Default market offer prices 2023–24

Final determination

May 2023

AUSTRALIAN ENERGY REGULATOR

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Glossary

Term	Definition
ACCC	Australian Competition and Consumer Commission
AEC	Australian Energy Council
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
ASX	Australian Securities Exchange
CPI	Consumer price index
DMO	Default market offer
DMO 3	Default market offer determination for 2021–22
DMO 4	Default market offer determination for 2022–23
DMO 5	Default market offer determination for 2023–24
DMO 6	Default market offer determination for 2024–25
DMO 7	Default market offer determination for 2025–26
EBIT	Earnings before interest and taxes
EBITDA	Earnings before interest, taxes, depreciation, and amortisation
ECA	Energy Consumers Australia
ESC	Essential Services Commission
ESCOSA	Essential Services Commission of South Australia
GST	Goods and services tax
ICRC	Independent Competition and Regulatory Commission
kWh	Kilowatt-hour
MWh	Megawatt-hour
NEM	National Electricity Market
NMI	National Meter Identifier
NSLP	Net system load profile
OTC	Over-the-counter
PIAC	Public Interest Advocacy Centre
PV	Photovoltaic system / solar power system
RBA	Reserve Bank of Australia
RET	Renewable Energy Target
RIN	Regulatory Information Notice
RRO	Retailer reliability obligation
SACOSS	South Australian Council of Social Service
SE QLD	South-east Queensland
TOU	Time of use
VDO	Victorian Default Offer

1 Executive summary

This is the AER's final determination for retail electricity default market offer (DMO) prices to apply from 1 July 2023 to 30 June 2024, known as DMO 5.

1.1 The purpose of the DMO

The DMO is the maximum price (or 'price cap') that a retailer can charge a customer on a standing offer in New South Wales (NSW), South Australia (SA) and south-east Queensland (SE QLD) each year.[1] It protects consumers from unjustifiably high prices, while allowing retailers to recover their costs.

Standing offers are intended to provide a safety net for customers who have not or cannot engage in the retail electricity market. All retailers are obliged to provide a standing offer. Further, retailers must compare their market offers to their standing offers, so consumers know if their plan is more expensive than the standing offer and can compare discounts on a like-for-like basis.

The Competition and Consumer (Industry Code—Electricity Retail) Regulations 2019 (the Regulations) require the AER, in setting the DMO, to determine what it considers would be a reasonable per-customer annual price, having regard to the costs of supply and enabling retailers to make a reasonable profit. In this context the DMO prices are set with the following objectives as guiding principles[2]:

- reduce unjustifiably high standing offer prices and continue to protect consumers from unreasonable prices
- allow retailers to recover the 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.

We must balance these objectives when setting the annual DMO price.

1.2 Our approach to DMO 5

In setting the DMO each year, we must consider what has changed for each component of retail bills – wholesale, environmental, network and retail operating costs – as well as the margin and any other allowances that should be provided.

We have listened to stakeholder feedback on the draft determination and adjusted the DMO calculations for this final determination. These are set out below and in more detail in the body of this report. Taken together, these adjustments result in only a small change of between 1% to 3% difference from our draft determination in March 2023. The changes we

[1] The cap on standing offer prices does not apply to customers on demand tariffs or small business customers on flexible or TOU tariffs.

[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, 22 October 2018; the ACCC Retail Electricity Pricing Inquiry final report, June 2018; the Explanatory Statement accompanying the Regulations, 2019.

have made are largely updates based on additional, finalised information and refinements to our methodology to better reflect the costs of retailing electricity.

Wholesale costs

The wholesale cost of electricity is the largest component of retail prices and made up between 30% and 40% of DMO 4.

As identified in the DMO 5 draft determination, wholesale costs are forecast to increase across all DMO regions and consumer types for DMO 5. Driving this is the trade-weighted average of the contract price, which has remained elevated as a result of:

- more expensive electricity futures contracts that were traded before the government began to signal in October 2022[3] an intention to intervene in the form of temporary price caps[4]
- relatively stronger coal and gas costs compared with previous years
- reliability issues with aging coal-fired generation assets creating expectations of higher future wholesale energy costs
- the closure of Liddell Power Station in NSW in April 2023 which has been factored into supply and price expectations by the market for some time
- the increasingly peaky shape of customer demand.

The governments' temporary coal and gas price caps helped to address some of the coal availability and pricing issues observed in 2022.

Since the DMO 5 draft determination, base and cap futures contract prices for 2023–24 have risen slightly, however they have remained broadly consistent with where they were at the time of releasing the DMO 5 draft determination. Futures contract prices are an important input to our wholesale forecasts for the DMO. They represent market expectations about prices for the coming year and directly influence the costs to retailers in purchasing wholesale energy for their customers. Daily settled contract prices are almost double what they were at the start of 2022 but around 40% below their peak in October 2022, when the interventions were first mooted.

For the final determination, we repeated the process used in the draft determination of seeking additional confidential OTC contract market data to assess if there was more information beyond ASX market prices which we could use to accurately consider retailer costs. Our analysis found that OTC prices closely mirror ASX daily traded prices. As such we determined ASX Energy contract market information is an effective proxy for contract costs.

ACIL Allen provided their expert advice on the wholesale and environmental cost elements for the DMO 5. For the DMO 5 final determination, we worked with ACIL Allen to update the assumptions used in the draft determination relating to generator fuel costs. We have also

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3 The Guardian, 26 October 2022, Federal budget Jim Chalmers flags intervention in energy market as prices surge.

4 The Energy Price Relief Plan included a number of measures designed to assist the wholesale market. One of the measures provided temporary caps on the contract price for gas and coal used by generators in QLD and NSW.

published the ACIL Allen's technical paper[5] for the final determination, which outlines the changes made to the wholesale and environmental cost forecasting approach in more detail.

Environmental costs

Environmental costs have decreased in all regions since DMO 4. To estimate environmental costs for the final determination we have retained our market-based approach but made updates to include any new and amended schemes.

Network costs

We have applied the approved network tariffs for 2023–24 in the final determination. At the time of publishing the DMO 5 draft determination these were not available. Changes in annual network charges were caused predominately by higher than forecast inflation, but also new jurisdictional scheme costs in NSW, higher jurisdictional scheme costs in SA and recovery of previously under-recovered distribution revenues in some of the networks. We also corrected an earlier miscalculation in our estimate involving an additional meter cost of $25.86 for SA Power Networks, found in DMO 4 and the DMO 5 draft determination.

Retail operating costs

We have analysed data submitted by retailers to the Australian Competition and Consumer Commission (ACCC) Inquiry into the National Electricity Market to calculate bad and doubtful debt costs in the final determination. We consider this to be a more representative sample than the 3 public sources previously used in DMO 4 and the DMO 5 draft determination. As a result, bad and doubtful debt costs are lower for residential customers since DMO 4. However, they have increased for small business customers since DMO 4. For both groups of customers this leads to an increase from the DMO 5 draft determination.

Retail allowances including profit margin

We consider that the allowance proposed in the DMO 5 draft determination meant that residential customers in NSW would be paying materially more in dollar terms than customers in other regions where we held allowances stable in percentage terms. This all results from changes in the underlying DMO cost stack.

Therefore, we adjusted the NSW residential allowances down from 10% to 9.3% to address this while recognising that retailers also face some additional costs as a result of underlying market changes. Our allowances for DMO 5 strike a balance between ensuring that consumers don't pay more than necessary and providing sufficient and additional retail margin compared to that provided in DMO 4. When we have greater clarity on both wholesale market conditions and the outcome for prices beyond DMO 5 we will consider and consult on this issue again for DMO 6.

Further details on the retail allowance are found in chapter 8.

[5] *ACIL Allen DMO 5 final determination technical paper*, 23 May 2023

1.3 DMO 5 price movements

Residential customers in SE QLD face increases of around 21.5% for customers without controlled load and 20.5% for customers with controlled load (increases of 15.3% and 14.2% above forecast inflation, respectively).[6]

In NSW, residential customers without controlled load will see price increases of 20.8% to 21.4% (14.6% to 15.1% increases above forecast inflation, respectively) compared with DMO 4, depending on their network distribution region. Customers with controlled load will see price increases of 19.6% to 24.9% (13.3% to 18.7% increases above forecast inflation, respectively).

SA residential customers without controlled load will experience price rises of around 23.9% (17.6% above forecast inflation). Those with controlled load face increases of around 22.5% (a 16.3% increase above forecast inflation).

For small business customers, prices will increase between 14.7% (Ausgrid) and 28.9% (SA Power Networks) (8.4% to 22.6% above forecast inflation, respectively).

The DMO acts as a safety net for customers who can't shop around or who may have access to fewer options to purchase electricity from a retailer. It is also an important point of reference for customers when looking for a better offer or switching to a standing offer. We observe that customers who shop around continue to save on their bills. Based on offers available in late April 2023, residential customers switching from a standing offer to the lowest market offer could save 8% to 17% and small business customers could save 18% to 34%, depending on their region.

6 We have used Reserve Bank of Australia (RBA) May 2023 forecasted inflation for Jun 2023 (6.25%) and June 2024 (3.5%), RBA May 2023 forecast for the two years ending Jun 2024.

2 DMO 5 final prices

2.1 DMO final prices

Final DMO prices for 2023–24 for each customer type in each distribution region are set out in Table 2.1. The table also shows the changes from DMO 4 in both real terms (that is, adjusted for forecast inflation) and nominal terms.

Table 2.1 DMO 5 final determination prices, including changes from DMO 4 in nominal and real terms

Distribution zone	Description	Residential without controlled load		Residential with controlled load		Small business without controlled load	
Ausgrid	DMO price	$1,827		$2,562		$4,999	
	for annual usage of	3,911 kWh		Flat rate 4,813 kWh + CL 2,005 kWh		10,027 kWh	
	Change y-o-y	+$315	(20.8%)	+$440	(20.7%)	+$639	(14.7%)
	Change y-o-y (real)	+$221	(14.6%)	+$307	(14.5%)	+$367	(8.4%)
Endeavour Energy	DMO price	$2,228		$2,977		$4,598	
	for annual usage of	4,913 kWh		Flat rate 5,214 kWh + CL 2,206 kWh		10,027 kWh	
	Change y-o-y	+$392	(21.4%)	+$594	(24.9%)	+$816	(21.6%)
	Change y-o-y (real)	+$277	(15.1%)	+$445	(18.7%)	+$580	(15.3%)
Essential Energy	DMO price	$2,527		$2,977		$5,761	
	for annual usage of	4,613 kWh		Flat rate 4,613 kWh + CL 2,005 kWh		10,027 kWh	
	Change y-o-y	+$435	(20.8%)	+$487	(19.6%)	+$860	(17.5%)
	Change y-o-y (real)	+$304	(14.5%)	+$331	(13.4%)	+$554	(11.3%)
Energex	DMO price	$1,969		$2,363		$4,202	
	for annual usage of	4,613 kWh		Flat rate 4,412 kWh + CL 1,905 kWh		10,027 kWh	
	Change y-o-y	+$349	(21.5%)	+$402	(20.5%)	+$756	(21.9%)
	Change y-o-y (real)	+$248	(15.3%)	+$279	(14.2%)	+$541	(15.7%)
SA Power Networks	DMO price	$2,279		$2,787		$5,849	
	for annual usage of	4,011 kWh		Flat rate 4,212 kWh + CL 1,805 kWh		10,027 kWh	
	Change y-o-y	+$439	(23.9%)	+$512	(22.5%)	+$1,310	(28.9%)
	Change y-o-y (real)	+$324	(17.6%)	+$370	(16.3%)	+$1,026	(22.6%)

Note: Real comparisons with DMO 5 are based on RBA 2022–23 inflation forecast of 6.25% in the RBA May 2023 forecast for the two years ending Jun 2024. CL: controlled load. Usage is based on 366 days per year (see chapter 9).

3 Background to the DMO

The AER is an independent regulator responsible for enforcing the laws for the National Electricity Market (NEM) and spot gas markets in southern and eastern Australia. We also monitor and report on the conduct of electricity market participants and the effectiveness of competition, and regulate electricity networks and covered gas pipelines in all jurisdictions except Western Australia.

We protect the interests of residential and small business consumers by enforcing the National Energy Retail Law. Our retail energy market functions cover QLD, NSW, SA, Tasmania and the Australian Capital Territory (ACT).

Our objectives[7] include:

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

We act in the long-term interests of consumers across all of our functions.

Under the Regulations, our role is to set the DMO price each year for non-price regulated network distribution regions – SE QLD (Energex), NSW (Endeavour Energy, Essential Energy and Ausgrid) and South Australia (SA Power Networks).

The DMO is a price cap. Retailers' standing offers cannot exceed the DMO. The DMO price also acts as a 'reference price' for all other offers in each respective distribution region. DMO prices are designed to make it easier for consumers to compare energy plans across different providers. Consumers also have the right to revert to a standing offer and pay DMO prices if they are not happy with other offers from their current retailer.

3.1 Policy context for the DMO

From its inception on 1 July 2019, the purpose of the DMO has been to act as a default protection for those who are not engaged in the electricity retail market. It should not be a low-priced alternative to a market offer.[8] The DMO policy objectives 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.

The DMO differs in its role to that of other regulated electricity prices set by regulators in regional QLD (Queensland Competition Authority), Victoria (the Essential Services Commission (ESC)), Tasmania (Office of the Tasmanian Economic Regulator) and the ACT

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7 AER Strategic Plan 2020–25.

8 ACCC, *AER Default market offer, Submissions to the draft determination*, 20 March 2019, pp.1–2.

(Independent Competition and Regulatory Commission (ICRC)). The Regulations make clear that the DMO is intended to be a reasonable price, not the lowest or most efficient price. Guidance provided to the AER at the commencement of our role was that the DMO's objectives are not the same as for these other regulated prices. For regional QLD, the ACT and Tasmania, where there is limited retail electricity competition, the regulated prices are intended to be efficient prices in markets where there is limited competitive tension between retailers.

In Victoria, where there is retail competition, the objectives for the Victorian Default Offer (VDO) are that it must be a 'simple, trusted and reasonably priced electricity option that safeguards consumers unable or unwilling to engage in the electricity retail market'. However, there are constraints on the extent to which some costs can be included in the VDO and the ESC has made a range of different methodological choices on other elements.

Customers on standing offers

The Australian Energy Market Commission (AEMC) and ACCC have identified customers on standing offers as 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)
- have moved into a premise and receive supply from the existing retailer supplying the premises but are yet to contact the retailer[9]
- have defaulted to a standing offer following the expiry of a market contract.[10]

In regions where the DMO is applied, only a minority of residential and small business customers are on standing offers (Table 3.1). Most customers on standing offers are served by 'Tier 1' retailers – AGL Energy, EnergyAustralia and Origin Energy.

Every retailer must have a standing offer and customers have the right to ask to be placed on a standing offer if they wish. However, for customers with an existing electricity connection, only their existing retailer is obliged to supply them on these terms. Therefore, customers seeking a standing offer can make that request of their existing retailer, knowing it will be met and that they will be protected by the DMO price cap. Retailers must ensure they comply with this obligation.

9 AEMC, *Advice to the Council of Australian Governments Energy Council: Customer and competition impacts of a default offer*, 20 December 2018, p. 15.

10 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.

Table 3.1 Number and percentage of customers on standing offers in DMO areas

Customer type	DMO	NSW	SE QLD	SA	Total
Residential customers	DMO 5	320,362 (9.4%)	156,986 (10.5%)	62,600 (7.8%)	**539,948 (9.5%)**
Small business customers	DMO 5	55,995 (18.1%)	21,267 (19.3%)	13,778 (15.9%)	**91,040 (18.0%)**
Residential customers	DMO 4	347,483 (10.4%)	167,520 (11.5%)	65,516 (8.2%)	**580,519 (10.4%)**
Small business customers	DMO 4	64,211 (19.2%)	24,234 (21.7%)	13,701 (15.6%)	**102,146 (19.1%)**
Residential customers	DMO 3	379,840 (11.5%)	166,413 (11.6%)	63,834(8%)	**610,087 (11.0%)**
Small business customers	DMO 3	73,620 (22.1%)	24,771 (22.5%)	13,662 (15.5%)	**112,053 (21.1%)**

Note: SE QLD values extrapolated from all QLD customers by excluding Ergon Energy customers and may contain regional QLD customers from other retailers. Customers on standing offers calculated by subtracting market offer customers from total customers.
Source: AER Retail Market Performance update, Quarter 2 2022–23.

The Regulations also prescribe a mandatory industry code with DMO reference provisions requiring:[11]

- standing offer prices for small customers not to exceed a price determined by the AER[12]
- small customers to be told how a retailer's prices compare with the AER determined annual price[13]
- the most prominent price related feature in an advertisement must not be a conditional discount, and any conditions on other discounts are clearly displayed.[14]

Under these requirements, the DMO price acts as a '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 and the reference bill mechanism are contained in the Regulations. 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[15] (the model annual usage)[16]

11 The Code for the purposes of Part IVB of the *Competition and Consumer Act 2010*.
12 Regulations s. 10.
13 Regulations s. 12.
14 Regulations s. 14.
15 The AER is not required to determine the pattern of consumption in the case of small business customers.
16 Regulations, s. 16(1)(a).

