] ACIL Allen, *Default Market Offer 2022-23 Wholesale energy and environment cost estimates for DMO 4 Final Determination*, May 2022.

5.3 Stakeholder submissions

Stakeholders held differing views on a number of different components of the wholesale energy cost component. The following sections group this feedback by issue/component.

Change to the 75th percentile

Retailers and the Australian Energy Council (AEC) indicated in their submissions that they considered that the change to the 75th percentile was not appropriate given their expectations of increasing volatility in the wholesale market (both high and low prices) in 2022–23 and in future years, as a result of the energy market transition and expected coal generation closures.[28] Some retailers also stated that the 75th percentile of wholesale market outcomes is lower than the risk limits prudent retailers have in place and increases a retailer's spot price risk and the viability of some retailers.[29] Other retailer submissions considered that the wholesale cost component is a significant risk for underforecasting of costs and so a return to the 95th percentile should be adopted.

EnergyAustralia stated that the AER had not provided enough evidence to support the change to the 75th percentile and questioned if this change should be held over until a thorough review of the entire WEC component was undertaken.[30] It also had concerns that reducing the percentile of modelled price outcomes may lead to retailer failure. EnergyAustralia's submission also discussed the VDO approach of including a volatility allowance for the cost of holding working capital to meet wholesale costs for the most extreme scenario.[31] While noting the differences in approached for the VDO compared with the DMO, it considered the volatility allowance still presented a higher risk to retailers because it only reflected the cost of capital, not a full provision of capital required for hedging.

Wholesale energy cost – methodology approach

Stakeholder submissions made a number of comments on the other aspects of the wholesale energy cost forecast methodology.

Origin requested that the AER and ACIL Allen provide more specific details about the modelling inputs and approach, including details of the proprietary model used by ACIL Allen to estimate wholesale electricity costs. They also suggested a volatility allowance should be included if the decision to uphold the move to the 75th percentile remained.[32]

[28] 1st Energy, *Submission to DMO 4 draft determination,* 17 March 2022, p. 1-3; Origin, *Submission to DMO 4 draft determination, 17 March 2022*, p. 2; Alinta, *Submission to DMO 4 draft determination*, 17 March 2022, p. 2-3; ReAmped Energy, *Submission to DMO 4 draft determination*, 17 March 2022, p. 2; Powershop, *Submission to DMO 4 draft determination*, 17 March 2022, p. 3, Red Energy and Lumo Energy, *Submission to DMO 4 draft determination,* 17 March 2022, p. 5; Australian Energy Council, *Submission to DMO 4 draft determination*, 17 March 2022, p. 3-4; EnergyAustralia, *Submission to DMO 4 draft determination*, 17 March 2022, p. 9-11; AGL, *Submission to DMO 4 draft determination,* 17 March 2022, p. 1; Tango Energy, *Submission to DMO 4 draft determination*, 17 March 2022, p. 1-2; Simply Energy, *Submission to DMO 4 draft determination*, 17 March 2022, p 4; Momentum Energy, *Submission to DMO 4 draft determination*, 17 March 2022, p 2.

[29] Alinta, *Submission to DMO 4 draft determination*, 17 March 2022, p. 2; 1st Energy, *Submission to DMO 4 draft determination,* 17 March 2022, p. 1.

[30] EnergyAustralia, *Submission to DMO 4 draft determination*, 17 March 2022, p. 3.

[31] EnergyAustralia, *Submission to DMO 4 draft determination*, 17 March 2022, p. 10-11.

[32] Origin, *Submission to DMO 4 draft determination, 17 March 2022*, p. 4.

EnergyAustralia supported the trade-weighted approach currently used by ACIL Allen, but considered that the AER should extend the cut-off date to late May for contract prices used in the WEC modelling.[33] Alinta supported retaining the 24 to 36-month hedge book build period, which is approximately the length that ACIL Allen used, based on an 'as trades occur' approach to the book build.[34]

Powershop drew attention to the potential retail competition effects due to our wholesale methodology and whether retailers can or will want to attract customers if they are not hedged effectively in a changing wholesale market. Powershop claimed that the DMO wholesale methodology discourages retailers from growing because acquiring hedges over the full 36 months leads to retailers inaccurately hedging against their customer load when prices move up or down in the DMO year. Powershop also reiterated their previous concerns about how peak demand and spot prices are factored into the wholesale price modelling.[35]

Other issues raised

AGL expressed concerns that forward cap contract prices in South Australia do not reflect realistic market costs because of the low liquidity in that market. AGL argued that moving to the lower percentile for wholesale prices is particularly problematic in South Australia, which has more variable peak loads.[36] AGL provided the AER with some confidential information to consider on the issue of prices in South Australia. EnergyAustralia also supported AGL's submission to the DMO options paper, which requested consideration of alternative sources of data inputs such as prices contracted under offtake agreements with generators, since ASX energy data is illiquid and limited at best. EnergyAustralia did acknowledge difficulties that its proposed alternative approach creates in terms of transparency, but believed it should be considered at some point.[37]

ReAmped Energy said that the increased wholesale price risk would be borne by non-vertically integrated retailers that cannot access their own generation and rely on the wholesale market to support growth in their retail business.[38]

Retailers supported the inclusion of directions costs in DMO 4 while the SA Department for Energy and Mining suggested the AER develop an alternative approach to estimating directions costs in light of the installation of synchronous condensers in South Australia. It said that costs have declined as a result of AEMO's approach to system strength management in the past year and that the previous 12 months' costs are not expected to continue in 2022–23.[39] AGL, Simply Energy and Red/Lumo Energy supported the inclusion of AEMO energy direction costs in the draft determination.

AEMO made a submission requesting its latest fee proposals for the 2022–23 financial year be included in DMO 4. The fees are collected through retailers and generators, and passed on to retail customers. AEMO requested the increased forward fees for 2022–23 be included

33 EnergyAustralia, *Submission to DMO 4 draft determination*, 17 March 2022, p. 11.
34 Alinta, *Submission to DMO 4 draft determination*, 17 March 2022, p. 3.
35 Powershop, *Submission to DMO 4 draft determination*, 17 March 2022, p. 2-3.
36 AGL, *Submission to DMO 4 draft determination,* 17 March 2022, p. 1.
37 EnergyAustralia, *Submission to DMO 4 draft determination*, 17 March 2022, p. 12-13.
38 ReAmped Energy, *Submission to DMO 4 draft determination*, 17 March 2022, p. 2.
39 Department of Energy and Mining, *Submission to DMO 4 draft determination*, Energy and Technical Regulation Division, South Australian Government, 17 March 2022, p. 3.

in DMO 4 rather than using the previous 12 months, which has been our practice to date. They noted that the Essential Services Commission Victoria will include the fee estimates in the Victorian Default Offer for 2022–23.[40]

Origin raised the issue of how RERT costs are recovered in the DMO. Origin was concerned that using total Queensland load in the RERT calculation, which includes commercial and industrial load, may lead to an under-recovery of costs. Origin suggested removing commercial and industrial load and costs from the RERT calculation would provide a better cost representation of residential and small business customers.[41] 1st Energy also asked us to include RERT costs for the event in Queensland in 2022 in the DMO.[42]

Queensland Electricity Users Network (QEUN) made a submission raising concern with the AER using a single consultant. QEUN stated that the AER should consider other options to account for the possibility of inaccurate forecasting, which they noted could become particularly prevalent in a rapidly changing wholesale market with increasing volatility. Options they suggested for the AER to undertake included producing its own forecasting or using additional consultants.[43]

5.4 Wholesale methodology review

In the draft determination we noted that the electricity market is changing rapidly, with trends such as the increased uptake of rooftop and grid-scale solar changing demand profiles and having a significant impact on spot prices.

These changes are also challenging the extent to which standard contracting products enable retailers to manage risk, particularly during daylight hours but also moving into the evening peak when maximum demand is not affected by solar and prices can be high.

We committed to undertake a peer review of the wholesale forecast modelling to ensure it remains able to capture these types of changes in wholesale market outcomes.

In response to the draft determination, both the AEC and Powershop provided feedback on the wholesale methodology review.

The AEC highlighted a review it commissioned from ACIL Allen in October 2019 to review Frontier Economics' wholesale forecasting modelling for the Victorian Default Offer (VDO), which they consider found Frontier Economics underestimated wholesale costs. AEC stated they support the methodology used by ACIL Allen in the DMO and consider that it more accurately captures costs than the model used for the VDO. Powershop also does not support Frontier's approach to wholesale price modelling for the VDO.

Frontier Economics was engaged to undertake the peer review. Our request focused on reviewing the appropriateness of the wholesale forecasting process that is currently undertaken by ACIL Allen in terms of how it meets the DMO objectives in the current and potential future wholesale market scenarios. We also requested Frontier provide options on

40 Australian Energy Market Operator, *Submission to DMO 4 draft determination*, 17 March 2022, p. 1.
41 Origin, *Submission to DMO 4 draft determination, 17 March 2022*, p. 5.
42 1st Energy, *Submission to DMO 4 draft determination,* 17 March 2022, p. 3.
43 Queensland Electricity Users Network, *Submission to DMO 4 draft determination,* 25 February 2022, p. 1.

alternative approaches that could be used to undertake this process in the future and how these approaches do or do not meet the DMO objectives.

Frontier's report reviews the existing forecasting methodology, and several alternative options, against the DMO objectives. Frontier also included 3 additional criteria (practicality, transparency and price stability) that they consider need to be assessed when reviewing the merits of all approaches. As the report highlights, there are a number of potential options to change certain aspects of the current methodology, which may result in a more accurate wholesale cost forecast. Alternatively, a number of other methodologies could be considered but are limited by access to publicly available data or other practical considerations.

Frontier found[44] that the current approach has some potential to overestimate the WEC for an efficient retailer but is on par with, or better suited than, most alternative approaches in meeting the DMO objectives.

We still consider that the changes occurring in the wholesale market, in regards to impacts from solar on demand profiles and risk management products available to retailers, warrant further review of the wholesale methodology in the longer term. Based on the work Frontier has done, the AER will look to engage with stakeholders on this review in the second half of 2022, with an aim to include stakeholders views in the DMO 5 process.

5.5 Final determination

Having considered stakeholder feedback, and the Frontier review findings, our final determination position on the forecasting method is unchanged from the draft determination. Our reasons are set out below.

Move to the 75th percentile

The 75th percentile estimate of modelled costs has been used to calculate the final WEC in DMO 4. As stated in the draft determination, we consider that several aspects of the DMO hedging assumptions are inherently cautious and geared towards minimising the likelihood of underestimating costs.

Findings from Frontier's review, which supports the decision to move to the 75th percentile, was that a number of elements within the current methodology can lead to an overestimation of the WEC. These include:

- The approach only estimates the cost of supplying small customer load in each region on a standalone basis, which means portfolio benefits available to some retailers supplying a diversity of customers, such as variable loads, are not accounted for.
- The approach estimates the cost of hedging small customer load only, based on a subset of hedging products actually available to retailers that can be used to manage their risks. This results in lower cost risk management products, such as Power Purchase Agreements or load following hedges, not being accounted for within the modelling.

[44] See Frontier Economics, *Review of retail wholesale energy cost estimation methodology, Final Report for the Australian Energy Regulator, 31* March 2022, Chapter 3.

- A retailer takes a risk-averse approach when hedging their small customer load.
- The most efficient retailer could expect to achieve costs lower than the 75th percentile modelled outcome and the 95th percentile allows for an almost worst-case scenario each year.

When reviewing these elements together, we consider that this highlights numerous layers of conservatism built into the methodology. In reality, a retailer is unlikely to only hedge for a specific part of its load, taking advantage of diversity across customers and customer types and acquiring appropriate hedging products for their overall position. A retailer is also likely to use a number of different products (such as power purchase agreements or load following contracts) not currently considered within the modelling, which would help them better align their hedging strategy with their actual load profile, resulting in lower costs.

We acknowledge that as the wholesale market transitions over the next few years there will be uncertainty. Retailers noted issues such as thermal closures as particular sources of uncertainty that contribute to volatility. The contract market factors in this uncertainty, assisted by requirements such as the 42-month notice of closure, which gives the market time to price these changes. ACIL Allen's model accounts for this by incorporating a mix of contracts over the 36-month contract book build period.

We analysed the spread between 75th and 95th percentiles to understand the cost to consumers, or additional revenue recovery for retailers, that would occur if the 95th percentile was adopted. This analysis showed that the dollar difference was minimal in NSW and Queensland distribution zones while it was currently larger in South Australia due to a broader range in demand forecasts and dependence on variable renewables. However, this has not been the case in previous DMOs and the spread of outcomes appears dependent on market conditions in any given year.

We have explored EnergyAustralia's comments on the volatility allowance included in the VDO. This allowance acknowledges that retailers face a risk of wholesale purchasing costs above the median modelled outcome used in the VDO and will be holding working capital to manage that risk.[45] The dollar value provided by the difference between the 50th and 75th percentiles of the DMO is greater than that a VDO style 'volatility allowance' would provide if applied to the DMO. This is because our methodology enables a full provision of capital, which will always allow greater cost recovery than an allowance for the cost of holding that capital.

Having considered stakeholder feedback and the available information, our view remains unchanged from the draft determination – that the 95th percentile estimate provides too great a margin of error against underestimation and is likely to result in a wholesale cost estimate that is significantly higher than what a typical retailer would incur, other than in the most extreme circumstances. In our view, a WEC estimate that eliminated risk for retailers by systemically overstating most retailers' wholesale costs would not be consistent with the DMO objectives of protecting consumers. Our view is that the 75th percentile estimate provides a significant margin of error against underestimating wholesale costs and ensures that in most circumstances the wholesale forecasts will continue to overstate what most

[45] Frontier Economics calculate the volatility adjustment by calculating the difference between the median wholesale outcome and the 100th percentile outcome, then apply a WACC of 7.5%.

retailers incur – particularly in light of the other risk-averse assumptions embodied in the forecast methodology. In our view, this estimate appropriately balances the need to enable retailers to recover their costs, while protecting consumers from higher than necessary prices. We further note that the later cut-off for wholesale market data means that most current risk assumptions as foreseen by the market are taken into account in the WEC estimates through updated contract data.

Hedge book build

Our view remains that the current, longer hedge book build period remains appropriate for the DMO because it reduces price volatility from year to year. This results in more constrained DMO price movements, which we consider is appropriate given the purpose of the DMO to provide a fallback price protection for consumers.

In response to EnergyAustralia's submission that a later cut-off date should be used, we will always try to use the most current prices available in time to deliver the final determination. As a result of the change to the DMO publication date, we have been able to use approximately 6 weeks of additional market data, which reduces the gap between our data cut-off date and pricing implementation.

Hedging strategy

We agree with most stakeholders that our current risk-averse settings remain appropriate to set the hedging strategy when estimating wholesale costs. Our final decision is not to change the wholesale forecast settings relating to hedging strategy.

AEMO directions

As set out in the draft determination, we will include AEMO directions costs because they are costs that a prudent retailer would include and aren't substantially different to other non-energy costs we include. Directions costs for SAPN have increased from $5.02/MWh in our draft determination to $7.03/MWh for the final determination – an increase of $2.01/MWh (40%).

In response to the SA Department for Energy and Mining, we acknowledge that using the past 12 months of fees may not accurately forecast future costs. However, AEMO's costings are transparent, public and are the most accurate data available. Additionally, in AEMO's most recent report, full operation of synchronous condensers saw the costs of system security directions fall from $37 million in Q4 2021 to an estimated $7.5 million in Q1 2022[46]. This latest figure was captured in this year's modelling, while the next iteration of the DMO will capture the full yearly effect of the synchronous condensers going forward. Therefore, we maintain that using this data is the most reasonable way to capture directions costs.

AEMO fees

We agree with AEMO that the latest fee proposal should be included in this DMO. This is a change from previous determinations, where the previous year's fees would be used. We have made this change to ensure the proposed large increase in AEMO fees for the 2022–23 financial year is captured.

[46] AEMO, Quarterly Energy Dynnamics – Q1 2022, 29 April 2022, p. 4.

South Australian contract prices

We acknowledge that using the relatively illiquid ASX futures markets will not necessarily reflect how some retailers are choosing to contract energy for the South Australian market. However, we also consider that it is the most transparent data source currently available.

We have further considered some retailers' suggestions that a higher forecast risk margin was needed in South Australia to mitigate the risks associated with that market.

We have tested both the spread between 75th and 95th percentiles and the level of liquidity in the South Australian market compared with other years and regions. While the data shows that base contract trade volumes are lower than the previous year, it is not the first time trade volumes have been this low (2018 levels were similar). Regular trading has still occurred for South Australian base futures contracts and the variability of prices for these contracts is lower than that for NSW and Queensland contracts for 2022–23. While the spread of modelled outcomes is larger for South Australia in DMO 4, historically there have been similar disparities in other regions.

On balance, our view remains that the 75th percentile estimate of wholesale cost forecasts appropriately balances wholesale risks for retailers with protecting customers. We consider the price difference between the 75th and 95th percentile estimates is not sufficiently large that a DMO price based on the higher estimate would make a material difference to retailers' cost recovery or profit for the roughly 75,000 South Australians on standing offers.

We are open to further discussions on this issue as part of the larger review of the wholesale methodology, including on mechanisms that would give stakeholders confidence in our use of any confidential data.

RERT costs

Consistent with previous determinations, RERT costs, including the February 2022 event in Queensland as estimated by AEMO,[47] have been included in DMO 4. In regard to Origin's submission, we have not changed the way in which RERT costs are recovered in the DMO. We consider that retailers are free to recover RERT costs from their customer base as they see appropriate. There would be an additional layer of complexity and decreased transparency if we made adjustments to the load and costs on which the calculation is based.

Final DMO 4 wholesale costs

WEC are forecast to increase across all DMO regions and consumer types following declines in the past 2 years.

Changes from the draft determination see WEC up around $11–$12/MWh in NSW and Queensland, as a result of large increases in futures contract prices. South Australian costs are slightly higher (WEC increased by around $3.5/MWh).

Reasons for the increase from the draft are a result of base future and cap contract prices having increased in all 3 regions. ACIL Allen has identified higher fuel costs as a key factor in

[47] https://aemo.com.au/-/media/files/electricity/nem/emergency_management/rert/2022/rert-activation-estimates-report-for-1-feb-2022.pdf?la=en

this along with the slowing of large-scale renewables coming online and a reduction in thermal generation (for instance, the anticipated closure of Liddell and Torrens Island A and outage of Callide C4 now extended to April 2023). Figure 5.1 shows NSW base futures prices relevant to DMO 3. Lines represent prices the market was expecting to pay to hedge costs for each of the quarters in 2022–23. They were increasing throughout the second half of 2021 but experienced significant increases in 2022. Similar increases were also seen in Queensland and South Australia.

We have recently become aware that the volume of base future contracts resulting from the exercising of options may be overcounted in published ASX data. We are currently working with the ASX to investigate this. After we became aware of the issue we undertook an initial review to understand the impacts this may have had on the wholesale modelling forecast. As a result of options trades occurring throughout the book build process, which occurred when contract prices were lower but also in more recent high prices, we found this would be unlikely to cause a material change in wholesale costs and are not making any changes based on this information at this point in time. We will work with the ASX to confirm treatment of trades in the data and resolve any issues ahead of DMO 5.

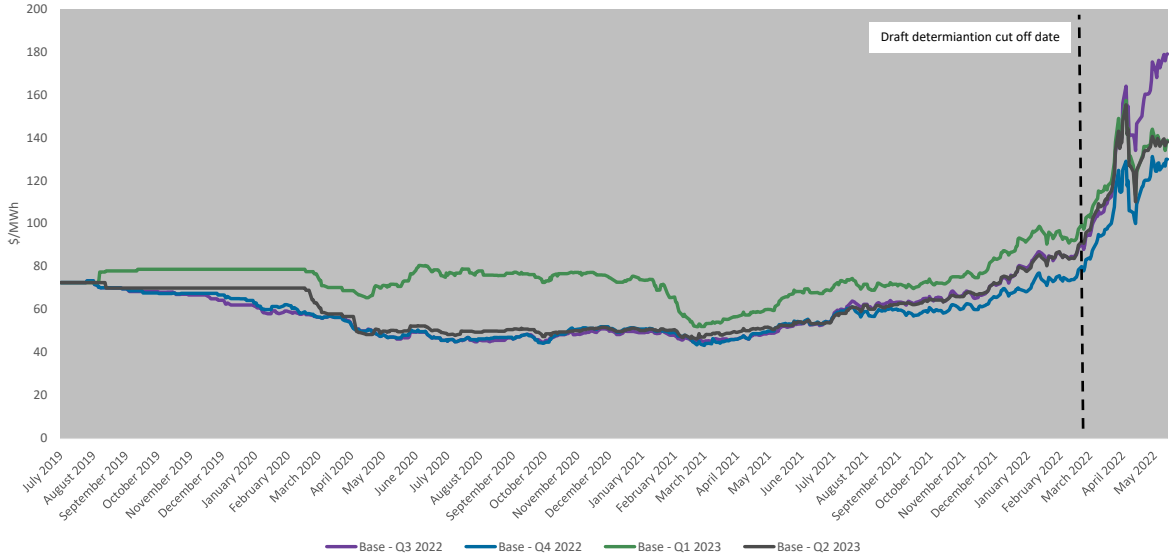
The net system load profile also has an increasingly peaky shape (extremes of high and low demand), which has become relatively more expensive to hedge. This has been exacerbated by the continued uptake of rooftop PV, which reduces demand during daylight hours. During daylight, spot prices are often less than base contract prices while the cap contracts required to cover high demand peak periods are much more expensive.

In Queensland, increased FCAS costs have also contributed to price rises.

The impact of direction costs on the DMO 4 price is $7.03/MWh in South Australia and translates to price elements of approximately:

- $28.12 per year for residential customers without controlled load
- $42.18 per year for residential customers with controlled load
- $70.30 per year for small business customers.

Figure 5.1 NSW base futures contract prices



Wholesale costs for the 2022–23 DMO 4 are set out in Table 5.1, together with the costs used for the 2021–22 DMO 3 for comparison.

Table 5.1 Wholesale costs for 2021–22 and 2022–23, $/MWh (excl. GST, nominal)

Distribution region	Tariff	2021–22	2022–23	Change year-on-year
Ausgrid (NSW)	Flat rate	87.94	122.23	39%
	CL1*	60.44	88.62	47%
	CL2	57.47	87.26	52%
Endeavour (NSW)	Flat rate	88.27	124.25	41%
	CL1	83.29	114.50	37%
	CL2	83.29	114.50	37%
Essential (NSW)	Flat rate	80.34	115.97	44%
	CL1	67.30	87.48	30%
	CL2	67.30	87.48	30%
Energex (SE QLD)	Flat rate	74.03	110.53	49%
	CL1	58.84	86.65	47%
	CL2	61.18	93.47	53%
SAPN (SA)	Flat rate	119.47	134.53	13%
	CL1	72.82	73.52	1%

6 Environmental costs

6.1 Overview

Environmental schemes at both national and state levels require retailers to procure electricity supply from renewable sources and improve customer energy efficiency. The costs of these schemes are incurred by retailers and are included as a cost component of the retail price. Environmental costs broadly fall into two main categories – national schemes or the Renewable Energy Target (RET), and jurisdictional green schemes.

