Default market offer prices 2023–24

Draft determination

March 2023

AUSTRALIAN ENERGY REGULATOR

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Contents

Invitation for submissions

Interested parties are invited to make submissions on this draft determination by 6 April 2023. We will consider all submissions received by COB on this date in our final determination.

Submissions can be sent to DMO@aer.gov.au or to:

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Please ensure submissions are in PDF, Microsoft Word or another text readable document format.

We prefer that all views and comments be publicly available to facilitate an informed and transparent consultative process. Views and comments will be treated as public documents unless otherwise requested.

Parties wishing to submit confidential information should:

- note the confidentiality claim in the email attaching the submission
- clearly identify the information that is the subject of the confidentiality claim
- provide a non-confidential version of the submission in a form suitable for publication.

All non-confidential information will be placed on our website. For further information regarding our use and disclosure of information provided to us, see the ACCC/AER Information Policy (June 2014) on our website.[1]

[1] ACCC/AER Information Policy, 4 June 2014

Glossary

Term	Definition
ACCC	Australian Competition and Consumer Commission
ACS	Alternative Control Services
AEC	Australian Energy Council
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
ASX	Australian Securities Exchange
CER	Clean Energy Regulator
CL	Controlled load
CPI	Consumer price index
CCG	Customer Consultative Group
DMO	Default market offer
DMO 1	Default market offer determination for 2019–20
DMO 2	Default market offer determination for 2020–21
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
DNSP	Distributed Network Service Provider
EBITDA	Earnings before interest, taxes, depreciation, and amortisation
ECA	Energy Consumers Australia
GST	Goods and services tax
GWh	Gigawatt hours
ICRC	Independent Competition and Regulatory Commission
kW	Kilowatts
kWh	Kilowatt-hour
MWh	Megawatt-hour
NSW REZ	NSW Renewable Energy Zone
OTC	Over-the-counter
OTTER	Office of the Tasmanian Economic Regulator
PIAC	Public Interest Advocacy Centre
PV	Photovoltaic system / solar power system
RBA	Reserve Bank of Australia
SACOSS	South Australian Council of Social Service
SAPN	SA Power Network
SE QLD	South East Queensland
TOU	Time of use

1 Executive summary

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

The DMO is the maximum price (or 'price cap') that a retailer can charge a standing offer customer in New South Wales (NSW), South Australia (SA) and South East Queensland (SE QLD) each year. It protects consumers from unjustifiably high prices, while allowing retailers to recover costs. A customer might be on a standing offer for a range of reasons, most notably if they have never switched to a retailer's market offer or if they have defaulted to a standing offer at the end of their market offer benefit period.

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

- 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.

In DMO 4, the wholesale cost of electricity accounted for around 30–40% of the total price. Since we last set DMO 4 prices, the wholesale market has faced unprecedented supply challenges and volatility. In combination, these factors mean that wholesale price rises are the predominant drivers of price changes in DMO 5.

Following the release of the Federal Budget on 25 October 2022, the Australian Government announced its intention to develop a plan to apply downward pressure on energy market prices.[3] In December 2022, the Prime Minister announced that National Cabinet had agreed an *Energy Price Relief Plan,*[4] which 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 Queensland (QLD) and NSW. The measures were implemented on 23 December 2022.

The forward contract prices for the 2023–24 financial year began to fall in SE QLD and NSW as soon as the intervention was publicly mooted. These contract prices are an important input to our wholesale forecasts for the DMO because they represent market expectations about prices for the coming year and directly influence the costs to retailers in purchasing wholesale energy for their customers. Contract prices have now fallen by approximately 50% since the end of October. However, despite this significant decline, the trade-weighted average prices for 2023–24 contracts are around $40 per megawatt-hour (MWh) higher than they were at the start of 2022 in all regions.

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

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

[4] Prime Minister, Treasurer, Minister for Climate Change and Energy, Media release—Energy price relief plan.

The more expensive contracts traded before the government intervention contribute to this because they are factored into the DMO methodology. Other factors include the higher coal and gas costs compared with previous years, despite the interventions, closure of the Liddell Power Station in April 2023 and the increasingly peaky shape of customer demand.

Our concerns about the contract markets led us to seek additional confidential over-the-counter (OTC) contract market data from retailers before making this draft determination. We used this data to determine whether ASX market prices alone are an accurate reflection of the costs a retailer faces.

Our analysis noted that the OTC contract prices currently have similarities to the ASX daily traded prices in the DMO regions. Therefore, we will continue to use ASX contract market information to estimate contracting costs for all DMO regions. However, additional contracting is expected to occur for the DMO 5 period so we will reconsider if similarities remain before we make the final DMO determination.

In the lead-up to publishing our final DMO price determination in May 2023, we will continue to monitor all market data and information, in particular in SA (where market liquidity is low), to ensure we capture any changing market trends and remain confident in the data we use in our final DMO price determination.

For this draft determination we have developed our own estimates of network costs based on updated information from network businesses. Environmental costs have decreased in all regions.

The prices set out in this draft determination reflect our best estimates at this point in time. It is possible that when we make our final determination in May, the prices may be different as we will have updated estimates for wholesale and network costs.

1.1 DMO 5 approach

Following a holistic review of our methodology for DMO 4, we flagged that for DMO 5 we would consult further on aspects of the wholesale forecasting methodology we can continue to refine.

The *Default market offer prices 2023-24 Issues Paper* was published on 3 November 2022. We consulted on various components of the wholesale methodology, the impact of wholesale movements on the retail allowance, as well as whether we should update the intended glidepath to 10% and 15% retail allowances for residential and small business customers respectively. We have considered stakeholder views on these topics and have outlined our consideration of this stakeholder feedback in this draft determination.

Over the last 12 months there has been a large increase in wholesale costs, unprecedented energy market volatility and increasingly tough broad economic circumstances. Therefore, we consider that a pause in the glidepath for residential retail allowances is necessary to ensure protection for consumers from unreasonable prices. The various factors prompting this decision may be temporary. We intend to review this again when we have greater clarity on wholesale market conditions and the outcome for prices beyond DMO 5. We will continue the glidepath for small business customers.

In the issues paper we focused on ways to improve transparency, stability and certainty with our methodology. No large-scale changes were proposed because we considered the impacts of any large changes would exacerbate uncertainty and complexity in a market already experiencing volatility and noted that relevant costs incurred by retailers from the recent wholesale price volatility would be captured in the current methodology.

Our approach for the draft determination is to maintain the wholesale methodology from DMO 4 for all DMO regions for DMO 5, with a small adjustment in our treatment of a subset of contract products.

For DMO 5 the AER contracted ACIL Allen to provide expert advice on the wholesale and environmental cost elements of the DMO. We have also published a companion report prepared by ACIL Allen outlining the wholesale and environmental cost forecasting approach in more detail.

1.2 DMO 5 draft prices

Residential customers in SE QLD face increases of around 19.8% for customers without controlled load and 19.5% for customers with controlled load (increases of 13.1% and 12.8% above forecast inflation[5]).

SA residential customers without controlled load will experience price rises of around 21.8% (15% above forecast inflation). Those with controlled load face increases of around 21.3% (a 14.6% increase above forecast inflation).

In NSW, residential customers without controlled load will see price increases of 20.9% to 22.2% (14.1% to 15.4% increases above forecast inflation) compared with DMO 4, depending on their network distribution region. Customers with controlled load will see price increases of 21.4% to 23.7% (14.6% to 16.9% increases above forecast inflation).