- 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).[17]

The DMO price applies to residential and small business customers on standing offers in SE QLD, NSW and SA.[18]

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.[19]

Each category includes customers with solar tariffs.[20]

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 reasonable profit and other matters we consider relevant.[21]

3.3 Embedded networks

Embedded networks are private electricity networks that serve multiple premises, such as in shopping centres, apartment blocks or caravan parks. The owner of the site with an embedded network runs the network infrastructure and usually buys energy from an energy retailer to 'on-sell' it to the different premises at the site.

Embedded network customers are supplied energy in one of two ways – from an exempt seller or from an authorised retailer operating within an embedded network. Exempt selling occurs when a person or business purchases energy from a retailer and on-sells the energy to their customers, commonly through an embedded network. An exempt seller's core business is not the sale of energy.

The DMO does not apply to tariffs charged in embedded networks. However, in situations where an embedded networks customer purchases their electricity from an exempt seller, they do have their prices indirectly capped at the DMO. This is because the exempt seller cannot charge more than the standing offer from the local area retailer, which is itself capped at the DMO.[22]

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17 Regulations, s. 16(1)(b).

18 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.

19 Small business customers are those who use less than 100 MWh per annum.

20 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 and tariffs offered in embedded networks.

21 Regulations, s. 16(4).

22 See Condition 7 of the AER Retail Exempt Selling Guideline.

In March 2023, the Australian Government commenced further consultation on the outcomes from its 2022 review of the Regulations, including how to extend the price cap protection provided by the DMO to customers in embedded networks.[23]

The AER supports extending the current DMO pricing protections to customers in embedded networks in DMO regions. We also support a requirement for authorised retailers supplying 'energy only' offers in DMO regions to not charge more than the DMO price minus the network component. This would prevent customers on energy only offers in DMO regions from being charged twice for network costs.

How we take account of embedded network customers when setting future DMO prices will depend on the outcome of the review of the Regulations. We anticipate this to be relevant for the DMO 6 determination and beyond.

[23] Department of Climate Change, Energy, the Environment and Water, Consultation on the implementation of 2022 Default Market Offer review outcomes, accessed 5 May 2023.

4 Network costs

In a retail electricity bill, network costs represent the cost of transporting electricity through transmission and distribution networks to a customer's premises.

Under the National Electricity Rules, the AER regulates network charges by approving the network tariffs that distribution network businesses set on an annual basis,[24] which offer a range of tariff structures for each class of customer. Network tariffs are typically comprised of 2 components:

- Network Use of System charges, which 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. NSW distribution network businesses have now included the NSW Roadmap costs into this component, which we identified as a separate cost item in the DMO 5 draft determination.[25]
- Metering charges, which relate to distribution network businesses' installation and maintenance of type 5 manually read interval meters and type 6 accumulation meters.

4.1 Draft determination

As noted in the DMO 5 draft determination, network businesses provided the AER with updated information for the 2023–24 year, which we used to develop our own estimates to calculate the indicative network costs for 2023–24.

That approach was necessary to consider the most up-to-date inflation forecasts, interest rates and other factors that drive network tariffs, because those factors had changed significantly since the indicative network tariffs for 2023–24 were submitted last year.

Our position in the DMO 5 draft determination was to use approved network flat rate tariffs for 2023–24 for the final DMO 5 price calculation. We considered that this approach remains appropriate for DMO 5, given most customers are on flat rate tariffs and that altering our approach would add complexity and reduce transparency without providing major benefits to stakeholders.

4.2 Stakeholder views

Stakeholder submissions received in response to the DMO 5 draft determination did not generally raise concerns with our proposed approach for network costs.

The South Australian Council of Social Service (SACOSS) highlighted its concern with 'supernormal profits' of network businesses in NEM regions. This view has been based on a report by Simon Orme from the Institute for Energy Economics and Financial Analysis.[26]

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[24] See Chapters 6 and 6A of the National Electricity Rules.

[25] Refer to the draft determination for further detail on the NSW Roadmap costs, see AER, Default market offer prices 2023–24 draft determination, 15 March 2023, pp. 12–14.

[26] Simon Orme, Regulated Electricity Network Prices are Higher than necessary: An assessment of the economic regulation of Australia's electricity network, October 2022.

SACOSS asserted that retail bills would be lower if these 'supernormal profits' were reduced. The AER has issued a statement in response to the report by Simon Orme.[27]

We also acknowledge a submission from Mr. Kevin Cox, Consumer Representative on the Evoenergy Consumer Representative Council. This submission was predominantly related to the Rate of Return Instrument and has been considered in the Rate of Return Instrument process.

4.3 Final determination

The final 2023–24 network tariffs were provided by each network business and approved by the AER under our 2023–24 network tariff approval process.

The AER approved the distribution network tariffs for the 5 DMO distribution regions on 4 May 2023. Consistent with the DMO 5 draft determination, and as mentioned above, we have used the approved flat rate network tariff prices to calculate the DMO network component in each distribution region.

These costs have varied from the indicative network tariffs that were the basis of the network component in the DMO 5 draft determination, with the final network costs for DMO 5 in the:

- Ausgrid (NSW) region being 0.4% to 2.3% lower than our estimates in the DMO 5 draft determination, depending on the customer type
- Endeavour Energy (NSW) region being 1.7% to 2.3% higher
- Essential Energy (NSW) region being 1.1% to 1.9% lower
- Energex (SE QLD) region being 0.8% lower to 1.3% higher
- SA Power Networks (SA) region being 1.2% lower to 3.2% higher.

For SA Power Networks residential controlled load, we incorrectly included an additional meter cost of $25.86 in DMO 4 and in the DMO 5 draft determination. In SA, metering charges are applied on a per National Meter Identifier (NMI) basis not on a per meter basis as we calculated. As such, while a residential customer may have 2 meters (one for general usage and one for controlled load), the customer would only incur one metering charge because they would have one NMI. This has been corrected in the final determination and in the DMO 5 model.

Cost pass-throughs, efficiency incentive payments, higher transmission costs, jurisdictional scheme costs in SA and the introduction of the NSW Roadmap costs (for NSW networks) are among the factors driving higher network costs compared with DMO 4.

The network tariffs that are used to assess network costs are set out in Table 4.1. Network costs resulting from this are shown in Table 4.2 and included in the DMO 5 charts in Appendix D. Networks costs are also in the DMO 5 price calculation model, published alongside the final determination.

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[27] AER, AER Statement – Institute for Energy Economics and Financial Analysis report on regulated network electricity prices, 4 October 2022.

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

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

Total network cost components for the 2023–24 DMO 5 are set out in Table 4.2, together with the costs used for the 2022–23 DMO 4 for comparison.

Table 4.2 Total network costs for 2022–23 and 2023–24 ($ nominal, incl. GST)

Distribution zone	Tariff	2022–23 ($)	2023–24 ($)	Change: year-on-year	
				$	%
Ausgrid	Residential flat rate	538	565	27	5.0%
	Residential controlled load	707	741	34	4.8%
	Small business 10,000kWh	1,409	1,478	69	4.9%
Endeavour Energy	Residential flat rate	654	679	25	3.8%
	Residential controlled load	770	812	41	5.4%
	Small business 10,000kWh	1,263	1,303	40	3.2%
Essential Energy	Residential flat rate	980	1,083	103	10.5%
	Residential controlled load	1,100	1,208	107	9.8%
	Small business 10,000kWh	2,123	2,322	199	9.4%
Energex	Residential flat rate	611	669	59	9.6%
	Residential controlled load	708	754	46	6.5%
	Small business 10,000kWh	1,220	1,293	73	6.0%
SA Power Networks	Residential flat rate	827	843	16	1.9%
	Residential controlled load	1,016	1,007	-9	-0.8%
	Small business 10,000kWh	1,930	2,022	91	4.7%

Note: Total network costs contain a fixed and variable component and are a function of usage.

5 Wholesale energy costs

5.1 Draft determination

Changes to the wholesale methodology

Transparency, stability, certainty and practicality were at the forefront of the decisions we made in the DMO 5 draft determination. This led us to only make minimal changes from our DMO 4 final determination to include additional costs that had not previously been captured by our methodology where it was clear in DMO 5 that retailers would incur costs. This involved including the up-front premium cost for call option contracts in the wholesale cost component.

In making the DMO 5 draft determination we also considered changes to other aspects of our wholesale methodology. Our considerations on these issues are provided below.

Use of OTC confidential contract information

The DMO 5 draft determination maintained our existing methodology of using ASX data to estimate contracting costs in all DMO regions.

In the draft determination we investigated concerns about market liquidity in the various DMO regions by seeking additional contract market data from retailers to assess whether ASX data in isolation provides an accurate reflection of the costs a retailer faces. The data request included confidential OTC contract data.

We found that the OTC contract information provided by retailers did not indicate any significant differences between the pricing of ASX contracts and standard contracts traded OTC. Additionally, we noted that while OTC trades were regularly made for larger volumes, the similarity in prices between the 2 contract data sources indicated that the inclusion of OTC contract information would have minimal impact on the wholesale energy component.

Despite this finding, we noted in the DMO 5 draft determination that we would continue to monitor developments in OTC trades between the draft and final determination to ensure that the ASX market data remained an accurate reflection of a retailer's contracting costs.

Additional contracting products in the hedging strategy

The DMO 5 draft determination included base futures that are traded as a result of exercising base options. This is consistent with the method used in previous DMOs, although options were used less frequently in those periods. In addition, to better reflect the cost to retailers of using options as a hedging tool, we included the up-front premium cost for the purchase of call base options in the wholesale component of the DMO.

The decision to include the exercised option volume in DMO 5 was based on our assessment that options were part of a risk averse retailer's hedging strategy. This was based on the volume of base options increasing significantly in the last 5 years and an anticipation of a further increase in the use of options in the following years.

Load profiles

In the DMO 5 draft determination we continued using AEMO's published net system and controlled load profiles, which were created using basic meter data, and contemplated whether to use AEMO's net system load profile (NSLP) to estimate the load profiles for

DMO 5. We acknowledged that the rollout of advanced meters is accelerating and the load profiles were being impacted by exports from PV solar systems to the electricity grid.

In our reasoning, we noted we did not have detailed advanced meter data on exports from PV solar systems. Due to this, and the need for further testing on the impact of the implementation of the differing options for including PV solar system exports in the load profiles, we proposed to investigate this further in the second half of 2023.

This will enable us to provide stakeholders with more information on the impacts of PV solar systems on load profiles in the DMO 6 issues paper.

Hedge book build period

In the DMO 5 draft determination we maintained our approach, which involves a book build process utilising all available trades on the ASX.

We noted that a shorter book build would result in the significant volatility in the contract market noted in 2022 being reflected immediately in the DMO 5 price and not smoothed over a 2 to 3-year period. Our view was that the current approach, which includes all available trades on the ASX, provides the most accurate cost of energy over time that a prudent retailer is likely to incur.

95th to 75th percentile

The DMO 5 draft determination retained the current approach for the modelling of price outcomes, which involves using the 75th percentile of modelled price outcomes.

We stated that the estimate of wholesale energy costs should not be overstated to protect retailers from the risks associated with extreme circumstances, which in our view would result in an excessive allocation of risks to consumers. Further, we noted that consumers are unable to mitigate or minimise their risks to circumstances that retailers can through their hedging strategies, and that wholesale energy costs based on the 95th percentile would unfairly burden consumers.

AEMO and AEMC compensation costs

The DMO 5 draft determination only included known AEMO and AEMC compensation costs in the wholesale energy component of DMO 5. Therefore, no estimates or provisions for potential AEMO or AEMC compensation claims would be included in the wholesale energy component for DMO 5.

The DMO 5 draft determination also stated that a working capital allowance was not necessary, given that current compensation costs were minimal compared with overall wholesale costs and so would have minimal impact on a retailer’s working capital.

5.2 Stakeholder views

Additional contracting products in hedging strategy

The submissions from retailers in response to the DMO 5 draft determination were varied in terms of supporting the use of options or other contract products.

Powershop's submission supported the inclusion of options and other products, stating that the AER should acknowledge that retailers use exotic products to hedge their load, especially when standard products are insufficient.[28]

In contrast, EnergyAustralia and Momentum Energy's submissions both recommended that options, to some extent, should be excluded.

EnergyAustralia submitted that the volume of spread options and put options purchased and traded for speculative purposes should be excluded.[29] Furthermore, EnergyAustralia suggested that, to maintain accuracy in calculating wholesale energy costs, both calendar and financial year options must either be included together or excluded completely.[30]

Momentum Energy commented on the complexity of incorporating exercised options, stating that our methodology does not accurately capture how retailers actually use options in practice.[31] Momentum Energy noted that most options traded utilise a spread strategy[32] and that this results in the wholesale energy cost being understated for DMO 5.

As an alternative to the trade-weighted approach, EnergyAustralia's submission posed an open interest approach, which would more accurately reflect the retailer's net position.[33] Alternatively, Momentum Energy submitted ways to exclude futures resulting from options,[34] which included removing trades occurring 2 business days before the option expiry day and trades that are classified as 'strip trades' in the ASX data.[35]

Hedge book build period

A number of submissions responding to the DMO 5 draft determination made by small retailers identified concerns with our decision to maintain a 2 to 3-year book build period.

Energy Locals noted that a longer book build period disadvantaged small, fast-growing retailers that would have difficulty forecasting the required level of hedges needed beyond 12 months.[36] GloBird Energy noted that a 12-month period provided the right balance between price stability, retail cost and sustainable market competitiveness, with a longer period favouring the hedging strategies of incumbent and established retailers.[37] Powershop suggested that a book build period between 12 and 24 months was appropriate, stating that a 3-year period would be impossible to maintain due to the risk of volatility shown in 2022, providing scepticism that any retailer would do so in practice.[38]

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28 Powershop, *Submission to DMO 5 draft determination*, 11 April 2023, p. 1.

29 EnergyAustralia, *Submission to DMO 5 draft determination*, 6 April 2023, p. 2.

30 EnergyAustralia, *Submission to DMO 5 draft determination*, 6 April 2023, pp. 2–3.

31 Momentum Energy, *Submission to DMO 5 draft determination*, 5 April 2023, pp. 1–2.

32 A spread strategy usually involves the retailer buying one or more options, and then simultaneously selling an option or more options, to minimise their trading risk.

33 EnergyAustralia, *Submission to DMO 5 draft determination*, 6 April 2023, p. 2.

34 Momentum Energy, *Submission to DMO 5 draft determination*, 5 April 2023, pp. 2–3.

35 A strip trade is an option that contains 4 quarterly base load futures contracts, generally over the period of a financial year or calendar year.

36 Energy Locals, *Submission to DMO 5 draft determination*, 6 April 2023, p. 2.

37 GloBird Energy, *Submission to DMO 5 draft determination*, 30 March 2023, p. 1.

38 GloBird Energy, *Submission to DMO 5 draft determination*, 30 March 2023, p. 1.

Our decision to maintain a book build period that includes all available trades on the ASX was supported by ECA. They noted this provided increased price stability and consistency, especially in circumstances where the DMO faces large increases due to the volatility in the forward contract price.[39]

Load profiles

Stakeholders were largely in favour of incorporating advanced meter data in the load profile calculations as soon as possible. The common sentiment among several stakeholders was that AEMO's NSLP is no longer an accurate reflection of a retailer's customer base.[40]

AGL Energy submitted that the old demand data used by ACIL Allen did not reflect the load shape in the current DMO period, and the dataset should be further analysed.[41] Red Energy and Lumo Energy stated that including advanced meter data would more accurately reflect the actual load that retailers manage.[42]

Similarly, Alinta Energy believed that the inclusion of advanced meter data would help reflect the pattern of actual demand.[43] Highlighting the increasing proportion of customers on advanced meters, the AEC's submission found it imperative that advanced meter data be included as soon as possible.[44] This disproportionate representation was also noted in AGL Energy's submission, which stated that combining interval and basic meter data would have a significant change on the ratio of solar to non-solar customers, resulting in a more representative load shape.[45]

EnergyAustralia and Simply Energy both submitted that the AER should further investigate the load profile approach and would support advanced meter data if there was evidence that it would improve the accuracy of the wholesale cost forecasts.[46]

Additionally, several submissions noted the impact that unaccounted for energy may have on the load profiles. The AEC suggested that the AER should monitor its impact on settled load shape,[47] while Red Energy and Lumo Energy stated that the NSLP should be adjusted for unaccounted for energy, especially if we did not change our load profile estimation to include advanced meter data.[48]

95th to 75th percentile

Retailers maintained their earlier position in response to the DMO 5 issues paper, to change the estimate of modelled price outcomes back to the 95th percentile. The submissions of Alinta Energy, Powershop and the AEC reiterated their concerns regarding the risk retailers

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39 ECA, *Submission to DMO 5 draft determination*, 5 April 2023, p. 3.

40 AGL Energy Limited, *Submission to DMO 5 draft determination*, 6 April 2023, p. 1; Origin Energy, *Submission to DMO 5 draft determination*, 6 April 2023, p. 4; Red Energy and Lumo Energy, *Submission to DMO 5 draft determination*, 6 April 2023, p. 3.

41 AGL Energy Limited, *Submission to DMO 5 draft determination*, 6 April 2023, pp. 3–4.

42 Red Energy and Lumo Energy, *Submission to DMO 5 draft determination*, 6 April 2023, p. 3.

43 Alinta Energy, *Submission to DMO 5 draft determination*, 6 April 2023, p. 2.

44 AEC, *Submission to DMO 5 draft determination*, 6 April 2023, pp. 2–3.

45 AGL Energy Limited, *Submission to DMO 5 draft determination*, 6 April 2023, p. 1.

46 EnergyAustralia, *Submission to DMO 5 draft determination*, 6 April 2023, p. 3; Simply Energy, *Submission to DMO 5 draft determination*, 6 April 2023, p. 1.