The majority of environmental costs relate to complying with the RET. Retailers have an obligation to purchase renewable energy certificates and surrender them to the Clean Energy Regulator in proportion to the overall amount of energy consumed by their customers.

The RET is made up of the Large-scale Renewable Energy Target (LRET) and the Small-scale Renewable Energy Scheme (SRES). LRET costs are incurred by retailers to acquire the necessary amount of LGCs.

6.2 Draft determination

In the draft determination we indicated a preference to continue using our market-based approach from DMO 2 and DMO 3 to forecast environmental costs. The approach provides consistency between environmental and wholesale cost forecasting.

We made some minor changes to our approach in response to stakeholder feedback. In particular, we included costs relating to:

- South Australia's Retailer Energy Productivity Scheme (REPS), which will replace the Retailer Energy Efficiency Scheme and has different activity specifications
- NSW's Demand Peak Reduction Scheme to promote demand management activities.

We flagged our consultant's intention to use the binding small-scale technology percentage (STP), rather than using the Clean Energy Regulator's non-binding estimate.[48]

6.3 Stakeholder submissions

Submissions that commented on environmental cost forecasting generally supported retaining the existing methodology.

Origin and AGL agreed with our proposed approach to estimating the non-binding STP, noting that this approach was more accurate than using the Clean Energy Regulator's non-binding figure and was consistent with our approach from previous years.[49]

[48] For information about the STP see http://www.cleanenergyregulator.gov.au/RET/Scheme-participants-and-industry/the-small-scale-technology-percentage

[49] AGL, *Submission to DMO 4 draft determination,* 17 March 2022, p. 1; Origin, *Submission to DMO 4 draft determination, 17 March 2022*, p. 5.

6.4 Final determination

Having considered stakeholder submissions, we propose to retain our current approach to environmental cost forecasting with updates for new and amended schemes, as set out in the draft determination.

Environmental cost inputs

The environmental cost inputs for the 2022–23 period are given in Table 6.1, together with inputs used for the 2021–22 period for comparison.

Table 6.1 Environmental costs for 2021–22 and 2022–23, $/MWh (excl. GST, nominal)

Distribution region	Tariff	2021–22	2022–23	Change year-on-year
Ausgrid (NSW)	Flat rate	19.17	20.68	8%
	CL1*	19.22	20.74	8%
	CL2	19.22	20.74	8%
Endeavour (NSW)	Flat rate	19.31	20.82	8%
	CL1	19.31	20.82	8%
	CL2	19.31	20.82	8%
Essential (NSW)	Flat rate	19.04	20.45	7%
	CL1	19.04	20.45	7%
	CL2	19.04	20.45	7%
Energex (SE QLD)	Flat rate	16.75	17.10	2%
	CL1	16.75	17.10	2%
	CL2	16.75	17.10	2%
SAPN (SA)	Flat rate	20.39	20.38	0%
	CL1	20.39	20.38	0%

7 Retail costs and allowances

7.1 Overview

Retailers incur a number of costs when selling electricity. These costs include:

- **costs to serve** – these costs include billing, call centres and hardship programs
- **costs to acquire and retain customers** – these costs include advertising campaigns and informing new customers of their options, rights and obligations
- **advanced meter costs** – retailers are responsible for managing the installation and ongoing costs of advanced meters
- **bad and doubtful debt** – retailers may set aside revenue to cover instances where customers cannot repay their electricity debt
- **depreciation and amortisation** – retailers may from time to time make up-front purchases and investments, such as software and IT system upgrades, which are depreciated over time.

7.2 Overall approach to retail costs and allowances

7.2.1 Draft determination

Our draft determination position was to adopt a cost build-up approach for retail costs, including estimating retailers' operating costs, and a retail allowance encompassing retail margin and an additional amount to meet the DMO objectives.

We considered that a cost build-up approach, incorporating a consistent retail allowance above costs regardless of region, best achieved the policy objectives. Reasons for this view included:

- It provides greater transparency on the cost drivers in a market in which the pace of change continues to accelerate and helps ensure costs are reasonable.
- Continual indexing of the retail 'residual' under the previous methodology means the price would continue to reflect market conditions in 2018, when we set the first DMO price. As time progresses we are less confident that this approach would continue to meet the DMO objectives. In particular, we noted:
  - very low retail margins, such as little over 1% for some residential customers in South Australia, are inconsistent with the objectives to allow retailers to cover their efficient costs and maintain incentives for competition
  - higher margins for other customers (for example, 13% for some residential customers and over 28% for some small business customers in NSW) could be inconsistent with the objective to protect customers from unreasonable standing offer prices.
- The new methodology addresses this variance by introducing a transition to 10% and 15% retail margins for residential and small businesses by DMO 6. This provides transparency and ensures that, going forward, the policy objectives are met through a consistent allowance for customers regardless of the region in which they are located.

7.2.2 Stakeholder submissions

Views on our proposed move to a cost build-up approach for the retail cost and retail margin component of the DMO varied between retailers and consumer representatives.

Retailers did not support the change, citing a range of reasons including:

- given the AER has previously stated the DMO index approach was meeting the policy objectives, we have not provided sufficient evidence to demonstrate a need for change[50]
- the adoption of a cost build-up approach brings the DMO closer to price regulation based on efficient costs, which is not consistent with the DMO policy objectives[51]
- maintaining the residual indexation approach would provide consistency and regulatory certainty.[52]

The SA Department for Energy and Mining also preferred our previous price setting approach, noting concerns about the increase in retail allowances for South Australian residential customers.

In contrast, the two consumer representatives that made submissions, PIAC and ECA, considered that separately identifying retail costs and retail allowance would result in positive outcomes for consumers because it would promote transparency in pricing determinations and address information asymmetry. They considered the approach would also allow for more objective analysis and discussion of the separate components within the DMO and how these components align with the DMO objectives.

7.2.3 Our consideration of stakeholder submissions

Our view remains that issues highlighted in the draft determination provide a strong case to change approaches. A cost build-up approach, incorporating a consistent retail allowance above costs regardless of region, addresses the regional variation in retail margins. It also enhances transparency by identifying separate retail cost and allowance components and ensures that actual changes in retail costs will be recovered in future DMO prices.

In relation to concerns that the new approach is closer to price regulation based on efficient costs, our primary consideration is that the DMO price achieves its own policy objectives. These have not changed under the recent review of the Regulations, and DISER consultation documents have emphasised the role of the DMO to offer fallback protection.[53] As discussed in chapter 2, we consider that the DMO 4 price appropriately balances these objectives and that the retail allowances we have set are well above the level set by

[50] 1st Energy, *Submission to DMO 4 draft determination,* 17 March 2022, p. 1;Australian Energy Council, *Submission to DMO 4 draft determination,* 17 March 2022, p. 1; Momentum Energy, *Submission to DMO 4 draft determination,* 17 March 2022, p. 1; Origin, *Submission to DMO 4 draft determination,* 17 March 2022, p. 5-6; Simply Energy, *Submission to DMO 4 draft determination,* 17 March 2022, p. 1-2; Tango Energy, *Submission to DMO 4 draft determination,* 17 March 2022, p. 1.

[51] 1st Energy, *Submission to DMO 4 draft determination,* 17 March 2022, p. 1; Alinta, *Submission to DMO 4 draft determination,* 17 March 2022, p. 1; Powershop, *Submission to DMO 4 draft determination,* 17 March 2022, p. 4; Red Energy and Lumo Energy, *Submission to DMO 4 draft determination,* 17 March 2022, p. 1.

[52] Simply Energy, *Submission to DMO 4 draft determination*, 17 March 2022, p. 1-2

[53] Department of Industry, Science, Energy and Resources, *Competition and Consumer (Industry Code – Electricity Retail) Regulations 2019 Post-Implementation Review,* September 2021, p.5 – 6; Department of Industry, Science, Energy and Resources, *Post-implementation review of Competition and Consumer (Industry Code – Electricity Retail) Regulations 2019 Directions consultation Paper,* January 2022 p.6,8.

jurisdictional regulators seeking to set an efficient margin. This is appropriate for the DMO, which is not intended to set an efficient price but instead must balance objectives of protecting customers, enabling retailers to recover costs and incentivising customers to engage in the market.

We acknowledge that regulatory certainty and consistency is important. Our change in approach uses independent and publicly available retail cost information that provides greater certainty and transparency for stakeholders than the step change framework used in DMO 2 and 3. Additionally, we have been clear that we will use the same information sources in future determinations.

7.3 Retail costs

7.3.1 Draft determination

Our draft determination used retail operating cost data from the ACCC Inquiry into the National Electricity Market reports as our base estimate of retail costs. We considered that ACCC data is transparent and a reliable estimation of retailer costs. Compared with alternative sources, it is:

- publicly available on a yearly basis
- comprehensive, covering retailers that sell to around 90% of small customers in DMO regions
- obtained under compulsory powers, with serious consequences for misleading the ACCC.

Because the ACCC does not collect information on some types of costs, we made an additional allowance for:

- advanced meters – we calculated a weighted per-customer price based on the proportion of advanced meter customers in each region and included this in the retail operating cost component[54]
- bad and doubtful debt – we calculated a weighted per-customer cost based on the 3 publicly listed retailers that reported provisions for bad and doubtful debt expenses in their most recent annual reports covering the 2020–21 year.

Unlike costs for advanced meters and bad and doubtful debt, we did not make any adjustment to retail costs to account for the costs retailers face for amortisation and depreciation, which are not captured in the ACCC data. This is because:

- DMO 1 prices were set at the mid-point of the median market and standing offer and allowed recovery of retailer costs including depreciation and amortisation. This was carried through the indexation of the residual component for DMO 2 and 3.
- In DMO 4 we have set target retail allowances of 10 and 15%. These are comparable levels to the overall retail allowances available in previous DMOs.

54 See Appendix D.

- Amortisation and depreciation costs are accounted for within the retail allowance as these categories of expenses were not included in the group of costs deducted from the previous DMO prices to calculate implicit retail allowances.

This approach makes our retail allowance comparable to an EBITDA measure of retail margin, which we noted is consistent with that adopted by state economic regulators ESCV, OTTER and ICRC in their electricity pricing decisions and that the total DMO retail allowance would allow retailers to recover depreciation and amortisation expenses. However, the retail allowance is higher than the EBITDA margins set by state economic regulators in order to reflect the additional DMO policy objectives.

7.3.2 Stakeholder submissions

Retailers raised a number of concerns with our proposed approach for retail operating costs. Retailers suggested some options to deal with the perceived risks of using the ACCC data, including:

- applying a contingency or uncertainty allowance, either to the retail cost component or through an increase to the retail allowance[55]
- deferring the introduction of the cost build-up approach for a year and working with retailers to develop data templates for DMO use.[56]

However, ECA considered the ACCC data was an accurate and robust basis for estimating operating costs.[57]

Depreciation and regulatory costs

Retailers argued that the ACCC information requests and reported data were designed for the purpose of reporting, not price regulation. As a result, the data did not reflect some key retailer costs, including depreciation.

Stakeholders noted depreciation costs can be significant. Retailers may invest in IT systems to meet new regulatory requirements such as Consumer Data Right, 5-minute settlement or Better Bills guidelines. These investments could be expensed as depreciation costs over time and would not be captured within the ACCC's cost reporting template.[58] They argued that the treatment of depreciation is complex and suggested we defer implementation of the cost build-up approach until we had undertaken further investigation and consultation.[59]

AGL noted its depreciation costs were large due to significant investment in IT systems for its retail business. It highlighted information from its public financial reports indicating

55 Alinta, *Submission to DMO 4 draft determination,* 17 March 2022, p. 3; Simply Energy, *Submission to DMO 4 draft determination,* 17 March 2022, p. 3.
56 Red Energy and Lumo Energy, *Submission to DMO 4 draft determination,* 17 March 2022, p. 3.
57 ECA, *Submission to DMO 4 draft determination,* p. 1.
58 Australian Energy Council, *Submission to DMO 4 draft determination,* 17 March 2022, p. 2; AGL, *Submission to DMO 4 draft determination,* 17 March 2022, p. 2; EnergyAustralia, *Submission to DMO 4 draft determination,* 17 March 2022, p. 4-6; Momentum Energy, *Submission to DMO 4 draft determination,* 17 March 2022, p. 2; Red Energy and Lumo Energy, *Submission to DMO 4 draft determination,* 17 March 2022, p. 2-3.
59 EnergyAustralia, *Submission to DMO 4 draft determination,* 17 March 2022, p. 7.

depreciation costs of around $134 million in 2020–21 for its retail business (encompassing gas customers, small business and residential).[60]

Tier 2 retailer costs

Several retailers noted the ACCC data was a weighted average of retail costs reported by the 15 largest retailers and did not reflect the generally higher costs to serve faced by smaller retailers. They considered this could affect the viability of smaller retailers and was not consistent with the DMO objectives to have incentives for competition.[61]

Lagged cost recovery adjustment

Several retailers noted that the ACCC retailer costs are backwards looking and will not reflect all the costs that retailers are likely to face in the DMO 4 period.[62] They recommended including an adjustment to take into account the 2-year lag in cost recovery.[63]

Precision of ACCC cost allocation

Retailers argued there is a false precision to the ACCC data. Retailers have encountered difficulties allocating costs among different NEM regions and customer types as required by the ACCC. There is a risk that retailers will have different interpretations of the line items within the ACCC's information request.

Bad and doubtful debt

While some retailers welcomed our consideration of bad and doubtful debt as a retail cost, some considered our estimates were well below what retailers would face in 2022–23. This was due to factors such as the ongoing impact of the COVID-19 pandemic and restrictions on retailers' debt recovery activities under the AER's Statement of Expectations.[64]

Customer acquisition and retention costs

PIAC argued that we should not include the ACCC's subset of retailer costs known as customer acquisition and retention costs (CARC) because customers on the DMO, unlike customers engaged in the competitive market, do not require acquiring or retaining by the retailer. PIAC suggest that CARC could be recovered solely through market offers or indirectly through the 'reinvestment' of retail margin for the purpose of business growth.

60 AGL reported 4.208m customers and $134m depreciation expenses attributable to Customer Markets in its 2020-21 Annual Report 2020-21, p. 17, 36. This averages to $32/customer or $35/customer including GST.

61 Simply Energy, *Submission to DMO 4 draft determination,* 17 March 2022, p. 2.; Momentum Energy, *Submission to DMO 4 draft determination,* 17 March 2022, p. 2; 1st Energy, *Submission to DMO 4 draft determination,* 17 March 2022, p. 1; Origin, *Submission to DMO 4 draft determination,* 17 March 2022, p. 6; Alinta, *Submission to DMO 4 draft determination,* 17 March 2022, p. 3; Red Energy and Lumo Energy, *Submission to DMO 4 draft determination,* 17 March 2022, p. 3.

62 Australian Energy Council, *Submission to DMO 4 draft determination,* 17 March 2022, p. 2; Powershop, *Submission to DMO 4 draft determination,* 17 March 2022, p. 2; Red Energy and Lumo Energy, *Submission to DMO 4 draft determination,* 17 March 2022, p. 3.

63 Australian Energy Council, *Submission to DMO 4 draft determination,* 17 March 2022, p. 2; Alinta, *Submission to DMO 4 draft determination,* 17 March 2022, p. 3; EnergyAustralia, *Submission to DMO 4 draft determination,* 17 March 2022, p. 8.

64 Alinta, *Submission to DMO 4 draft determination,* 17 March 2022, p. 3.

Advanced meter costs

Retailers and Vector, an accredited metering provider, supported our inclusion of metering costs.[65] In contrast, PIAC did not support any adjustment for metering costs in DMO 4. It considered there was not sufficient information about how retailers recovered these costs and said we should wait until the AEMC completes its review of metering.[66]

EnergyAustralia highlighted that our advanced meter cost calculation did not take into account retailers' residual liability for the capital costs of accumulation meters when these are removed before their 'end of life', such as in the case of customer-requested replacement or solar installation.[67]

7.3.3 Final determination

Depreciation

We do not consider that a separate allowance for depreciation under our cost build-up methodology is required to meet the DMO objectives. Our approach sets a retail allowance on top of costs incurred by the retailer. Depreciation is not added as a retail cost and it is instead assumed that retailers will recover it out of the allowance. Our approach is comparable to the approaches adopted by jurisdictional regulators, such as the ESCV, ICRC and OTTER, which set retail margins on the expectation that retailers will recover depreciation costs from this component of the regulated price (in accounting terms, they set an EBITDA margin).[68]

The DMO 1 prices were set at the midpoint of the median market and median standing offers in October 2018, and placed above typical market offers.[69] The residual component, which was the amount in the DMO price left after wholesale, environmental and network costs, captured all relevant retail costs that a retailer would recover, including bad and doubtful debt, depreciation and margin.

In setting retail allowances in DMO 4 under a cost build-up approach, we estimated the retail allowance as a percentage of the DMO 1 and DMO 3 prices. We did this by subtracting corresponding ACCC retail and other costs, advanced meter costs and bad and doubtful debts from the DMO 1 and DMO 3 residuals, leaving retailer earnings, interest costs, tax liabilities and depreciation. Therefore, these were equivalent to EBITDA retail margins. As discussed in our draft determination,[70] the target retail allowances of 10% and 15% provide retail allowances that are in aggregate equivalent to the amounts in DMO 1 and 3, redistributed across DMO regions and customer types so it is more equitable. We consider these retail allowances allow recovery of depreciation expenses.

65 Alinta, *Submission to DMO 4 draft determination,* 17 March 2022, p. 3; EnergyAustralia, *Submission to DMO 4 draft determination,* 17 March 2022, p. 7; Origin, *Submission to DMO 4 draft determination,* 17 March 2022, p. 7; Powershop, *Submission to DMO 4 draft determination,* 17 March 2022, p. 3; Momentum Energy, *Submission to DMO 4 draft determination,* 17 March 2022, p 3; Simply Energy, *Submission to DMO 4 draft determination,* 17 March 2022, p 3-4.

66 Public Interest Advocacy Centre, *Submission to DMO 4 draft determination,* 17 March 2022, p. 1-2.

67 EnergyAustralia, *Submission to DMO 4 draft determination,* 17 March 2022, p. 7.

68 Earnings before Interest, Taxes, Depreciation and Amortisation.

69 AER, *Final Determination Default Market Offer Prices 2019-20*, April 2019, p. 60-62.

70 AER, *Default Market Offer Draft Determination 2022-23*, February 2022, p. 45.

We have tested the impact of depreciation costs on the retail allowance in section 7.5. This analysis shows that retailers will continue to make a reasonable profit after depreciation is taken into account.

Regulatory costs

We have not made any change to our draft position on retail costs to account for retail operating costs for regulatory changes. We have confirmed that the ACCC information request template categories[71] are intended to capture retailer operational expenditure to meet regulatory requirements. For example, the ACCC's guidance to retailers highlights that:

- The 'billing' line item under 'costs to serve' should include costs incurred by a company to prepare and send invoices to customers[72] and could include future operational costs for the upcoming Better Bills regulatory requirements.
- The 'customer service and IT' line item under 'costs to serve' should include costs associated with maintaining the company's information technology systems[73] and could include future operational costs for the upcoming consumer data right regulatory requirements.
- The 'other costs to serve' should capture any regulatory costs that do not fall into the above categories.

While we acknowledge there will be a delay for retailers to recover these costs, retailers can have confidence that these will be recovered in a future DMO determination.

Tier 2 retailer costs

The ACCC has observed that Tier 2 retailers have higher operating costs than Tier 1 retailers and the overall average ($57 higher than overall average retailer costs).[74]

This is likely due to achieved economies of scale for the larger retailers. Tier 1 retailers may make more up-front capital investments in IT infrastructure, which are expensed as depreciation and not captured in ACCC retail costs. In contrast, smaller retailers may have a greater reliance on contracting out to service providers, which would appear as retailer operating costs.

As with the issue of depreciation expenses, we have conducted further analysis in section 7.5 to test what impact a $57 increase in retail costs would have on the available retail allowance. This shows that retailers with this level of costs could still receive an allowance similar to or exceeding the margins allowed by other regulators, particularly once the transitional allowance pathway is complete. Therefore, we are satisfied that the DMO objectives will be met for a retailer with operating costs that are higher than average.

We further note that:

71 'costs to serve', 'costs to acquire and retain' and 'other retailer costs.

72 ACCC, *Inquiry into the National Electricity Market November 2021 report*, Appendix C, p. 50.

73 Appendix C ACCC November 2021 report, p. 51-52.

74 ACCC, *Inquiry into the National Electricity Market November 2021 report*, Appendix E, Tables E8.1B, E8.7A and E8.10A.

- Tier 1 retailers have 90% of standing offer customers[75] and are significantly more impacted by the DMO in its role as a price cap for these customers than Tier 2 retailers.
- The retail operating costs included in the DMO are similar to or higher than that allowed by other regulators. Our allowance for retail costs (excluding advanced meters) of $175 to $177 for residential and $197 to 254 for small business customers are comparable with that set by ESCV ($206). They are higher than those allowed by ICRC ($128) and OTTER ($156).
- Tier 2 retailers have mostly market offer customers, who are not subject to the DMO price cap. In DMO regions, 96% of residential and 90% of small business Tier 2 customers are on market offers.[76] These retailers will be predominately affected by the DMO in its capacity as a reference price for currently advertised market offers but, given that smaller retailers compete on aggressively priced market offers that are often lower than the Tier 1 retailers, their market offers would still be the lowest relative to the DMO 4 reference price.

Lagged cost recovery adjustment

A lagged cost recovery adjustment could be warranted under a cost build-up approach establishing an efficient price. This would work by adjusting future DMO prices to account for capital holding costs arising from any difference between actual retail costs and the amount retailers were allowed to recover in previous DMOs. However, we do not consider a lagged cost recovery adjustment is required to meet the DMO objectives given our 10% and 15% retail allowances. It would also create additional unnecessary complexities in determining DMO prices because it would require a back-calculation of costs. We also note that this could result in an adjustment in costs in either direction. If the actual costs in DMO 4 were lower than what we allowed retailers to recover based on ACCC 2020–21 retail operating costs, then a lagged cost recovery adjustment should be negative in a future DMO to reflect the up-front over-recovery of retail costs during the DMO 4 period.

Precision of ACCC cost allocation

The ACCC November 2021 report noted that some retailers did not record certain categories of costs in a way that aligned with the data definitions requested by the ACCC. For example, some retailers did not record costs separately for residential and small business customers or on a region-by-region basis.

In such cases, the ACCC asked retailers to apply an allocation methodology when reporting data to the ACCC. Where this was not done by the retailer, the ACCC applied its own allocation methodology.[77]

To further inform our views on these issues, we sought further information from the ACCC on its approach to allocating costs where it needed to.

75 AER Retail Performance Reporting data, Q3 2021-22.
76 AER Retail Performance Reporting data, Q3 2021-22.
77 ACCC, *Inquiry into the National Electricity Market November 2021 report*, Appendix B p. 47.

It confirmed that retailers that provide cost information to the ACCC typically claimed confidentiality over their responses, including the allocation approaches they used, and consequently the ACCC is not in a position to discuss specific approaches.