For small business customers, prices will increase between 14.7% and 25.4% (7.9% to 18.6% above forecast inflation) depending on their region.

Customers who shop around continue to save on their bills. Based on offers available in February 2023, residential customers switching from a standing offer to the lowest market offer could save 7% to 17% and small business customers could save 9% to 26%, depending on their region.

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[5] We have used RBA forecasted inflation across 2022–23 of 6.75%, RBA, *Statement on Monetary Policy – February 2023,* Economic Outlook, Table 5.1.

2 DMO 2023–24 draft prices

2.1 DMO draft prices

Draft 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 5 in both real terms (that is, adjusted for forecast inflation) and nominal terms.

The draft DMO prices are based on the most recent data available. The draft prices will be adjusted for our final determination as required based on updated data, market conditions at the time and following public consultation.

Table 2.1 DMO 2023–24 draft determination prices, including changes from DMO 4 in nominal and real terms

Distribution zone	Description	Residential **without** CL		Residential **with** CL		Small **business without** CL	
Ausgrid	DMO price		$1,847		$2,578		$5,000
	for annual usage of		3,900 kWh		Flat rate 4,800 kWh + CL 2,000 kWh		10,000 kWh
	Change y-o-y	+$335	(22.2%)	+$456	(21.5%)	+$640	(14.7%)
	Change y-o-y (real)	+$233	(15.4%)	+$313	(14.7%)	+$346	(7.9%)
Endeavour	DMO price		$2,219		$2,947		$4,535
	for annual usage of		4,900 kWh		Flat rate 5,200 kWh + CL 2,200 kWh		10,000 kWh
	Change y-o-y	+$383	(20.9%)	+$564	(23.7%)	+$753	(19.9%)
	Change y-o-y (real)	+$259	(14.1%)	+$403	(16.9%)	+$498	(13.2%)
Essential	DMO price		$2,555		$3,022		$5,759
	for annual usage of		4,600 kWh		Flat rate 4,600 kWh + CL 2,000 kWh		10,000 kWh
	Change y-o-y	+$463	(22.1%)	+$532	(21.4%)	+$858	(17.5%)
	Change y-o-y (real)	+$322	(15.4%)	+$364	(14.6%)	+$527	(10.8%)
Energex	DMO price		$1,941		$2,344		$4,115
	for annual usage of		4,600 kWh		Flat rate 4,400 kWh + CL 1,900 kWh		10,000 kWh
	Change y-o-y	+$321	(19.8%)	+$383	(19.5%)	+$669	(19.4%)
	Change y-o-y (real)	+$212	(13.1%)	+$251	(12.8%)	+$436	(12.7%)
SAPN	DMO price		$2,241		$2,760		$5,690
	for annual usage of		4,000 kWh		Flat rate 4,200 kWh + CL 1,800 kWh		10,000 kWh
	Change y-o-y	+$401	(21.8%)	+$485	(21.3%)	+$1,151	(25.4%)
	Change y-o-y (real)	+$277	(15%)	+$331	(14.6%)	+$845	(18.6%)

Note: Real comparisons with DMO 5 are based on RBA 2022–23 inflation forecast of 6.75% in its February 2023 Statement on Monetary Policy.

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 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 NSW, SA, Tasmania, the Australian Capital Territory (ACT) and QLD.

Our objectives[6] 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 Competition and Consumer (Industry Code – Electricity Retail) Regulations 2019 (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 SA (SA Power Networks – SAPN).

The DMO is a price cap. Retailers cannot charge above the DMO for their standing offers. 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.

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 market. It should not be a low-priced alternative to a market offer.[7] 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.

[6] AER Strategic Plan 2020–25.

[7] ACCC, *AER Default market offer, Submissions to the draft determination*, 20 March 2019, p.1–2.

Customers on standing offers

The Australian Energy Market Commission (AEMC) and Australian Competition and Consumer Commission (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[8]
- have defaulted to a standing offer following the expiry of a market contract.[9]

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 for one 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.

Table 3.1 Customers on standing offers in DMO areas

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

Note: SE QLD figures extrapolated from all QLD by excluding Ergon customers. Other retailers have customers in regional QLD so figure is approximate. Standing offer customers calculated by subtracting market offer customers from total customers.
Source: AER Retail Market Performance update, Quarter 2 2022–23. This information will be updated for the final determination.

The Regulations also prescribe a mandatory industry code with DMO reference provisions requiring:[10]

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

9 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.

10 The Code for the purposes of Part IVB of the *Competition and Consumer Act 2010*.

- standing offer prices for small customers not to exceed a price determined by the AER[11]
- small customers to be told how a retailer's prices compare with the AER determined annual price[12]
- the most prominent price related feature in an advertisement must not be a conditional discount, and any conditions on other discounts are clearly displayed.[13]

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 Competition and Consumer (Industry Code—Electricity Retail) Regulations 2019.

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[14] (the model annual usage)[15]
- 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).[16]

The DMO price applies to residential and small business customers on standing offers in NSW, SA and SE QLD.[17]

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.[18]

Each category includes customers with solar tariffs.[19]

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

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11 Regulations s. 10.

12 Regulations s. 12.

13 Regulations s. 14.

14 The AER is not required to determine the pattern of consumption in the case of small business customers.

15 Regulations, s. 16(1)(a).

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

17 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.

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

19 We are not required to determine an annual price and usage for customers on other tariff types, such as tariffs with a demand charge, small business controlled load and TOU tariffs, tariffs offered in embedded networks.

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.[20]

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 'onsell' 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 onsells 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.[21]

We have been advocating to the Australian Government for the extension of the DMO protections to all customers in embedded networks. We have undertaken preparatory work to ensure we are ready to implement this should the reform proceed.

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20 Regulations, s. 16(4).

21 Pricing condition 7 of the Embedded Networks Guideline.

4 Network costs

Under the National Electricity Rules, the AER regulates network charges while the distributors set those network charges annually, offering a range of tariff structures for each class of customer. The DMO network cost component is adjusted each year to reflect changes in distributor network costs for the relevant customer class.

For our final determination we intend to use approved network tariffs for 2023–24, if available.

4.1 Issues paper

In our issues paper we proposed to continue the approach used in DMO 4 and previous DMO determinations to base the DMO network costs on flat rate tariffs only, and not to extend our analysis to capture costs under TOU tariffs for residential customers.

We considered 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

Retailers' submissions did not raise any specific concerns with our proposed approach for network costs in DMO 5.

4.3 Draft determination

Approved network tariffs are unavailable for DMO draft determinations. The network costs used in our previous DMO draft determinations have been based on indicative network tariffs for the determination year submitted by distributors as part of the previous year annual pricing proposals. We have considered this to be the best information available at the time.

However, for the 2023–24 year, distributors have provided the AER with updated information. We have used this information to develop our own estimates to calculate the network costs in our draft determination.

These estimates take into account the most up-to-date inflation forecasts, interest rates and other factors that drive network tariffs. These factors have changed significantly since the indicative tariffs were submitted last year. Because of this we consider these estimates are likely to be closer to the final 2023–24 network tariffs that we intend to use in the final DMO determination. A benefit of this approach is that it should reduce changes between draft and final DMO 5 prices. However, these estimates used in our draft determination are not approved network tariffs and are subject to change. The final 2023-24 network tariffs are approved through the AER's 2023-24 network tariff approval process.