47 AEC, *Submission to DMO 5 draft determination*, 6 April 2023, p. 3.

48 Red Energy and Lumo Energy, *Submission to DMO 5 draft determination*, 6 April 2023, p. 4.

are exposed to in extreme circumstances of high volatility, describing the 75th percentile model as 'inadequate and inconsistent' and prone to underestimating the wholesale energy cost.[49] Further, the AEC and Energy Locals submissions expressed a need for a volatile market allowance if the 75th percentile of modelled wholesale energy cost outcomes remains unchanged.[50]

In contrast, ECA noted that retailers were in a better position than consumers to mitigate their risk in such volatile periods through their hedging strategies and did not support reverting back to the 95th percentile.[51] The SA Department for Energy and Mining also continued to support the AER's proposed 75th percentile approach, given that it allows retailers to recoup their efficient costs.[52]

ACIL Allen's wholesale cost modelling assumptions

In their submissions, Origin Energy and the AEC questioned several aspects of ACIL Allen's wholesale cost modelling.

Origin Energy submitted that ACIL Allen's spot price modelling resulted in a modelled spot price that is too low and not in line with current market expectations, which results in a wholesale energy cost that is too low.[53] Origin Energy thought that the reason for the low modelled spot price was ACIL Allen's fuel cost assumptions.[54]

For the DMO 5 draft determination, ACIL Allen used a gas price of $12 per gigajoule for all generators based on the price cap implemented by the Australian Government in December 2022. However, Origin Energy stated that ACIL Allen should use a variable gas price to ensure that the modelled spot price better aligned with expectations due to:

- the price cap being temporary and due to expire in December 2023, which is halfway through the DMO 5 period (the price cap has been extended since the timing of Origin Energy's submission)
- the price cap not applying to gas procured through the facilitated markets which are used for fuel during high demand periods.[55]

Origin Energy also noted issues with ACIL Allen's rebalanced hedging strategy from DMO 4 to DMO 5. Origin Energy stated that the reduction in baseload contracts and increase in cap contracts, was fundamentally inconsistent with the risk management practices of a prudent retailer, who would consider a much higher variance in spot market outcomes and hedge accordingly.[56]

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[49] Alinta Energy, *Submission to DMO 5 draft determination*, 6 April 2023, p. 2; Powershop, *Submission to DMO 5 draft determination*, 11 April 2023, pp. 2–3; AEC, *Submission to DMO 5 draft determination*, 6 April 2023, p. 1.

[50] AEC, *Submission to DMO 5 draft determination*, 6 April 2023, p. 2; Energy Locals, *Submission to DMO 5 draft determination*, 6 April 2023, pp. 1–2.

[51] ECA, *Submission to DMO 5 draft determination*, 5 April 2023, p. 3.

[52] South Australian Department for Energy and Mining, *Submission to DMO 5 draft determination*, 11 April 2023, p. 2.

[53] Origin Energy, *Submission to DMO 5 draft determination*, 6 April 2023, pp. 4–5.

[54] Origin Energy, *Submission to DMO 5 draft determination*, 6 April 2023, p. 6.

[55] Origin Energy, *Submission to DMO 5 draft determination*, 6 April 2023, pp. 1–2.

[56] Origin Energy, *Submission to DMO 5 draft determination*, 6 April 2023, p. 8.

Origin Energy recommended ACIL Allen determine a more realistic hedging strategy that considered a broader range of wholesale spot price outcomes.[57] This view was shared by the AEC in their submission, who commented that the higher reliance on caps in DMO 5 was not representative of what a prudent retailer would do.[58] The AEC recommended that the AER should conduct stress testing by applying the hedging strategy to actual wholesale price scenarios.

Origin Energy also commented on ACIL Allen's modelled cap payouts approach, noting that they had substantially increased compared with DMO 4 and were inconsistent with historical data.[59] Due to this, they recommended testing the sensitivity of the wholesale energy cost to the cap price payout assumptions.

Compensation costs

The AER's decision to only include known compensation costs in DMO 5 was largely supported by stakeholders. Simply Energy and Alinta Energy were comfortable with this arrangement but expected the AER to include subsequent costs unknown at the time of the draft determination.[60] Other retailers, including Red Energy and Lumo Energy and Alinta Energy, noted the importance for the AER to assess the materiality of the costs yet to be calculated.[61]

Use of confidential contract information in book build process

The AER received submissions from a few small retailers supporting the use of the OTC data that we have obtained, with Powershop's submission confirming that smaller retailers routinely use these contracts.[62] Likewise, Sumo Power's submission encouraged the use of OTC data in conjunction with ASX data due to the current relative illiquidity of ASX futures.[63]

Other responses received from stakeholders

Several small retailers were concerned with the costs associated with the retailer reliability obligation (RRO). Energy Locals' submission noted issues with the implementation of the RRO, describing it as flawed and disproportionately affecting smaller retailers.[64]

Further, Sumo Power and Powershop's submissions highlighted a potential oversight in the modelling of the wholesale energy costs when complying with their RRO obligations.[65] They noted that the RRO instrument requirements created a hedging portfolio, which is suboptimal to ACIL Allen's modelling and consequently incurs higher costs for retailers.

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57 Origin Energy, *Submission to DMO 5 draft determination*, 6 April 2023, pp. 8–9.

58 AEC, *Submission to DMO 5 draft determination*, 6 April 2023, p. 2.

59 Origin Energy, *Submission to DMO 5 draft determination*, 6 April 2023, pp. 10–12.

60 Simply Energy, *Submission to DMO 5 draft determination*, 6 April 2023, p. 2; Alinta Energy, *Submission to DMO 5 draft determination*, 6 April 2023, p. 2.

61 Red Energy and Lumo Energy, *Submission to DMO 5 draft determination*, 6 April 2023, p. 3; Alinta Energy, *Submission to DMO 5 draft determination*, 6 April 2023, p. 2.

62 Powershop, *Submission to DMO 5 draft determination*, 11 April 2023, p. 2.

63 Sumo Power, *Submission to DMO 5 draft determination*, 6 April 2023, p. 1.

64 Energy Locals, *Submission to DMO 5 draft determination*, 6 April 2023, p. 2.

65 Sumo Power, *Submission to DMO 5 draft determination*, 6 April 2023, pp. 1–2; Powershop, *Submission to DMO 5 draft determination*, 11 April 2023, pp. 1–2.

5.3 Response to stakeholder submissions and final determination

Use of confidential contract information in book build process

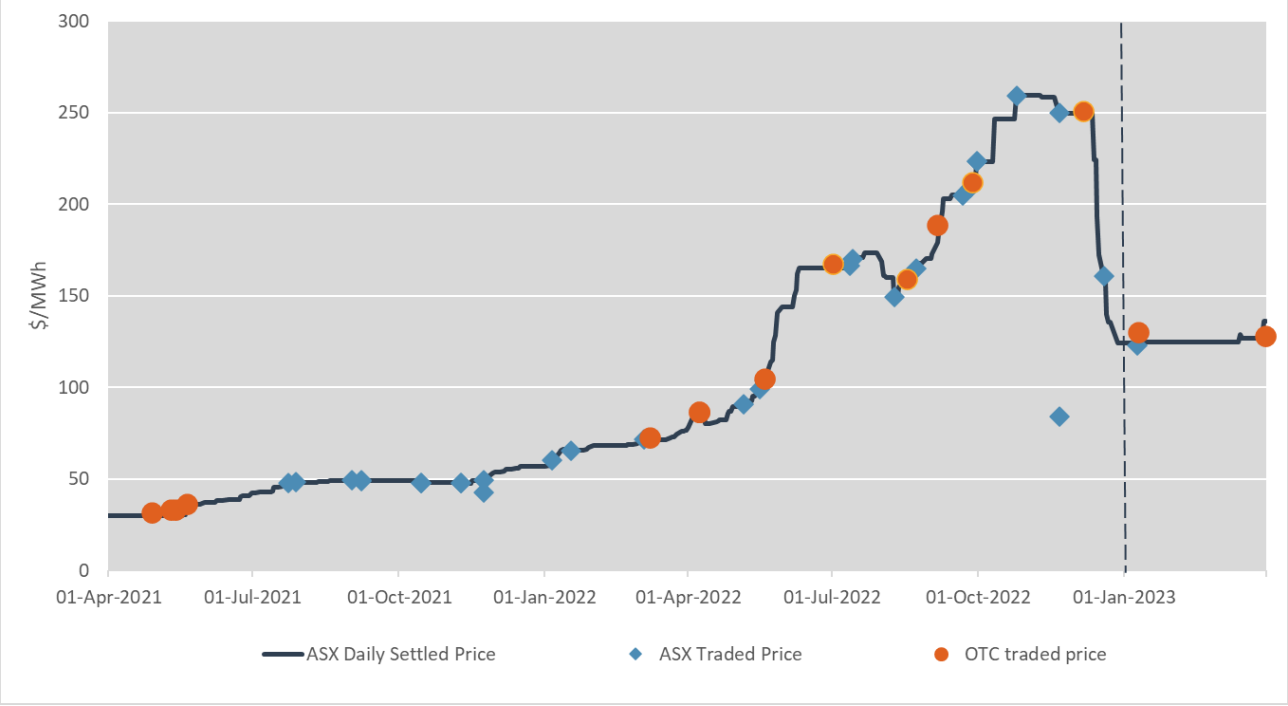
Since the DMO 5 draft determination we have continued to investigate concerns about market liquidity by assessing further OTC contract information. This involved collecting contract market data from retailers for all DMO regions (and Victoria) and from generators for the SA DMO region.

We also used this data to check whether any significant volume was traded in alternative contract types (other than standard base, peak and cap contracts).

Using this additional contract market information, the findings from our analysis are unchanged from the draft determination. In the additional tranche of OTC data provided in SA, there were only a handful of individual trades (both OTC and ASX) with consistent pricing between the 2 contract markets.

The similarity between the 2 contract data sources indicates that the inclusion of OTC contract information would have minimal impact on the wholesale energy component. The similarity between the prices for the ASX and OTC contract markets in SA is illustrated in the 2023 quarter 3 period shown in Figure 5.1. In Figure 5.1, the additional data after December 2022 is presented after the dotted line.

Figure 5.1 2023 quarter 3 OTC and ASX traded base contracts in SA



In NSW and QLD the majority of standard base contracts are traded on the ASX, with the confidential OTC trades only accounting for 12% to 13% of the total volumes respectively. Due to the small volumes and there being no significant price divergence between ASX and OTC prices, the inclusion of OTC trades had very little impact on the wholesale cost calculation in these regions.

As we noted in the DMO 5 draft determination, the confidential OTC contract information provided by retailers and generators has been critical for our analysis and enabled us to make our final determination on a retailer's contracting costs and the wholesale energy costs for DMO 5. We are also appreciative of the collaborative engagement of retailers and generators when collecting the contract market information and their prompt reporting for our analysis.

ACIL Allen's wholesale cost modelling assumptions

Our final determination on the wholesale costs for DMO 5 is based on expert advice provided by ACIL Allen. This expert advice is based on a methodology that estimates costs from a retailer's perspective, using a suitable and robust hedging strategy based on a mix of base and cap contracts for each load profile, which minimise the wholesale costs. This hedging strategy is then used by ACIL Allen to undertake wholesale energy market simulations to estimate expected spot market costs and volatility, and the hedging of the spot market price risk by entering into electricity contracts.

We and ACIL Allen considered the feedback from Origin Energy and the AEC on the type of contracting by a prudent retailer and their hedging strategy. We note the hedging strategy used in ACIL Allen's methodology is adjusted, if necessary, as the market changes, for example to take into account changes in load profiles, price outcomes and the prices of the various contract types.

In its technical paper accompanying the final determination, ACIL Allen describes the changes made in DMO5 based on market events since DMO 4. ACIL Allen provides an example to highlight how, this revised hedging strategy delivers modelled wholesale energy cost outcomes with a similar spread to those in DMO 4 and remain relatively stable when compared to full exposure to the spot market. We concur that the hedging strategy should be adaptable in this way. We consider ACIL Allen's approach is reasonable to minimise the wholesale cost, noting that individual retailers can use a range of different hedging strategies as part of their market risk management strategy.

Further information on the hedging strategy used by ACIL Allen and their response to Origin Energy's and the AEC's submissions is detailed by ACIL Allen's technical paper for the final determination.

Origin Energy's submission also raised issues in relation to spot price modelling. In the period between our draft determination and the final determination, due to movements in the spot market and following issues raised by stakeholders, the AER and ACIL Allen have reviewed the spot market model's assumptions.

Following this review, it is the AER's view that a higher gas input price than that used in our draft determination is appropriate for gas peaking generators. Factors contributing to this view include:

- While netback prices have fallen since their peak in 2022 and fallen recently further, recent 2023 average netback prices and further forward netback prices (2024) still above $12/GJ with both measures at approximately $18/GJ.
- A substantial majority of trade in short-term gas markets, which are heavily relied on by gas peaking generators, being exempt from the $12/GJ gas price cap for a range of reasons.

- Gas spot prices and gas futures prices traded for winter 2023 and beyond on the upstream Gas Supply Hub Exchange, which are sitting above the $12/GJ gas price cap.
- The expectation that recent high gas spot price events in Victoria from the unplanned Longford outage and cold weather will continue.
- Victorian ASX gas futures remaining steady between $15/GJ and $20/GJ across the 2023 and 2024 calendar year periods.
- The cost of shipping gas, which can depend on how the individual generator sources transportation including whether they rely on contracts, regulated transmission charges in Victoria, or the day ahead auction. Typically, this ranges from $0 to $2/GJ.

Based on our assessment of these factors, we think that $18/GJ is a reasonable assumption for fuel prices for gas peaking generators.

We have maintained our assumption from the draft determination that coal generators would have access to coal capped at costs of $125/tonne. This reflects that the directions that govern the NSW coal cap provide mechanisms for generators to deal with high coal costs, or coal supply issues, without pricing this into their offer behaviour.

Additional contracting products in hedging strategy

The DMO 5 final determination, like the draft determination, includes base futures that are traded as a result of the exercising of base options in the wholesale methodology. This is in line with the methodology of previous DMO determinations, although options were infrequently used in those periods.

We considered EnergyAustralia and Momentum Energy's arguments that the DMO methodology does not accurately capture how retailers use options. We agree that options can be used for speculative purposes, but this is not dissimilar to the speculative trading of base futures. Additionally, although we agree that some retailers can trade options in complicated strategies, we do not have any visibility on counterparties to distinguish between options that are traded as a result of spread options on the ASX and those traded for other reasons.

We believe the current wholesale methodology, which includes exercised base options, provides transparency to stakeholders. This is preferable to a complicated approach that is not transparent. Further, we consider that options provide valuable information on the cost of energy and are still an available product for retailers to use as a part of their hedging strategy, as expressed by Powershop.

As shown in the DMO 5 draft determination, the usage of base options has increased significantly in the past 5 years, and we anticipate this trend to continue as retailers revise their market risk management strategies.

The final determination also maintains the draft determination, which includes the up-front premium cost for call option contracts, irrespective of whether the option is exercised. This is to ensure the true cost of hedging options is reflected in wholesale cost calculations regardless of movement in the wholesale market price.

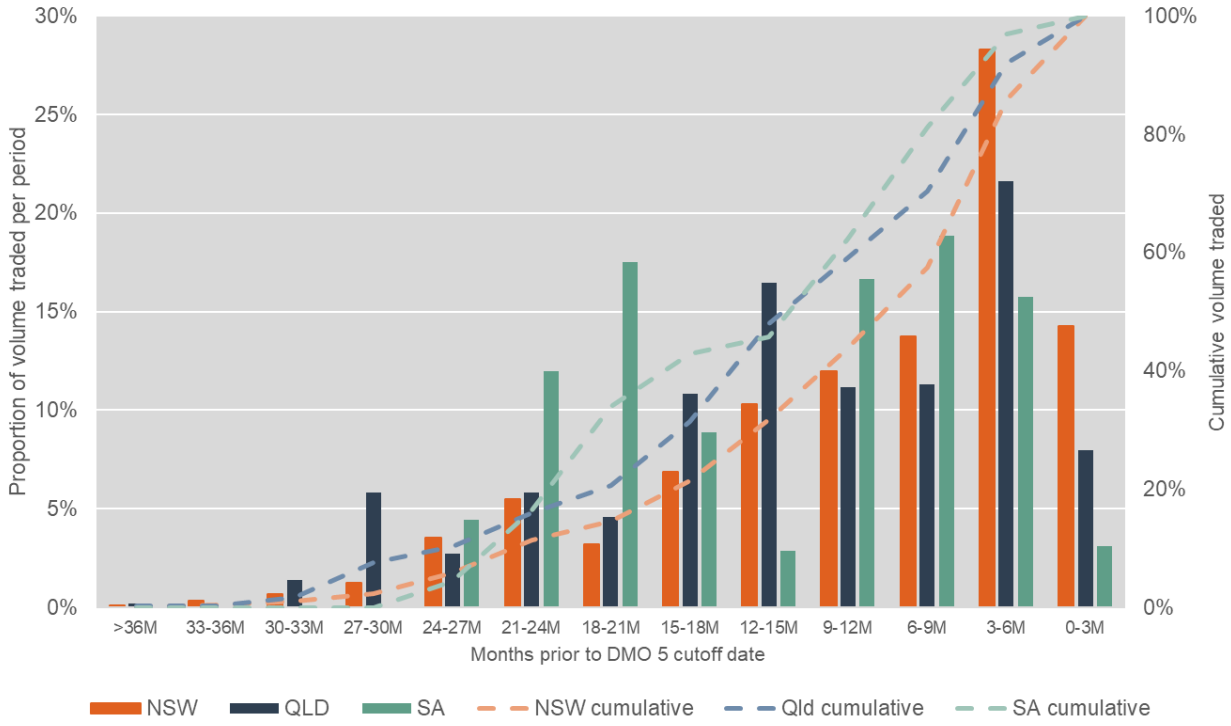
Hedge book build period

The DMO 5 final determination maintains the approach to the hedge book build from prior DMO determinations, which utilises all available trades on the ASX. Utilising all available

trades most accurately reflects the cost of energy over time that an average retailer is likely to incur, while in comparison to a shorter book build provides stability in wholesale costs.