However, it has confirmed that its overarching approach recognises that retailers have very different allocation methodologies due to different data systems and business structures, which means that in practice its analysis relies on a range of allocation methodologies. Where necessary, it engages with retailers to understand and improve allocation methodologies, and its general practice is to discuss any material allocation issues with the relevant retailers.[78]

Our view is that the ACCC's allocation approach is reasonable, robust and provides retailers with the opportunity to ensure that the costs they report reflect the intention and operation of individual retailers. We have no reason to think that costs reported on this basis would be less accurate than costs reported under a one-size-fits-all approach.

More generally, we consider the ACCC's measures to ensure the accuracy and quality of retailer information are robust. These include:

- including standardised definitions for each cost stack quantity and data field that retailers are required to provide in their response to the ACCC information request[79]
- undertaking a quality assurance process that includes examining the returned data for inconsistencies, omissions and potential errors and crosschecking it against other data sources, such as public data from the AER. It queries retailers on any large or unexpected movements in their data relative to previous years.[80]

Further, the additional information provided by the ACCC confirms our view that the development of DMO-specific information templates, as suggested by some retailers, is unlikely to solve cost allocation issues, would be complex and challenging, and would impose significant administrative burden on the retailers, adding cost pressure to retail bills.

Bad and doubtful debt

Our DMO methodology includes an allowance for bad and doubtful debts by taking the weighted average bad and doubtful debts from the 3 publicly listed retailers (AGL, Origin and Red-Lumo) that report these costs. We expect that in the event bad and doubtful debts increase during the DMO 4 period, they will be reported by the publicly listed retailers in their 2022–23 annual reports and would be reflected in the DMO 6 price under our DMO methodology.

Customer acquisition and retention costs

The Regulations require us to have regard to all costs including CARC.[81] Therefore, we will use the ACCC's retail and other operating costs (which includes CARC) in our DMO prices.

78 Correspondence with ACCC staff, April 2022.
79 ACCC, *Inquiry into the National Electricity Market November 2021 report*, Appendix C p. 50-53.
80 ACCC, *Inquiry into the National Electricity Market November 2021 report*, Appendix B p.48.
81 Regulations, s. 16(iv).

Advanced meter costs

We agree with EnergyAustralia's submission that residual capital meter costs are relevant costs to take into account when calculating advanced metering allowance.

To calculate these costs, we have used the summed proportion of all advanced meters installed before the technical end of life of the replaced accumulation meter. These include advanced meters installed when a customer installs solar or moves to a cost-reflective retail offer, advanced meters installed due to faulty accumulation meters, and advanced meters installed under a new meter deployment reported by retailers in the AER retail performance reports. This is approximately 80% nationally.[82]

This adjustment has a $0.30 to $4.42 impact on the metering cost component, compared with the draft determination, depending on customer type and region.

Calculations for each region are included in Appendix D.

We note PIAC's concerns that there are some uncertainties as to how retailers recovered these costs. Retailers responding to our information request provided average annual ongoing costs of smart meters. For some retailers their average annual ongoing costs included recovery of installation costs because these were part of the contract with a third-party metering coordinator, but for other retailers these costs were excluded from the calculations. Some retailers noted that they do not pass on metering installation costs through one-off fees to customers. We have reviewed the website of each retailer with market offers on the Energy Made Easy website and found that AGL and EnergyAustralia do not charge up-front fees for smart meter installation,[83] but Origin may charge up to $150 if additional work is required.[84] Practices vary by retailer – a number of retailers explicitly stating they do not charge up-front fees for installing meters,[85] others charge an up-front administration or metering fee ranging from $49.50 to $149,[86] and other retailers do not explicitly state one way or the other on their website.[87]

Due to the uncertainty in how all retailers would recover costs incurred when installing advanced meters, we acknowledge there is a risk that our estimate of our advanced meter costs may include a portion of ongoing advanced meter costs that some retailers may recover through one-off fees.

82 AER Retail Performance Reporting data, Q3 2021-22, schedule 2.

83 https://www.energyaustralia.com.au/home/help-and-support/faqs/powerofchoice, accessed 14 April 2022; https://www.agl.com.au/help-support/energy/meters-and-reads/meters/digital-meters, accessed 14 April 2022.

84 Origin Energy, *Meter Installation, alteration and abolishment fees*, October 2021, p. 3-5, Appendix A. https://www.originenergy.com.au/wp-content/uploads/fees_tables_all_states_Oct2021.pdf, accessed 14 April 2022.

85 Amber, CovaU, Diamond Energy, Mojo, Ovo Energy, Pooled Energy, Powershop, Qenergy, Simply Energy and Social Energy.

86 Energy Locals, https://supportcentre.energylocals.com.au/hc/en-au/articles/4410322486297-New-meter-request, accessed 14 April 2022; Kogan, https://www.koganenergy.com.au/smart-meter-request/, accessed 14 April 2022; Powerclub, https://powerclub.com.au/fees-and-charges/smart-meter, accessed 14 April 2022; Radian Energy, https://radian.com.au/policies, accessed 14 April 2022.

87 Alinta, Discover Energy, Bright Spark, Dodo, Electricity in a box, Elysian, Enova, Future X, GEE Energy, Globird, Glow Power, Momentum, Nectr, People Energy, ReAmped, Red, Smart, Tango.

However, we are satisfied that advanced meters do incur significant costs for retailers, which are not captured in the ACCC retailer operating costs, and that there is a greater risk of the DMO 4 price failing to meet the DMO objectives if our estimate of these costs are not included in the DMO 4 price. Because these costs exist and will continue to be incurred in DMO 4 and future DMOs, we do not consider it warranted to delay reflecting these costs in the DMO price until after the AEMC finishes its smart meter review.

7.4 DMO retail allowance

7.4.1 Draft determination

Our draft determination position was that DMO prices should include the same retail allowance within each customer type, regardless of region. We noted:

- this approach provides a consistent balance of the DMO objectives and more equitable outcomes
- setting the retail allowance as a proportion of the overall bill in each region, rather than a fixed dollar figure, should ensure it moves in step with, and reflects, any different cost structures for a particular region.

Importantly, with retail allowances as low as 1.3% in South Australia, we could not be confident that the DMO would continue to maintain incentives for competition, innovation and investment. Similarly, with effective allowances at nearly 30% for small business customers in NSW, we could not be confident the DMO was protecting consumers from unjustifiably high prices.

Our draft determination was to set the retail allowance, encompassing retail margin and additional DMO retail allowance, at 10% of the total bill for residential customers and at 15% for small business customers. These allowances are higher than what has previously been available under the DMO in some regions and lower in others.

To minimise any potential negative impacts of a sudden large change in retail allowance, we proposed to transition to these targets over the next 3 DMO determinations so that they are fully in place in all regions for DMO 6 (in 2024–25).

7.4.2 Stakeholder submissions

A number of stakeholders raised concerns with our proposed approach to setting retail allowances.

Some stakeholders considered our proposed retail allowances for residential and small business customers were subjective judgement calls that needed further justification.[88]

Some stakeholders considered our approach to determining the residential and small business allowances to be inconsistent, noting that the small business retail allowance was

[88] Australian Energy Council, *Submission to DMO 4 draft determination,* 17 March 2022, p. 4; Origin, *Submission to DMO 4 draft determination,* 17 March 2022, p. 7, Powershop, *Submission to DMO 4 draft determination,* 17 March 2022, p. 3; ReAmped Energy, *Submission to DMO 4 draft determination,* 17 March 2022, p. 3.

at the lower range of previous DMO margins, whereas the residential retail allowance was towards the upper end of the range of previous DMO margins.[89]

Some retailers expressed concerns about the uncertainty of the retail allowances in future DMO determinations, and that the retail allowance could be arbitrarily set by the AER and influenced by political factors, such as a desire to keep the DMO lower by setting a low retail allowance to offset increases in other costs.[90]

The SA Department for Energy and Mining considered the increase from an effective 1% retail allowance in DMO 3 to a 10% retailer allowance (even transitioned over multiple DMOs) to be a significant increase.[91] PIAC considered a smooth transition upwards in South Australia was consistent with protecting consumers but a smooth transition downwards for small business retail allowance in other regions was not consistent with this objective and instead should be implemented immediately to also protect small business consumers.[92]

Alinta considered that a uniform allowance does not reflect varying competitive dynamics, risk profiles and market conditions across jurisdictions in different regions.[93] The SA Department for Energy and Mining considered that retail allowance, like other cost components in the DMO, should be based on the particular region's data and, given that competition in South Australia was strong, there was no need for higher margins than in DMO 3.[94]

Some retailers submitted that retail margin and an allowance to meet the DMO objectives should be calculated separately to be more transparent and objective.[95] Origin noted that the retail allowance is not solely profit margin and that the AER needs to be clear whether the margin is based on estimated returns or EBITDA margin.[96]

Some retailers expressed concerns that the proposed margins were not high enough to recover efficient costs[97] or to allow for errors in forecasting retail and wholesale costs.[98] ReAmped considered the impacts of war in Ukraine have not been fully reflected in the current forecast CPI and that there should be sufficient headroom to absorb reasonable

89 AGL, *Submission to DMO 4 draft determination,* 17 March 2022, p. 3; Public Interest Advocacy Centre, *Submission to DMO 4 draft determination,* 17 March 2022, p. 2.

90 Australian Energy Council, *Submission to DMO 4 draft determination,* 17 March 2022, p. 4; Powershop, *Submission to DMO 4 draft determination,* 17 March 2022, p. 3.

91 Department of Energy and Mining, *Submission to DMO 4 draft determination,* Energy and Technical Regulation Division, South Australian Government, 17 March 2022, p. 2.

92 Public Interest Advocacy Centre, *Submission to DMO 4 draft determination,* 17 March 2022, p. 2.

93 Alinta, Submission to DMO 4 draft determination, 17 March 2022, p. 3.

94 Department of Energy and Mining, Submission to DMO 4 draft determination, Energy and Technical Regulation Division, South Australian Government, 17 March 2022, p. 2.

95 AGL, Submission to DMO 4 draft determination, 17 March 2022, p. 3; Origin, Submission to DMO 4 draft determination, 17 March 2022, p. 7; Simply Energy, Submission to DMO 4 draft determination, 17 March 2022, p. 3.

96 Origin, Submission to DMO 4 draft determination, 17 March 2022, p. 7.

97 EnergyAustralia, Submission to DMO 4 draft determination, 17 March 2022, p. 2.

98 Alinta, Submission to DMO 4 draft determination, 17 March 2022, p. 4; AGL, Submission to DMO 4 draft determination, 17 March 2022, p. 3; Simply Energy, Submission to DMO 4 draft determination, 17 March 2022, p. 3.

increases.[99] Powershop considered there may not be enough funds for industry to invest in innovation required to adapt to the current energy transition.[100]

Retailers warned that if the DMO price is too low as a result of how the allowance and retail costs were calculated, this would negatively impact competition by:

- leading customers to think they did not need to shop around for a better offer[101]
- reducing the spread of market offers and reducing incentives to shop around[102]
- diluting investment signals for smaller retailers because it is harder to compete, eventually restricting competition and entrenching incumbent retailers, which would not be in the long-term interests of consumers[103]
- leading to unintended consequences, with some retailers potentially exiting certain regions and segments.[104]

In contrast, ECA submitted that the proposed retail margins were too high and did not meet the DMO objective of protecting customers from unreasonably high prices. ECA argued the retail margins should be similar to standing offer margins in jurisdictions where efficient-cost price regulation is in effect, noting:

- there is significant competition and innovation present in some regions
- the implied margins in previous DMO decisions are not relevant to today's market conditions
- CARC is already included in our estimate of retail costs, so there was no need for an additional allowance for competition within the retail allowance.[105]

Origin recommended that the AER allow an ex-post assessment so that we can make an informed judgement on what needs to be adjusted and why in future DMO determinations.[106]

The SA Department for Energy and Mining also noted that our proposed approach of setting a retail margin as a fixed percentage of the total DMO price would result in larger retail allowances in dollar terms if other cost components increased.[107]

7.4.3 Final determination

We consider the overall level of retail allowance across the DMO was appropriate in previous DMO determinations. We also acknowledge ECA and PIAC's concerns that the proposed retail allowances are too high. However, we consider them to be commensurate with the function of DMO as a fallback that protects customers from unreasonably high prices rather than an efficient price. We observed that since the introduction of the DMO new retailers

99 ReAmped Energy, *Submission to DMO 4 draft determination*, 17 March 2022, p. 2.
100 Powershop, *Submission to DMO 4 draft determination*, 17 March 2022, p. 3.
101 Powershop, *Submission to DMO 4 draft determination*, 17 March 2022, p. 3.
102 Energy Consumers Australia, *Submission to DMO 4 draft determination*, 17 March 2022, p. 2.
103 Tango Energy, *Submission to DMO 4 draft determination,* 17 March 2022, p. 2.
104 Red Energy and Lumo Energy, *Submission to DMO 4 draft determination*, 17 March 2022, p. 1.
105 Energy Consumers Australia, *Submission to DMO 4 draft determination,* 17 March 2022, p. 1.
106 Origin, *Submission to DMO 4 draft determination,* 17 March 2022, p. 7.
107 Department of Energy and Mining, *Submission to DMO 4 draft determination,* Energy and Technical Regulation Division, South Australian Government, 17 March 2022, p. 3.

were continuing to enter the market, price dispersion among market offers did not contract and the proportion of customers on standing offers remained low. We have examined the total retail allowance in previous DMO determinations available across all DMO regions and are not intending to substantially reduce nor increase this overall retail allowance for DMO 4.

However, we were concerned with the previous variation in retail allowance from region to region. We consider that consumers in NSW, south-east Queensland and South Australia should pay the same retail allowance for the same product. We retain our concerns that low retail allowances in South Australia would present risks to competition, and higher retail allowances in NSW risk the DMO objective of protecting consumers on standing offers from unreasonably high prices. Setting a consistent retail allowance across regions means retailers will be able to achieve a reasonable margin overall without support from higher margin customers in other regions.

We have set the 10% residential retail allowance, which is consistent with the weighted average for residential customers across DMO regions. We have set the 15% small business retail allowance because it is at the lower end of previous small business allowances and enables the DMO prices to maintain approximately the same aggregate level of allowance across the DMO regions and customers.

We are satisfied that higher retail allowance for small business customers meets the DMO objectives because it also reflects the different market characteristics of this customer type. In its November 2021 report, the ACCC observed NEM-wide retail margins for small businesses to be 0.5c/kWh or 60% higher than for residential customers.[108] A higher margin is also appropriate because small business customers pose distinct risks. We note that the average debt per small business customer is around 2.5 times greater than for residential customers.[109]

In redistributing the retail allowance, we took care to broadly maintain the same volume of allowance available in the market in each year of our transition path. Our proposed retail allowance transition path across DMO 4, 5 and 6 provides a reasonably smooth (although not identical) shift to the 10% and 15% targets across all 5 regions without significantly reducing or increasing the aggregate amount of allowance available across the DMO regions in any given year.

Overall, we consider that the transition path appropriately balances the impacts of the change to the cost build-up approach on retailers and consumers.

We acknowledge retailers' concerns about our approach to retail allowances that not all retailers, such as retailers with high amounts of depreciation expenses or smaller retailers that could have higher retail operating costs, may be able to make a reasonable profit. We have conducted analysis testing the impact of varying costs faced by different retailers on the nominal retail allowance in section 7.5.

108 ACCC, *Inquiry into the National Electricity Market November 2021 report*, Appendix E, Supplementary Table E4.1 A, E4.8 A.

109 AER Retail Performance Reporting Q3 2021-22, schedule 3.

7.5 Retail allowance analysis

To evaluate retailers' concerns about our use of ACCC data, and ECA and PIAC's concerns about the amount of retail allowance included int the DMO 4 prices, we have analysed the impact of depreciation costs and Tier 2 operating costs on the DMO retail allowance.

Table 7.3 in section 7.6 sets the retail allowances for each of the 15 DMO prices. We have included the charts setting out this analysis in Appendix G, but summarise the findings of this stress test below.

Analysis of depreciation costs

While several retailers' submissions mentioned depreciation, only 2 provided some form of cost information. One of these provided separate confidential estimates of depreciation costs for residential and small business electricity customers. The other, AGL, provided public information from its 2020–21 annual report showing total depreciation expenses of $134 million for its retail business (encompassing gas and telecommunication customers as well as electricity).[110]

Based on this limited information it is difficult to assess the extent to which the information reflects other retailers' costs. However, for the purposes of analysis we have tested what percentage allowance remains after deducting a hypothetical:

- $30 per customer depreciation cost from the residential retail allowance in each region
- $110 from the small business retail allowance.

We note that by treating nominal depreciation costs as a retail cost for this analysis, the resulting nominal DMO allowance is equivalent to an earnings before interest and taxes (EBIT) retail margin, in accounting terms. As we have noted elsewhere, Australian regulators have set allowed margins on the basis that retailers will recover any depreciation costs from that component of the regulated price (that is, EBITDA margins).

Residential customers

Adding a hypothetical $30 on to the ACCC's **average residential** retail costs (that is, our base DMO 4 retail cost figure), we found effective DMO 4 retail allowances would range from 4.4% (SAPN) to 8.8% (Endeavour and Essential controlled load customers).

- Due to the transition path, by DMO 6 the effective margins would range from 8.0% (Ausgrid) to 8.8% (SAPN, Endeavour and Essential controlled load customers).

Adding a nominal $30 to the ACCC's **average Tier 1** retail costs, we found the effective DMO 4 retail allowances would range from 5.7% (SAPN) to 9.8% (Endeavour and Essential controlled load customers).

- By DMO 6, the effective margins would range from 9.6% (Ausgrid, Energex) to 9.8% (SAPN, Endeavour and Essential controlled load customers).

[110] AGL reported in its 2020-21 Annual Report $134m of depreciation expenses among 4.208m customers mass market customers. This is approximately $32/customer or $35 including GST. AGL 2020-21 Annual Report, p.17,36.

The analysis indicates that, except for the SAPN region in DMO 4, retailers with this level of depreciation costs would achieve EBIT margins that are higher than the EBITDA margins by ESCV, ICRC and OTTER allowed EBITDA margins. As we have noted, these range from 5% to 6%.

While the 4.4% effective margin in the SAPN region is slightly below this range, it is higher than:

- the –1% EBITDA margin identified by the ACCC as what retailers achieved in the competitive South Australian retail energy market in 2020–21
- the 1.3% to 4% nominal retail allowances available under previous DMO prices for the SAPN region.

Small business customers

Adding a hypothetical $110 to the ACCC's **average small business** retail costs (that is, our base DMO 4 retail cost figure), we found effective DMO 4 retail allowances would range from 12.6% (SAPN) to 22.5% (Ausgrid).

- By DMO 6 the effective retail allowances would range from 11.7% (Energex) to 12.6% (SAPN and Essential).

Analysis of Tier 2 retail costs

To test retailers' concerns that our use of average retail costs would affect the DMO objectives for Tier 2 retailers, we have analysed the impact on the DMO allowance of adding $57 to the DMO retail cost component.

Residential customers

Adding $57 to the ACCC's average retail costs, we found a retailer with these costs would achieve effective DMO 4 EBITDA retail allowances ranging from 2.9% (SAPN) to 7.7% (Essential controlled load customers).

While these figures suggest retailers with this level of costs would have less scope to offer discounts off the reference price and make a return in comparison to a retailer with lower costs in DMO 4, we consider such a retailer would still make a reasonable profit and have incentives to innovate and invest. We note:

- the effective 2.9% residential retail allowance in SAPN in the DMO 4 is greater than what was available under DMO 3
- by DMO 6 the effective retail allowances available to retailers with these costs would range from 6.2% (Ausgrid) to 7.7% (Essential controlled load customers).

Adding a hypothetical $30 depreciation costs in addition to the ACCC's Tier 2 operating costs, we found effective EBITDA DMO 4 retail allowances ranging from 1.3% (SAPN) to 6.5% (Essential controlled load customers).

We consider that this a highly conservative assumption, given that Tier 1 retailers, who have the highest depreciation costs, tend to have lower retail operating costs.

- By DMO 6 the effective retail allowances available to retailers with these costs would range from 4.2% (Ausgrid) to 6.5% (Essential controlled load customers).

We acknowledge that, even with the completed transition to a 10% retail allowance in DMO 6, retailers with average Tier 2 operating costs and high depreciation costs may have effective retail allowances in some regions that are below the efficient margins set by ESCV, ICRC and OTTER. However, Tier 2 retailers generally do not have many customers on standing offers, so are mainly impacted by their ability to discount off the DMO reference price.

In practice, higher retail costs do not appear to have prevented Tier 2 retailers from competing aggressively on price. For instance, the lowest residential Tier 2 market offer is $35 to $292 below the lowest Tier 1 offer (in May 2022) and would have a further 1% to 16% discount off the DMO 4 reference price compared with the median Tier 1 offer, which is 12% to 26% below the DMO 4 reference price.

Conclusion

Our analysis above shows that, for residential and small business customers, retail allowances are sufficiently high that even retailers with higher than average costs will be able to make a reasonable profit and have incentives to innovate and invest. However, this analysis also demonstrates that the retail allowance is not unreasonably high, as smaller retailers with these higher costs would have difficulties competing and making a reasonable profit if allowances were lower.

While this capacity is more constrained in SAPN and Energex for retailers with significantly higher costs in DMO 4, the transition to consistent retail allowances means this impact will be short term.

Based on the analysis we are satisfied that the DMO 4 price, based on the ACCC's average retail costs (plus our adjustments for bad debt and advanced meters), meets the objectives without the need for adjustments for depreciation or to reflect Tier 2 retail costs. We are also satisfied that the retail allowances in the DMO 4 price protect consumers from unreasonably high prices.

7.6 Final determination on overall approach, retail costs and retail allowance

We will adopt a cost build-up approach for DMO 4. As discussed in section 7.1, this approach is the best suited to achieving the DMO policy objectives going forward.

The DMO 4 retail cost component will comprise:

- retail operating costs in the ACCC's November 2021 report as our base estimate of typical retailer operating costs
- an adjustment for bad and doubtful debt, based on publicly reported information
- an adjustment to reflect the costs retailers incur in relation to advanced meters, including the residual capital costs retailers face for accumulation meters that are removed before their end of their operational lives

- a CPI adjustment to bring forward the ACCC's 2020–21 costs to 2022–23 dollars. We have updated the CPI adjustment from the draft determination to reflect the latest RBA forecasts.[111]

Tables 7.1 and 7.2 set out the residential small business and retail costs for DMO 4.

Table 7.1 DMO 2022–23 residential retail costs (ex. GST)

Region	ACCC retail costs	Advanced meter costs	BDD	CPI	Total – retail cost component
Ausgrid (NSW)	$132	$15.12	$25.71	$17.26	$190.09
Endeavour (NSW)	$132	$21.40	$25.71	$17.88	$196.99
Essential (NSW)	$132	$18.03	$25.71	$17.55	$193.29
Energex (SE QLD)	$132	$17.01	$25.71	$17.44	$192.16
SAPN (SA)	$133	$24.28	$25.71	$18.27	$201.26

Table 7.2 DMO 2022–23 small business retail costs (ex GST)

Region	ACCC retail costs	Advanced meter costs	BDD	CPI	Total – retail cost component
Ausgrid (NSW)	$204	$9.22	$25.71	$23.85	$262.78
Endeavour (NSW)	$204	$14.90	$25.71	$24.42	$269.03
Essential (NSW)	$204	$3.87	$25.71	$23.32	$256.90
Energex (SE QLD)	$153	$16.29	$25.71	$19.47	$214.47
SAPN (SA)	$153	$5.98	$25.71	$18.44	$203.13

We will set a retail allowance, encompassing retail margin and an additional allowance to achieve the DMO objectives. The retail allowance will be 10% of the total DMO annual bill for residential customers and 15% for small business customers.