The network tariffs used to assess the change in network costs are set out in Table 4.1 and network cost estimates resulting from this are set out in Table 4.2 and included in the DMO charts in Appendix D.

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

Distribution region	Residential flat rate	Residential controlled load	Small business flat rate
Ausgrid	Residential Non TOU - EA010	EA030 – Controlled load 1 EA040 – Controlled load 2	EA050 Small business non-TOU
Endeavour	Residential Flat tariff - N70	Controlled load 1 N50 Controlled load 2 N54	General Supply Block Tariff N90
Essential	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
SAPN	Residential Single Rate RSR (SR)	Residential Single Rate RSR (controlled load)	Business Single Rate BSR

Table 4.2 AER estimate of 2023-24 network costs

Distribution region	Residential flat rate	Residential controlled load	Small business flat rate
Ausgrid	$579	$744	$1,513
Endeavour	$663	$783	$1,281
Essential	$1,097	$1,231	$2,349
Energex	$661	$760	$1,270
SAPN	$830	$1,020	$1,959

4.3.1 Treatment of NSW Renewable Energy Zone (NSW REZ) costs

NSW has introduced a new framework to develop REZ as part of its energy transition plan for which the AER is responsible for regulating costs. We made our first cost contribution determination on 24 February 2023, setting out the costs that would be recovered from NSW electricity consumers in 2023–24.[22] The first contribution determination sets out the costs to be recovered from NSW electricity consumers over the financial year 2023–24, which covers:

- cost for payments to network operators

[22] Under Part 7 of the *Electricity Infrastructure Investment Act 2020 (NSW)* (*"EII Act"*) the AER, as the regulator, gazetted the NSW REZ cost contribution on 28 February 2023.

- costs associated with successful tenders for infrastructure underwriting contracts (known as long-term energy service agreements)
- the administrative costs of scheme entities.

The AER has determined an amount of $138.14 million to be recovered via the NSW network tariffs. For each distributed network service provider (DNSP), the costs to be recovered are: $61.45 million for Ausgrid, $48.86 million for Endeavour and $27.83 million for Essential. These allocations are based on each network's volume of electricity transported and peak demand.

However, the indicative 2023–24 network tariffs included in the DNSPs' 2022–23 pricing proposals did not include the NSW REZ costs because these were not known at the time. In addition, at the time of this draft determination it is not clear how the NSW distributors will apportion these costs among residential, small business and larger customers through the 2023–24 network tariffs.

Our DMO 5 draft determination includes an estimate of NSW REZ costs (on a $ per year basis) for residential and small business customers. We have developed this estimate by:

- developing a $/MWh cost by dividing each DNSP's NSW REZ costs to be recovered by the forecasted energy (GWh per year) for that DNSP
- converting the $/MWh cost to an annual $ cost included in DMO 5 by multiplying the $/MWh by the respective NSW DMO usage amounts for each customer category.

These cost estimates are set out in Table 4.3 and can also be found in our draft termination DMO 5 model.

Table 4.3 NSW REZ costs by DNSP

$/MWh cost	Ausgrid	Endeavour	Essential	NSW
Network usage (GWh)	24,494	16,711	12,451	53,656
Distribution of NSW REZ cost ($M)	$61.45	$48.86	$27.83	$138.14
Total ($/MWh)	$2.51	$2.92	$2.23	$2.57
Usage (kWh)				
Residential without CL	3,900	4,900	4,600	–
Residential with CL	6,800	7,400	6,600	–
Small business without CL	10,000	10,000	10,000	–
Cost ($ pa)				
Residential without CL	$9.78	$14.33	$10.28	–
Residential with CL	$17.06	$21.64	$14.75	–
Small Business without CL	$25.09	$29.24	$22.35	–

Note: Table may not add due to rounding.
Source: AER Determination NSW REZ costs 2023-24; Ausgrid, Endeavour and Essential 2021-22 Economic Benchmarking RINs

We have decided to adopt this estimate in our draft DMO 5 prices to reduce the difference between the NSW draft and final DMO 5 prices that would otherwise occur if we did not include an estimate of these costs in the draft DMO 5 prices. However, it is possible that the NSW DNSPs may apply a different approach to allocating costs among customers in their

2023–24 proposed network tariffs. This could result in some differences between the draft and final DMO network cost component.

5 Wholesale energy costs

5.1 Issues paper

5.1.1 Changes to the wholesale methodology

Our issues paper noted our proposal in the DMO 4 final determination to engage with stakeholders on the wholesale methodology as part of our DMO 5 consultation.

We also indicated that we considered the market volatility and other events of the second half of 2022 to be important factors that should be incorporated into our review of the wholesale energy component of the DMO. This was to ensure that our wholesale methodology, especially in relation to the contract markets, was robust enough for this volatility and future market changes.

We signalled that transparency, stability, certainty and practicality should be at the forefront of any potential changes to the current wholesale methodology. Due to this, the issues paper did not propose large-scale changes to the methodology because we considered the impacts of any changes would exacerbate uncertainty and complexity in the market.

5.1.2 Transparency of the modelling process

Our issues paper noted that the current wholesale methodology relies on public information on futures contracts traded on the ASX for base, peak and cap contracts, with our consultant assessing the ASX trades against broker OTC data.

Although historically broker data has shown little difference in prices and hasn't resulted in changes to the modelling inputs, we wanted to consider whether ASX data in isolation was an accurate reflection of the costs a retailer faces.

We also noted that the electricity futures markets are now facing liquidity challenges greater than in prior DMO determinations. This appears to be driven by:

- The very rapid increase in prices, which has triggered margin calls for parties that have sold contracts. These margin calls occur daily and the potential for further contract price rises, or a repeat of the volatility of 2022, means parties that would normally be continuing to offer contracts for sale (e.g. generators) face increased risk in doing so.
- For generators, concerns about fuel availability and, in some cases, plant reliability. These issues are reportedly contributing to an increased risk in selling contracts as generators need physical plant available to back any sold contracts in the spot market.
- Clearing houses withdrawing their services or restricting the services available to participants in the energy market.

Our issues paper also noted that SA had consistently low levels of trades compared with other regions, as well as a further liquidity decline in traded volumes for ASX contracts for the DMO 5 period. The low level of liquidity prompted us to question whether the exchange data reasonably reflects a retailer's risk management practices. The issues paper noted a potential option to obtain confidential contract information from market participants in SA, and possibly other jurisdictions, and add these to the ASX data in the book build process.

The issues paper also signalled that we were considering whether and how to include options in the hedging profile, as it is likely to reflect a retailer's prudent hedging strategy.

5.1.3 Price stability of the wholesale component

Our previous DMO determinations involved a book build process, which occurs over a 2 to 3-year period. This replicates the traded volumes on ASX products and prices, resulting in a fairly stable wholesale cost pending any extreme shifts in contract prices. When making these determinations, some stakeholders have provided submissions stating that the book build process should weight contract trades and prices closer to the relevant DMO period, as this would better represent price expectations during that time or the hedging strategies of particular market participants.

The issues paper noted that if we were to shorten the book build process for DMO 5, we would likely see a larger price increase than if we continued with the current methodology. However, we would also see the opposite if the wholesale prices dropped drastically from their current highs.

Our position in the issues paper was that we were not proposing to make a change to the book build process. Our reasoning was that we support a longer book build process because we consider price stability to be an important part of providing fallback price protection to consumers. Adopting a similar approach year-on-year is important to maintain consistency in the modelling, which in turn influences retailer hedging practices.