We accept that this approach is not necessarily reflective of how a small retailer can hedge its load, as suggested by various small retailers' submissions. However, although the first day of trade for the relevant base load futures often starts 3 years out from the respective period, most of the trading occurs closer to the start of the period. As noted in Figure 5.2, the majority of base future trade occurs within 12 months of the DMO 5 cut-off date. Specifically, 57% of the trades occurred within 12 months of the DMO 5 data cut-off date and 81% occurred within 18 months of the DMO 5 data cut-off date.

Figure 5.2 DMO 5 base future traded volume profile



Source: ASX contract market data

Our view remains that the current approach, which includes all available trades on the ASX, provides the most accurate cost of energy over time that a prudent retailer is likely to incur. A long book build is appropriate given it means that wholesale price changes from year to year are more stable over time given the purpose of the DMO to provide a fallback price protection for consumers.

Load profiles

The DMO 5 final determination continues using AEMO's published net system and controlled load profiles, created using basic meter data.

In making this decision, we note that the rollout of advanced meters is accelerating and that basic meters continue to be replaced. Therefore, we agree with stakeholders that investigating the inclusion of advanced meter data to estimate load profiles as soon as possible is a high priority.

We are preparing to investigate load profile issues further in the second half of 2023, shortly after the DMO 5 final determination. We intend to work on the issues raised by stakeholders

on the load profile estimation in response to our issues paper and draft determination, which will allow us to provide options for the inclusion of advanced meter data in estimating load profiles in the DMO 6 issues paper for stakeholders to consider.

95th to 75th percentile

The DMO 5 final determination uses the 75th percentile estimate of modelled wholesale energy cost outcomes. Our view remains that the 95th percentile provides a significant 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 the DMO 5 draft determination we noted that, despite the volatility in the wholesale energy market in 2022, we believed that the 75th percentile, along with the other risk-averse assumptions embodied in the DMO methodology, would have allowed a retailer to recover their efficient costs of providing their services during the DMO 4 period.

We maintain our view that the estimate of the wholesale energy costs should not be overstated to protect retailers from the risks associated with extreme circumstances. In our view, if the estimate of the wholesale energy market was to cover such extreme circumstances, it would result in an excessive allocation of risks to consumers, which would unfairly burden consumers.

Compensation costs

The DMO 5 final determination maintains the approach of the DMO 5 draft determination to only include known AEMO and AEMC compensation costs in the wholesale energy component. Therefore, no estimates or provisions for potential AEMO or AEMC compensation claims will be included in the wholesale energy component for DMO 5. Our final determination also does not include a working capital allowance for currently unknown costs because it is not clear how large these costs could be or whether they will be material.

If remaining compensation costs become known following publication of the DMO 5 final determination, we will compensate retailers in future DMO periods.

The current compensation costs are $2.06/MWh for the NSW DMO regions, $0.9/MWh for SE QLD and $0.68/MWh for SA, which is between 0.3% to 1.1% of wholesale costs for a customer without a controlled load.

Other responses received from stakeholders

The DMO 5 period encompasses the period of 8 January 2024 to 29 February 2024 in which an RRO T-1 Reliability instrument applies in SA. The contracts executed in relation to this T-1 Reliability instrument are included in the determination of the wholesale costs for the SA Power Networks distribution zone using the same methodology as applies to all other contracts.

Although we note the feedback on the RRO and its implementation, the requirements on retailers to contract as a result of the T-1 Reliability instrument are set under the National Electricity Rules. They result in contracting activity which needs to be reflected in the DMO determination, along with other contracting costs.

5.4 Final determination

Wholesale cost inputs

Wholesale energy costs are forecast to increase across all DMO regions and consumer types for the DMO 5 period.

Since the DMO 5 draft determination, future base and cap contract prices for 2023–24 have risen slightly but there has been minimal impact on a trade weighted basis.

Wholesale costs remain elevated compared with DMO 4 wholesale costs. Compared with DMO 4, several factors contributed to regional wholesale increases:

- increases in the trade-weighted average of the contract price, which remains elevated as a result of:
  - expensive contracts that were traded before the government began to signal a firm intent to intervene in coal and gas prices
  - the relatively stronger coal and gas costs compared with previous years, even with interventions of government in place
  - reliability issues with aging coal-fired generation assets creating expectations of higher future wholesale energy costs
  - the closure of the Liddell Power Station in NSW in April 2023
- increased wholesale energy costs due to the increasingly peaky shape of the net system load profile. Peakiness in the NSLP is driven by the continued uptake of PV solar systems which reduces the effective demand for grid-scale generation during daylight hours. As a result of this low demand, and the impact of grid-scale solar, which generates at the same time, spot prices are often less than base contract prices during the middle of the day. This may require retailers to purchase cap contracts to cover high demand peak periods, which are much more expensive
  - as mentioned in above, we will be investigating how to include the impact of PV solar systems in the load profiles in future DMO decisions; we plan to include this in the DMO 6 issues paper for stakeholder consideration
- compensation costs arising from the administered pricing periods, market suspension and market intervention in winter 2022, which increased the wholesale cost by $2.06/MWh for the NSW DMO regions, $0.9/MWh for SE QLD and $0.68/MWh for SA
- extreme weather, which led to SA being isolated from the rest of the national market in mid-November 2022, leading to a need for additional frequency control ancillary services to maintain system security.[66] This added $1.63/MWh to wholesale costs in SA.

Despite these factors, wholesale costs would likely be higher if not for the introduction of the temporary price caps, which have addressed some of the coal availability and price issues observed in 2022. The introduction of the price caps has also led to a substantial decrease in the futures markets. Although daily settled contract prices are almost double when compared with the start of 2022, they remain approximately 40% below their peak in October 2022 when an intervention by the Australian government was first mooted.

[66] This extreme event and the FCAS prices is discussed in more detail in our Wholesale markets quarterly Q4 2022 report.

The final wholesale costs for the 2023–24 DMO 5 are set out in **Error! Reference source not found.**, together with the costs used for the final determination for DMO 4 (2022–23).

Table 5.1 Wholesale costs for 2023–24 DMO 5 final determination, $/MWh (excl. GST, nominal)

Distribution zone	Customer type	2022–23 ($)	2023–24 ($)	Change: year-on-year (%)
Ausgrid	Flat rate	122.23	186.09	52%
	CL 1	88.62	111.95	26%
	CL 2	87.26	111.70	28%
Endeavour Energy	Flat rate	124.25	189.50	53%
	CL 1	114.50	177.78	55%
	CL 2	114.50	177.78	55%
Essential Energy	Flat rate	115.97	178.00	53%
	CL 1	87.48	110.08	26%
	CL 2	87.48	110.08	26%
Energex	Flat rate	110.53	167.03	51%
	CL 1	86.65	112.52	30%
	CL 2	93.47	119.80	28%
SA Power Networks	Flat rate	134.53	226.13	68%
	CL 1	73.52	110.75	51%

Note: CL refers to controlled load.

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 2 main categories – national schemes or the Renewable Energy Target (RET), and jurisdictional green schemes.

Most 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 and the Small-scale Renewable Energy Scheme (SRES). Large-scale Renewable Energy Target costs are incurred by retailers to acquire the necessary amount of Large-scale Generation Certificates (LGCs).

6.2 Draft determination

In the DMO 5 draft determination we proposed to continue using our market-based approach to forecast environmental costs with updates for any new and amended schemes. We considered it reasonable to retain our methodology, noting that the submissions to the DMO 5 draft determination generally supported retaining the environmental cost forecasting methodology. We agreed with stakeholder feedback and have included the NSW Peak Demand Reduction Scheme costs in our draft DMO prices.

6.3 Stakeholder views

No submissions raised any issues with our proposal in the draft determination to retain our market-based approach to environmental cost forecasting.

6.4 Final determination

We have retained our market-based approach to environmental cost forecasting with updates for new and amended schemes.

The Essential Services Commission of South Australia (ESCOSA) has published data on the South Australian Retailer Energy Productivity Scheme (REPS) for 2021.[67] In previous DMOs, we used the AEMC estimate for this scheme from the price trends report.

ESCOSA has now reported an average cost of delivering the energy savings required under REPS of $14.42/gigajoule, which equates to a cost of $3.19/MWh. This is an increase of $0.69/MWh on the previous $2.50/MWh estimate from the AEMC and represents an approximate increase of less than 0.03% on the total energy cost for SA. We have updated the DMO model to use the latest available data from ESCOSA.

Environmental cost inputs

The environmental cost inputs for 2023–24 are in Table 6.1, together with inputs used for 2022–23 for comparison, and are included in the charts shown in Appendix D.

[67] Refer to ESCOSA Annual Report 2021, 27 June 2022.

Table 6.1 Environmental costs for 2022–23 and 2023–24 (excl. GST, nominal)

Distribution zone	Customer type	2022–23 $/MWh	2023–24 $/MWh	Change $	Change %
Ausgrid	Flat rate	20.68	18.68	−2.00	−9.7%
	CL 1	20.74	18.71	−2.03	−9.8%
	CL 2	20.74	18.71	−2.03	−9.8%
Endeavour Energy	Flat rate	20.82	18.80	−2.02	−9.7%
	CL 1	20.82	18.80	−2.02	−9.7%
	CL 2	20.82	18.80	−2.02	−9.7%
Essential Energy	Flat rate	20.45	18.48	−1.97	−9.6%
	CL 1	20.45	18.48	−1.97	−9.6%
	CL 2	20.45	18.48	−1.97	−9.6%
Energex	Flat rate	17.10	15.26	−1.84	−10.8%
	CL 1	17.10	15.26	−1.84	−10.8%
	CL 2	17.10	15.26	−1.84	−10.8%
SA Power Networks	Flat rate	20.38	19.33	−1.05	−5.2%
	CL 1	20.38	19.33	−1.05	−5.2%

Note: CL refers to controlled load.
Source: ACIL Allen, *Default market offer 2023–24 final determination technical report.*

7 Retail costs

7.1 Overview

Retailers face several costs selling electricity. These range from operating expenses through to the costs required to comply with regulatory obligations.

In the DMO 5 draft determination we used the ACCC *Inquiry into the National Electricity Market November 2022 report*[68] (ACCC November report) as our base estimate of retailers' operating costs and made necessary adjustments for bad and doubtful debt and advanced meter costs. The various retailers' operating costs considered are:

- **costs to serve** (billing, call centres and hardship programs)
- **costs to acquire and retain customers** (such as advertising campaigns and informing new customers of their options and obligations)
- **depreciation and amortisation** (up-front capital investments such as system upgrades)
- **type 4 (and type 4A) meter (advanced meter)** (installation and ongoing operational costs of advanced meters)
- **bad and doubtful debt** (instances where customers are not expected to pay their electricity debt).

This cost build-up approach was established in DMO 4 and provides greater transparency on the cost drivers in a market, allows for more objective analysis of the separate components of the cost stack and best achieves the DMO policy objectives.

7.2 Approach to calculating retail costs in the draft determination

Identifying retail costs for 2023–24

As with DMO 4, we have used the annual retail operating costs identified by the ACCC in Supplementary Table D14.1b of Appendix D of the ACCC November report[69] as a central component of our retail cost determination. The reported ACCC costs are based on 2021–22 data (expressed in 30 June 2022 dollars), so we have applied the Consumer Price Index (CPI) using RBA inflation forecasted for 2022–23 and 2023–24[70] to retain the value of these costs in real terms across the DMO 5 period.

Our methodology for estimating the retail operating costs for small business customers is achieved by converting the publicly reported variable retail costs (cents per kWh) amount published in the ACCC November report[71] into a fixed charge (dollars per customer) so that it can be applied on a per customer basis.

Our approach for estimating the retail operating costs for small business customers also involves deriving an assumed average usage for a small business customer by dividing the

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68 ACCC, Inquiry into the National Electricity Market November 2022 report, November 2022.

69 *ACCC November report*, November 2022.

70 We have applied forecast inflation of 6.25% and 3.5% for the 2 years ending 30 June 2023–24 from the RBA May 2023 forecast for the two years ending Jun 2024.

71 *ACCC November report*, November 2022.

amount of energy consumed by 'non-residential customers not on demand tariffs' (non-demand customers) by the number of customers on these tariff types. We source this information from data provided to the AER in the networks' Regulatory Information Notices (RIN). We multiply this value by the ACCC's average variable cost rate to determine its average cost for inclusion in the DMO cost stack.

The retail operating costs data reported to the ACCC is a reliable source of cost information we can use that is publicly available and provides retailers with the opportunity to ensure that the costs they report reflect the intention and operation of individual retailers. Additionally, the ACCC operating costs data is a robust source that comprehensively covers retailers that sell to around 90% of small customers in the DMO regions.

Other economic regulators, such as the ICRC and the Essential Services Commission of Victoria use representative retail costs in their pricing determinations that are based on the retail costs of large retailers.[72]

In the DMO 5 draft determination, we proposed to continue estimating the relevant retail operating costs in DMO 5 by using the ACCC's retail costs data (obtained under the compulsory notices issued pursuant to section 95ZK of the *Competition and Consumer Act 2010*).

The ACCC's retail costs data does not feature certain costs incurred, such as advanced meter costs or bad and doubtful debt. To account for these costs, we include an additional allowance for both.

Advanced meter costs

Given the ACCC retail costs data does not feature advanced meter data, we request information from retailers each year on the rate and costs of advanced meter installation. We request this information for both residential customers on standing and market offers (with flat, including block, retail tariffs with and without controlled load, TOU tariffs with and without controlled load, and PV solar system installations), as well as small business customers on standing offer and market offer flat (including block) rate tariffs without controlled load in each DMO region.

In the DMO 5 draft determination we highlighted the increasing pressure retailers face with advanced meter costs. We understand that one in 4 standing offer customers in DMO regions already have advanced meters, and it is reasonable for the DMO price to reflect the costs to serve relevant to this group.

We decided to explore refining our advanced meter calculation and aimed to provide stakeholders with greater detail on the extent to which retailers recover advanced meter costs from up-front fees. To do this we expanded our request for information on the average total up-front advanced meter installation fees incurred by both residential and small

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[72] ICRC uses an estimate of retail costs originally calculated in the Independent Pricing and Regulatory Tribunal's 2010–13 pricing decision, which has been indexed with CPI, see ICRC, *Electricity Price Investigation 2020–24*, June 2020, p. 39; ICRC, *Final Report: Standing offer prices for the supply of electricity to small customers from 1 July 2017*, June 2017, p. 25. The Independent Pricing and Regulatory Tribunal estimated the retail costs of an incumbent retailer that has achieved economies of scale (i.e., has efficient costs), see the Independent Pricing and Regulatory Tribunal, *Review of regulated retail tariffs and charges for electricity 2010–2013*, March 2010, p. 112–113. Essential Services Commission adopt ICRC's estimate with some minor adjustments, Essential Services Commission, *1 January 2022 Victorian Default Offer Final Decision*, November 2021, p. 29.

business customers (in all DMO regions). This request was made to 9 retailers, which collectively sell electricity to 93% of the customer base.[73]

For the purposes of our refined approach, we defined up-front fees as:

- the total customer fees to recover the costs of an advanced meter installation that is separate to any cost recovery through retail tariff prices (e.g. daily supply ($/day) and energy usage (c/kWh) charges)
- the recovery of both installation and capital costs.

In response to our refined request, 2 retailers provided data on up-front installation fees. These fees amounted to around $5 per residential customer and $8 per small business customer, which have been removed from the DMO to avoid the over-recovery of costs.

Bad and doubtful debt

Our DMO methodology includes an allowance for bad and doubtful debts. In DMO 4 and the DMO 5 draft determination we used the weighted average of bad and doubtful debts from the 3 retailers (AGL Energy, Origin Energy and Red Energy and Lumo Energy[74]) that publicly report these costs.[75]

For DMO 4, bad and doubtful debt costs were $26 per small customer. As demonstrated in Table 7.1, this decreased to $16.06 per small customer in the DMO 5 draft determination.

Table 7.1 Estimated costs due to bad and doubtful debt

Retailer	Bad debt expense 2021–22 ($m)	Small customer numbers ('000s)	Bad and doubtful debts per small customer ($) (ex GST)
AGL Energy	80	4,200	19.05
Origin Energy	58	4,458	13.01
Red Energy and Lumo Energy	20.5	1,210	16.94
Total	**158.5**	**9,868**	**16.06**

Source: AGL Energy Limited, Origin Energy, Snowy Hydro Limited Annual Financial Reports 2021–22.