We intend to transition to these target allowances over the DMO 4, 5 and 6 determinations, so that they are fully implemented in all regions for DMO 6. The transition path for this has not changed from the draft determination.

Table 7.3 sets out our final determination on the retail allowances (in percentage terms) that will apply in DMO 4.

[111] The Draft Determination used the RBA's November 2021 Statement on Monetary Policy forecast CPI for 2021-22 and 2022-23 (2.75 and 2.25% respectively). The Final Determination uses the RBA's May 2022 Statement on Monetary Policy forecast CPI for 2021-22 and 2022-23 (5.5 and 4.25%)

Table 7.3 Retail allowances, DMO 2022–23

Region	Customer type	DMO 4 retail allowance ($, % of DMO bill)
Ausgrid (NSW)	Residential without CL	$151 (10%)
	Residential with CL	$212 (10%)
	Small business	$1,090 (25%)
Endeavour (NSW)	Residential without CL	$184 (10%)
	Residential with CL	$238 (10%)
	Small business	$628 (16.6%)
Essential (NSW)	Residential without CL	$209 (10%)
	Residential with CL	$249 (10%)
	Small business	$995 (20.3%)
Energex (SE QLD)	Residential without CL	$136 (8.4%)
	Residential with CL	$196 (10%)
	Small business	$586 (17%)
SAPN (SA)	Residential without CL	$110 (6%)
	Residential with CL	$137 (6%)
	Small business	$681 (15%)

8 Model annual usage

Under Part 3 of the Regulations, we are required to determine 'broadly representative' annual supply amounts for residential and small business customers in each distribution region, from which a DMO price and reference price can be calculated. In this document we refer to annual supply as annual usage.

We must also determine the timing and pattern of supply to residential customers. The Regulations refer to these elements in combination as the 'model annual usage'.

8.1 Draft determination

Our draft determination position was to retain the same annual usage benchmarks for residential customers as in previous determinations. Our analysis of usage data obtained from network providers, and other information, suggested average usage had not changed significantly and was still 'broadly representative' as required by the Regulations.

We proposed not taking into account the usage of TOU customers because these reduce the usefulness of the reference price for the roughly 80% of customers on flat rate tariffs.

For small business customers, our draft determination was to change the annual usage benchmark from 20,000 to 10,000 kWh per year. Reasons for this change included:

- it was more representative of small business customer usage, in particular given the ACCC and network data indicated median or average figures below 10,000 kWh per year
- it provided a more useful reference price for consumers using less than 20,000 kWh per year because it was more effective in identifying the cheapest offers for most users.

Our draft determination for timing and pattern of supply was to retain the main settings from previous determinations but update the usage profiles using new interval meter data obtained from AEMO.

We did not make any changes to our previous methodology considered as part of our options paper consultation. For example, we proposed not to base the TOU profiles solely on the usage of TOU retail tariff customers because this would have only marginal influence.

8.2 Stakeholder submissions

Tango Energy raised model annual usage in their submission, questioning whether it was necessary and efficient to update the TOU profiles each year.[112]

We note patterns of usage for TOU customers are likely to be more dynamic due to the price signals, and there are benefits in the profiles reflecting current usage patterns. Our intention is to keep the same profile structure going forward, so only data values will need to be updated, which should not impose a significant administrative burden.

[112] Tango Energy, *Submission to DMO 4 draft determination*, 17 March 2022, p. 2-3.

8.3 Final determination

Our final determination position on annual usage is unchanged from the draft determination. We will:

- for residential customers, retain the same usage amounts for general usage and controlled usage as in previous determinations – these are set out in Appendix E
- for small business customers, adopt a 10,000 kWh per year annual usage benchmark.

To provide consistency and continuity for stakeholders, our intention is to use these settings for the 2023–24 (DMO 5) and 2024–25 (DMO 6) determinations. Our intention is to review these as part of the next DMO methodology review as part of the 2025–26 (DMO 7) process.

Our final determination for timing and pattern of supply is that we will update the usage profiles using new AEMO interval meter data but retain our key assumptions from previous determinations. That is, we will:

- assume the same usage occurs every day (with no variation for weekday, weekend or season), as in previous determinations
- use the same proportional allocations of annual controlled load usage across multiple controlled loads
- retain a single 24-hour usage profile
- update these using the AEMO interval meter data for each region, averaged over 3 years
- specify usage at 30-minute intervals.

We have updated the single day usage profile and specified usage for each 30-minute interval over a 24-hour period (see Appendix E). We propose to continue to update the profiles with new data each year.

We will continue to review ACCC Electricity Monitoring Inquiry's annual reports examining the usage and prices paid by market and standing offer customers, to inform our understanding of these issues.

Appendices

Appendix A – List of submissions to the DMO 4 options paper

Appendix B – Market offer analysis

Appendix C – Nominal price movements from draft determination to final determination

Appendix D – Advanced meter costs

Appendix E – Legislative instrument

Appendix F – DMO 3 to DMO 4 price movements

Appendix G – Analysis of DMO 4 final retail costs and margins

A List of submissions to the DMO 4 Draft Determination

1. Australian Energy Council (AEC)
2. AGL
3. Alinta Energy
4. Ausgrid
5. Energy Consumers Australia (ECA)
6. EnergyAustralia
7. Enova Energy
8. Momentum Energy
9. Origin Energy
10. Public Interest Advocacy Centre (PIAC)
11. Powershop Australia / Meridian Energy
12. Red Energy / Lumo Energy
13. South Australian Department for Energy and Mining
14. South Australian Council of Social Services (SACOSS)
15. Simply Energy
16. Tango Energy
17. Queensland Energy Users Network (QEUN)

B Market offer analysis for each distribution region

As the agency responsible for determining DMO prices each year, we consider it necessary to understand any DMO-related impacts so they can inform our future DMO price determinations. The purpose of this analysis is to provide a snapshot of how the market has moved immediately following the DMO's introduction.

This section looks at changes to highest, lowest and median market offer prices before and after the introduction of the DMO on 1 July 2019. We have recalculated small business offers at 10,000 kWh annual usage to reflect the updated consumption amount.

Figures B.1 to B.15 show these movements in graph form. These 15 graphs show the offers from Energy Made Easy (EME) for the 3 customer types and 5 distribution regions. To calculate the annual bill amounts from EME data, we used assumptions to allow direct comparison of generally available offers. The list of annual bill calculation assumptions is published in our DMO 2 final determination.

Changes in market offer prices in Ausgrid's region

Figure B.1 Residential flat rate tariff

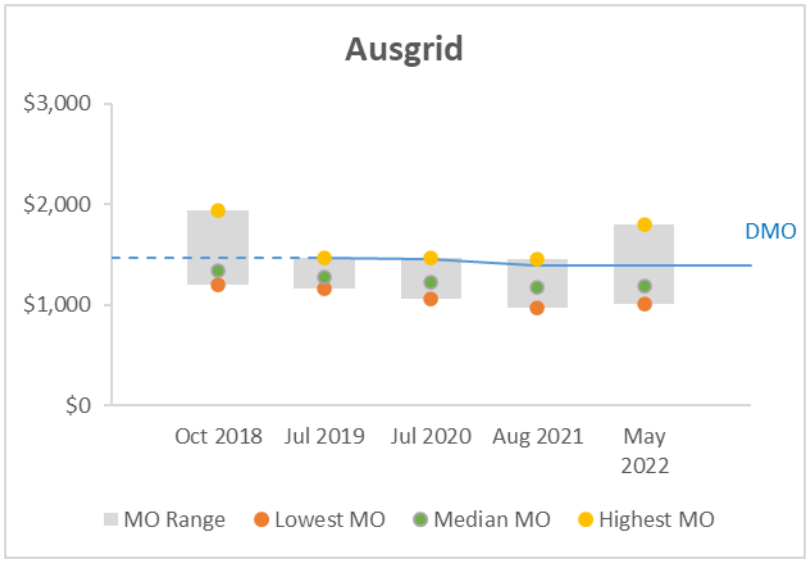


Figure B.2 Residential flat rate tariff with controlled load

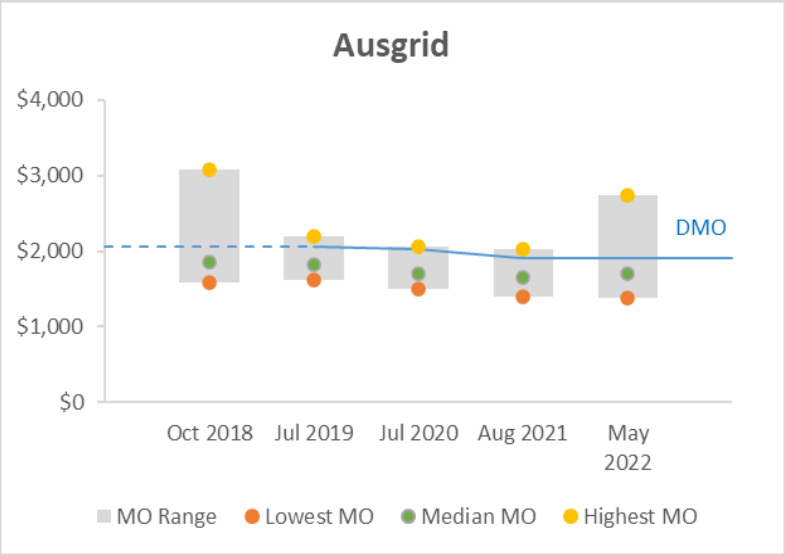
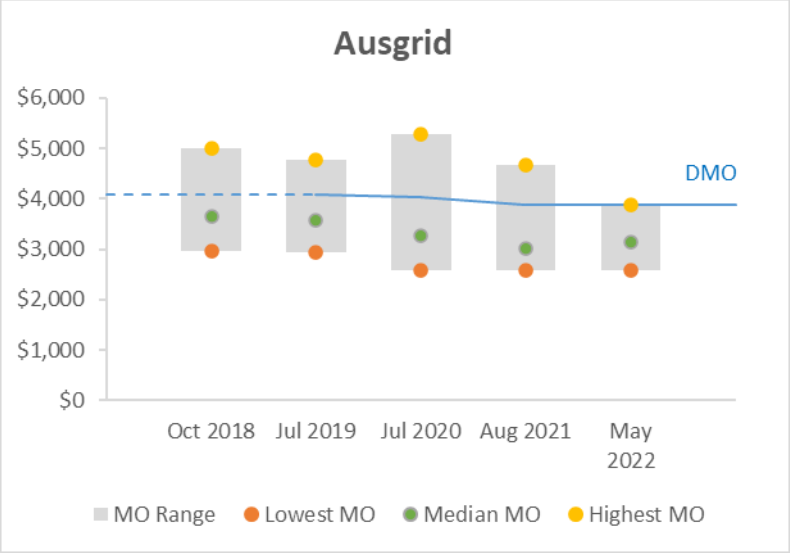


Figure B.3 Small business flat rate tariff



Changes in market offer prices in Endeavour's region

Figure B.4 Residential flat rate tariff

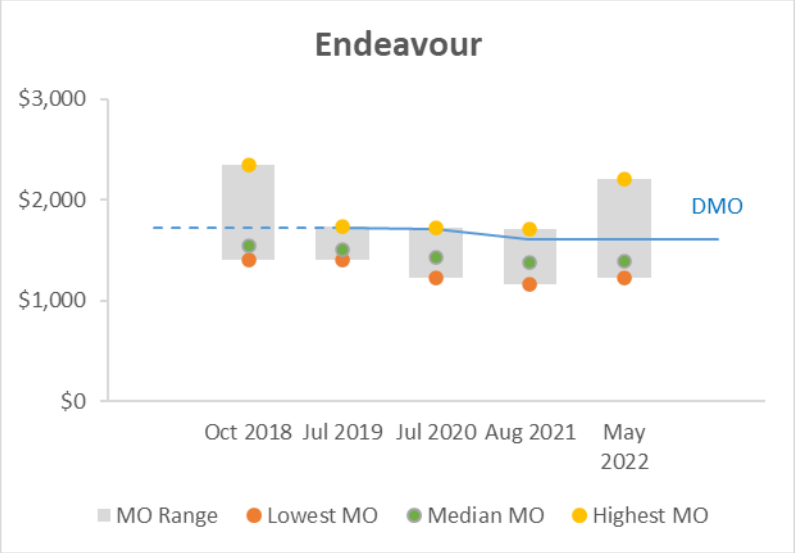


Figure B.5 Residential flat rate tariff with controlled load

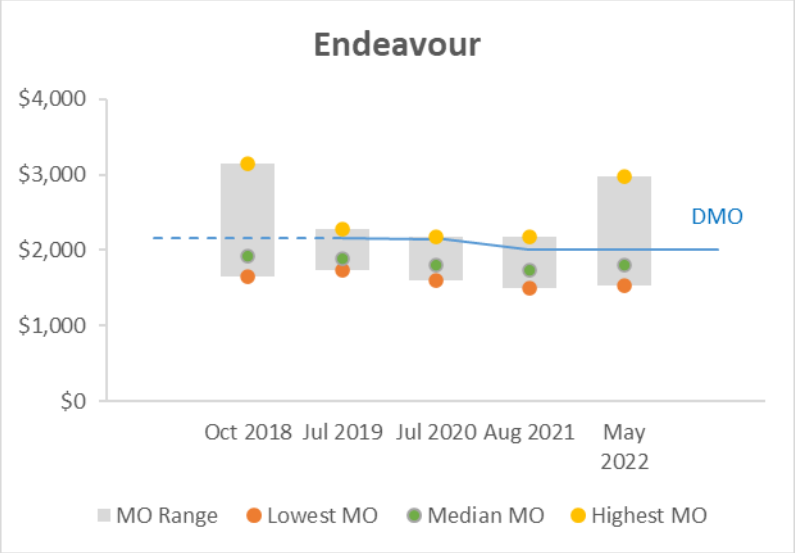
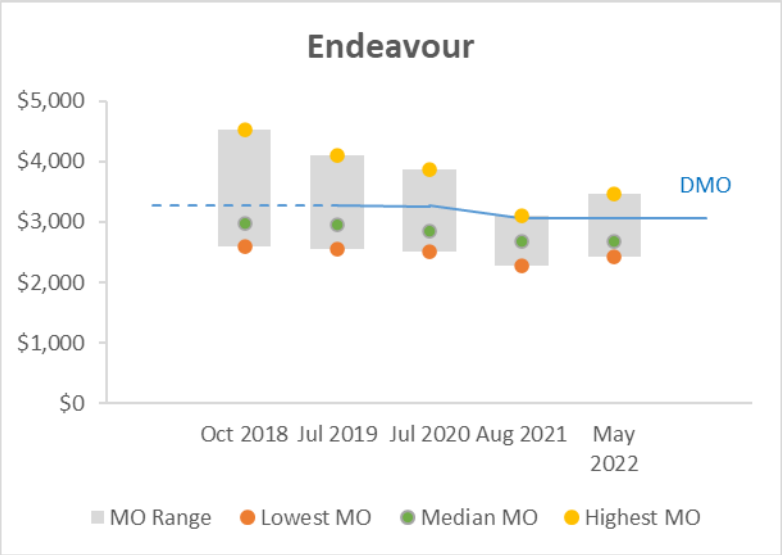


Figure B.6 Small business flat rate tariff



Changes in market offer prices in Essential region

Figure B.7 Residential flat rate tariff

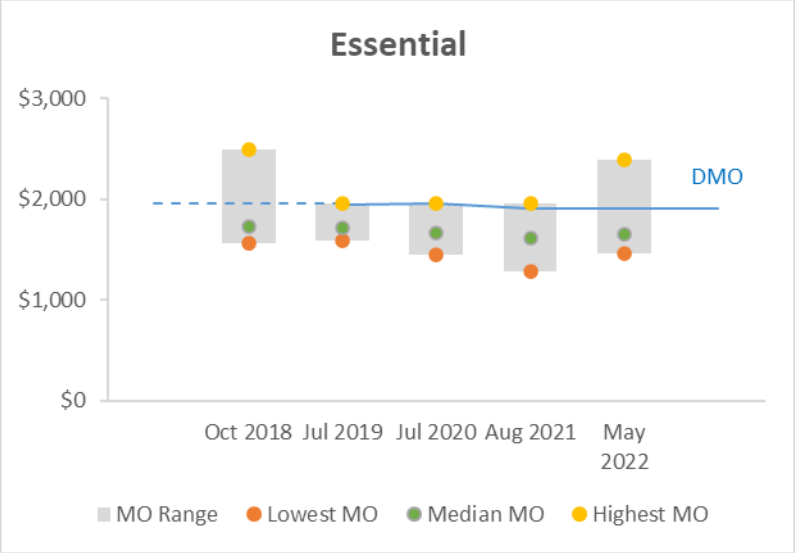


Figure B.8 Residential flat rate tariff with controlled load

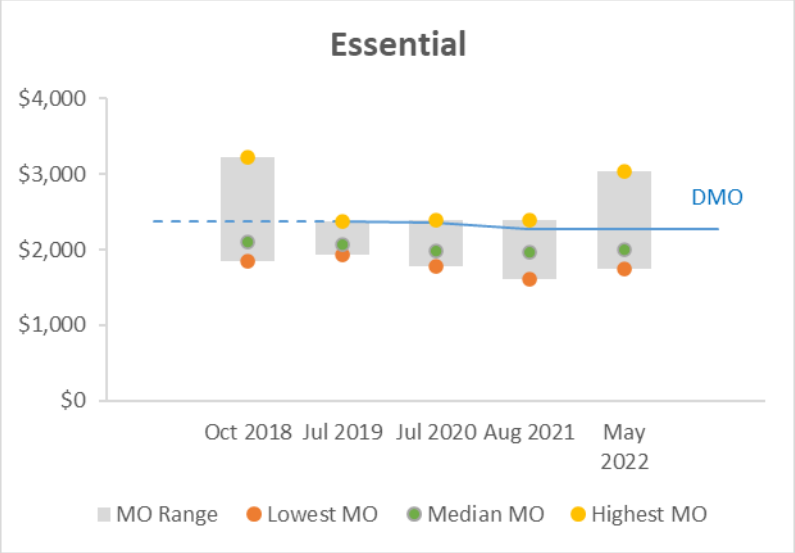
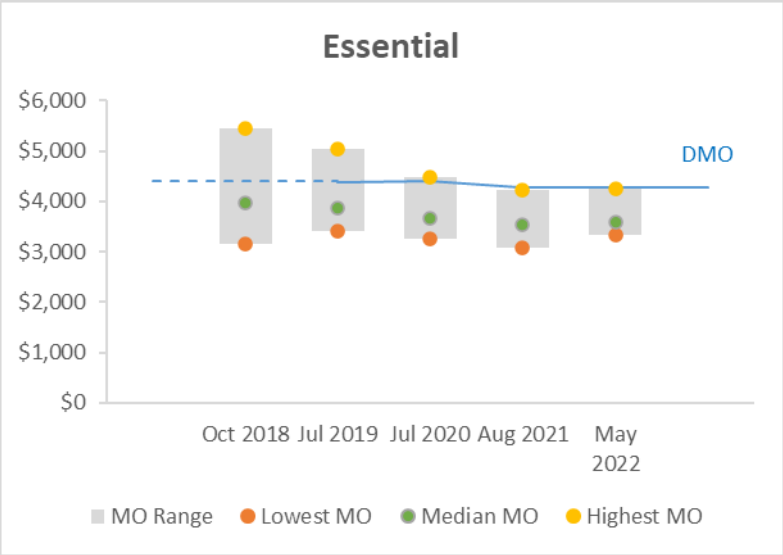


Figure B.9 Small business flat rate tariff



Changes in market offer prices in Energex region

Figure B.10 Residential flat rate tariff

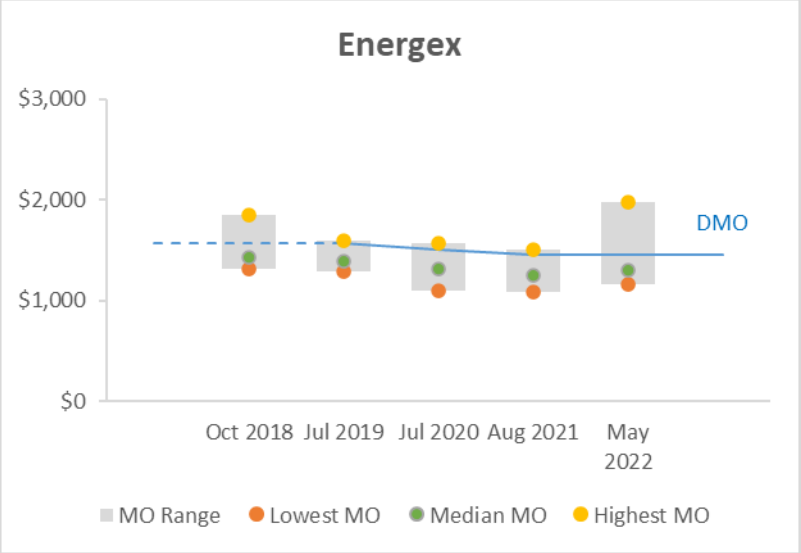


Figure B.11 Residential flat rate tariff with controlled load

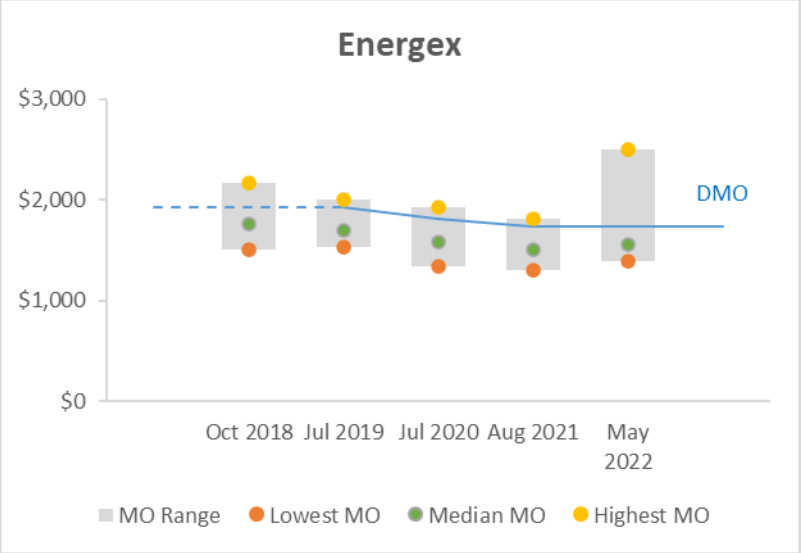
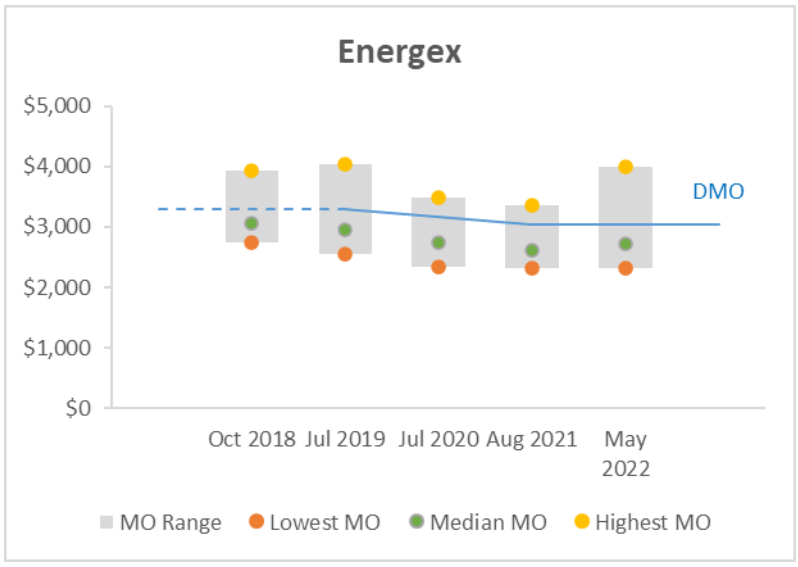