5.1.4 Load profiles

Load profiles are both a key input and a method to developing the hedging profile of a risk adverse retailer for our current wholesale methodology. The approach used for DMO 4 was based on AEMO’s published net system and controlled load profiles, which are created using basic meter data. Our consultant uses this data to create an aggregated load profile, which is broadly representative of residential and small business customers.

Load profiles are becoming increasingly peaky in shape, with more extremes in high and low demand. Higher peaks result in higher hedging costs because additional contracts need to meet the higher demand. However, if the higher demand does not eventuate the retailer would have over contracted and incurred additional costs that were not necessary.

The issues paper noted that we were considering alternative data sources, including interval and smart meter data, to inform a decision on whether our historical approach remains reflective of a load a retailer may hedge against. We also indicated we were considering whether load profiles for the individual distribution networks in NSW could be replaced by a single load profile across the NSW region.

5.1.5 Treatment of compensation costs

During 2022 there was considerable volatility in the wholesale energy market, punctuated by the suspension of the wholesale market by AEMO from 15 to 24 June 2022. This suspension, with other market conditions, resulted in additional costs for retailers in the DMO 4 period (2022–23 financial year).

Our issues paper noted that market participants impacted by the market suspension were able to make compensation claims under the AEMO and AEMC cost recovery regimes in the second half of 2022. The issues paper noted that, although the AEMO costs would likely be known before the DMO 5 draft and final determination, the costs from the AEMC scheme may not be realised and therefore not included in either the draft or final determination. We also stated that we will continue to work with the AEMC to understand when the costs from their scheme will be known to external parties.

The issues paper provided our current approach, which involves including any known costs arising from compensation regimes in the wholesale energy component. In relation to the cash flow impacts from the timing of this lagged cost recovery, the issues paper noted that the current wholesale methodology accounts for these through the prudential costs that a retailer would incur in meeting the requirements of both AEMO and the ASX.

Our position in the issues paper was that we are not currently proposing to adjust the way that prudential costs are included in the wholesale energy cost. Our reasoning was that any costs incurred from the recent volatility in the wholesale price would be captured in the current methodology.

5.2 Stakeholder views

5.2.1 Use of confidential contract information in book build process

Stakeholder submissions were varied on whether confidential contract information should be included in the book build process.

The submissions from Alinta Energy, GloBird Energy and Momentum Energy favoured a transparent and publicly available data source and did not support the inclusion of confidential contract information.[23] This need for transparency was supported by Origin Energy, which considered the ASX contract market to exhibit the requisite level of liquidity and provided a good representation of retailer hedging.[24] Australian Energy Council's (AEC) submission welcomed our efforts to test our methodology but considered that there was a lack of current evidence that a materially different methodology would deliver better outcomes.[25]

Energy Locals' submission provided that including confidential contracts would result in using internal hedge transfers within a vertically integrated gentailer's corporate group, which did not reflect an actual retailer's contracting costs.[26] Energy Locals also queried whether using confidential contracts would further exacerbate the decline in volumes in the ASX contract market. Simply Energy's submission also did not support the inclusion of confidential contract information, noting that its inclusion would add complexity to the contracting process.[27]

AGL's submissions provided support for using OTC contract data in the DMO, believing that the contract prices on the ASX were below the cost of supply.[28] In providing this view, AGL queried whether internal hedge transactions would be included in the absence of a liquid contract market, stating that its inclusion would expand the issues and not resolve them. 1st Energy's submission provided support for the calculation of the wholesale costs in

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[23] Alinta Energy, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 1; GloBird Energy, *Submission to DMO 5 Issues Paper*, 29 November 2022, p. 2; Momentum Energy, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 3.

[24] Origin Energy, *Submission to DMO 5 Issues Paper*, 5 December 2022, p. 2.

[25] Australian Energy Council (AEC), *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 3.

[26] Energy Locals, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 3.

[27] Simply Energy, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 3.

[28] AGL, *Submission to DMO 5 Issues Paper*, 1 December 2022, pp. 3–4.

accordance with a prudent retailer's real-world hedging; however, it also reiterated that transparency, stability and certainty should be at the forefront of our approach when considering the current wholesale methodology.[29]

The need to balance transparency and certainty was also noted in Energy Consumers Australia's (ECA) submission,[30] while Public Interest Advocacy Centre's (PIAC) submission recommended an approach that improved accuracy in the DMO 5 process, even if it resulted in less transparent wholesale cost inputs.[31] This need to prioritise accuracy over transparency was also noted in the South Australian Council of Social Service (SACOSS) and South Australian Department for Energy and Mining's submission. SACOSS stated that the AER's priority is to gather the best, most accurate data in order to protect the consumer from unjustifiably high prices. [32] The South Australian Department for Energy and Mining agreed with this assertion, stating that the loss of transparency from a customer's perspective was a preferable trade-off to prevent excessive increases to their electricity bills.[33]

5.2.2 Additional contracting products in hedging strategy

Retailer submissions generally did not support the use of options or other contract products.

Submissions from the AEC, 1st Energy and Energy Locals noted that options are frequently purchased by financial intermediaries as speculative investments. The submission stated that as these intermediaries have no exposure to the energy market, options should not be assessed as being representative or prevalent in retailer hedging strategy.[34] Concerns on the use of options were also noted in the submissions of Alinta Energy, Momentum Energy and Origin Energy, which cited the unnecessary complexity in valuing option contracts would increase uncertainty and reduce transparency.[35] Powershop Australia's submission was more open to the use of options, regarding the current hedging strategy as sufficient, while also requesting the AER to acknowledge that exotic products may be used to hedge market risks when the standard products are insufficient.[36]

Red Energy and Lumo Energy's submission noted that options were an increasingly common hedging tool and, although the complexity of methodology will increase, it will remain transparent due to the availability of options information from the ASX trade log. In providing this information, Red Energy and Lumo Energy noted that considerable detail was needed to be analysed before options could be included, which involved determining what options

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[29] 1st Energy, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 1.

[30] Energy Consumers Australia (ECA), *Submission to DMO 5 Issues Paper,* 29 November 2022, p. 1.

[31] PIAC, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 4-5.

[32] SACOSS, *Submission to DMO 5 Issues Paper*, 5 December 2022, p. 9-10.

[33] SA Department for Energy and Mining, *Submission to DMO 5 Issues Paper*, 15 December 2022, p. 2.

[34] Australian Energy Council (AEC), *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 4; 1st Energy, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 2; Energy Locals, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 3.

[35] Momentum Energy, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 3; Energy Locals, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 3; Alinta Energy, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 1, 4; Origin Energy, *Submission to DMO 5 Issues Paper*, 5 December 2022, p. 2, 8–9.

[36] Powershop, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 3.

would be included, whether options would be included in the methodology for all DMO regions and whether the methodology would account for the market price at expiry.[37]

The submissions of SACOSS and the South Australian Department for Energy and Mining commented on the lack of liquidity of SA's wholesale future contracts market and concluded that a wholesale component calculated using all information would be more accurate and reasonable, outweighing any potential negatives.[38] AGL Energy's submission noted that options are becoming more popular in the current market, but noted the current DMO calculation already indirectly included calendar year option data while excluding financial year option data. In providing this view, AGL Energy noted that this issue should be targeted for future consultation and amendment.[39]

EnergyAustralia's submission did not support the inclusion of options in the DMO. However, their submission also raised an issue in relation to the expiry of call options for 2023 calendar year swap contracts. The retailer noted the exercising of options for financial purposes had resulted in the cost of the wholesale energy component of the DMO being artificially lowered. Due to this, EnergyAustralia's suggested solution involved assessing the options at the ASX's daily traded price, instead of the options strike price.[40]

The relevance of Power Purchase Agreements (PPA) to the DMO calculation were also raised in the submissions of 1st Energy, the AEC and Tango Energy. These submissions noted that PPAs were not relevant to the to the short-term market period, but rather the bespoke contracting of the contract's specific counterparties.[41]

5.2.3 Hedge book build period

There were differing views provided by retailers in relation to the length of the book build period – larger retailers supported the stability in prices of a longer book build period, while small retailers highlighted the uncertainty in forecasting customer numbers and their consumption past 1 to 2 years when using a 2 to 3 year book build period.