7.3 Stakeholder submissions

Identifying retail costs for 2021–22

Many stakeholders (both retailers and consumer group representatives) support the consistency in the AER's approach applied in its draft determination for DMO 5. Retailers submitted that it is critical that the DMO remains a credible reference price and reflects the real costs a prudent retailer competing in the market faces.[76]

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[73] We asked retailers to complete a voluntary information request outlining advanced meter installation numbers and average costs on 4 October and 21 October 2022.

[74] This information has been sourced from Note 6 – Trade and other receivables of the consolidated financial report of Snowy Hydro Limited for the period ended 30 June 2022.

[75] AGL Energy, Annual Report 2022, 19 August 2022, p. 38; Origin Energy, Annual Report 2022, 18 August 2022, p. 32; Snowy Hydro, Annual Report 2022, 31 August 2022, p. 63.

[76] Alinta Energy, *Submission to DMO 5 draft determination*, 6 April 2023, p. 1.

Some retailers recommended that the AER continue to improve the accuracy of the costs calculation by accessing and utilising more appropriate datasets.[77]

Advanced meter costs

Retailers raised issues with the draft determination's proposed approach to deduct up-front fees from the allowance for advanced meters.

Origin Energy urged the AER to review the proposed subtraction of up-front costs. They noted that retailers that only rely on the DMO's metering allowance will be disadvantaged because they will under-recover their costs, whereas retailers that apply up-front fees will continue to recover a second set of charges through the DMO's metering allowance.[78]

Origin Energy also noted the AEMC's proposed mandatory rollout, which has forecast a significant increase in meter installations over the forthcoming years. They raised concern with the current one-year time lag in the DMO metering allowance for reimbursement, which they contend will become a bigger issue as mandatory rollout occurs and installation costs increase. Origin Energy recommended a methodological change and/or amendments to the Regulations for treating up-front fees to alleviate the increased costs that retailers will face.[79]

Stakeholders also suggested the AER incorporate a working capital allowance to reflect expected increased costs faced and incentivise retailers embracing a faster rollout of advanced meters.[80]

EnergyAustralia raised concerns over our requests for advanced meter costs issued in October 2022, specifically alleging discrepancies present in our requests, potentially causing interpretation issues. They recommended we should check with retailers about the data they provided.[81]

Energy Locals raised the inconsistency in advanced meter costs in DMO regions compared with Victoria, and suggested the AER consider capping such costs for future DMOs.

SACOSS highlighted that SA residential customers face the highest average annual cost per customer for metering costs and requested that the AER ensure that all retail costs are justified and efficient in DMO 5.[82] PIAC sought greater clarification from the AER on why metering costs are regarded as an additional cost to serve and are not recovered elsewhere.[83]

Bad and doubtful debt

Several retailers considered that the AER's process for calculating bad and doubtful debt allowance understated the estimated bad and doubtful debt value per customer and stated that a reliable estimate can't be determined based solely on the information available from

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77 Origin Energy, *Submission to DMO 5 draft determination*, 11 April 2023, p. 2.

78 Origin Energy, *Submission to DMO 5 draft determination*, 11 April 2023, pp. 15–16.

79 Origin Energy, *Submission to DMO 5 draft determination*, 11 April 2023, pp. 15–16.

80 Origin Energy, *Submission to DMO 5 draft determination*, 11 April 2023, pp. 15–16; AEC, *Submission to DMO 5 draft determination*, 6 April 2023, p. 3.

81 EnergyAustralia, *Submission to DMO 5 draft determination*, 6 April 2023, p. 5.

82 SACOSS, *Submission to DMO 5 draft determination*, 6 April 2023, p. 5.

83 PIAC, *Submission to DMO 5 draft determination*, 5 April 2023, p. 3.

the public reports of AGL Energy, Origin Energy and Snowy Hydro (for their retailers Red Energy and Lumo Energy).[84]

A preferable alternative suggested by some retailers is for the AER to consider the data provided by retailers to the ACCC *Inquiry into the National Electricity Market*[85] and base the allowance for bad and doubtful debt in the DMO prices off this information.[86]

Alinta Energy noted that the data available from the 3 retailers is not disaggregated by customer class, and this could negatively impact the debt calculations. As well as suggesting the AER use actual bad and doubtful debt figures from all retailers, they also suggested the AER should use an accepted benchmark (for example, a percentage of turnover).[87]

Origin Energy specifically suggested that the AER should request the ACCC publish their bad and doubtful debt data, removing any issues of retailer confidentiality and data sensitivity.[88]

Simply Energy had concern for the time lag in the bad and doubtful debt data as assessed by the AER and recommended the AER change its methodology to assess the ratio of bad and doubtful debt to revenue in the years that data is available.[89]

Small business costs

In their submissions stakeholders raised concerns about the AER's limited visibility of the data used by the ACCC and considered the approach used to convert variable retail costs into a fixed charge brings a high risk that we have understated the true cost to serve. These stakeholders consider the assumed usage we have used (average non-residential non-demand usage in networks' RINs) is potentially lower than the average small business usage reported to the ACCC and understates small business retail costs on a dollars per customer basis.[90]

The ACCC does not publish retailer costs in a dollars per customer format. This is due to the wide range of small business usage levels and a non-normal distribution of usage levels. Retailers raised this point and recommended that improvements be considered when interpreting small business data on a per-customer basis because of the large range of underlying consumption.[91]

In their submission, Origin Energy specifically noted that the RIN small business customer usage data comprises varied customer types, which could become an issue given the

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84 Origin Energy, *Submission to DMO 5 draft determination*, 11 April 2023, pp. 14–15; Sumo Power, *Submission to DMO 5 draft determination,* 6 April 2023, p. 2; Momentum Energy, *Submission to DMO 5 draft determination*, 5 April 2023, p. 4; Energy Locals, *Submission to DMO 5 draft determination*, 6 April 2023, p. 2.

85 This data is collected by the ACCC under Schedule 1, Item 2(e) – *Bad Debts (($) calculated on an accrual accounting basis)* from notices issued on 5 August 2022, under section 95ZK of the Competition and Consumer Act 2010.

86 Origin Energy, *Submission to DMO 5 draft determination*, 11 April 2023, pp. 14–15; Momentum Energy, *Submission to DMO 5 draft determination*, 5 April 2023, p. 4; Alinta Energy, *Submission to DMO 5 draft determination*, 6 April 2023, p. 3.

87 Alinta Energy, *Submission to DMO 5 draft determination*, 6 April 2023, p. 3.

88 Origin Energy, *Submission to DMO 5 draft determination*, 11 April 2023, pp. 14–15.

89 Simply Energy, *Submission to DMO 5 draft determination*, 6 April 2023, p. 2.

90 AEC, *Submission to DMO 5 draft determination*, 6 April 2023, p. 3; Origin Energy, *Submission to DMO 5 draft determination*, 11 April 2023, pp. 13–14.

91 AEC, *Submission to DMO 5 draft determination*, 6 April 2023, p. 3; Origin Energy, *Submission to DMO 5 draft determination*, 11 April 2023, pp. 13–14.

customer demand data includes both small business and commercial and industrial customers, with no way of differentiating the data.[92]

In their submissions, both Origin Energy and the AEC recommended that we seek dollars per small business customer retail operating costs data from the ACCC (or directly from retailers through a data request) and incorporate this data in our calculation.

7.4 Final determination

Advanced meter costs

We acknowledge retailer concern for our approach to subtract up-front advanced meter costs from the advanced meter allowance component in DMO 5. While we recognise this approach could disincentivise retailers rolling out advanced meters and incentivise retailers charging up-front fees, we consider this outcome preferable to allowing retailers to over-recover advanced meter costs (full recovery within DMO price as well as in up-front fees). As a result, we have decided to maintain the current methodology as outlined in the DMO 5 draft determination.

We acknowledge consumer group concern on the lack of transparency in the allocation of advanced meter costs, and PIAC's request that we confirm why metering costs are considered 'additional costs' and are not recovered through other means. In relation to PIAC's concerns, we confirm that metering costs are not captured in the ACCC retail costs data and are unable to be identified in network costs that the ACCC captures. We do not use the ACCC network costs data in the DMO methodology. It is for this reason that we separately collect metering cost data from retailers.

Regarding Energy Local's submission that the AER consider capping metering costs because they are 3 times higher in DMO regions compared with Victoria, we note that the AER does not regulate metering costs. However, we do monitor compliance and enforcement with metering rules. The AER supports the accelerated rollout of advanced meters but setting prices for the cost of metering is outside the scope of the DMO Regulations.

In relation to EnergyAustralia's concern on our requests for costs from October 2022, we investigated and consulted with the retailers with significant changes in advanced meter costs. From the responses received, we identified that the key reasons for the changes were due to either differing methodology used for calculating the meter costs, which better reflected retailer costs, or from a genuine change in the price of advanced meter installations.

We also recognise stakeholders' positions on incorporating a working capital allowance into our calculation for expected advanced meter costs. We do not consider a further adjustment for working capital is required because the DMO offers retailers a retail allowance that can capture potential variations in costs.

Advanced meter costs for DMO 5 are set out in further detail in Tables 7.2 and 7.3. Appendix B sets out a more extensive breakdown of our advanced meter cost calculations, including

[92] Origin Energy, *Submission to DMO 5 draft determination*, 11 April 2023, pp. 13–14.

further information about the number of customers on advanced meters and average advanced meter costs provided by retailers.

Table 7.2 Average annual residential advanced meter cost, per distribution region

Distribution zone	Average cost per advanced meter ($) (ex GST)	Average cost per customer ($) (ex GST)
Ausgrid	106.57	19.54
Endeavour Energy	107.77	24.20
Essential Energy	114.42	20.43
Energex	107.98	25.59
SA Power Networks	106.32	26.78

Table 7.3 Average annual small business advanced meter cost, per distribution region

Distribution zone	Average cost per advanced meter ($) (ex GST)	Average cost per customer ($) (ex GST)
Ausgrid	116.90	18.63
Endeavour Energy	116.09	18.01
Essential Energy	125.73	20.09
Energex	123.50	21.48
SA Power Networks	120.19	20.95

Bad and doubtful debt

In response to stakeholder requests for the AER to use confidential data submitted by retailers for the ACCC Electricity Inquiry[93], we sought and analysed ACCC data to test retailers' claims. We consider that the ACCC data, which includes the bad and doubtful debt of 15 retailers, would be a more representative sample than the information available from the public reports by AGL Energy, Origin Energy and Snowy Hydro (for their retailers Red Energy and Lumo Energy).

To make this methodological change for the final determination, we asked the ACCC to seek retailer consent for providing this bad and doubtful debt data ($/customer figures for bad debt for residential customers and small business customers) to us to calculate an allowance for inclusion in the DMO model. All 15 retailers subsequently consented for their submitted data being used for the bad and doubtful debt calculations in the final determination in the manner proposed. The ACCC also consented to the proposed use of this bad debt information subject to retailer confidentiality being maintained.

We also advocated for the ACCC to publish this bad and doubtful debt data in their November 2023 report, for use in future DMO decisions.

In relation to concerns raised by Simply Energy on the use of historical bad and doubtful debt data, our view is that, apart from indexing the data at CPI, further adjustments are not needed to determine the bad and doubtful debt expense. Although we acknowledge the time lag that exists from using data from the previous year, we believe this provides a more reliable estimate on bad and doubtful debts, because current data is less likely to be

[93] See ACCC Inquiry into the National Electricity Market 2018–2025.

assessed by independent assurance procedures and more susceptible to an individual retailer's assessment expectations of credit loss.

In Table 7.4 we have used this confidential data to calculate a weighted average of bad and doubtful debt costs for residential and small business customers for DMO 5.

Table 7.4 Estimated costs due to bad and doubtful debt

Customer type	Bad and doubtful debt cost per customer ($ pa)
Residential without and with CL	19.17
Small Business without CL	34.00

Note: CL refers to controlled load.

Small business costs

Changing the small business costs methodology would also require the AER to balance potential accuracy against transparency, because the ACCC does not currently publish the dollars per customer information in their *Inquiry into the National Electricity Market* reports. The ACCC considers that there are challenges with estimating a cost per customer for small business because the distribution of usage across this group is very large and the distribution of the range is not normal.

We do not intend to make any change to the current methodology for the final determination and propose to consider and consult on alternative approaches to estimating small business costs for DMO 6.

7.5 Summary of determinations for retail costs

Table 7.5, Note: Retail and other costs have been sourced from the ACCC's *Inquiry into the National Electricity Market*.
Table 7.6 and Note: Retail and other costs have been sourced from the ACCC's *Inquiry into the National Electricity Market*.

Table 7.7 set out the components for our cost build-up approach in DMO 5.

Table 7.5 Residential without controlled load retail costs (excluding GST)

Distribution zone	Retail and other costs ($)	Advanced meter costs ($)	Bad and doubtful debt costs ($)	Forecast CPI adjustment ($)	Total ($)	Change: year-on-year (%)
Ausgrid	135.65	19.54	19.17	17.38	191.73	0.9%
Endeavour Energy	135.65	24.20	19.17	17.85	196.86	−0.1%
Essential Energy	135.65	20.43	19.17	17.47	192.71	−0.3%
Energex	128.26	25.59	19.17	17.25	190.27	−1.0%
SA Power Networks	133.07	26.78	19.17	17.85	196.87	−2.2%

Note: Retail and other costs have been sourced from the ACCC's *Inquiry into the National Electricity Market*.

Table 7.6 Residential with controlled load retail costs (excluding GST)

Distribution zone	Retail and other costs ($)	Advanced meter costs ($)	Bad and doubtful debt costs ($)	Forecast CPI adjustment ($)	Total ($)	Change: year-on-year (%)
Ausgrid	135.65	19.54	19.17	17.38	191.73	0.9%

Distribution zone	Retail and other costs ($)	Advanced meter costs ($)	Bad and doubtful debt costs ($)	Forecast CPI adjustment ($)	Total ($)	Change: year-on-year (%)
Endeavour Energy	135.65	24.20	19.17	17.85	196.86	−0.1%
Essential Energy	135.65	20.43	19.17	17.47	192.71	−0.3%
Energex	128.26	25.59	19.17	17.25	190.27	−1.0%
SA Power Networks	133.07	26.78	19.17	17.85	196.87	-2.2%

Note: Retail and other costs have been sourced from the ACCC's *Inquiry into the National Electricity Market*.

Table 7.7 Small business retail costs (excluding GST)

Distribution zone	Retail and other costs ($)	Advanced meter costs ($)	Bad and doubtful debt costs ($)	Forecast CPI adjustment ($)	Total ($)	Change: year-on-year (%)
Ausgrid	164.53	18.63	34.00	21.65	238.81	-9.1%
Endeavour Energy	164.53	18.01	34.00	21.59	238.12	-11.5%
Essential Energy	164.53	20.09	34.00	21.79	240.42	-6.4%
Energex	131.38	21.48	34.00	18.63	205.48	-4.2%
SA Power Networks	145.45	20.95	34.00	19.98	220.38	8.5%

Note: Retail and other costs have been sourced from the ACCC's *Inquiry into the National Electricity Market*.

8 Retail allowance

8.1 Overview

The retail allowance encompasses retailer profit margin and an additional DMO retail allowance to meet the DMO policy objectives 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.

Our view is also that the retail allowance set for each year needs to:

- reflect a return on retailer risk
- provide some leeway for differences in retailers costs relative to our model
- provide room to allow retailers to effectively compete in the current market.

In DMO 4 we proposed a retail allowance glidepath set across DMO 4, 5 and 6 (the glidepath), where the allowance converges on 10% and 15% for residential and small business customers, respectively.[94]

8.2 Draft determination

Cost stack approach

For the DMO 5 draft determination, we proposed to continue the cost stack approach and apply the retail allowance as a percentage of total costs (wholesale costs, retail costs, environmental costs and network costs).

Allowance adjustments

In the DMO 5 draft determination we applied a modification to the glidepath by delaying the increases in the retail allowance percentage in Energex for residential customers without controlled load, and in SA Power Networks for residential customers with and without controlled load. This decision reflected the large underlying cost increase expected for DMO 5.

Beyond the modifications made to the glidepath for some residential customers, the DMO 5 draft determination set retail allowance percentages to remain the same as forecast in the glidepath, meaning small business retail allowance percentages would decrease in all regions except SA Power Networks, which was already at 15% retail allowance in DMO 4.

[94] AER, *Default market offer 2022–23 draft price determination,* February 2022, p. 48.

8.3 Stakeholder views

Cost stack approach

Several retailers supported the AER's decision to continue with the consistent cost stack approach established in DMO 4 and apply the retail allowance as a percentage of total costs.[95]

Simply Energy have noted a lack of transparency in the AER's approach to estimating the retail allowance, which they claim makes it challenging for retailers to assess whether it is set at an appropriate level.[96] Simply indicated that key questions retailers have are 'what are the components of the retail allowance considered?' and they suggested the components should be an estimate of a sustainable retail margin, a component that represents headroom and an uplift to cover risk of forecast errors, followed by 'what are the reasonable values for those components?', and sought greater reasoning from the AER about its process for determining the retail allowance.[97] Powershop also noted that a consistent and predictable approach to determining the DMO is important for retail market confidence and to maintain incentives for competition, innovation and investment.[98]

The submissions from PIAC, SACOSS and the AER Consumer Consultative Group raised the need for reform of the DMO, stating that it is not fit-for-purpose in a time of extreme cost of living pressures for households. PIAC acknowledged that changing the scope of the DMO was not within the AER's role and encouraged us to take every opportunity to protect consumers at this time.