Figure B.12 Small business flat rate tariff



Changes in market offer prices in SAPN region

Figure B.13 Residential flat rate tariff

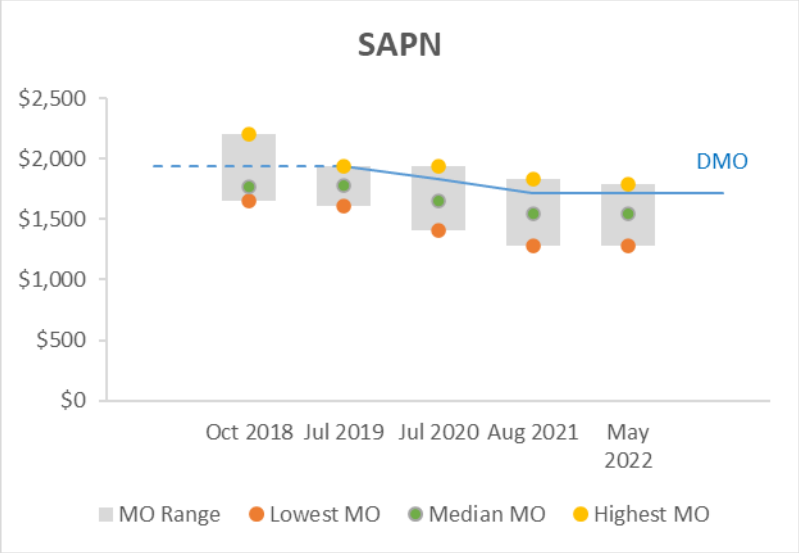


Figure B.14 Residential flat rate tariff with controlled load

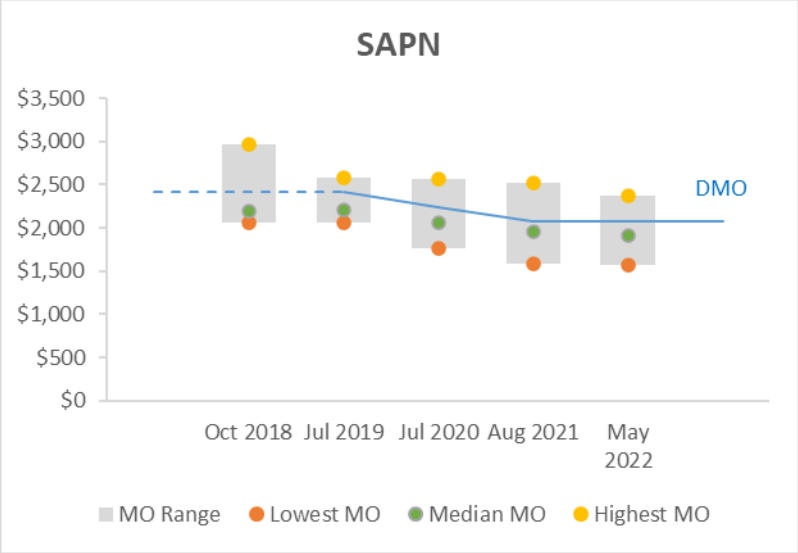
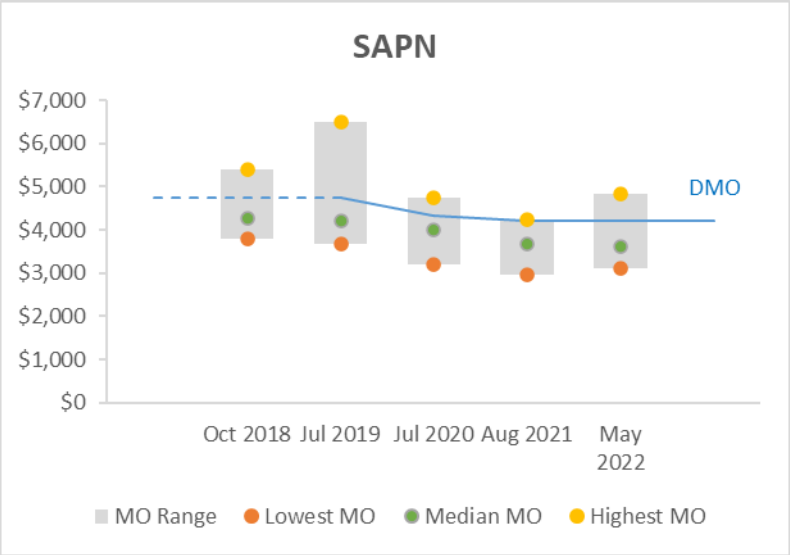


Figure B.15 Small business flat rate tariff



From August 2021 to May 2022, the change in the median market offer prices across the distribution regions for residential customers ranged from a decrease of 3.2% (SAPN, residential with controlled load) to an increase of 3.7% (Energex, residential without controlled load). For residential customers without controlled load, the median market offer increased from 0.1% (SAPN) to 3.7% (Energex). For residential customers with controlled load the change in the median market offer price ranged from a reduction of 3.2% (SAPN) to an increase of 0.1% (Endeavour). The change in the median market offer price for small business customers ranged between a decrease of 2.5% (SAPN) to an increase of 2.9% (Energex).

We observed a number of May 2022 market offers priced above both DMO 3 and DMO 4 from 3 retailers (46 out of 1063 offers included in the analysis). Two retailers with high prices also offered market contracts that were priced below both DMO 3 and DMO 4. However we observed for the first time one other retailer in most regions has priced all their current generally available single rate market offers above the DMO 3 and DMO 4 prices. This retailer's lowest residential market offers in Ausgrid, Endeavour, Essential and Energex are around 3% to 18% above the DMO 4 price. The lowest residential market offers in SAPN from the same retailer are below the DMO 4 price by around 8% (no controlled load) and 4% (controlled load).

Smaller retailers may have greater exposure to spot prices and have less hedged load than larger retailers. In previous DMO determinations we have observed that this may have benefited retailers because they could take advantage of lower wholesale prices and compete aggressively, offering market offers priced at deep discounts relative to Tier 1 retailers. However, we have observed a steep increase in wholesale prices in 2022 and these same retailers may be more affected by this reversal of the wholesale price trend.

While Tier 2 retailers have the highest market offers in each region, we observed that other Tier 2 retailers have the lowest market offer in each region, offering a further 1% to 16% discount off the DMO 4 price compared with lowest offer from Tier 1 retailers.

C Nominal price movements from draft determination to final determination

Tables C1 to C3 show the nominal movement for each cost component between the DMO 4 draft determination published on 18 February 2022 and our final determination.

Table C1 Residential without CL

Region	DMO 4 Draft 2022–23	Network cost	Wholesale cost	Environ-mental cost	Retail operating cost	Retail allowance	Overall nominal change	DMO 4 Final 2022–23
Ausgrid	**$1,372**	-$3	$104	$13	$12	$14	$140	**$1,512**
Endeavour	**$1,599**	$51	$136	$16	$10	$24	$237	**$1,836**
Essential	**$1,869**	$52	$124	$14	$11	$22	$223	**$2,092**
Energex	**$1,540**	-$48	$91	$15	$14	$7	$80	**$1,620**
SAPN	**$1,769**	$15	$28	$12	$12	$4	$71	**$1,840**

Table C2 Residential with CL

Region	DMO 4 Draft 2022–23	Network cost	Wholesale cost	Environ-mental cost	Retail operating cost	Retail allowance	Overall nominal change	DMO 4 Final 2022–23
Ausgrid	**$1,887**	-$4	$182	$22	$12	$24	$235	**$2,122**
Endeavour	**$2,055**	$59	$201	$24	$10	$33	$327	**$2,383**
Essential	**$2,204**	$58	$167	$21	$11	$29	$285	**$2,490**
Energex	**$1,839**	-$56	$131	$21	$14	$12	$122	**$1,961**
SAPN	**$2,178**	$20	$40	$18	$13	$6	$97	**$2,275**

Table C3 Small business without CL

Region	DMO 4 Draft 2022–23	Network cost	Wholesale cost	Environ-mental cost	Retail operating cost	Retail allowance	Overall nominal change	DMO 4 Final 2022–23
Ausgrid	**$3,901**	$30	$267	$32	$15	$115	$459	**$4,360**
Endeavour	**$3,306**	$73	$278	$33	$13	$79	$476	**$3,782**
Essential	**$4,365**	$114	$269	$31	$13	$109	$536	**$4,901**
Energex	**$3,250**	-$84	$199	$33	$15	$33	$196	**$3,446**
SAPN	**$4,369**	$34	$69	$31	$10	$25	$170	**$4,539**

The key drivers for these movements are:

- **Networks costs** used in the draft determination were the 2022–23 indicative prices from the 2021–22 annual pricing proposals. This was the only available information at the time we made the draft determination. Network tariffs have been updated with the 2022–23 final prices approved by the AER for the final determination. Network Use of System charges are the majority of network costs. There was a slight change (up to $1.03) in

charges in the Alternate Control Services (ACS) for customers depending on the region. See section 4 for more detail.

- **Wholesale costs,** which includes wholesale energy and other market participation costs, increased across all regions. Since the draft determination, wholesale energy costs have increased by between $6.27 per MWh (4.89% in SAPN) and $24.44 per MWh (26.7% in Essential) due to higher observed forward contract prices, which could be attributed to increasing fuel costs, a reduction in thermal generation and a slowing of investment of new capacity.
- **Environmental costs** increased, with minor upward revisions to the Small-scale Renewable Energy Scheme compliance costs resulting from the Clean Energy Regulator's issuance of binding 2020 Small-scale Technology Percentages in March. Large-scale generation certificate forward prices increased due to an increase in demand for LGCs driven by net zero and environmental corporate policies. This has increased the cost of the LRET.
- **Retail operating costs** increased slightly as a result of the RBA's revised CPI forecast for the 2021–22 and 2022–23 periods, increasing from 2.75% and 2.25% to 5.5% and 4.25%, respectively. Retail operating costs also increased slightly due to an adjustment to advanced meter costs to account for ongoing metering capital charges for replaced accumulation meters.
- **Retail allowances,** which are calculated as a percentage of the total DMO price, increased due to the increases in other cost components.

D Advanced meter costs

We requested retailers selling to approximately 94% of customers in DMO regions to provide the number of customers on advanced meters and accumulation meters for each DMO region and customer type as at 30 September 2021. We also asked retailers to provide average per advanced meter costs. In our final determination we have made a small adjustment to the advanced meter allowance to reflect the legacy accumulation capital charges that retailers continue to incur when an accumulation meter has been installed due to the request of the customer, a faulty accumulation meter, or when a smart meter has been installed by the retailer as part of the new meter deployment. Tables D.1 and D.2 set out our calculations for estimating advanced meter costs per residential and small business customer.

Table D.1 Residential advanced meter counts and per customer costs

Region	Total advanced meters	Total advanced meter costs	Average per advanced meter cost (ex GST)	ACS metering allowance included in network component (ex GST)	Capital metering charge within ACS metering allowance	% of advanced meter installations where retailer incurs capital metering charge for replaced accumulation meter	Average legacy capital metering charges incurred per advanced meter	Average per advanced meter costs net of ACS metering allowance, including legacy meter capital charges	Total customers 30 September 2021	% of customers with advanced meters	Advanced meter cost per customer net of ACS metering allowance in network component, including legacy meter capital charges (ex GST)
Ausgrid	279,093	$29,606,278	$106	$27.03	$15.10	80%	$12.08	$91.13	1,681,650	16.6%	$15.12
Endeavour	246,015	$25,836,718	$105	$22.16	$2.17	80%	$1.74	$84.60	972,617	25.3%	$21.40
Essential	176,851	$18,830,123	$106	$37.31	$10.32	80%	$8.26	$77.42	759,463	23.3%	$18.03
Energex	276,837	$27,868,108	$101	$39.42	$26.84	80%	$21.47	$82.72	1,346,204	20.6%	$17.01
SAPN	196,995	$22,324,163	$113	$23.98	$9.60	80%	$7.68	$97.02	787,069	25.0%	$24.28
DMO	**1,175,791**	**$124,465,391**	**$106**	**$29.96**	**$13.52**	**80%**	**$10.81**	**$86.71**	**5,547,003**	**21.2%**	**$18.38**

Table D.2 Small business advanced meter counts and per customer costs

Region	Total advanced meters	Total advanced meter costs	Average per advanced meter cost (ex GST)	ACS metering allowance included in network component (ex GST)	Capital metering charge within ACS metering allowance	% of advanced meter installations where retailer incurs capital metering charge for replaced accumulation meter	Average legacy capital metering charges incurred per advanced meter	Average per advanced meter costs net of ACS metering allowance, including legacy meter capital charges	Total customers 30 September 2021	% of customers with advanced meters	Advanced meter cost per customer net of ACS metering allowance in network component, including legacy meter capital charges (ex GST)
Ausgrid	5,905	$663,868	$112	$35.39	$23.08	80%	$18.46	$95.50	61,149	9.7%	$9.22
Endeavour	11,179	$1,310,252	$117	$32.47	$2.17	80%	$1.74	$86.47	64,870	17.2%	$14.90
Essential	2,250	$295,641	$131	$37.31	$10.32	80%	$8.26	$102.34	59,533	3.8%	$3.87
Energex	13,227	$1,455,526	$110	$39.42	$26.84	80%	$21.47	$92.09	74,776	17.7%	$16.29
SAPN	2,347	$308,705	$132	$23.98	$9.60	80%	$7.68	$115.23	45,255	5.2%	$5.98
DMO	**34,908**	**$4,033,992**	**$116**	**$35.34**	**$16.08**	**80%**	**$12.86**	**$93.08**	**305,583**	**11.4%**	**$10.63**

E Legislative instrument

Competition and Consumer (Industry Code – Electricity Retail) (Model Annual Usage and Total Annual Prices) Determination 2022

The Australian Energy Regulator makes the following determination.

Dated 26 May 2022

Australian Energy Regulator

1. Name

This instrument is the *Competition and Consumer (Industry Code – Electricity Retail) (Model Annual Usage and Total Annual Prices) Determination 2022.*

2. Commencement

This instrument commences on 1 July 2022.

3. Authority

This instrument is made under section 16(1) of the *Competition and Consumer (Industry Code – Electricity Retail) Regulations 2019* (the Regulations).

4. Definitions

In this Determination:

a) ***Regulations*** means the *Competition and Consumer (Industry Code – Electricity Retail) Regulations 2019*; and

b) ***Residential Annual Usage without Controlled Load*** applies to the type of small customer considered in s 6(2)(b) of the Regulations; and

c) ***Residential Annual Price without Controlled Load*** applies to the type of small customer considered in s 6(2)(b) of the Regulations; and

d) ***Residential Annual Usage with Controlled Load*** applies to the type of small customer considered in s 6(2)(a) of the Regulations; and

e) ***Residential Annual Price with Controlled Load*** applies to the type of small customer considered in s 6(2)(a) of the Regulations; and

f) ***Small Business Annual Usage*** applies to the type of small customer considered in s 6(2)(c) of the Regulations; and

g) ***Small Business Annual Price*** applies to the type of small customer considered in s 6(2)(c) of the Regulations; and

h) ***General Usage*** means the non-controlled load usage of a small customer under s 6(2)(a) of the Regulations; and

i) ***Controlled Load Usage*** means the controlled load usage of a small customer under s 6(2)(a) of the Regulations.

j) Terms defined in the Regulations have the same meaning in this instrument.

5. Per-customer usage determination

In accordance with s 16(1)(a)(i) of the Regulations, the AER determines the per-customer amount of electricity supplied in specified distribution regions to small customers of the following types:

Per-customer annual usage determination				
Distribution region	**Residential Annual Usage without Controlled Load**	**Residential Annual Usage with Controlled Load**		**Small Business Annual Usage**
		General Usage	***Controlled Load Usage***	
Ausgrid	3,900 kWh	4,800 kWh	2,000 kWh	10,000 kWh
Endeavour Energy	4,900 kWh	5,200 kWh	2,200 kWh	10,000 kWh
Energex	4,600 kWh	4,400 kWh	1,900 kWh	10,000 kWh
Essential Energy	4,600 kWh	4,600 kWh	2,000 kWh	10,000 kWh
SA Power Networks	4,000 kWh	4,200 kWh	1,800 kWh	10,000 kWh

6. Timing or pattern of supply determination

In accordance with s 16(1)(a)(ii) of the Regulations, the AER determines the timing or pattern of the supply of electricity in specified distribution regions to small customers:

a) Seasonality assumptions, all tariff and customer types

For all tariff and customer types, consumption has no seasonal weighting. That is, kilowatt hours consumed are assumed to be the same on each day of the year.

b) Daily usage profile for Flexible Tariffs (Time of Use tariffs, including the South Australian TOU controlled load tariff) – Residential Usage without Controlled Load and General Usage / Residential Usage with Controlled Load

i. Ausgrid distribution region

Flexible Tariff (Time of Use tariff) daily usage profile – Daily Residential Usage without Controlled Load (3,900 kWh/yr)

Time	00:00 - 00:30	00:30 - 01:00	01:00 - 01:30	01:30 - 02:00	02:00 - 02:30	02:30 - 03:00	03:00 - 03:30	03:30 - 04:00	04:00 - 04:30	04:30 - 05:00	05:00 - 05:30	05:30 - 06:00	06:00 - 06:30	06:30 - 07:00	07:00 - 07:30	07:30 - 08:00	08:00 - 08:30	08:30 - 09:00	09:00 - 09:30	09:30 - 10:00	10:00 - 10:30	10:30 - 11:00	11:00 - 11:30	11:30 - 12:00
Usage (kWh)	**0.2318**	**0.2228**	**0.2124**	**0.1887**	**0.1717**	**0.1555**	**0.1444**	**0.1375**	**0.1347**	**0.1351**	**0.1406**	**0.15**	**0.168**	**0.1908**	**0.2055**	**0.2194**	**0.2205**	**0.2184**	**0.2163**	**0.2137**	**0.211**	**0.2089**	**0.2073**	**0.2077**
Time	12:00 - 12:30	12:30 - 13:00	13:00 - 02:00	13:30 - 03:00	14:00 - 14:30	14:30 - 15:00	15:00 - 15:30	15:30 - 16:00	16:00 - 16:30	16:30 - 17:00	17:00 - 17:30	17:30 - 18:00	18:00 - 18:30	18:30 - 13:00	19:00 - 19:30	19:30 - 20:00	20:00 - 20:30	20:30 - 21:00	21:00 - 21:30	21:30 - 22:00	22:00 - 22:30	22:30 - 23:00	23:00 - 23:30	23:30 - 24:00
Usage (kWh)	**0.2091**	**0.2095**	**0.2087**	**0.2078**	**0.2073**	**0.2082**	**0.2118**	**0.2207**	**0.2336**	**0.2509**	**0.2738**	**0.3018**	**0.3185**	**0.3229**	**0.3178**	**0.3105**	**0.3041**	**0.2962**	**0.2837**	**0.2722**	**0.2636**	**0.2553**	**0.2465**	**0.2376**

Flexible Tariff (Time of Use tariff) daily usage profile – Daily General usage – Daily Residential Usage with Controlled Load (4,800 kWh/yr)

Time	00:00 - 00:30	00:30 - 01:00	01:00 - 01:30	01:30 - 02:00	02:00 - 02:30	02:30 - 03:00	03:00 - 03:30	03:30 - 04:00	04:00 - 04:30	04:30 - 05:00	05:00 - 05:30	05:30 - 06:00	06:00 - 06:30	06:30 - 07:00	07:00 - 07:30	07:30 - 08:00	08:00 - 08:30	08:30 - 09:00	09:00 - 09:30	09:30 - 10:00	10:00 - 10:30	10:30 - 11:00	11:00 - 11:30	11:30 - 12:00
Usage (kWh)	**0.2853**	**0.2742**	**0.2614**	**0.2323**	**0.2114**	**0.1914**	**0.1777**	**0.1693**	**0.1658**	**0.1663**	**0.1731**	**0.1846**	**0.2067**	**0.2348**	**0.253**	**0.2701**	**0.2714**	**0.2688**	**0.2662**	**0.263**	**0.2597**	**0.2571**	**0.2552**	**0.2556**
Time	12:00 - 12:30	12:30 - 13:00	13:00 - 02:00	13:30 - 03:00	14:00 - 14:30	14:30 - 15:00	15:00 - 15:30	15:30 - 16:00	16:00 - 16:30	16:30 - 17:00	17:00 - 17:30	17:30 - 18:00	18:00 - 18:30	18:30 - 13:00	19:00 - 19:30	19:30 - 20:00	20:00 - 20:30	20:30 - 21:00	21:00 - 21:30	21:30 - 22:00	22:00 - 22:30	22:30 - 23:00	23:00 - 23:30	23:30 - 24:00
Usage (kWh)	**0.2574**	**0.2579**	**0.2569**	**0.2557**	**0.2552**	**0.2562**	**0.2607**	**0.2716**	**0.2875**	**0.3088**	**0.337**	**0.3715**	**0.392**	**0.3974**	**0.3911**	**0.3821**	**0.3743**	**0.3646**	**0.3491**	**0.335**	**0.3245**	**0.3143**	**0.3034**	**0.2925**

ii. Endeavour Energy distribution region

Flexible Tariff (Time of Use tariff) daily usage profile - Daily Residential Usage without Controlled Load (4,900 kWh/yr)