The submission of Energy Locals noted that, although the existing methodology was broadly appropriate, they supported a weighting of prices towards the most recent period given the impact on the recent volatility on a retailer's cash flows.[42] Energy Locals also noted that the transition to renewables was making it difficult to predict load and usage patterns 3 years out. The retailer noted that this created greater room for error and favoured vertically integrated or traditional retailers that had more certainty on customer numbers.[43] The uncertainty in forecasting customer number accurately past 1 to 2 years was also noted in Tango Energy's

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[37] Red Energy/Lumo Energy, *Submission to DMO 5 Issues Paper,* 30 November 2022, p. 4.

[38] SACOSS, *Submission to DMO 5 Issues Paper*, 5 December 2022, p. 10; SA Department for Energy and Mining, *Submission to DMO 5 Issues Paper*, 15 December 2022, p. 2.

[39] AGL, *Submission to DMO 5 Issues Paper*, 1 December 2022, p. 4.

[40] EnergyAustralia, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 13–14.

[41] Tango Energy, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 3; Australian Energy Council (AEC), *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 4; 1st Energy, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 2.

[42] Energy Locals, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 2–3.

[43] Energy Locals, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 3.

submission, with the retailer stating that alternatively using a 12-month hedge book would face substantially higher short-term hedging costs.[44]

GloBird Energy's submission highlighted their experience with the Victorian Default Offer, noting that a book build process that occurs over a 12-month period finds the right balance between price stability, retail cost and sustainable market competitiveness.[45] In making this argument, GloBird Energy noted that we should review the methodology from both a large and small retailer's perspective.

The submissions of 1st Energy, AGL Energy, Origin Energy and Simply Energy also supported maintaining the current approach.[46] These submissions noted the current book build period provides stability in the wholesale energy cost for consumers. In providing this view, Simply Energy noted that a change to the book build period would require a transition period to enable retailers to consider the changes on their hedging strategy.

The submission of SACOSS recommended extending the book build period, to decrease costs and provide greater stability in prices for SA consumers.[47] In providing this view, SACOSS noted their opposition to any weighting of prices to the most recent period, as this would cause significant fluctuations in the DMO retail price. Conversely, PIAC recommended that the AER adopt a wholesale estimation methodology that improved accuracy even where this may result in greater volatility of DMO prices between periods.[48]

5.2.4 Load profiles

Stakeholders' views were mixed on whether the current load profile approach is still appropriate, or whether smart meters with solar PV systems should be reflected in the load profile for DMO 5. Simply Energy's submission stated that maintaining the current approach would maintain the transparency from using publicly available information.[49] Support for the current method was also provided by Momentum Energy, which stated that a change would not be appropriate given the small minority of consumers with a smart meter.[50]

Energy Locals' submission noted that as jurisdictions continue to roll out smart meters, the different load profiles of the different customer types should be considered in the DMO.[51] This need for smart meter data was also highlighted in the Origin Energy and South Australian Department for Energy and Mining's submissions, which criticised the current load profile's bias against the peakier, variable loads of solar PV customers, which Origin Energy commented led to higher actual hedging costs than what is modelled in the DMO.[52]

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[44] Tango Energy, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 2.

[45] GloBird Energy, *Submission to DMO 5 Issues Paper*, 29 November 2022, p. 2.

[46] 1st Energy, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 2; AGL, *Submission to DMO 5 Issues Paper*, 1 December 2022, p. 5; Origin Energy, *Submission to DMO 5 Issues Paper*, 5 December 2022, p. 10; Simply Energy, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 3.

[47] SACOSS, *Submission to DMO 5 Issues Paper*, 5 December 2022, p. 10.

[48] PIAC, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 4–5.

[49] Simply Energy, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 2.

[50] Momentum Energy, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 3.

[51] Energy Locals, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 2.

[52] Origin Energy, *Submission to DMO 5 Issues Paper*, 5 December 2022, p. 1, 3–4; SA Department for Energy and Mining, *Submission to DMO 5 Issues Paper*, 15 December 2022, p. 2.

Similarly, other stakeholder submissions supported smart meter data being incorporated into the load profile's methodology in some way. Globird Energy, Alinta Energy and Energy Locals believed that the interval data should be included directly into creating the load profile.[53] Additionally, the South Australian Department for Energy and Mining and ECA noted that smart meter data could be used to test the appropriateness of the current load profile.[54]

In relation to whether individual load profiles for each distribution network in NSW could be replaced by a singular load profile for the entire NSW region, Energy Locals' submission stated that a single load profile for each state would best reflect the way customer usage is actually hedged by retailers.[55] AGL Energy's submission commented that they were not averse to a single load profile for NSW because it reflected their own internal approach.[56] In making this comment, AGL Energy noted that, although not material, applying a single region would result in DMO price changes for NSW customers.

5.2.5 95th to 75th percentile

To determine wholesale energy costs for the DMO, our consultant ACIL Allen models a distribution of price outcomes using a range of information, including load profiles, forecast spot prices, estimated forward contract prices and assumed hedging strategy of retailers. ACIL Allen then models this distribution of outcomes to provide a range of estimates of the wholesale energy cost. This technique provides a spread of potential wholesale cost outcomes, reflecting the inherent uncertainty in forecasting a very volatile market.

In the DMO 4 final determination, we changed the estimate of these modelled price outcomes from the 95th percentile to the 75th percentile. This means that the wholesale cost provided in the DMO would be at or above 75% of modelled outcomes, noting that the other modelling parameters assume a retailer is very highly hedged against high spot prices.

The submissions received from retailers to the issues paper recommended changing the estimates of modelling price outcomes back to the 95th percentile, setting the wholesale component of the DMO at or above 95% of the modelled outcomes.[57] In providing this view, the AEC stated that we should consider undertaking a review of a retailer's risk on using the 75th percentile and whether this would put the retailer in danger of financial failure.

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[53] GloBird Energy, *Submission to DMO 5 Issues Paper*, 29 November 2022, p. 2; Alinta Energy, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 4; Energy Locals, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 2.

[54] SA Department for Energy and Mining, *Submission to DMO 5 Issues Paper*, 15 December 2022, p. 2; Energy Consumers Australia (ECA), *Submission to DMO 5 Issues Paper, 29 November 2022*, p. 1.

[55] Energy Locals, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 2.

[56] AGL, *Submission to DMO 5 Issues Paper*, 1 December 2022, p. 3.