PIAC disagreed with the decision to continue calculating the retail allowance as a fixed percentage of total costs and argued that the concerns of consumers were not being sufficiently considered.[99] SACOSS requested an urgent state and federal government level re-examination of the purpose of the DMO with a view to establish clear statutory objectives within the National Energy Laws and Rules to better protect consumers.[100]

PIAC recommended further consideration be given to the allowance prior to the final determination and setting it as a percentage of the retail cost to serve only.[101]

Allowance adjustments

Several retailers disagreed with our decision to pause the glidepath in SA Power Networks and Energex regions.[102] Simply Energy noted that, while we may have outlined an understandable basis for introducing the glidepath in DMO 4, the decision to pause for specific customers has no justification beyond a deferral in price increases to future DMO

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95 GloBird Energy, *Submission to DMO 5 Draft Determination,* 30 March 2023, p. 1; Alinta Energy, *Submission to DMO 5 Draft Determination,* 6 April 2023, p. 3; Origin Energy, *Submission to DMO 5 Draft Determination*, 11 April 2023, p.1*;* Simply Energy*, Submission to DMO 5 Draft Determination*, 6 April 2023, p. 2.

96 Simply Energy, *Submission to DMO 5 Draft Determination*, 6 April 2023, pp. 2–3.

97 Simply Energy, *Submission to DMO 5 Draft Determination*, 6 April 2023, pp. 2–3.

98 Powershop, *Submission to DMO 5 Draft Determination*, 11 April 2023, p. 3.

99 PIAC, *Submission to DMO 5 Draft Determination*, 5 April 2023, p. 2.

100 SACOSS, *Submission to DMO 5 Draft Determination*, 6 April 2023, p. 5.

101 PIAC, *Submission to DMO 5 Draft Determination*, 5 April 2023, p. 2.

102 Simply Energy, *Submission to DMO 5 Draft Determination*, 6 April 2023, pp. 2–3; Red Energy and Lumo Energy, *Submission to DMO 5 Draft Determination*, 6 April 2023, p. 3.

periods. Simply Energy urged the AER to either pause the glidepath for all customers in DMO 5, or to continue the glidepath as originally envisaged.[103]

Red Energy and Lumo Energy argued that such an asymmetrical approach will only undermine confidence in the framework and encouraged the AER to reconsider for the DMO 5 final determination.[104]

The AEC highlighted that its earlier concerns about the risk of inconsistency with employing subjectivity when determining the retail allowance have come to fruition with this decision to pause the glidepath. In the AEC's view retailers should have been able to rely on the allowance glidepaths outlined in DMO 4, especially as many of the factors resulting in an increased DMO 5 were beginning to present themselves at the time of publication.[105]

In their submissions both SACOSS and the SA Department for Energy and Mining supported our decision to pause the glidepath for SA Power Networks.[106] The NSW Government made a submission questioning the reasonableness of the approach in the draft determination, which did not adjust the glidepath allowances for NSW customers.[107]

Retail allowance

In their submissions, ECA, PIAC and SACOSS argued that the AER's allowances (10% for residential consumers and 15% for small businesses) are unjustifiably high.[108] The NSW Government also encouraged the AER to consider alternatives such as a lower percentage, allowances based on absolute profit per customers and inflation-indexed allowances.[109]

SACOSS remain concerned about the 10% to 15% allowance at the end point of the glidepath and urge the AER to consider an allowance closer to the margin used in the VDO.[110]

As with their submission to the DMO 5 issues paper, ECA noted that there is considerable and equitable retailer competition and innovation in Victoria despite the VDO having a smaller retailer margin. They also considered the difference between the residential and small business allowances to be arbitrary, and that the retail allowance should be the same for both types of consumers as any difference in the costs to serve has been accounted for in other elements of the cost stack.[111]

The AER's Customer Consultative Group also questioned the different allowances for residential and small business customers and requested further justification for the selection of the 10% level for residential customers and 15% for small business. Members noted that other jurisdictions have targeted lower allowances and noticed an immaterial impact on the

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[103] Simply Energy, *Submission to DMO 5 Draft Determination*, 6 April 2023, pp. 2–3.

[104] Red Energy and Lumo Energy, *Submission to DMO 5 Draft Determination*, 6 April 2023, p. 3.

[105] AEC, *Submission to DMO 5 Draft Determination*, 6 April 2023, p. 4.

[106] SACOSS, *Submission to DMO 5 Draft Determination*, 6 April 2023, p. 5; South Australian Department for Energy and Mining, *Submission to DMO 5 Draft Determination*, 11 April 2023, p. 2.

[107] NSW Government, *Submission to DMO 5 Draft Determination*, 8 May 2023, p. 1.

[108] ECA, *Submission to DMO 5 Draft Determination*, 5 April 2023, pp. 3–4; PIAC, *Submission to DMO 5 Draft Determination*, 5 April 2023, pp. 2–3; SACOSS, *Submission to DMO 5 Draft Determination*, 6 April 2023, p. 5.

[109] NSW Government, *Submission to DMO 5 Draft Determination*, 8 May 2023, p. 1.

[110] SACOSS, *Submission to DMO 5 Draft Determination*, 6 April 2023, p. 5.

[111] ECA, *Submission to DMO 5 Draft Determination*, 5 April 2023, pp. 3–4.

availability of offers in the market, indicating the allowance was big enough to maintain competition.[112]

The AEC was supportive of the AER's decision not to reduce the retail allowance percentages because a reduction would risk triggering Retailer of Last Resort events. The AEC highlighted that the AER needs to provide retailers with greater confidence that the risk factors increasing since DMO 4 (such as regulatory interventions and international and weather-related events) have been considered in the retail allowance, to ensure that retailers have confidence to invest in long-term initiatives aimed to benefit customers.[113]

8.4 Final determination

Cost stack approach

We will continue to adopt a cost build-up approach for DMO 5, applying the retail allowance as a percentage on top of other costs.

We acknowledge the recommendation from PIAC to base retail margins solely on retailer costs to serve. We were unable to identify any regulatory prices that set a margin as a percentage of a single cost element. The AER's approach is similar to the other regulated electricity prices set by the Office of the Tasmanian Economic Regulator (for Tasmania), the Independent Competition and Regulatory Commission (for the ACT) and the Essential Services Commission for the VDO.

We have considered Simply Energy's request that more reasoning be given on how the decision has been made on the allowances. In DMO 4, allowances of 10 and 15% were set to broadly preserve the aggregate retail allowance that was available in the market in DMO1 to DMO3, while redistributing the allowance across regions. For DMO 5 we considered the significant growth of the cost base and decided that for residential customers we should pause the glidepath in SE QLD and SA and lower the allowance in NSW to address this. In doing this we considered the aggregate allowances available to retailers based on the growth in underlying costs and determined that retailers would still have growth in the aggregate amount of allowance collected, and that this struck a balance between the DMO objectives of protecting consumers from unjustifiably high prices and ensuring retailers cover their costs and there are still incentives for innovation and competition. While we have not decided to calculate allowances within the allowance as suggested in Simply Energy's submission, we do consider that all those elements are factored into our determination of the retail allowances.

When we stress tested the DMO 5 draft determination, we found that if retailers have higher costs than those estimated for in the DMO cost stack, there would be smaller allowances available for retailers to meet the DMO objectives. Therefore, setting the allowance as a proportion of the much smaller operating costs would not meet the DMO objectives.

Allowance adjustments

As outlined in the DMO 5 draft determination, we will pause the planned increases in the retail allowance percentage in the Energex region for residential customers without controlled load, and in the SA Power Networks region for residential customers with and without

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[112] Consumer Consultative Group, *Joint submission to DMO 5 Draft Determination*, 29 March 2023, p. 2.

[113] AEC, *Submission to DMO 5 Draft Determination*, 6 April 2023, p. 4.

controlled load. This is designed to reflect a balance in consideration between consumer burden and increased risks faced by retailers in a volatile market.

Since the release of the DMO 5 draft determination we have considered the situation for NSW residential customers with and without controlled load and consider that the allowance proposed in our DMO 5 draft determination indicated NSW residential customers would be paying materially more in dollar terms because of changes in the underlying cost stack than customers in other regions where we held allowances stable in percentage terms. Therefore, we have determined to adjust the NSW residential allowances to address this while also recognising that retailers also face some additional cost as a result of underlying market changes.

We consider that adjusting the retail allowance down from 10% to 9.3% for NSW residential customers strikes an appropriate balance between ensuring that the allowance is equitable for customers who won't need to pay more than necessary, and providing sufficient and additional allowance for retailers. This adjustment from 10% to 9.3% changes the amount of the allowance for residential customers without controlled load from $185 in Ausgrid, $222 in Endeavour Energy, $255 in Essential Energy to $170 in Ausgrid, $207 in Endeavour Energy, and $235 in Essential Energy the changes result in saving of $15 (Ausgrid), $15 (Endeavour) and $44(Essential) compared to the draft determination. For NSW residential customers with controlled load the savings in retail allowance between the draft and final determination range from $18 (Endeavour Energy), $20 (Ausgrid) and $25 (Essential Energy) as a result of the change in retail allowance.

Retail allowance

We considered ECA, PIAC and SACOSS's submissions regarding the AER's allowances being unjustifiably high, and the requests for us to consider a margin closer to that used in the VDO (5.7% in the VDO Draft Determination).[114] These concerns have been raised with the AER in previous determinations. When the allowances were developed in DMO 4, we based them on our analysis of historic average allowances and considered that this was a sound basis for determining allowances that would continue to balance the DMO objectives.

PIAC also acknowledged that the DMO has different policy objectives to the VDO. The margins we determine are commensurate with the DMO's function as a fallback protecting customers from unreasonably high prices, rather than an efficient price to guide retailers like the VDO. The retail allowance also provides a buffer for retail cost variations, discussed in further detail below. We acknowledge that the AER's Consumer Consultative Group questioned the different margins for residential and small business and ECA argued that any difference in retailer costs should have been accounted for in other elements of the cost stack.[115] Our analysis in DMO 4 found that there were higher allowances for small business compared with residential consumers and given that retailers may face increased risks in serving these customers, we consider that this differentiation remains justified.

The AEC's concerns that our retail allowance methodology needs to be consistent to provide retailers with confidence to invest have been considered and factored into our decision. We

[114] ECA, *Submission to DMO 5 Draft Determination*, 5 April 2023, pp. 3–4.

[115] Consumer Consultative Group, *Joint submission to DMO 5 Draft Determination*, 29 March 2023, p. 2; ECA, *Submission to DMO 5 Draft Determination*, 5 April 2023, pp. 3–4.

have sought a balance between the need to protect customers and the need for retailers to be able to recover costs and make a profit during a time of significant market change.

For comparison purposes, Table 8.1 and Table 8.2 present the 2022–23 (DMO 4) and 2023–24 (DMO 5) retail allowances (both in percentage and dollar amounts, respectively) and are included in the charts shown in Appendix D.

Table 8.1 Retail allowances (%) in 2022–23 and 2023–24

Customer type	Distribution zone	2022–23 (%)	2023–24 (%)
Residential without controlled load	Ausgrid	10	9.3
	Endeavour Energy	10	9.3
	Essential Energy	10	9.3
	Energex	8.4	8.4
	SA Power Networks	6	6
Residential with controlled load	Ausgrid	10	9.3
	Endeavour Energy	10	9.3
	Essential Energy	10	9.3
	Energex	10	10
	SA Power Networks	6	6
Small business	Ausgrid	25	20
	Endeavour Energy	16.6	16
	Essential Energy	20.3	17.5
	Energex	17	16
	SA Power Networks	15	15

Table 8.2 Retail allowances per customer in DMO 4 and DMO 5, nominal

Customer type	Distribution zone	2022–23 ($)	2023–24 ($)	Change: year-on-year (%)
Residential without controlled load	Ausgrid	151	170	12.4%
	Endeavour Energy	184	207	12.9%
	Essential Energy	209	235	12.3%
	Energex	135	165	22.9%
	SA Power Networks	110	137	23.9%
Residential with controlled load	Ausgrid	212	238	12.3%
	Endeavour Energy	238	277	16.2%
	Essential Energy	249	277	11.2%
	Energex	196	236	20.5%
	SA Power Networks	137	167	22.5%
Small business	Ausgrid	1,090	1,000	−8.3%
	Endeavour Energy	628	736	17.2%
	Essential Energy	995	1,008	1.3%
	Energex	586	672	14.8%
	SA Power Networks	681	877	28.9%

Analysis of variations in retailer costs

We acknowledge that individual retailer costs will vary. Some may face higher depreciation costs and smaller retailers may not have achieved the economies of scale enjoyed by Tier 1 and other larger retailers.

To test the extent to which the retail allowance provides a reasonable buffer for these cost variations, we have carried out analysis using the latest ACCC retail cost data to assess the remaining retail allowance available for retailers with a nominal level of depreciation and average Tier 2 costs.

Actual retailer costs will vary depending on factors such as retailer sizes, business models, products and strategies. This sensitivity analysis considers available margin for retailers with average Tier 2 costs and does not guarantee available margin or indicate preference for any particular business model.

Depreciation costs

We have used confidential estimates of separate depreciation costs for residential and small business electricity customers from one retailer and AGL's public information from its 2021–22 annual report showing total depreciation expenses of $139 million for its retail business (encompassing gas and telecommunication customers as well as electricity).[116]

We have maintained our decision not to include depreciation costs in the DMO but for the purposes of this analysis we have tested what percentage allowance remains after deducting a hypothetical:

- $36 per customer depreciation cost from the residential retail allowance in each region
- $133 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 earnings before interest and taxes (EBIT) retail margin, in accounting terms. As we have noted elsewhere, other Australian energy price regulators have set allowed margins on the basis that retailers will recover any depreciation costs from that component of the regulated price (that is, earnings before interest, tax, depreciation and amortisation (EBITDA) margins).

Residential customers

Adding a hypothetical $36 on to the ACCC's average of the largest 15 retailers' residential retail costs (that is, our base DMO 5 retail cost figure), we found the effective DMO 5 retail allowances would range from 4.4% (SA Power Networks) to 8.5% (Energex controlled load customers).

We have also considered the impact of typical depreciation costs on larger retailers. We understand that larger retailers that are able to invest in tailored IT solutions incur higher depreciation costs than smaller retailers using off-the-shelf or subscription-based services

[116] AGL reported in its 2021–22 Annual Report $139 million of depreciation expenses among 4.215 million customers mass market customers. This is approximately $33 per customer or $36 including GST. AGL Energy, Annual Report 2022, 19 August 2022, p. 16, 37.

that would be expensed as operating costs (and captured in the ACCC operating costs discussed in chapter 7).

Adding a nominal $36 to the ACCC's average Tier 1 retail costs, we found the effective DMO 5 retail allowances would range from 5.5% (SA Power Networks) to 9.6% (Endeavour and Essential controlled load customers).

The analysis indicates that retailers with these levels of depreciation costs would achieve EBIT margins that are equal to or higher than the EBITDA margins by the Essential Services Commission of Victoria, Independent Competition and Regulatory Commission and the Office of the Tasmanian Economic Regulator. As we have noted, these range from 5% to 6%.

Small business customers

Adding a hypothetical $133 to the ACCC's average small business retail costs (that is, our base DMO 5 retail cost figure), we found effective DMO 5 retail allowances would range from 12.7% (SA Power Networks) to 17.3% (Ausgrid).

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 $59 to the DMO retail cost component.[117]

Residential customers

Adding $59 to the ACCC's average retail costs, we found a retailer with these costs would achieve effective DMO 5 EBITDA retail allowances ranging from 3.4% (SA Power Networks) to 7.5% (Essential controlled load customers).

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 5, but we consider such a retailer would still make a reasonable profit and have incentives to innovate and invest. We note:

- the effective 3.4% residential retail allowance in SA Power Networks in the DMO 5 is greater than what was available under DMO 3 and 4
- retailers with these costs selling across all regions would achieve approximately 5.4% and 7.5% retail allowances for residential customers without and with controlled load, respectively.

Adding a hypothetical $36 depreciation costs in addition to the ACCC's Tier 2 operating costs, we found effective EBITDA DMO 5 retail allowances ranging from 1.7% (SA Power Networks) to 6.8% (Endeavour and Essential controlled load customers). Retailers with these costs selling across all regions would achieve approximately 4.5% and 5.8% retail allowances for residential customers without and with controlled load, respectively.

[117] This amount is the difference between the average Tier 1 and average non-Tier 1 retail operating costs reported by the ACCC in its November 2022 report.

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

We acknowledge that, even if a completed transition to the 10% retail allowance for DMO 6 is achieved, 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 the Essential Services Commission Victoria, Independent Competition and Regulatory Commission and the Office of the Tasmanian Economic Regulator. 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 and 3 retailers from competing aggressively on price. For instance, the lowest residential Tier 2 or Tier 3 market offer is $36 to $208 below the lowest Tier 1 offer (in April 2023), which is a further 2% to 13% discount off the DMO 4 reference price compared with the lowest Tier 1 offer.

The lowest residential Tier 2 market offer is up to $139 below the lowest Tier 1 offer (28 April 2023) depending on region, which is up to a further 7% discount off the DMO 4 reference price compared with the lowest Tier 1 offer.

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 would be able to make a reasonable profit and have incentives to innovate and invest.