Time	00:00 - 00:30	00:30 - 01:00	01:00 - 01:30	01:30 - 02:00	02:00 - 02:30	02:30 - 03:00	03:00 - 03:30	03:30 - 04:00	04:00 - 04:30	04:30 - 05:00	05:00 - 05:30	05:30 - 06:00	06:00 - 06:30	06:30 - 07:00	07:00 - 07:30	07:30 - 08:00	08:00 - 08:30	08:30 - 09:00	09:00 - 09:30	09:30 - 10:00	10:00 - 10:30	10:30 - 11:00	11:00 - 11:30	11:30 - 12:00
Usage (kWh)	**0.2938**	**0.2814**	**0.2557**	**0.227**	**0.2018**	**0.1839**	**0.1732**	**0.1675**	**0.1671**	**0.1707**	**0.1812**	**0.1952**	**0.219**	**0.2456**	**0.2584**	**0.2695**	**0.2661**	**0.2554**	**0.2502**	**0.2443**	**0.2386**	**0.2337**	**0.2296**	**0.2303**
Time	12:00 - 12:30	12:30 - 13:00	13:00 - 02:00	13:30 - 03:00	14:00 - 14:30	14:30 - 15:00	15:00 - 15:30	15:30 - 16:00	16:00 - 16:30	16:30 - 17:00	17:00 - 17:30	17:30 - 18:00	18:00 - 18:30	18:30 - 13:00	19:00 - 19:30	19:30 - 20:00	20:00 - 20:30	20:30 - 21:00	21:00 - 21:30	21:30 - 22:00	22:00 - 22:30	22:30 - 23:00	23:00 - 23:30	23:30 - 24:00
Usage (kWh)	**0.2319**	**0.2332**	**0.2348**	**0.2395**	**0.2469**	**0.2562**	**0.2711**	**0.2946**	**0.3208**	**0.3504**	**0.3802**	**0.4159**	**0.4344**	**0.4357**	**0.4256**	**0.4145**	**0.4023**	**0.3882**	**0.3706**	**0.3458**	**0.3355**	**0.3278**	**0.3206**	**0.309**

Flexible Tariff (Time of Use tariff) daily usage profile - Daily General Usage – Daily Residential Usage with Controlled Load (5,200 kWh/yr)

Time	00:00 - 00:30	00:30 - 01:00	01:00 - 01:30	01:30 - 02:00	02:00 - 02:30	02:30 - 03:00	03:00 - 03:30	03:30 - 04:00	04:00 - 04:30	04:30 - 05:00	05:00 - 05:30	05:30 - 06:00	06:00 - 06:30	06:30 - 07:00	07:00 - 07:30	07:30 - 08:00	08:00 - 08:30	08:30 - 09:00	09:00 - 09:30	09:30 - 10:00	10:00 - 10:30	10:30 - 11:00	11:00 - 11:30	11:30 - 12:00
Usage (kWh)	**0.3118**	**0.2986**	**0.2713**	**0.2409**	**0.2141**	**0.1951**	**0.1838**	**0.1778**	**0.1773**	**0.1812**	**0.1923**	**0.2071**	**0.2324**	**0.2606**	**0.2743**	**0.286**	**0.2824**	**0.271**	**0.2655**	**0.2592**	**0.2532**	**0.248**	**0.2436**	**0.2444**
Time	12:00 - 12:30	12:30 - 13:00	13:00 - 02:00	13:30 - 03:00	14:00 - 14:30	14:30 - 15:00	15:00 - 15:30	15:30 - 16:00	16:00 - 16:30	16:30 - 17:00	17:00 - 17:30	17:30 - 18:00	18:00 - 18:30	18:30 - 13:00	19:00 - 19:30	19:30 - 20:00	20:00 - 20:30	20:30 - 21:00	21:00 - 21:30	21:30 - 22:00	22:00 - 22:30	22:30 - 23:00	23:00 - 23:30	23:30 - 24:00
Usage (kWh)	**0.2461**	**0.2475**	**0.2492**	**0.2541**	**0.262**	**0.2718**	**0.2877**	**0.3127**	**0.3404**	**0.3719**	**0.4035**	**0.4414**	**0.461**	**0.4624**	**0.4517**	**0.4399**	**0.4269**	**0.412**	**0.3933**	**0.367**	**0.356**	**0.3479**	**0.3402**	**0.3279**

iii. Energex distribution region

Flexible Tariff (Time of Use tariff) daily usage profile - Daily Residential Usage without Controlled Load (4,600 kWh/yr)

Time	00:00 - 00:30	00:30 - 01:00	01:00 - 01:30	01:30 - 02:00	02:00 - 02:30	02:30 - 03:00	03:00 - 03:30	03:30 - 04:00	04:00 - 04:30	04:30 - 05:00	05:00 - 05:30	05:30 - 06:00	06:00 - 06:30	06:30 - 07:00	07:00 - 07:30	07:30 - 08:00	08:00 - 08:30	08:30 - 09:00	09:00 - 09:30	09:30 - 10:00	10:00 - 10:30	10:30 - 11:00	11:00 - 11:30	11:30 - 12:00
Usage (kWh)	**0.1978**	**0.1801**	**0.1683**	**0.1587**	**0.1519**	**0.1474**	**0.1449**	**0.1439**	**0.1463**	**0.152**	**0.1643**	**0.1805**	**0.2052**	**0.2342**	**0.2591**	**0.2668**	**0.2667**	**0.2631**	**0.2626**	**0.2613**	**0.2593**	**0.2583**	**0.2574**	**0.2598**
Time	12:00 - 12:30	12:30 - 13:00	13:00 - 02:00	13:30 - 03:00	14:00 - 14:30	14:30 - 15:00	15:00 - 15:30	15:30 - 16:00	16:00 - 16:30	16:30 - 17:00	17:00 - 17:30	17:30 - 18:00	18:00 - 18:30	18:30 - 13:00	19:00 - 19:30	19:30 - 20:00	20:00 - 20:30	20:30 - 21:00	21:00 - 21:30	21:30 - 22:00	22:00 - 22:30	22:30 - 23:00	23:00 - 23:30	23:30 - 24:00
Usage (kWh)	**0.2624**	**0.2647**	**0.2679**	**0.2701**	**0.2745**	**0.2771**	**0.2847**	**0.2972**	**0.312**	**0.3329**	**0.3552**	**0.3803**	**0.3983**	**0.4075**	**0.3967**	**0.3866**	**0.3788**	**0.3551**	**0.3322**	**0.3132**	**0.3011**	**0.2854**	**0.2555**	**0.2236**

Flexible Tariff (Time of Use tariff) daily usage profile - Daily General Usage – Daily Residential Usage with Controlled Load (4,400kWh/yr)

Time	00:00 - 00:30	00:30 - 01:00	01:00 - 01:30	01:30 - 02:00	02:00 - 02:30	02:30 - 03:00	03:00 - 03:30	03:30 - 04:00	04:00 - 04:30	04:30 - 05:00	05:00 - 05:30	05:30 - 06:00	06:00 - 06:30	06:30 - 07:00	07:00 - 07:30	07:30 - 08:00	08:00 - 08:30	08:30 - 09:00	09:00 - 09:30	09:30 - 10:00	10:00 - 10:30	10:30 - 11:00	11:00 - 11:30	11:30 - 12:00
Usage (kWh)	**0.1892**	**0.1723**	**0.161**	**0.1518**	**0.1453**	**0.141**	**0.1386**	**0.1376**	**0.1399**	**0.1454**	**0.1572**	**0.1727**	**0.1963**	**0.224**	**0.2479**	**0.2552**	**0.2551**	**0.2517**	**0.2512**	**0.25**	**0.248**	**0.247**	**0.2462**	**0.2485**
Time	12:00 - 12:30	12:30 - 13:00	13:00 - 02:00	13:30 - 03:00	14:00 - 14:30	14:30 - 15:00	15:00 - 15:30	15:30 - 16:00	16:00 - 16:30	16:30 - 17:00	17:00 - 17:30	17:30 - 18:00	18:00 - 18:30	18:30 - 13:00	19:00 - 19:30	19:30 - 20:00	20:00 - 20:30	20:30 - 21:00	21:00 - 21:30	21:30 - 22:00	22:00 - 22:30	22:30 - 23:00	23:00 - 23:30	23:30 - 24:00
Usage (kWh)	**0.251**	**0.2532**	**0.2562**	**0.2583**	**0.2626**	**0.2651**	**0.2723**	**0.2843**	**0.2984**	**0.3184**	**0.3397**	**0.3638**	**0.381**	**0.3898**	**0.3795**	**0.3698**	**0.3623**	**0.3396**	**0.3177**	**0.2996**	**0.288**	**0.273**	**0.2444**	**0.2139**

iv. Essential Energy distribution region

Flexible Tariff (Time of Use tariff) daily usage profile - Daily Residential Usage without Controlled Load (4,600 kWh/yr)

Time	00:00 - 00:30	00:30 - 01:00	01:00 - 01:30	01:30 - 02:00	02:00 - 02:30	02:30 - 03:00	03:00 - 03:30	03:30 - 04:00	04:00 - 04:30	04:30 - 05:00	05:00 - 05:30	05:30 - 06:00	06:00 - 06:30	06:30 - 07:00	07:00 - 07:30	07:30 - 08:00	08:00 - 08:30	08:30 - 09:00	09:00 - 09:30	09:30 - 10:00	10:00 - 10:30	10:30 - 11:00	11:00 - 11:30	11:30 - 12:00
Usage (kWh)	**0.2701**	**0.2695**	**0.2614**	**0.2478**	**0.2254**	**0.2022**	**0.1845**	**0.1733**	**0.1689**	**0.1692**	**0.1778**	**0.1909**	**0.2135**	**0.2364**	**0.2465**	**0.2588**	**0.2597**	**0.2525**	**0.2521**	**0.2498**	**0.2466**	**0.2443**	**0.2412**	**0.238**
Time	12:00 - 12:30	12:30 - 13:00	13:00 - 02:00	13:30 - 03:00	14:00 - 14:30	14:30 - 15:00	15:00 - 15:30	15:30 - 16:00	16:00 - 16:30	16:30 - 17:00	17:00 - 17:30	17:30 - 18:00	18:00 - 18:30	18:30 - 13:00	19:00 - 19:30	19:30 - 20:00	20:00 - 20:30	20:30 - 21:00	21:00 - 21:30	21:30 - 22:00	22:00 - 22:30	22:30 - 23:00	23:00 - 23:30	23:30 - 24:00
Usage (kWh)	**0.24**	**0.2404**	**0.24**	**0.238**	**0.2385**	**0.2404**	**0.2459**	**0.257**	**0.2706**	**0.2883**	**0.3187**	**0.3561**	**0.3783**	**0.3794**	**0.3669**	**0.3533**	**0.3416**	**0.3283**	**0.3188**	**0.3111**	**0.3113**	**0.2974**	**0.2843**	**0.2777**

Flexible Tariff (Time of Use tariff) daily usage profile - Daily General Usage – Daily Residential Usage with Controlled Load (4,600 kWh/yr)

Time	00:00 - 00:30	00:30 - 01:00	01:00 - 01:30	01:30 - 02:00	02:00 - 02:30	02:30 - 03:00	03:00 - 03:30	03:30 - 04:00	04:00 - 04:30	04:30 - 05:00	05:00 - 05:30	05:30 - 06:00	06:00 - 06:30	06:30 - 07:00	07:00 - 07:30	07:30 - 08:00	08:00 - 08:30	08:30 - 09:00	09:00 - 09:30	09:30 - 10:00	10:00 - 10:30	10:30 - 11:00	11:00 - 11:30	11:30 - 12:00
Usage (kWh)	**0.2701**	**0.2695**	**0.2614**	**0.2478**	**0.2254**	**0.2022**	**0.1845**	**0.1733**	**0.1689**	**0.1692**	**0.1778**	**0.1909**	**0.2135**	**0.2364**	**0.2465**	**0.2588**	**0.2597**	**0.2525**	**0.2521**	**0.2498**	**0.2466**	**0.2443**	**0.2412**	**0.238**
Time	12:00 - 12:30	12:30 - 13:00	13:00 - 02:00	13:30 - 03:00	14:00 - 14:30	14:30 - 15:00	15:00 - 15:30	15:30 - 16:00	16:00 - 16:30	16:30 - 17:00	17:00 - 17:30	17:30 - 18:00	18:00 - 18:30	18:30 - 13:00	19:00 - 19:30	19:30 - 20:00	20:00 - 20:30	20:30 - 21:00	21:00 - 21:30	21:30 - 22:00	22:00 - 22:30	22:30 - 23:00	23:00 - 23:30	23:30 - 24:00
Usage (kWh)	**0.24**	**0.2404**	**0.24**	**0.238**	**0.2385**	**0.2404**	**0.2459**	**0.257**	**0.2706**	**0.2883**	**0.3187**	**0.3561**	**0.3783**	**0.3794**	**0.3669**	**0.3533**	**0.3416**	**0.3283**	**0.3188**	**0.3111**	**0.3113**	**0.2974**	**0.2843**	**0.2777**

v. South Australian Power Networks distribution region

Flexible Tariff (Time of Use tariff) daily usage profile - Daily Residential Usage without Controlled Load (4,000 kWh/yr)

Time	00:00 - 00:30	00:30 - 01:00	01:00 - 01:30	01:30 - 02:00	02:00 - 02:30	02:30 - 03:00	03:00 - 03:30	03:30 - 04:00	04:00 - 04:30	04:30 - 05:00	05:00 - 05:30	05:30 - 06:00	06:00 - 06:30	06:30 - 07:00	07:00 - 07:30	07:30 - 08:00	08:00 - 08:30	08:30 - 09:00	09:00 - 09:30	09:30 - 10:00	10:00 - 10:30	10:30 - 11:00	11:00 - 11:30	11:30 - 12:00
Usage (kWh)	**0.2718**	**0.3137**	**0.2982**	**0.2416**	**0.206**	**0.1826**	**0.1711**	**0.1551**	**0.1443**	**0.14**	**0.1432**	**0.1521**	**0.1699**	**0.1851**	**0.204**	**0.2109**	**0.2022**	**0.1954**	**0.1935**	**0.1923**	**0.1925**	**0.1924**	**0.1927**	**0.1939**
Time	12:00 - 12:30	12:30 - 13:00	13:00 - 02:00	13:30 - 03:00	14:00 - 14:30	14:30 - 15:00	15:00 - 15:30	15:30 - 16:00	16:00 - 16:30	16:30 - 17:00	17:00 - 17:30	17:30 - 18:00	18:00 - 18:30	18:30 - 13:00	19:00 - 19:30	19:30 - 20:00	20:00 - 20:30	20:30 - 21:00	21:00 - 21:30	21:30 - 22:00	22:00 - 22:30	22:30 - 23:00	23:00 - 23:30	23:30 - 24:00
Usage (kWh)	**0.1956**	**0.1956**	**0.1964**	**0.1964**	**0.2**	**0.2026**	**0.2095**	**0.2209**	**0.2392**	**0.263**	**0.2959**	**0.329**	**0.3472**	**0.3486**	**0.3395**	**0.3297**	**0.3193**	**0.3077**	**0.2916**	**0.2699**	**0.244**	**0.2192**	**0.2076**	**0.2463**

Flexible Tariff (Time of Use tariff) daily usage profile - Daily General Usage – Daily Residential Usage with Controlled Load (4,200 kWh/yr)

Time	00:00 - 00:30	00:30 - 01:00	01:00 - 01:30	01:30 - 02:00	02:00 - 02:30	02:30 - 03:00	03:00 - 03:30	03:30 - 04:00	04:00 - 04:30	04:30 - 05:00	05:00 - 05:30	05:30 - 06:00	06:00 - 06:30	06:30 - 07:00	07:00 - 07:30	07:30 - 08:00	08:00 - 08:30	08:30 - 09:00	09:00 - 09:30	09:30 - 10:00	10:00 - 10:30	10:30 - 11:00	11:00 - 11:30	11:30 - 12:00
Usage (kWh)	**0.2854**	**0.3294**	**0.3131**	**0.2536**	**0.2163**	**0.1917**	**0.1796**	**0.1628**	**0.1515**	**0.147**	**0.1504**	**0.1597**	**0.1784**	**0.1943**	**0.2142**	**0.2215**	**0.2123**	**0.2052**	**0.2031**	**0.2019**	**0.2022**	**0.202**	**0.2023**	**0.2036**
Time	12:00 - 12:30	12:30 - 13:00	13:00 - 02:00	13:30 - 03:00	14:00 - 14:30	14:30 - 15:00	15:00 - 15:30	15:30 - 16:00	16:00 - 16:30	16:30 - 17:00	17:00 - 17:30	17:30 - 18:00	18:00 - 18:30	18:30 - 13:00	19:00 - 19:30	19:30 - 20:00	20:00 - 20:30	20:30 - 21:00	21:00 - 21:30	21:30 - 22:00	22:00 - 22:30	22:30 - 23:00	23:00 - 23:30	23:30 - 24:00
Usage (kWh)	**0.2053**	**0.2054**	**0.2062**	**0.2062**	**0.21**	**0.2127**	**0.22**	**0.2319**	**0.2511**	**0.2762**	**0.3107**	**0.3454**	**0.3645**	**0.3661**	**0.3565**	**0.3462**	**0.3353**	**0.3231**	**0.3061**	**0.2834**	**0.2562**	**0.2301**	**0.218**	**0.2586**

Flexible Tariff (Time of Use tariff) daily usage profile - Daily Controlled Load usage – (1,800 kWh/yr)

Time	00:00 - 00:30	00:30 - 01:00	01:00 - 01:30	01:30 - 02:00	02:00 - 02:30	02:30 - 03:00	03:00 - 03:30	03:30 - 04:00	04:00 - 04:30	04:30 - 05:00	05:00 - 05:30	05:30 - 06:00	06:00 - 06:30	06:30 - 07:00	07:00 - 07:30	07:30 - 08:00	08:00 - 08:30	08:30 - 09:00	09:00 - 09:30	09:30 - 10:00	10:00 - 10:30	10:30 - 11:00	11:00 - 11:30	11:30 - 12:00
Usage (kWh)	**0.1761**	**0.1761**	**0.1761**	**0.1761**	**0.1761**	**0.1761**	**0.1761**	**0.1761**	**0.1761**	**0.1761**	**0.1761**	**0.1761**	**0.1761**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.2466**	**0.2466**	**0.2466**	**0.2466**
Time	12:00 - 12:30	12:30 - 13:00	13:00 - 02:00	13:30 - 03:00	14:00 - 14:30	14:30 - 15:00	15:00 - 15:30	15:30 - 16:00	16:00 - 16:30	16:30 - 17:00	17:00 - 17:30	17:30 - 18:00	18:00 - 18:30	18:30 - 13:00	19:00 - 19:30	19:30 - 20:00	20:00 - 20:30	20:30 - 21:00	21:00 - 21:30	21:30 - 22:00	22:00 - 22:30	22:30 - 23:00	23:00 - 23:30	23:30 - 24:00
Usage (kWh)	**0.2466**	**0.2466**	**0.2466**	**0.2466**	**0.2466**	**0.2466**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.1761**

c) Controlled Load (CL) annual usage allocations

i. Ausgrid distribution region (kWh/year)

CL1 only	CL2 only	CL 1 and 2 (% of total)	
		CL1 (67%)	CL2 (33%)
2,000	2,000	1,340	660

ii. Endeavour Energy distribution region (kWh/year)

CL 1 only	CL 2 only	CL 1 and 2 (% of total)	
		CL 1 (67%)	CL 2 (33%)
2,200	2,200	1,474	726

iii. Energex distribution region (kWh/year)

CL 1 only	CL 2 only	CL 1 and 2 (% of total)	
		CL 1 (29%)	CL 2 (71%)
1,900	1,900	551	1,349

iv. Essential Energy distribution region (kWh/year)

CL 1 only	CL 2 only	CL 1 and 2 (% of total)	
		CL 1 (77%)	CL 2 (23%)
2,000	2,000	1,540	460

v. South Australian Power Networks distribution region (kWh/year)[113]

CL 1 only	CL 2 only	CL 1 and 2
1,800	NA	NA

7. Per-customer annual price determination

In accordance with s 16(1)(b) of the Regulations, the AER determines what it considers the reasonable per-customer annual price for supplying electricity in specified distribution regions to small customers of the types set out below.

Per-customer annual price determination (all prices GST-inclusive)

Distribution region	Annual Residential Price without Controlled Load	Annual Residential Price with Controlled Load	Small Business Annual Price
Ausgrid	$1,512	$2,122	$4,360
Endeavour Energy	$1,836	$2,383	$3,782
Energex	$1,620	$1,961	$3,446
Essential Energy	$2,092	$2,490	$4,901
SA Power Networks	$1,840	$2,275	$4,539

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113 Refer to section 6.b)v. for the daily usage profile for the TOU controlled load tariff.

F DMO 3 to DMO 4 price movements

The charts in this appendix show the movement in the DMO cost components between DMO 3 and DMO 4, with the overall height indicating the total DMO price.

We note that:

- Network and environment cost components in DMO 4 are calculated using the same methodology as DMO 3, so the changes directly reflect year-on-year movement.
- Changes to the wholesale cost component incorporate the impact of methodological adjustments, including the use of the 75th percentile estimate and the inclusion of AEMO direction costs in South Australia.
- The move to a cost build-up approach means DMO 4 has no residual component. This has been replaced by a retail cost component and a separate retail allowance.
- Due to our use of the new 10,000 kWh per year small business usage benchmark, direct comparisons between DMO 3 and DMO 4 small business prices are not possible. For illustrative purposes, Figure F.3 compares the DMO 3 price with an indicative DMO 4 price based on the previous 20,000 kWh/year benchmark.