[57] 1st Energy, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 1–2; Australian Energy Council (AEC), *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 3–4; AGL, *Submission to DMO 5 Issues Paper*, 1 December 2022, p. 3; Alinta Energy, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 2; EnergyAustralia, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 14; GloBird Energy, *Submission to DMO 5 Issues Paper*, 29 November 2022, p. 2; Next Business Energy, *Submission to DMO 5 Issues Paper*, 5 December 2022; Origin Energy, *Submission to DMO 5 Issues Paper*, 5 December 2022, p. 1; Powershop, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 3; Simply Energy, *Submission to DMO 5 Issues Paper,* 30 November 2022, p. 2–3; Tango Energy, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 1–2.

The submission from ECA did not support a change to the wholesale cost methodology to revert back to the 95th percentile, noting that unless there was an improvement to the transparency, stability and certainty for consumers, there was no need for large-scale change to methodology. The South Australian Department for Energy and Mining noted the work of Frontier Economics for the AER in 2022, which suggested that the current approach to wholesale cost forecasting had some potential to overestimate the wholesale energy cost.[58]

5.2.6 Compensation costs

The submissions received from some retailers indicated that there would be timing differences between when compensation costs are determined and when the costs would be included in a DMO decision.

The submission from AGL Energy and Energy Locals supported the use of an estimate or a provision for compensation costs not known at the time of the DMO decision.[59] In providing this recommendation, Energy Locals also proposed an allowance for the cost of unaccounted for energy and an adjustment to the margin requirements for the additional ASX prescribed margins being charged by clearing houses.

Momentum Energy's submission noted the financial burden from the timing differences of compensation costs and price setting,[60] while Origin Energy's submission provided that we should include a working capital allowance to enable retailers to manage these costs between the DMO periods.[61]

5.2.7 Other responses received from stakeholders

South Australian Department for Energy and Mining's submission proposed a change where the DMO would consider the costs of a retailer's overall position in serving its entire customer base, rather than their costs to serve small customers.[62] The department noted that the inclusion of the consumption patterns of all retailers' customers would likely result in a less peaky load in aggregate. The South Australian Department for Energy and Mining noted that this would capture the benefits and hedging costs efficiencies from serving a wider and diverse customer base as opposed to a hedging strategy for each customer type.

[58] SA Department for Energy and Mining, *Submission to DMO 5 Issues Paper*, 15 December 2022, p. 2.

[59] AGL, *Submission to DMO 5 Issues Paper*, 1 December 2022, p. 5; Energy Locals, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 4.

[60] Momentum Energy, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 4.

[61] Origin Energy, *Submission to DMO 5 Issues Paper*, 5 December 2022, p. 10.

[62] SA Department for Energy and Mining, *Submission to DMO 5 Issues Paper*, 15 December 2022, p. 2.

5.3 Response to stakeholder submissions and draft determination

Having considered stakeholder feedback, we have made the draft determination, which is detailed below.

5.3.1 Use of over-the-counter confidential contract information

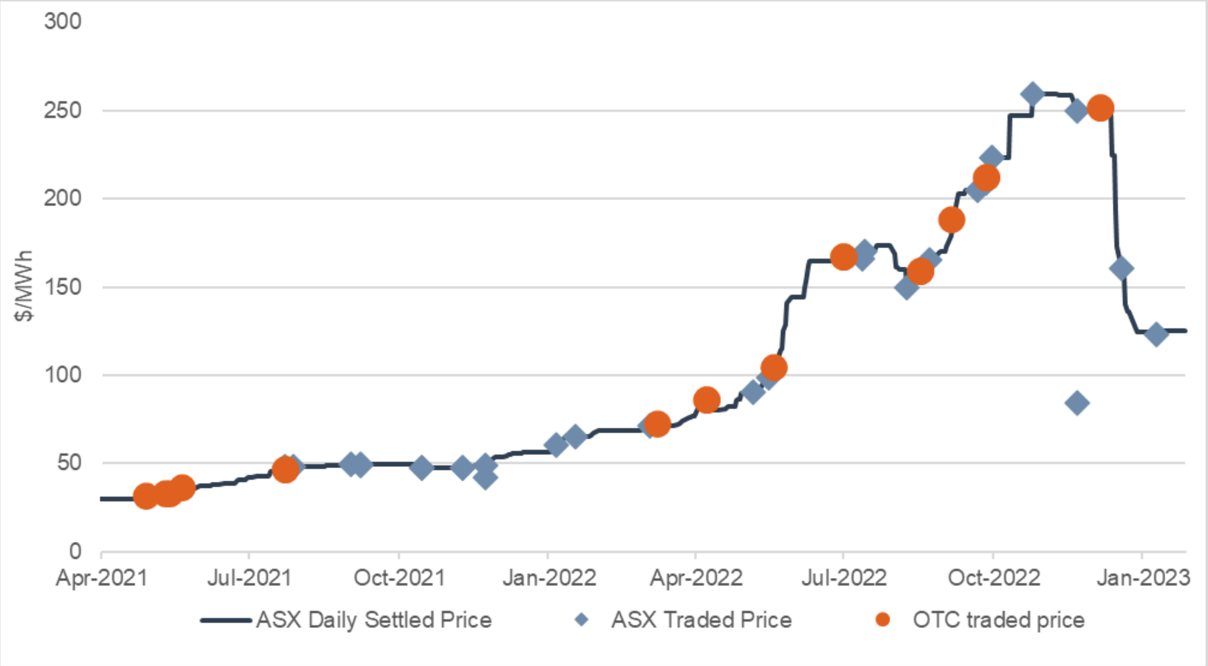
Our draft determination is to maintain the current wholesale methodology for all DMO regions for DMO 5, which relies on futures contracts traded on the ASX for base, peak and cap contracts.

To investigate concerns about market liquidity, we sought additional contract market data from retailers to assess whether ASX data in isolation was an accurate reflection of the costs a retailer faces. This request involved retailers providing us with confidential over-the-counter (OTC) contract market data and other information from the past 3 years that related to the DMO 5 period.

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

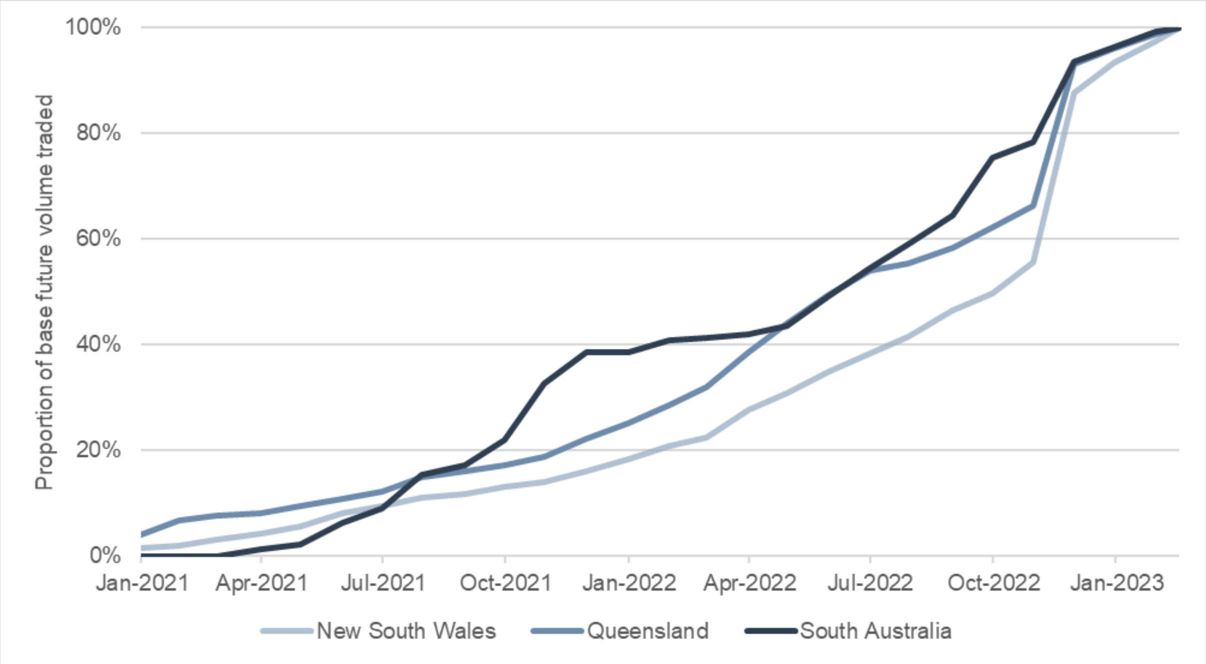
Our analysis of the SA OTC contract information provided by retailers did not indicate any significant differences between the ASX's daily traded price and those contracted confidentially. Although OTC trades were predominately for larger volumes, the similarity in prices between the 2 contract data sources results in an insignificant difference between a wholesale energy component based solely on ASX contract information, which is illustrated in Figure 5.1 for the July to September 2023 quarter. The confidential information provided confirmation that base futures (swaps) and caps are still the most utilised contract types in SA.