Based on the analysis we are satisfied that the DMO 5 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 do not consider that further adjustments are required for the costs of providing support to customers experiencing hardship and natural disasters, or potential higher bad debt costs. Our approach to estimating retailer costs includes actual retailer operating costs from retailers supplying electricity to around 95% of the DMO regions as well as bad and doubtful debt costs based on ACCC data. Because of this, retailers will be able to recover their actual 2023–24 costs to provide hardship and natural disaster support as well as bad and doubtful debt costs in a future DMO price.

We also do not consider a further adjustment for working capital is required. Such an adjustment may be appropriate if the DMO price provided typical retailers with an efficient margin with no further margin for potential variation in costs or may be a suitable component to include under an exhaustive regulatory building block approach. However, the DMO prices are not intended to be constructed with the same level of precision and include a retail allowance that exceeds efficient margins for retailers with average costs.

We are also satisfied that the retail allowances in the DMO 5 price protect consumers from unreasonably high prices. Our analysis also demonstrates that the retail allowance is not unreasonably high, because smaller retailers with these higher costs would have difficulties competing and making a reasonable profit if allowances were lower.

9 Annual usage amounts, and timing and pattern of supply

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. Also, we must determine the timing and pattern of supply to residential customers.

9.1 Annual usage amounts

Draft determination

After we had considered stakeholder submissions for the issues paper and the available information at that time on residential annual usage, we had deemed the amounts were still broadly representative of residential and small business customer usage. Our draft determination position was to retain the current annual usage benchmarks for residential and small business customers, including the current controlled load amounts, for DMO 5.

Stakeholder views

Most submissions did not consider annual usage amounts. However, SACOSS's submission reiterated their concerns about the impact of rooftop solar customers on average annual grid usage calculations for the DMO in SA.

SACOSS considered the ACCC analysis of billing data made in the draft determination, which shows the annual grid usage by residential non-solar and solar customers across all regions combined, is difficult to reconcile with the bill reductions experienced by solar customers because of reduced grid usage.[118]

Their submission reiterated the importance of accurately determining average annual grid usage amounts for comparative purposes when using the DMO as a reference price. Due to extremely high penetration of rooftop solar in SA and the relatively low annual average usage, SACOSS suggests the AER request additional grid consumption data on solar versus non-solar customers from SA Power Networks or other alternative sources.[119]

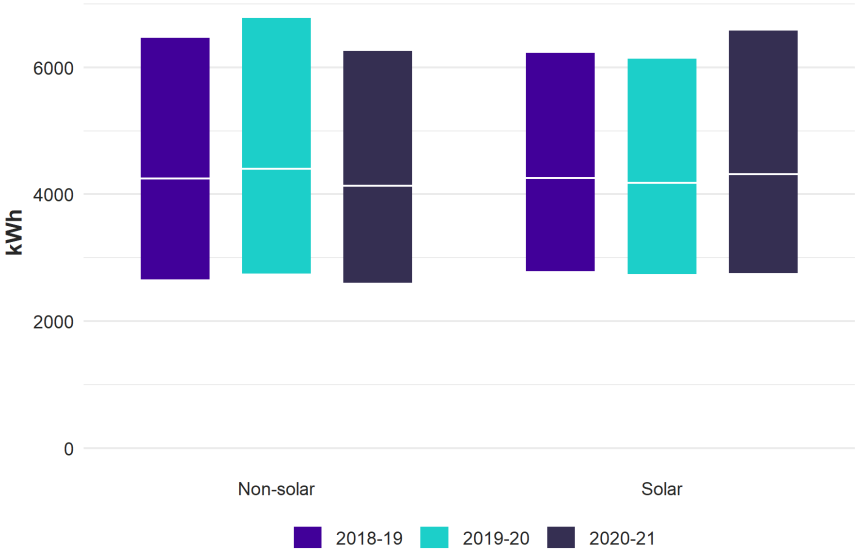
Our considerations

The ACCC analysis of billing data in its May 2022 report, which includes the annual grid usage for residential with and without solar customers in SA, finds the median usage for both groups is close to our assumed annual usage of 4,000 kWh for households without controlled load as demonstrated in Figure 9.1.

[118] SACOSS, *Submission to DMO 5 Draft Determination*, 6 April 2023, p. 4.

[119] SACOSS, *Submission to DMO 5 Draft Determination*, 6 April 2023, p. 4.

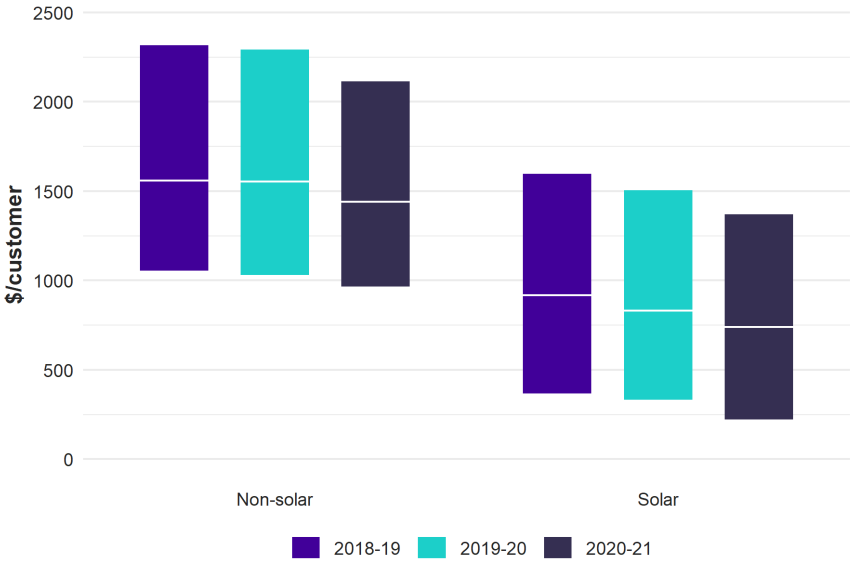
Figure 9.1 Annual grid usage by residential non-solar and solar customers in SA



Source: ACCC, *Inquiry into the National Electricity Market,* May 2022, Supplementary Table A3.31.

We agree with SACOSS's assertion that annual bills for residential solar customers in SA are lower than the annual bills for residential non-solar customers. This was observed by the ACCC in its May 2022 report, set out in Figure 9.2.

Figure 9.2 Annual bills for residential non-solar and solar customers in SA, excluding GST

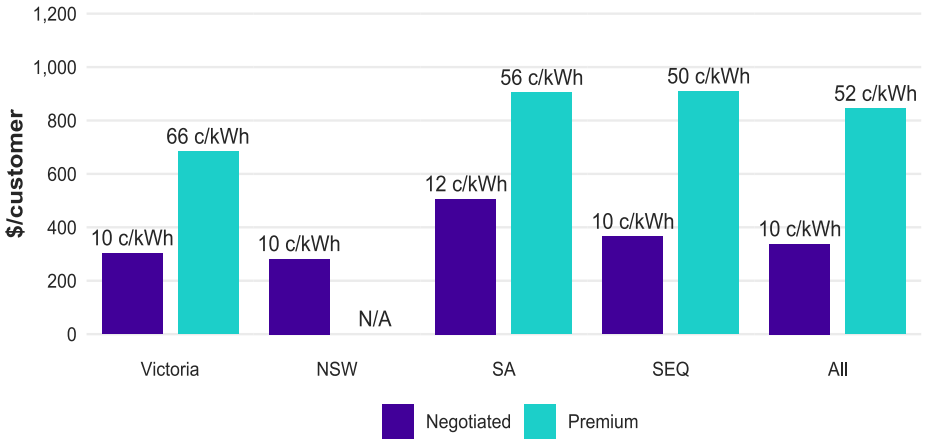


Source: ACCC, *Inquiry into the National Electricity Market,* May 2022, Supplementary Table A2.31.

However, it does not necessarily follow that grid usage for solar customers is lower than non-solar customers. For solar households, annual bills are influenced by both grid usage and the application of feed-in tariffs for excess solar exported to the grid. This means it is possible for solar and non-solar households to have similar grid-based usage, as found by the ACCC in its report (Figure 9.1), despite lower annual bills among solar customers (Figure 9.2).

As the ACCC *Inquiry into the National Electricity Market* May 2022 shows in Figure 9.3, the annual median solar rebates received by residential customers in 2020–21 in SA is $904 for 'premium'[120] feed-in tariffs and $506 for 'negotiated'[121] feed-in tariffs.

Figure 9.3 Annual median solar rebates and effective feed-in tariffs received by residential customers (2020–21), excluding GST



Source: ACCC, *Inquiry into the National Electricity Market,* May 2022, Supplementary Table A6.7.

After further consideration of the ACCC *Inquiry into the National Electricity Market* May 2022 report analysis for solar and non-solar households in SA, we are satisfied that the annual usage remains broadly representative in SA. We note the ACCC analysis is based on actual cost and usage data from 13 million bills and regard it to be a comprehensive data source.[122] We do not consider further requests on consumption information is required.

Final determination

The DMO 5 final determination position on annual usage now reflects that 2023-24 is a leap year and as such 1-days consumption has been added to annual usage from the DMO 5 draft determination. This has been calculated as:

DMO 4 annual consumption / 365-days x 366-days = DMO 5 annual consumption

Future determinations will reflect annual consumption relative to number of days in the determination year. This approach does not alter the daily usage profiles for residential customers with general usage and controlled usage, or for small business customers for general usage.

To provide consistency and continuity for stakeholders, our intention is to use this approach for the 2024–25 determination (DMO 6, 365 days) and review annual usage as part of the next DMO methodology for the 2025–26 (DMO 7) process.

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[120] ACCC, *Inquiry into the National Electricity Market*, May 2022, p.14: 'Premium feed-in tariff schemes were introduced to incentivise the installation of solar panels. These schemes rewarded solar owners with a high feed-in tariff for their solar exports. All premium (subsidised) feed-in tariff schemes are now closed to new entrants, but in some states existing customers still receive the legacy higher rates.'

[121] ACCC, *Inquiry into the National Electricity Market*, May 2022, p.14: 'Negotiated or standard feed-in tariffs are offered to all new solar customers after entry to the premium schemes closed. These provide a lower payment rate, broadly equivalent to the value of the energy exported.'

[122] ACCC, *Inquiry into the National Electricity Market*, May 2022, p.7.

9.2 Timing and pattern of supply

Draft determination

The DMO 5 draft determination maintained our approach for timing and pattern of supply from DMO 4 and updated the usage profiles using new interval meter data obtained from AEMO.

Stakeholder views

Stakeholders did not comment on our DMO 5 draft determination decision to retain our approach from DMO 4 and update the usage profiles using new AEMO interval meter data for timing and pattern of supply.

Final determination

The DMO 5 final determination retains our approach to timing and pattern of supply from DMO 4 and uses updated usage profiles sourced from new AEMO interval meter data.

This approach for determining the timing and pattern of supply to represent TOU customers updates the usage profiles using new AEMO interval meter data but retains 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 C). We propose to continue to update the profiles with new data each year.

10 Appendices

Appendix A – List of submissions to the DMO 5 draft determination

Appendix B – Advanced meter costs

Appendix C – Legislative instrument

Appendix D – DMO 4 to DMO 5 price movements

A. List of submissions to the DMO 5 draft determination

Following release of the DMO 5 draft determination on 15 March 2023, we invited stakeholder to submit their feedback on the methodology outlined. The following are the stakeholders who engaged with us in this process.

Government and market bodies

1. SA Department for Energy and Mining, *Submission to DMO 5 draft determination*, 11 April 2023
2. SACOSS, *Submission to DMO 5 draft determination*, 6 April 2023
3. NSW Government, *Submission to DMO 5 draft determination*, 8 May 2023

Industry association

4. Australian Energy Council, *Submission to DMO 5 draft determination,* 6 April 2023

Retailers

5. AGL Energy Limited, *Submission to DMO 5 draft determination*, 6 April 2023
6. Alinta Energy, *Submission to DMO 5 draft determination*, 6 April 2023
7. EnergyAustralia, *Submission to DMO 5 draft determination*, 6 April 2023
8. Energy Locals, *Submission to DMO 5 draft determination*, 6 April 2023
9. GloBird Energy, *Submission to DMO 5 draft determination*, 30 March 2023
10. Momentum Energy, *Submission to DMO 5 draft determination*, 5 April 2023
11. Origin Energy, *Submission to DMO 5 draft determination*, 6 April 2023
12. Powershop, *Submission to DMO 5 draft determination*, 11 April 2023
13. Red Energy and Lumo Energy, *Submission to DMO 5 draft determination,* 6 April 2023
14. Simply Energy, *Submission to DMO 5 draft determination*, 6 April 2023
15. Sumo Power, *Submission to DMO 5 draft determination*, 6 April 2023

Consumer groups/representatives

16. Public Interest Advocacy Centre, *Submission to DMO 5 draft determination,* 5 April 2023
17. Energy Consumers Australia, *Submission to DMO 5 draft determination,* 5 April 2023
18. Kevin Cox, Member of Evoenergy Consumer Representative Council, *Submission to DMO 5 draft determination,* 16 March 2023
19. Customer Consultative Group, *Joint submission to DMO 5 draft determination*, 29 March 2023.

B. Advanced meter costs

We requested retailers selling to approximately 93% 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 2022. We also asked retailers to provide the average costs they incur per advanced meter and the extent to which a portion of these costs are recovered in up-front and/or one-off installation fees. Tables B.1 and B.2 set out our calculations for estimating advanced meter costs per residential and small business customer.

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

Region	Ausgrid	Endeavour Energy	Essential Energy	Energex	SA Power Networks	DMO
Total advanced meter costs incurred by retailers ($)	35,325,972	30,825,760	24,582,693	43,436,625	28,114,891	**162,285,941**
Total advanced meter costs recovered in one-off or up-front fees ($)	602,471	2,018,169	2,493,652	671,877	2,013,508	**7,799,676**
Total advanced meter customers ($)	331,469	286,033	214,850	402,275	264,428	**1,499,055**
Average cost incurred per advanced meter ($) (ex GST)	106.57	107.77	114.42	107.98	106.32	**108.26**
Average cost recovered in one-off or up-front fees per advanced meter ($)	1.82	7.06	11.61	1.67	7.61	**5.20**
Average cost incurred per advanced meter net of average up-front fees ($)	104.76	100.71	102.81	106.31	98.71	**103.06**
ACS metering allowance included in network component ($) (ex GST)	28.76	24.35	42.44	42.51	25.86	**32.95**
Capital metering charge within ACS metering allowance ($)	15.77	2.38	11.05	28.94	10.35	**15.36**
Advanced meter installations where retailer has incurred a capital metering charge for replacing an accumulation meter (%)	79.3%	79.3%	79.3%	79.3%	79.3%	**79.3%**
Average legacy capital metering charges incurred per advanced meter ($)	12.50	1.89	8.76	22.95	8.21	**12.18**
Average per advanced meter costs net of up-front fees, ACS metering allowance, including legacy meter capital charges ($)	88.5	78.25	69.14	86.75	81.06	**82.28**
Total customers	1,501,609	925,018	727,103	1,363,559	800,230	**5,317,519**
Customers with advanced meters (%)	22.1%	30.9%	29.5%	29.5%	33.0%	**28.2%**
Advanced meter cost per customer net of up-front fees, ACS metering allowance in network component, including legacy meter capital charges ($)	19.54	24.20	20.43	25.59	26.78	**23.20**

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

Region	Ausgrid	Endeavour Energy	Essential Energy	Energex	SA Power Networks	DMO
Total advanced meter costs incurred by retailers ($)	3,071,105	1,773,727	2,322,360	2,930,697	2,063,235	**12,161,126**
Total advanced meter costs recovered in one-off or up-front fees ($)	123,343	50,997	181,585	408,221	80,906	**845,051**
Total advanced meter customers ($)	26,272	15,279	18,471	23,730	17,166	**100,918**
Average cost incurred per advanced meter ($) (ex GST)	116.90	116.09	125.73	123.50	120.19	**120.51**
Average cost recovered in one-off or up-front fees per advanced meter ($)	4.69	3.34	9.83	17.20	4.71	**8.37**
Average cost incurred per advanced meter net of average up-front fees ($)	112.20	112.75	115.90	106.30	115.48	**112.13**
ACS metering allowance included in network component ($) (ex GST)	37.52	35.67	42.44	42.51	25.86	**37.06**
Capital metering charge within ACS metering allowance ($)	24.11	2.38	11.05	28.94	10.35	**17.27**
Advanced meter installations where retailer has incurred a capital metering charge for replacing an accumulation meter (%)	79.3%	79.3%	79.3%	79.3%	79.3%	**79.3%**
Average legacy capital metering charges incurred per advanced meter ($)	19.12	1.89	8.76	22.95	8.21	**13.70**
Average per advanced meter costs net of up-front fees, ACS metering allowance, including legacy meter capital charges ($)	93.8	78.97	82.22	86.74	97.83	**88.77**
Total customers	132,284	67,005	75,581	95,838	80,165	**450,873**
Customers with advanced meters (%)	19.9%	22.8%	24.4%	24.8%	21.4%	**22.4%**
Advanced meter cost per customer net of up-front fees, ACS metering allowance in network component, including legacy meter capital charges ($)	18.63	18.01	20.09	21.48	20.95	**19.87**

C. Legislative instrument

Competition and Consumer (Industry Code – Electricity Retail) (Model Annual Usage and Total Annual Prices) Determination 2023

The Australian Energy Regulator makes the following determination.