Figure F.1 Residential without CL, % change from DMO 3 (nominal)

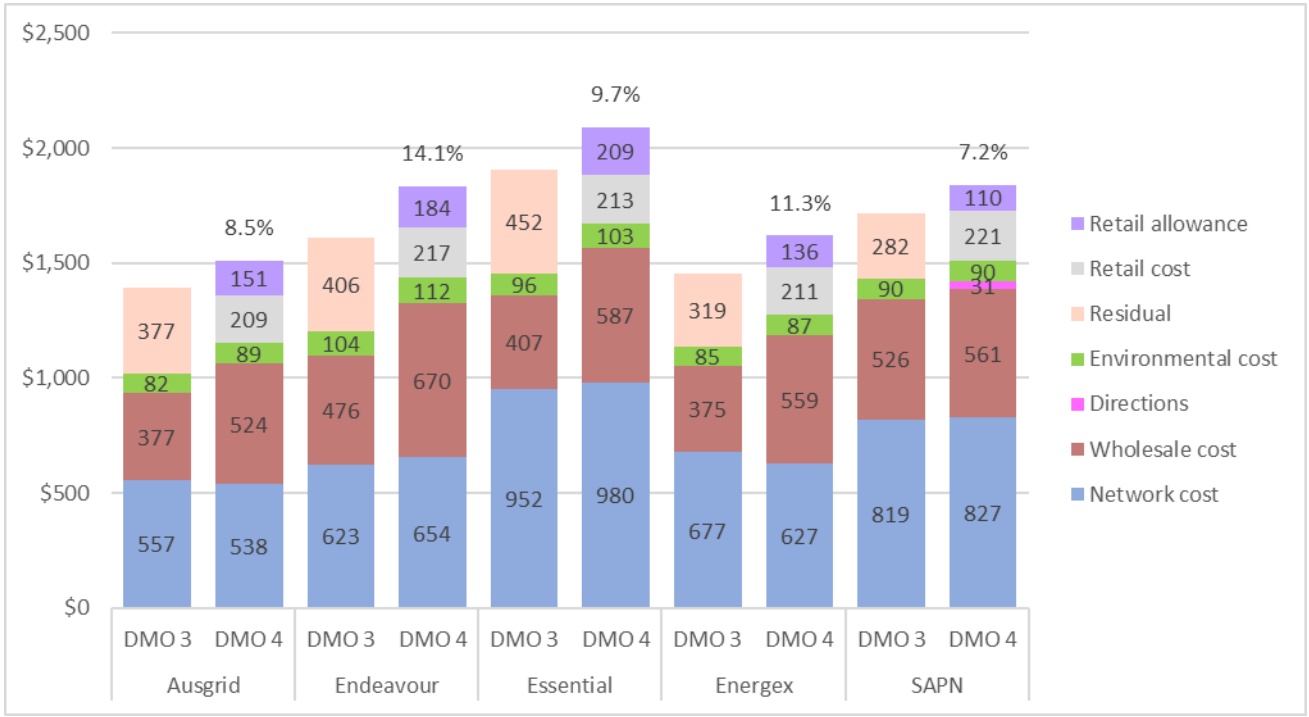


Figure F.2 Residential with CL, % change from DMO 3 (nominal)

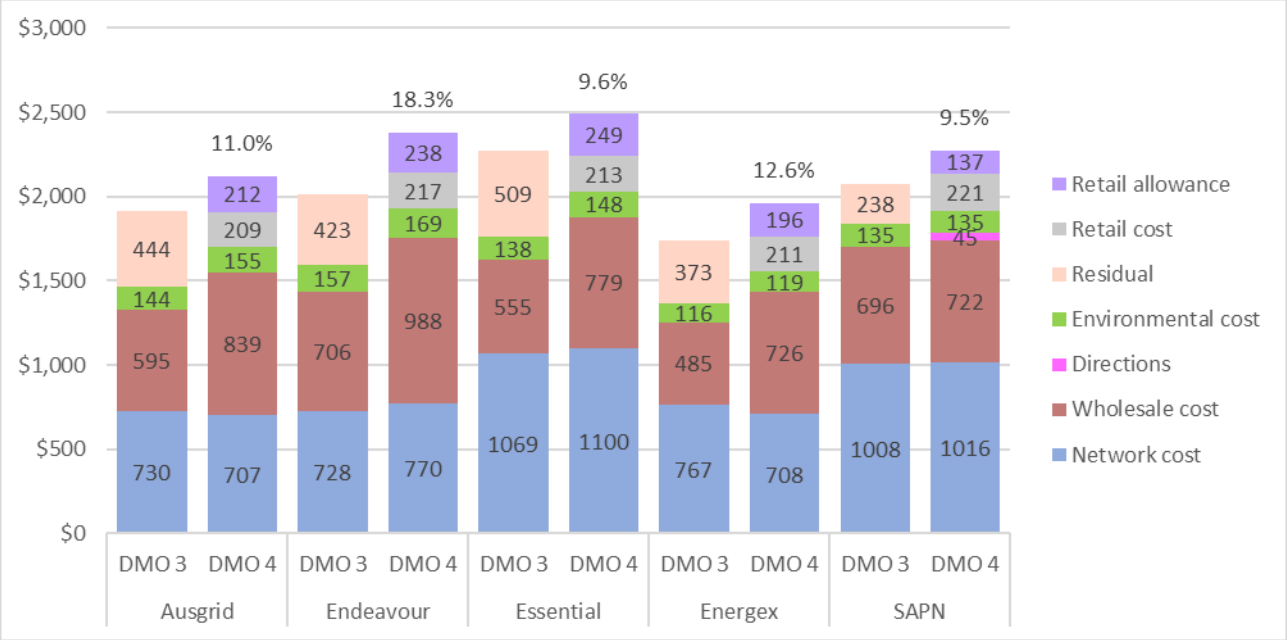
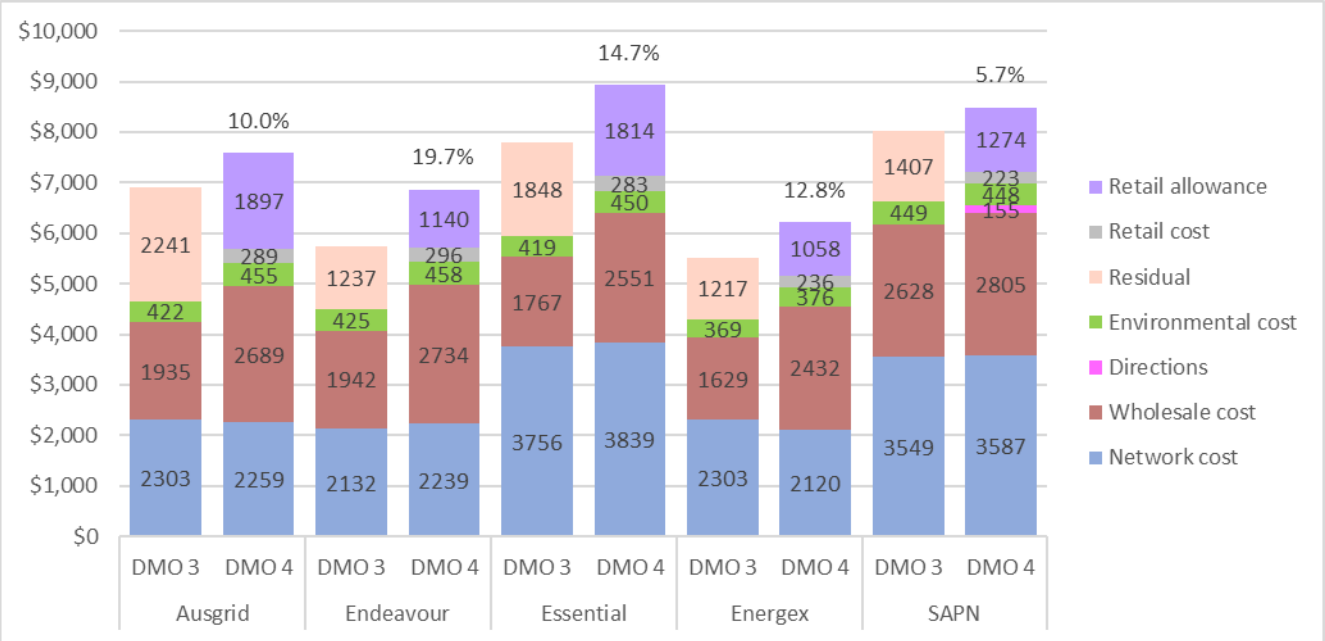


Figure F.3 Small business, % change from DMO 3 (nominal)



Note: Small business DMO 4 prices in this figure are based on 20,000 kWh of usage for comparison purposes.

G Analysis of DMO 4 final retail costs and margins

Figure G.1 Ausgrid, residential without controlled load, DMO 3 residual, DMO 4 retail allowance and retail operating costs, % of DMO 4 price

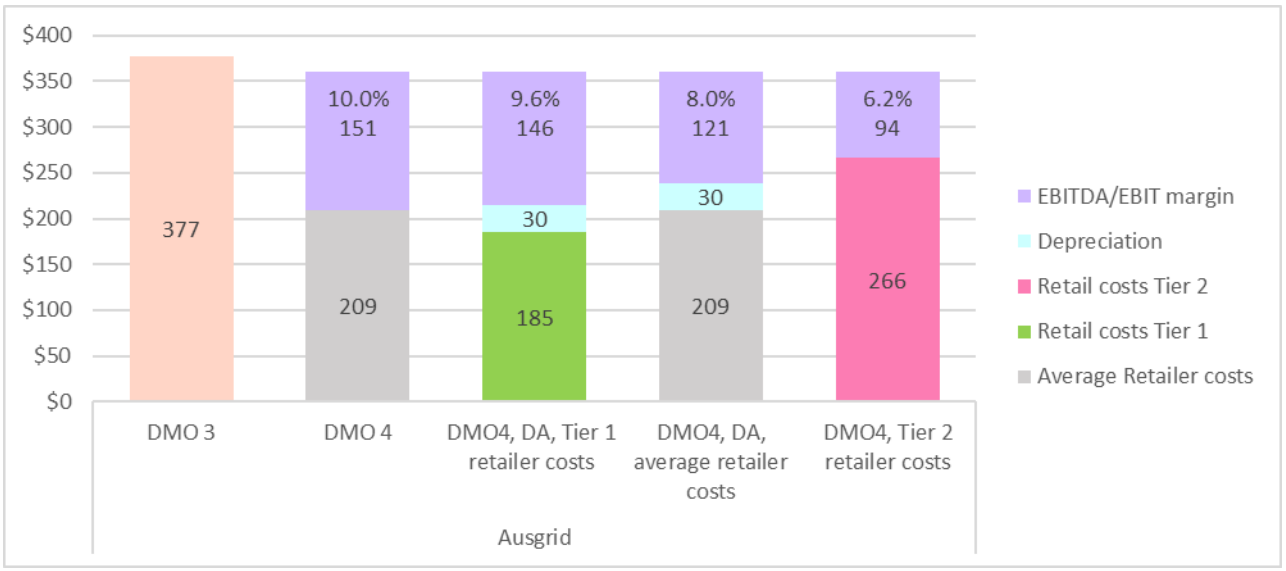


Figure G.2 Endeavour, residential without controlled load, DMO 3 residual, DMO 4 retail allowance and retail operating costs, % of DMO 4 price

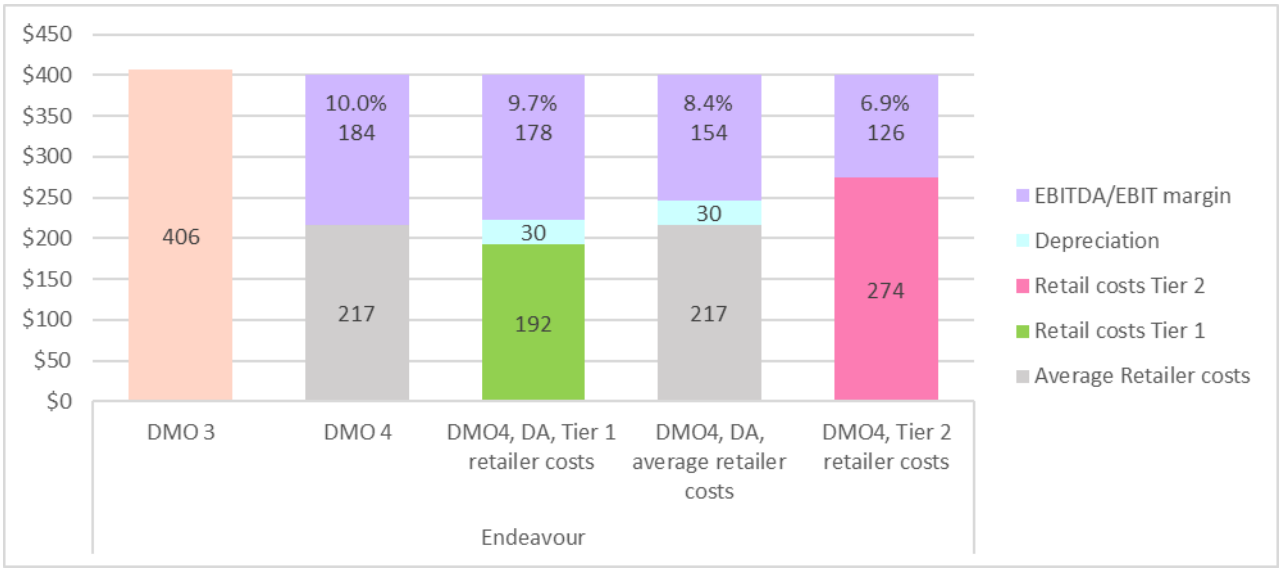


Figure G.3 Essential, residential without controlled load, DMO 3 residual, DMO 4 retail allowance and retail operating costs, % of DMO 4 price

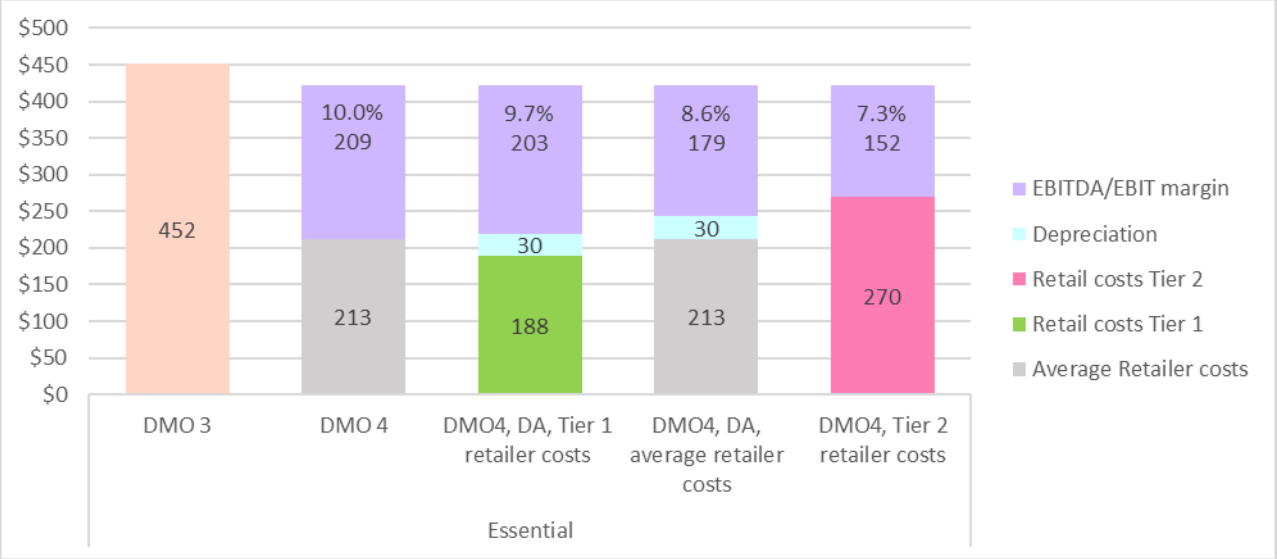


Figure G.4 Energex, residential without controlled load, DMO 3 residual, DMO 4 retail allowance and retail operating costs, % of DMO 4 price

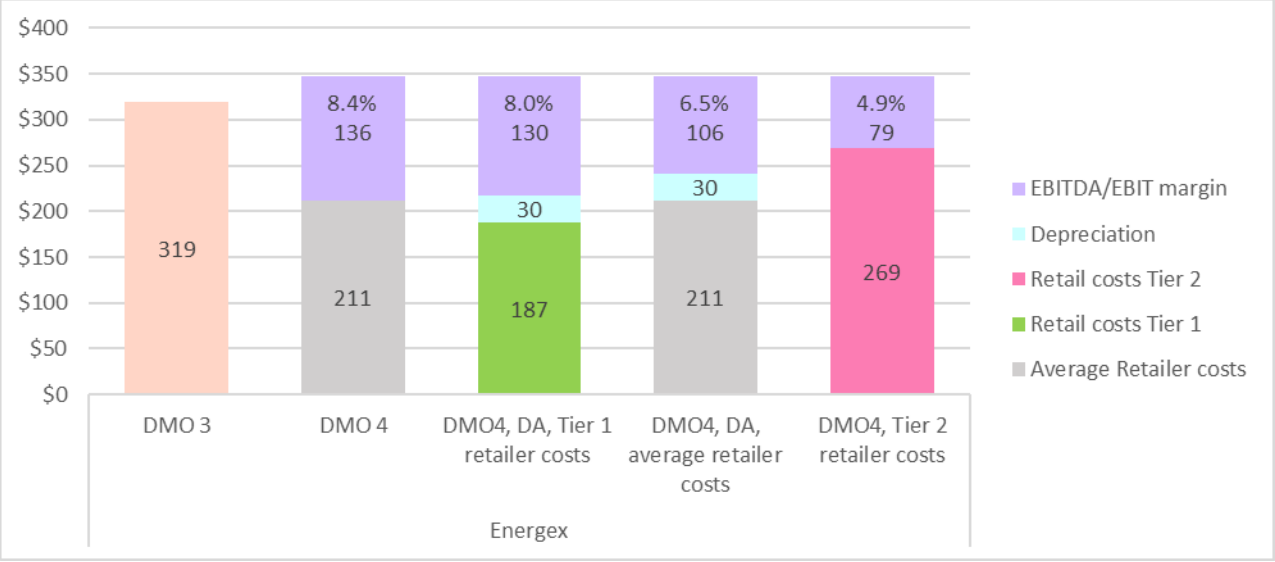


Figure G.5 SAPN, residential without controlled load, DMO 3 residual, DMO 4 retail allowance and retail operating costs, % of DMO 4 price

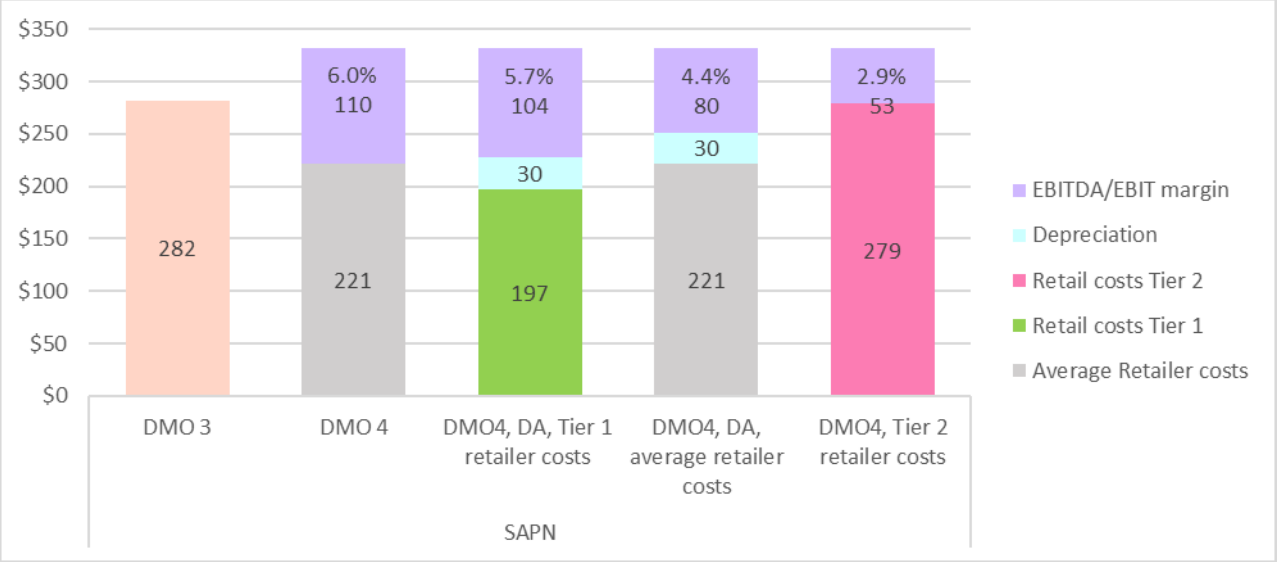


Figure G.6 DMO regions, residential customers, DMO 3 residual, DMO 4 retail allowance and retail operating costs, % of DMO 4 price

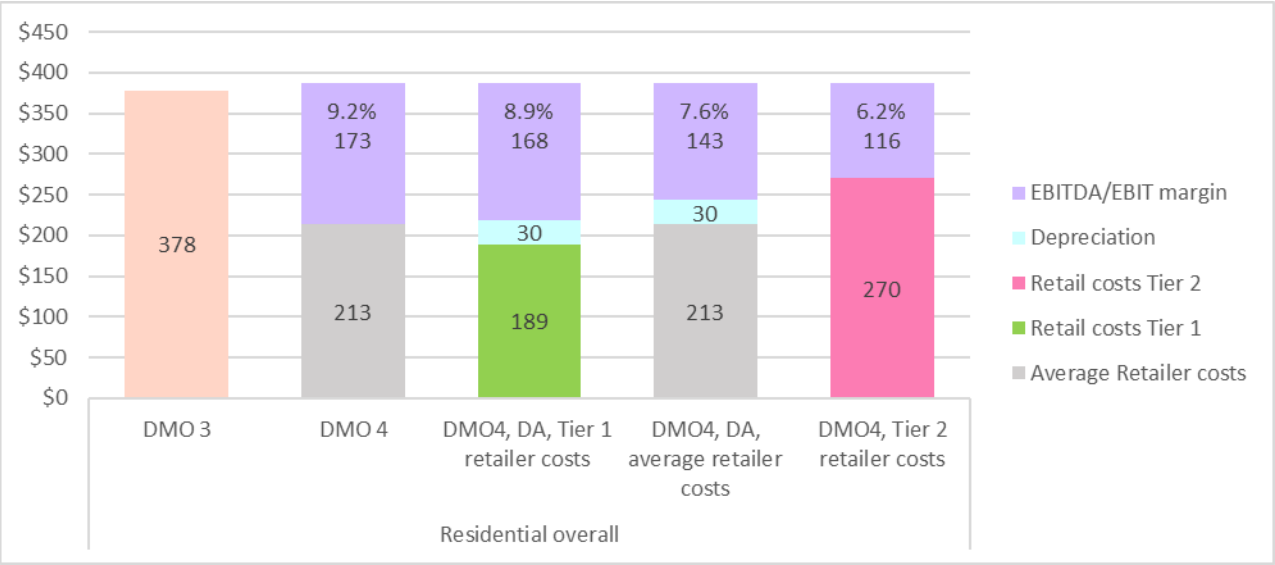


Figure G.7 Ausgrid, residential with controlled load, DMO 3 residual, DMO 4 retail allowance and retail operating costs, % of DMO 4 price

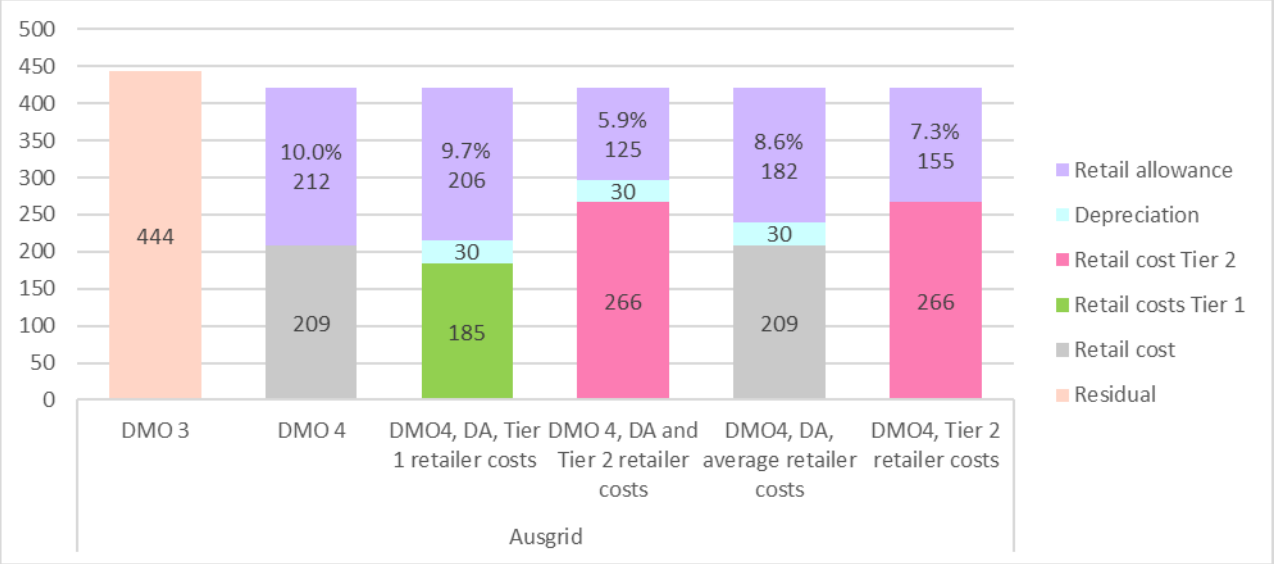


Figure G.8 Endeavour, residential with controlled load, DMO 3 residual, DMO 4 retail allowance and retail operating costs, % of DMO 4 price