Figure 5.1 July to September 2023 quarter OTC and ASX traded swaps



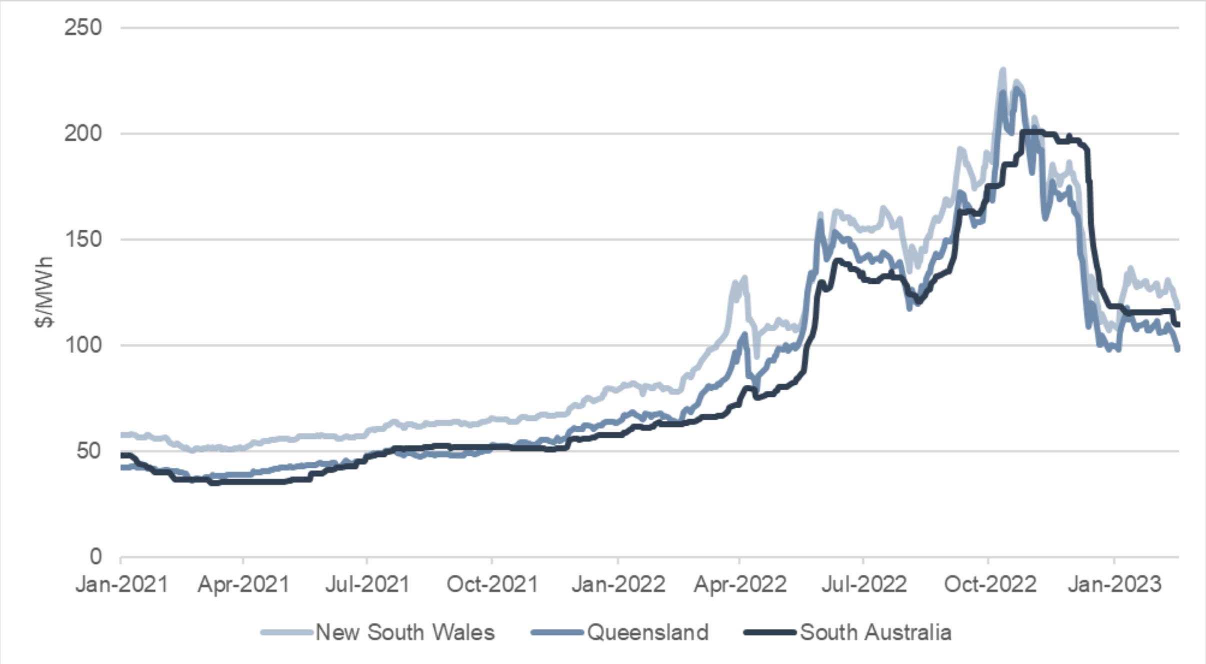
Our analysis also involved assessing the impact of low liquidity in SA on the volume and price of ASX base futures. This analysis indicated that, although the lower liquidity is resulting in a low volume of trades in SA, the overall traded volume profile over the 2 to 3-year horizon is consistent across all regions (Figure 5.2). While a lower volume of trades can make the results of the volume weighted analysis more susceptible to fluctuations and distortion by a small number of trades, the ASX contract market for SA as provided in Figure 5.2 is currently still exhibiting the same trends in relation to price and volumes and other metrics as the contract market in the other DMO regions.

Figure 5.2 Cumulative proportion of financial year 2023–24 base future volume traded



Note: Proportion of total volume traded (at 17 February 2023) on the last trading day of the month.

Figure 5.3 Financial year 2023–24 base future daily settled price



A notable feature of the SA contract market is the vertical integration of generation and retail businesses by market participants. Cumulatively, AGL Energy and ENGIE - Simply Energy owned over 60% of the generation of SA, with AGL Energy's generation fleet more likely to provide base contracts and ENGIE - Simply Energy's generation fleet more likely to provide cap contracts.

This generation provides a significant hedge against the spot price for their retailers, reducing the need to externally contract with other generators. Due to this, although the OTC contract information provided additional data on base trades, there was not a noticeable increase in liquidity compared with using only the ASX contract data.

The similarities between the OTC and ASX market was also seen in the NSW and QLD OTC contract information, with no significant discrepancy noted in the prices. Like SA, this indicates that the inclusion of OTC contract information would have a minimal impact on the wholesale energy component.

In providing this view, we note that the ACCC's Inquiry into the National Electricity Market November 2022 report indicated that OTC contracts were traded at a premium to contracts on the ASX. We did not observe this in the data we collected in relation to contracts for the DMO 5 year. This may be due to a number of reasons, including that the data collected by the ACCC for their analysis differs from the data we analysed. As recommended by the ACCC, we will continue to monitor this for our final determination and future DMO decisions to ensure that our wholesale energy component is reflective of a retailer's costs.

The confidential OTC contract information provided by retailers has been important and helpful in providing confidence in using futures contracts traded on the ASX for the DMO. Therefore, our draft determination is to estimate contracting costs using ASX contract market information in all DMO regions.

This draft determination has been made based on our current assessment of the ASX and OTC market using current data. There is still a significant period of time in which contracting is expected to occur for the DMO 5 year so it is possible that the ASX contract market will not remain an accurate reflection of a retailer's costs, with this risk highest in SA.

Due to this, we will continue to investigate the possible use of OTC market information to determine the contracting costs of retailers in the final determination. This will involve collecting more confidential contract data from retailers and possibly other market participants to test whether the ASX contract market information remains an accurate reflection of a retailer's contracting costs, or whether additional contract information should be included.