Dated 25 May 2023Australian Energy Regulator

1. Name

This instrument is the *Competition and Consumer (Industry Code – Electricity Retail) (Model Annual Usage and Total Annual Prices) Determination 2023.*

2. Commencement

This instrument commences on 1 July 2023.

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 (366 days pa in 2023-24)				
Distribution region	**Residential Annual Usage without Controlled Load**	**Residential Annual Usage with Controlled Load**		**Small Business Annual Usage**
		General Usage	***Controlled Load Usage***	
Ausgrid	3,911 kWh	4,813 kWh	2,005 kWh	10,027 kWh
Endeavour Energy	4,913 kWh	5,214 kWh	2,206 kWh	10,027 kWh
Energex	4,613 kWh	4,412 kWh	1,905 kWh	10,027 kWh
Essential Energy	4,613 kWh	4,613 kWh	2,005 kWh	10,027 kWh
SA Power Networks	4,011 kWh	4,212 kWh	1,805 kWh	10,027 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 (3,911 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)	**0.2326**	**0.2247**	**0.2140**	**0.1900**	**0.1725**	**0.1563**	**0.1450**	**0.1379**	**0.1348**	**0.1348**	**0.1399**	**0.1484**	**0.1651**	**0.1869**	**0.2012**	**0.2168**	**0.2210**	**0.2213**	**0.2207**	**0.2186**	**0.2162**	**0.2142**	**0.2124**	**0.2125**
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)	**0.2138**	**0.2140**	**0.2128**	**0.2114**	**0.2106**	**0.2111**	**0.2142**	**0.2224**	**0.2346**	**0.2514**	**0.2731**	**0.2997**	**0.3148**	**0.3180**	**0.3120**	**0.3040**	**0.2974**	**0.2898**	**0.2776**	**0.2663**	**0.2595**	**0.2541**	**0.2465**	**0.2379**

Flexible Tariff (Time of Use tariff) daily usage profile – Daily General usage – Daily Residential Usage with Controlled Load (4,813 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)	**0.2863**	**0.2765**	**0.2634**	**0.2339**	**0.2124**	**0.1924**	**0.1784**	**0.1697**	**0.1659**	**0.1659**	**0.1721**	**0.1827**	**0.2033**	**0.2301**	**0.2476**	**0.2669**	**0.2720**	**0.2724**	**0.2716**	**0.2691**	**0.2661**	**0.2636**	**0.2614**	**0.2615**
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)	**0.2632**	**0.2633**	**0.2619**	**0.2602**	**0.2591**	**0.2598**	**0.2637**	**0.2737**	**0.2888**	**0.3094**	**0.3361**	**0.3689**	**0.3874**	**0.3914**	**0.3840**	**0.3742**	**0.3660**	**0.3567**	**0.3417**	**0.3278**	**0.3194**	**0.3128**	**0.3034**	**0.2928**

ii. Endeavour Energy distribution region

Flexible Tariff (Time of Use tariff) daily usage profile - Daily Residential Usage without Controlled Load (4,913 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)	**0.2959**	**0.2865**	**0.2601**	**0.2252**	**0.1991**	**0.1805**	**0.1692**	**0.1628**	**0.1619**	**0.1647**	**0.1740**	**0.1864**	**0.2078**	**0.2336**	**0.2473**	**0.2642**	**0.2682**	**0.2651**	**0.2653**	**0.2642**	**0.2621**	**0.2604**	**0.2589**	**0.2607**
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)	**0.2623**	**0.2626**	**0.2617**	**0.2636**	**0.2677**	**0.2728**	**0.2826**	**0.2999**	**0.3201**	**0.3445**	**0.3679**	**0.3984**	**0.4127**	**0.4124**	**0.4021**	**0.3912**	**0.3791**	**0.3656**	**0.3483**	**0.3255**	**0.3194**	**0.3196**	**0.3144**	**0.3062**

Flexible Tariff (Time of Use tariff) daily usage profile - Daily General Usage – Daily Residential Usage with Controlled Load (5,214 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)	**0.3140**	**0.3040**	**0.2760**	**0.2390**	**0.2113**	**0.1916**	**0.1795**	**0.1727**	**0.1718**	**0.1748**	**0.1846**	**0.1978**	**0.2206**	**0.2479**	**0.2625**	**0.2804**	**0.2846**	**0.2813**	**0.2816**	**0.2804**	**0.2782**	**0.2763**	**0.2748**	**0.2767**
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)	**0.2784**	**0.2787**	**0.2777**	**0.2797**	**0.2841**	**0.2896**	**0.2998**	**0.3182**	**0.3397**	**0.3656**	**0.3904**	**0.4228**	**0.4380**	**0.4376**	**0.4267**	**0.4152**	**0.4023**	**0.3880**	**0.3696**	**0.3454**	**0.3389**	**0.3392**	**0.3337**	**0.3250**

iii. Energex distribution region

Flexible Tariff (Time of Use tariff) daily usage profile - Daily Residential Usage without Controlled Load (4,613 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)	**0.1963**	**0.1803**	**0.1697**	**0.1599**	**0.1527**	**0.1479**	**0.1452**	**0.1441**	**0.1463**	**0.1517**	**0.1635**	**0.1790**	**0.2029**	**0.2316**	**0.2577**	**0.2681**	**0.2705**	**0.2689**	**0.2693**	**0.2687**	**0.2669**	**0.2661**	**0.2653**	**0.2676**
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)	**0.2699**	**0.2718**	**0.2745**	**0.2761**	**0.2800**	**0.2819**	**0.2881**	**0.2987**	**0.3116**	**0.3307**	**0.3509**	**0.3753**	**0.3922**	**0.3998**	**0.3886**	**0.3777**	**0.3709**	**0.3495**	**0.3265**	**0.3088**	**0.2939**	**0.2758**	**0.2488**	**0.2201**

Flexible Tariff (Time of Use tariff) daily usage profile - Daily General Usage – Daily Residential Usage with Controlled Load (4,412kWh/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)	**0.1878**	**0.1724**	**0.1623**	**0.1530**	**0.1461**	**0.1414**	**0.1389**	**0.1378**	**0.1399**	**0.1451**	**0.1564**	**0.1712**	**0.1940**	**0.2215**	**0.2465**	**0.2565**	**0.2588**	**0.2572**	**0.2576**	**0.2570**	**0.2553**	**0.2546**	**0.2538**	**0.2560**
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)	**0.2582**	**0.2600**	**0.2626**	**0.2641**	**0.2678**	**0.2697**	**0.2756**	**0.2858**	**0.2980**	**0.3164**	**0.3356**	**0.3590**	**0.3751**	**0.3825**	**0.3717**	**0.3613**	**0.3548**	**0.3343**	**0.3123**	**0.2954**	**0.2811**	**0.2638**	**0.2380**	**0.2105**

iv. Essential Energy distribution region

Flexible Tariff (Time of Use tariff) daily usage profile - Daily Residential Usage without Controlled Load (4,613 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)	**0.2723**	**0.2719**	**0.2638**	**0.2516**	**0.2309**	**0.2069**	**0.1882**	**0.1764**	**0.1714**	**0.1712**	**0.1793**	**0.1924**	**0.2147**	**0.2365**	**0.2458**	**0.2582**	**0.2597**	**0.2536**	**0.2535**	**0.2512**	**0.2486**	**0.2468**	**0.2439**	**0.2411**
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)	**0.2429**	**0.2430**	**0.2416**	**0.2388**	**0.2387**	**0.2401**	**0.2452**	**0.2557**	**0.2685**	**0.2854**	**0.3138**	**0.3493**	**0.3708**	**0.3723**	**0.3605**	**0.3474**	**0.3365**	**0.3233**	**0.3147**	**0.3091**	**0.3114**	**0.2981**	**0.2856**	**0.2802**

Flexible Tariff (Time of Use tariff) daily usage profile - Daily General Usage – Daily Residential Usage with Controlled Load (4,613 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)	**0.2723**	**0.2719**	**0.2638**	**0.2516**	**0.2309**	**0.2069**	**0.1882**	**0.1764**	**0.1714**	**0.1712**	**0.1793**	**0.1924**	**0.2147**	**0.2365**	**0.2458**	**0.2582**	**0.2597**	**0.2536**	**0.2535**	**0.2512**	**0.2486**	**0.2468**	**0.2439**	**0.2411**
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)	**0.2429**	**0.2430**	**0.2416**	**0.2388**	**0.2387**	**0.2401**	**0.2452**	**0.2557**	**0.2685**	**0.2854**	**0.3138**	**0.3493**	**0.3708**	**0.3723**	**0.3605**	**0.3474**	**0.3365**	**0.3233**	**0.3147**	**0.3091**	**0.3114**	**0.2981**	**0.2856**	**0.2802**

v. South Australian Power Networks distribution region

Flexible Tariff (Time of Use tariff) daily usage profile - Daily Residential Usage without Controlled Load (4,011 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)	**0.2577**	**0.3017**	**0.2996**	**0.2542**	**0.2145**	**0.1884**	**0.1731**	**0.1557**	**0.1441**	**0.1394**	**0.1417**	**0.1498**	**0.1674**	**0.1802**	**0.2012**	**0.2064**	**0.2008**	**0.1963**	**0.1958**	**0.2001**	**0.2048**	**0.2125**	**0.2150**	**0.2157**
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)	**0.2145**	**0.2113**	**0.2088**	**0.2073**	**0.2092**	**0.2108**	**0.2164**	**0.2235**	**0.2397**	**0.2594**	**0.2900**	**0.3212**	**0.3379**	**0.3383**	**0.3286**	**0.3182**	**0.3075**	**0.2957**	**0.2797**	**0.2586**	**0.2339**	**0.2091**	**0.1959**	**0.2274**

Flexible Tariff (Time of Use tariff) daily usage profile - Daily General Usage – Daily Residential Usage with Controlled Load (4,212 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)	**0.2705**	**0.3168**	**0.3146**	**0.2669**	**0.2252**	**0.1978**	**0.1818**	**0.1635**	**0.1513**	**0.1464**	**0.1488**	**0.1573**	**0.1758**	**0.1892**	**0.2113**	**0.2167**	**0.2108**	**0.2061**	**0.2056**	**0.2101**	**0.2151**	**0.2231**	**0.2258**	**0.2265**
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)	**0.2252**	**0.2219**	**0.2192**	**0.2176**	**0.2196**	**0.2214**	**0.2272**	**0.2346**	**0.2516**	**0.2723**	**0.3045**	**0.3373**	**0.3547**	**0.3552**	**0.3450**	**0.3341**	**0.3229**	**0.3105**	**0.2936**	**0.2715**	**0.2456**	**0.2195**	**0.2057**	**0.2388**

Flexible Tariff (Time of Use tariff) daily usage profile - Daily Controlled Load usage – (1,805 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%)
2,005	2,005	1,343	662

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%)
2,206	2,206	1,478	728

iii. Energex distribution region (kWh/year)

CL 1 only	CL 2 only	CL 1 and 2 (% of total)	
		CL 1 (29%)	CL 2 (71%)
1,905	1,905	552	1,353

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%)
2,005	2,005	1,544	461

v. South Australian Power Networks distribution region (kWh/year)[123]

CL 1 only	CL 2 only	CL 1 and 2
1,805	NA	NA

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

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 draft 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	$1,827	$2,562	$4,999
Endeavour Energy	$2,228	$2,977	$4,598
Energex	$1,969	$2,363	$4,202
Essential Energy	$2,527	$2,977	$5,761
SA Power Networks	$2,279	$2,787	$5,849

DATED THIS 25 DAY OF
MAY 2023

Australian Energy Regulator

D DMO 4 to DMO 5 price movements

The charts in this appendix show the movement in the DMO cost components between DMO 4 and DMO 5, with the overall height indicating the total DMO price for each DNSP.

We note that:

- Network, retail and environment cost components in DMO 5 are calculated using predominately the same methodology as DMO 4, so the changes directly reflect year-on-year movement. Network costs include costs of the NSW Roadwork costs in NSW and environmental costs include known applicable environmental schemes.
- Changes to the wholesale cost component also reflect the impact of the methodological adjustment of including the cost of options premiums and the inclusion of June 2022 market event costs, including Reliability and Emergency Reserve Trader fees and compensation costs as determined by AEMO and AEMC.

Figure D.1 Residential without CL, % change from DMO 4 (nominal)

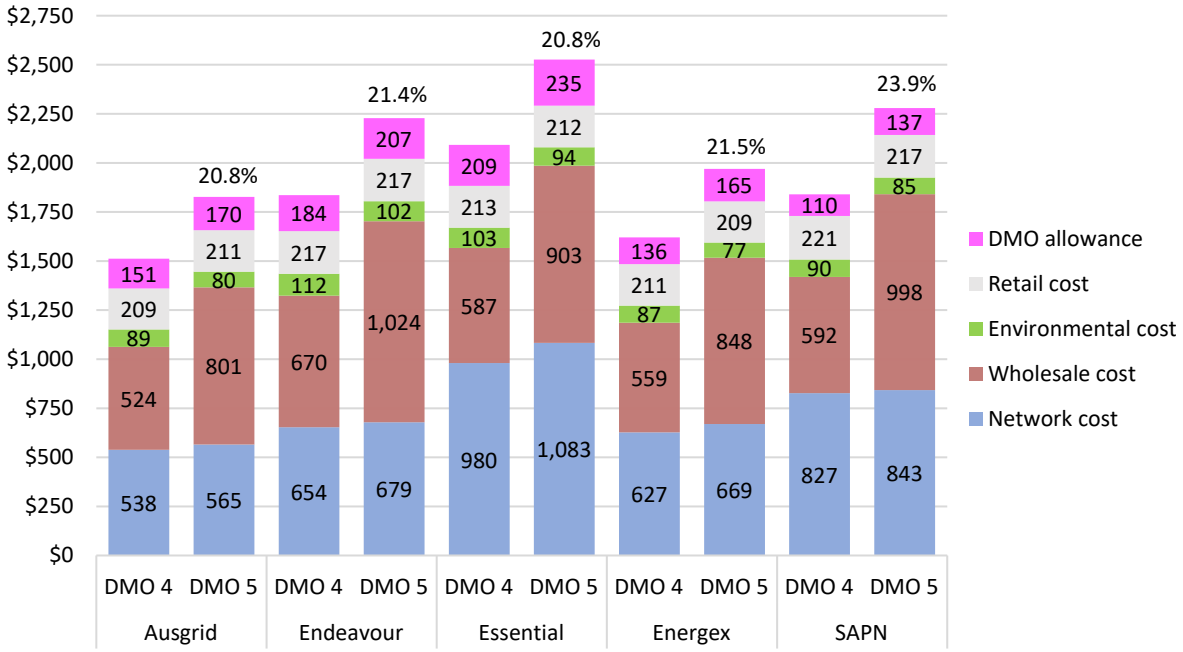

Figure D.2 Residential with CL, % change from DMO 4 (nominal)

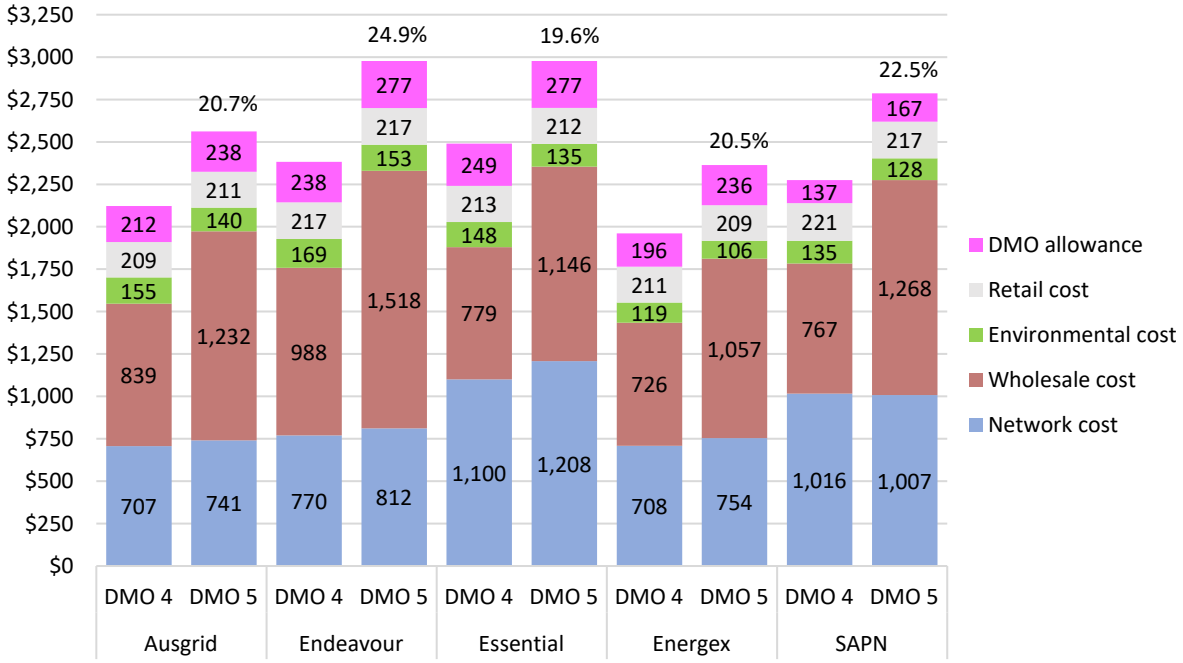

Figure D.3 Small business, % change from DMO 4 (nominal)