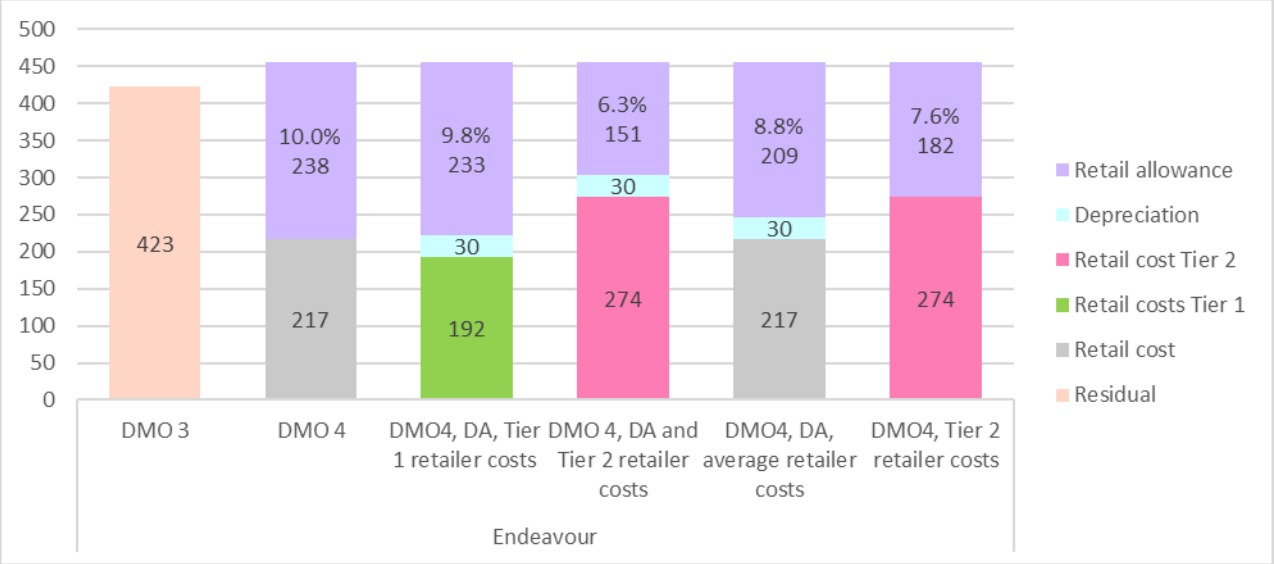


Figure G.9 Essential, residential with controlled load, DMO 3 residual, DMO 4 retail allowance and retail operating costs, % of DMO 4 price

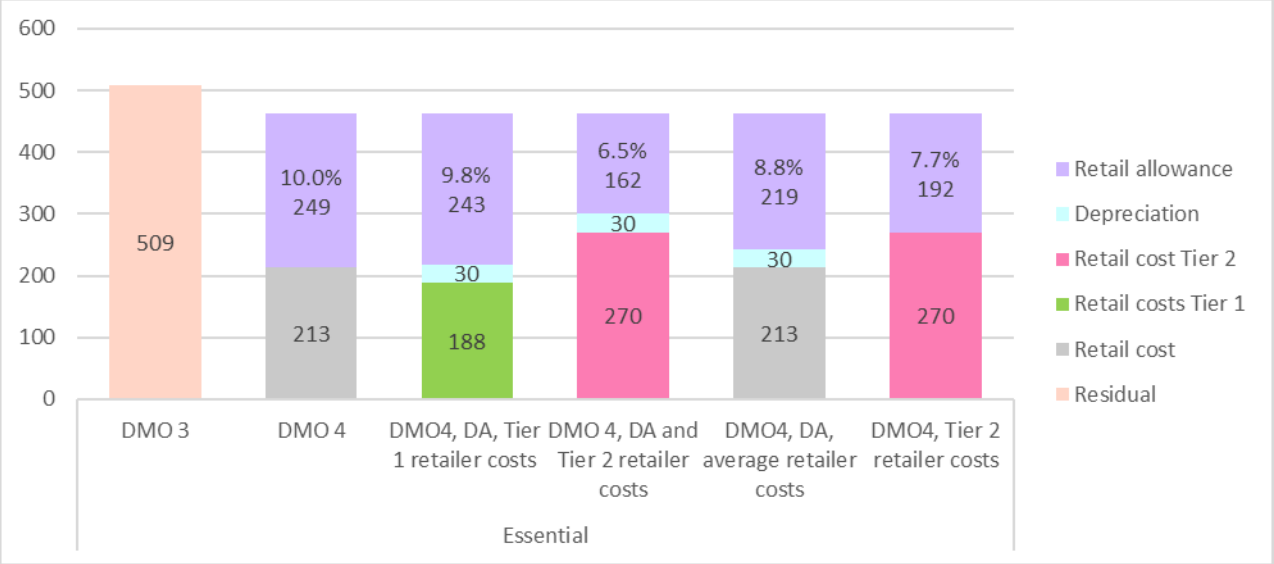


Figure G.10 Energex, residential with controlled load, DMO 3 residual, DMO 4 retail allowance and retail operating costs, % of DMO 4 price

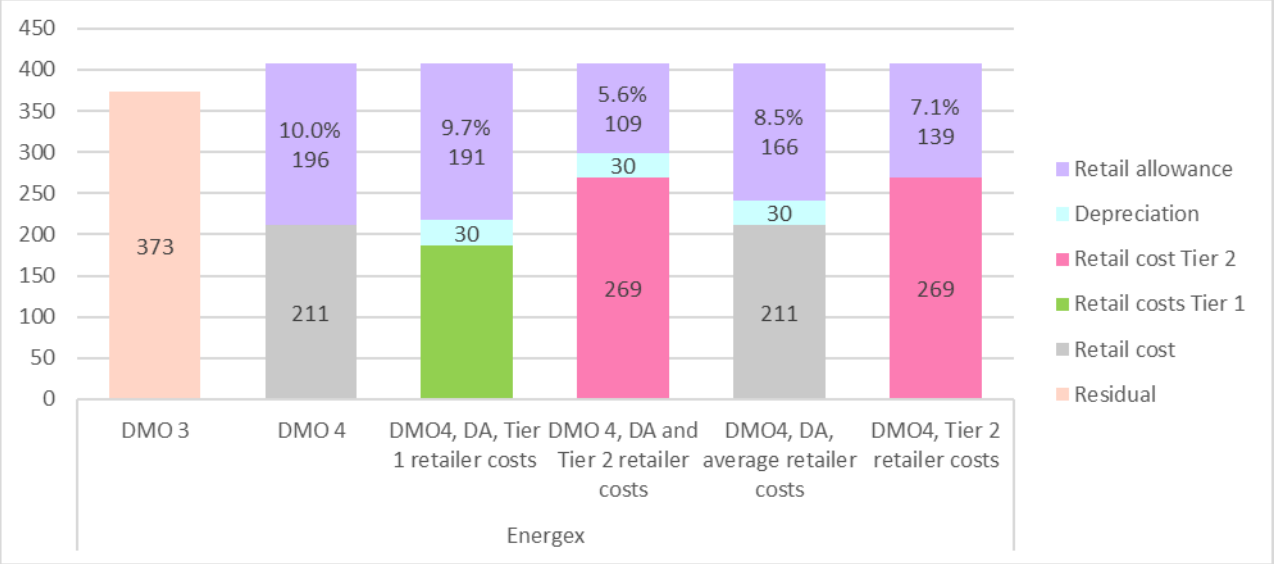


Figure G.11 SAPN, residential with controlled load, DMO 3 residual, DMO 4 retail allowance and retail operating costs, % of DMO 4 price

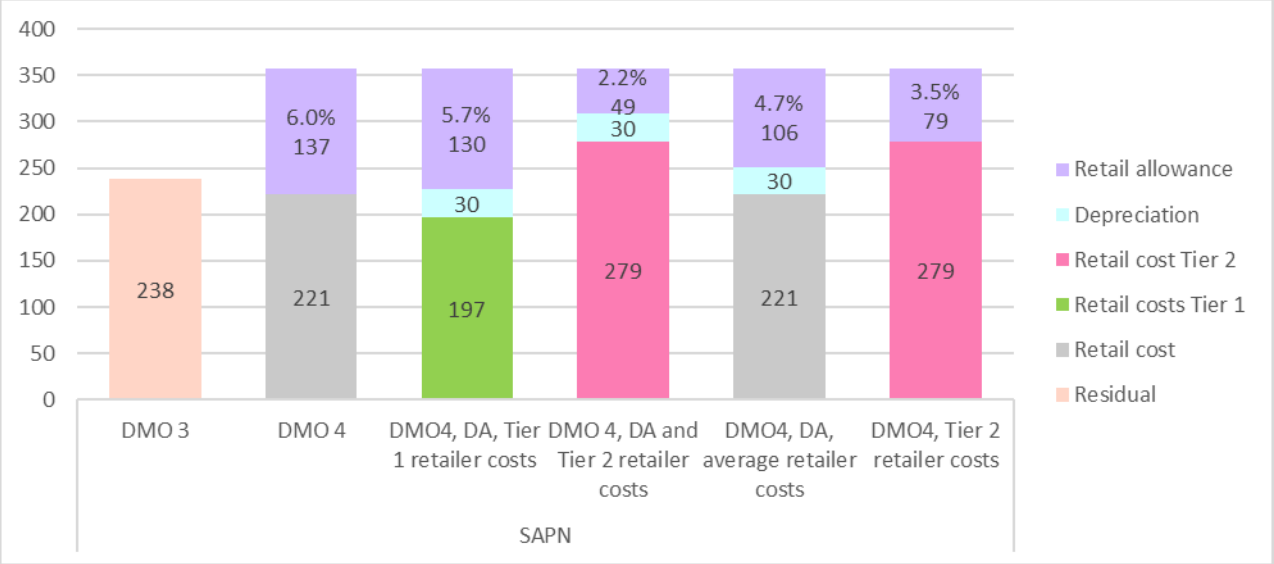


Figure G.12 Ausgrid, small business, DMO 3 residual, DMO 4 retail allowance and retail operating costs, % of DMO 4 price

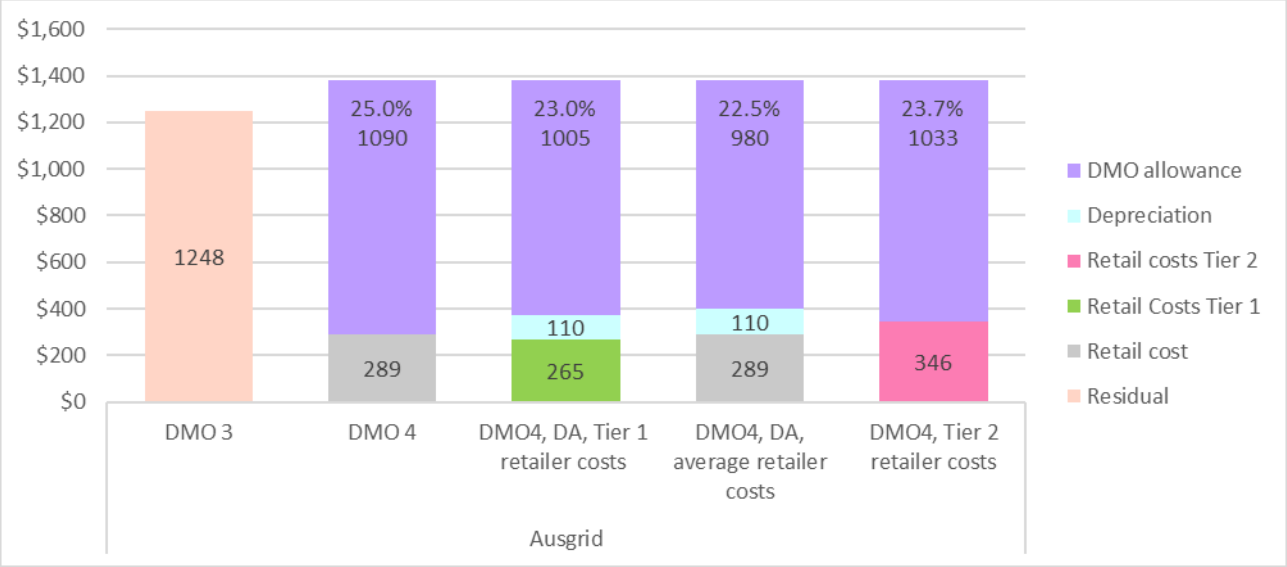


Figure G.13 Endeavour, small business, DMO 3 residual, DMO 4 retail allowance and retail operating costs, % of DMO 4 price

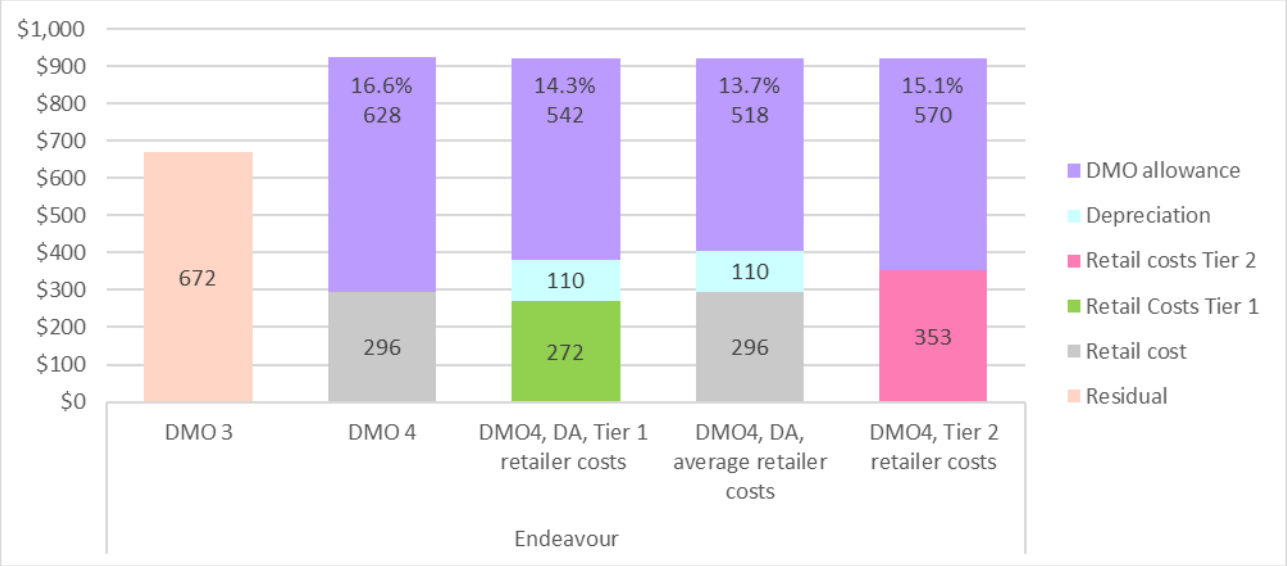


Figure G.14 Essential, small business, DMO 3 residual, DMO 4 retail allowance and retail operating costs, % of DMO 4 price

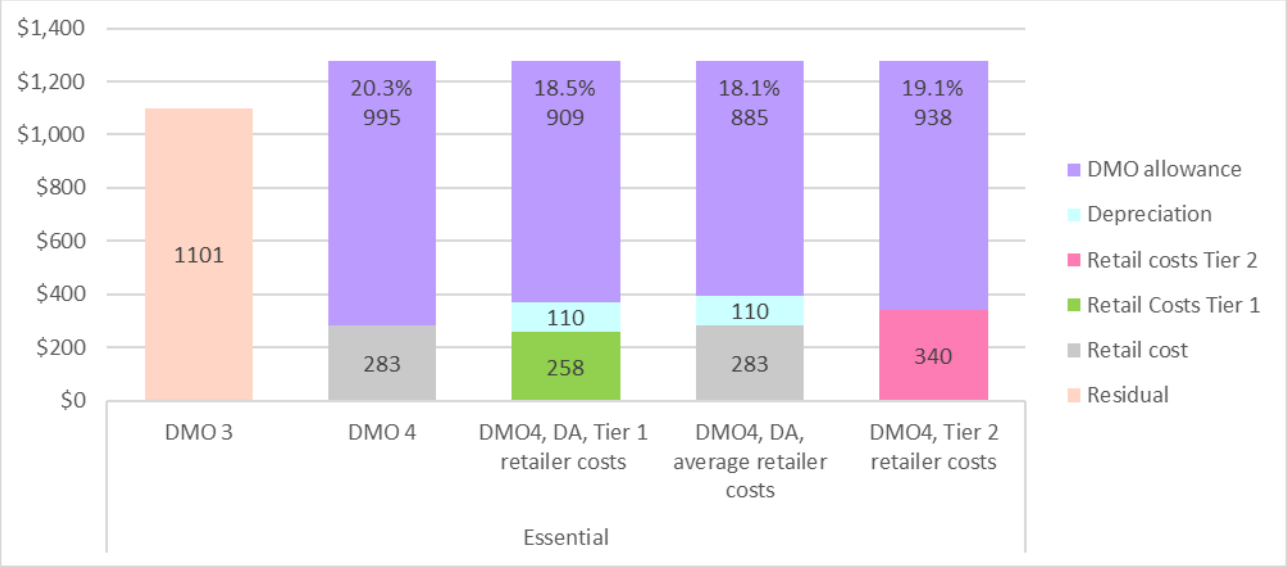


Figure G.15 Energex, small business, DMO 3 residual, DMO 4 retail allowance and retail operating costs, % of DMO 4 price

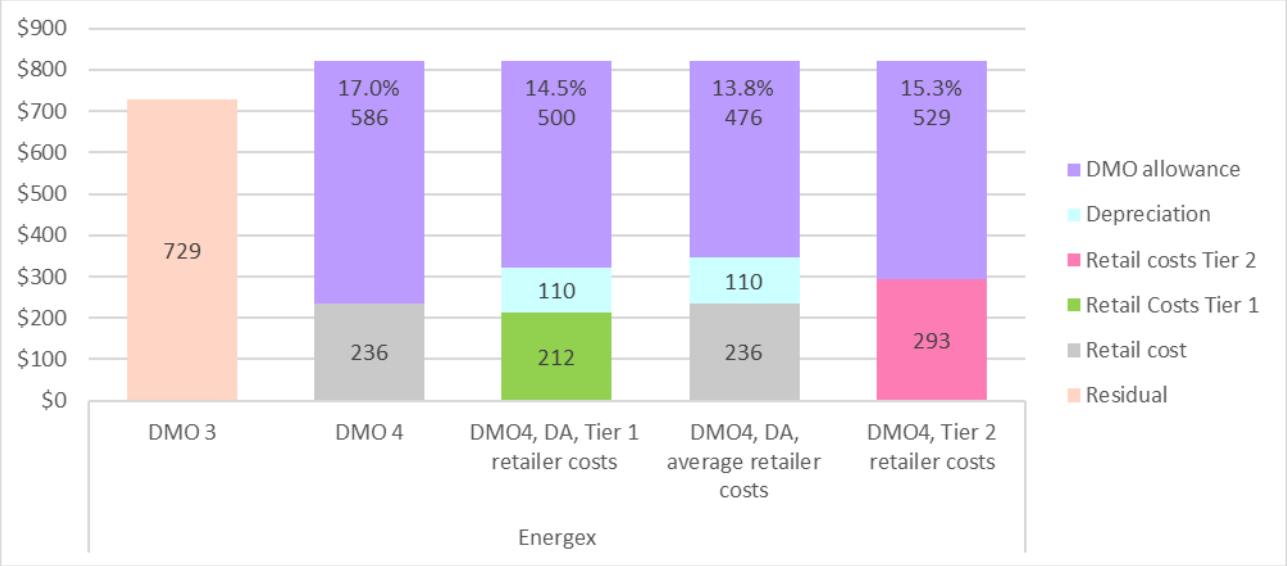


Figure G.16 SAPN, small business, DMO 3 residual, DMO 4 retail allowance and retail operating costs, % of DMO 4 price

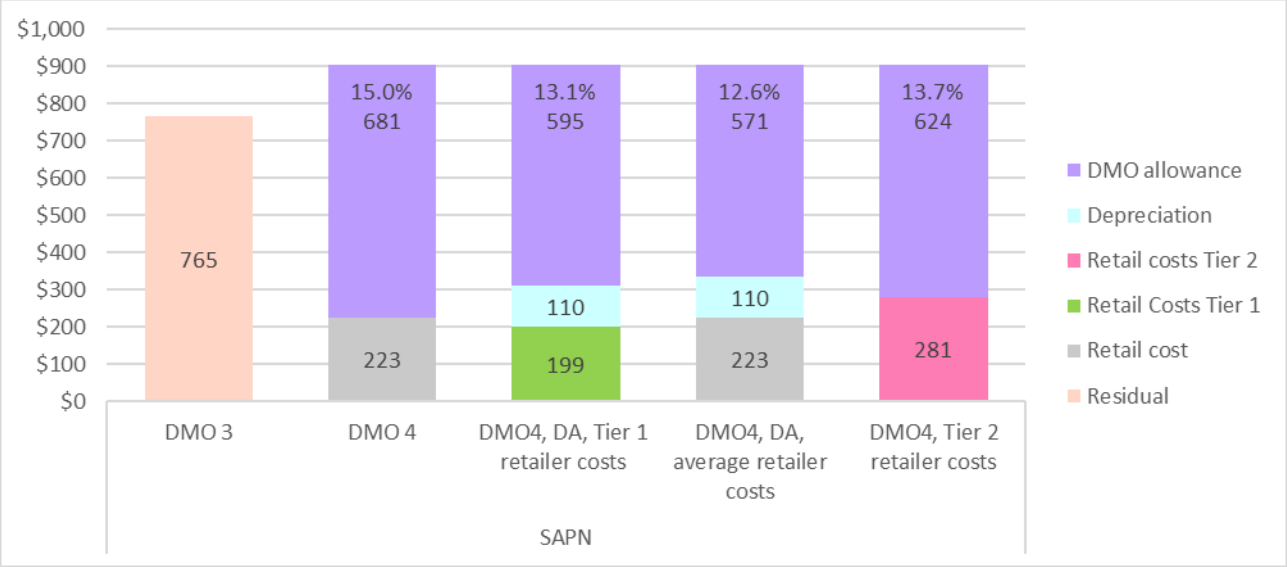


Figure G.17 DMO regions, small business, DMO 3 residual, DMO 4 retail allowance and retail operating costs, % of DMO 4 price