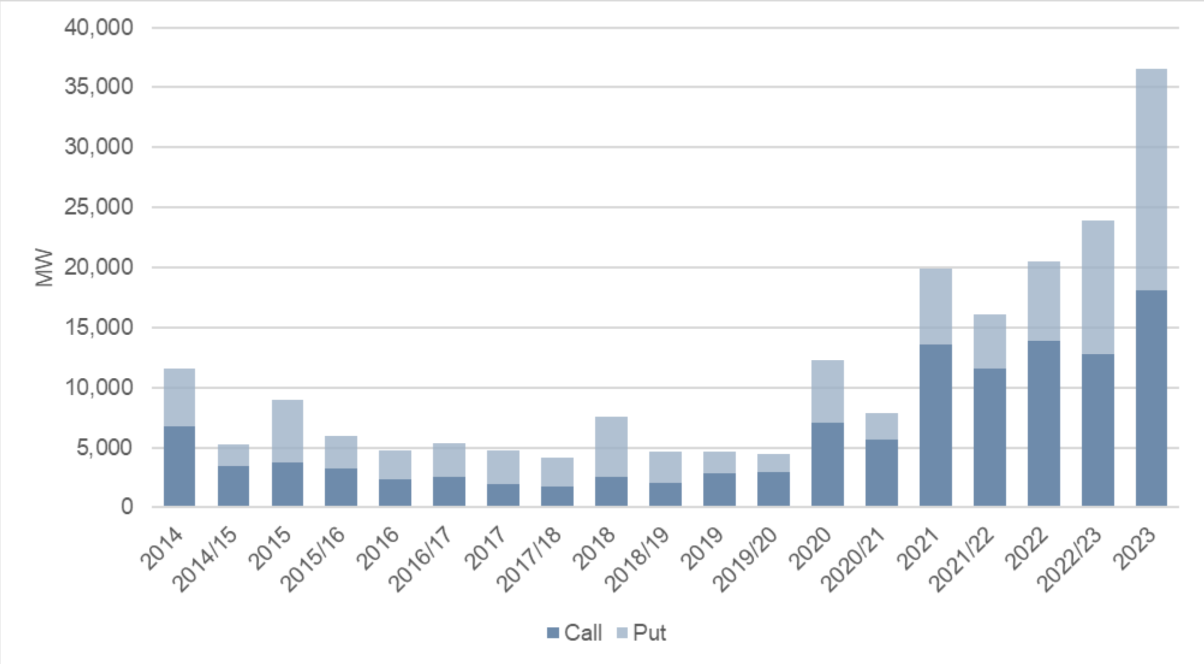
5.3.2 Additional contracting products in hedging strategy

Our draft determination is to include base futures that are traded as a result of the exercising of base options in the wholesale methodology for DMO 5. This is in line with the method used in previous DMOs, although options were infrequently used in those periods. In addition, to better reflect the cost to retailers of using options as a hedging tool, we have added the up-front premium cost for the purchase of call base options.

Our decision to include the exercised option volume in DMO 5 is based on our assessment that the use of options is part of a risk averse retailer's hedging strategy. Our assessment is that options are an appropriate hedging tool in response to the increased volatility in the spot market driven by customer uptake of solar PV systems, the transition to renewable generation and reliability issues with ageing coal-fired generation assets. This is reflected in

Figure 5.4, which illustrates that the volume of base options has increased significantly in the last 5 years. We anticipate the use of options as a hedging tool will continue to increase, as retailers revise their spot market risk management strategies.

Figure 5.4 Traded volume of base strip options, calendar and financial year



Currently base strip options are primarily used in NSW and QLD, with minimal use by retailers in SA, so this decision has the largest influence on the model in those regions.

Our draft determination also includes the up-front premium cost for call option contracts, irrespective of whether the option is exercised. This has been included to ensure the true cost of hedging using options is reflected in the wholesale cost calculations regardless of movement in the wholesale market price.

5.3.3 Load profiles

Our draft determination is to maintain the current load profile approach for DMO 5. We will continue to use AEMO's published net system and controlled load profiles, which is created using basic meter data. We will also be maintaining the current approach of using individual load profiles for each distribution network in NSW and not introducing a singular load profile for the NSW region.

The most recent AEMO data uses 5-minute settlement resulting in a step change in the load profile, when compared with the 30-minute settlement in the previous year's AEMO data. As a result, we will retain the DMO 4 data for a further year to delay any possible step change to the wholesale cost from this transition.

In making this decision, we note that the smart meter rollout is accelerating and that basic meters are being replaced by smart meters. Currently, we do not have detailed smart meter data on exports from PV solar systems to the electricity grid. This makes it difficult to develop a load profile including smart meters with PV solar systems. It may be possible to formulate a load profile based on both basic meters and smart meters with solar PV systems or a load profile using data from distribution network service providers, which is not publicly available. However, the exploration and implementation of these options requires further testing to ensure the impacts are well understood. We will investigate this further in the second half of 2023, providing more information in the DMO 6 issues paper for stakeholders to consider possible changes in future DMO decisions.

5.3.4 Hedge book build period

Our draft determination is to maintain the current approach for the hedge book build, which involves a book build process utilising all available trades on the ASX. A shorter book build would result in greater volatility in the wholesale component of the DMO and prevent any smoothing of unexpected increases or decreases in contract prices. This would result in the significant volatility in the contract market noted in 2022 being reflected immediately in the DMO price and not smoothed over a 2 to 3-year period.

Our view is that the current approach, which smooths and constrains price movements in the DMO, is preferable and reflective of the market outcomes in aggregate. In making this view, we note that the current contracting of retailers is reflective of the longer book build period, as retailers are able to manage their cash flows more effectively by progressively purchasing contracts. This continuous purchasing of contracts is evident in Figure 5.2 which illustrates that retailers are progressively contracting for the DMO 5 period. A longer book build also means that wholesale price changes from year to year are more stable over time, which we consider is appropriate given the purpose of the DMO to provide a fallback price protection for consumers.

5.3.5 95th to 75th percentile

Our draft determination is to maintain the current approach for the modelling price outcomes, which involves using the 75th percentile estimate of modelled price outcomes.

In the DMO 4 final determination, we noted 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.

During 2022 there was considerable volatility in the wholesale energy market, which led to an increase in energy costs for retailers. However, despite these increased costs, we believe the 75th percentile, along with the other risk-averse assumptions embodied in the DMO methodology, would have enabled a retailer to recover their efficient costs of providing their services during the DMO 4 period.

We consider that the estimate of the wholesale energy costs should not be overstated to protect retailers from the risks associated with extreme circumstances. If the estimate of the wholesale energy market was to cover such extreme circumstances, in our view it would result in an excessive allocation of risks to consumers. Because consumers would not be able to mitigate or minimise their risks to these extreme circumstances in the way that retailers can through hedging strategies, we believe the use of the 95th percentile would unfairly burden consumers.

5.3.6 AEMO and AEMC compensation costs

Our draft determination is to only include 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 will be included in the wholesale energy component for DMO 5.

In our view, a working capital allowance to enable retailers to manage the impact of compensation costs that are not included in the DMO is not necessary. The current compensation costs from the various claims made to AEMO and AEMC including in the wholesale cost is $2.05/MWh for the NSW DMO regions, $0.89/MWh for SE QLD and $0.67/MWh for SA, which is between 0.3% to 1.2% of a customer without a controlled load's wholesale costs.

Currently, there is no information that any future compensation costs will be more than these amounts. However, known compensation payments have been published by AEMO and the AEMC. When any remaining costs are known, retailers will be compensated in future DMO periods.

5.4 Draft determination

5.4.1 Wholesale cost inputs

Wholesale energy costs are forecast to increase across all DMO regions and consumer types for the 2023–24 DMO 5.

This has been driven by an increase in contract prices and the time-of-day shape of the load profiles and spot price outcomes. The increases in the future base and cap contract prices for 2023–24 on an annualised and trade-weighted price basis were:

- for NSW – an increase of base futures contract prices of $43.10/MWh and an increase of cap contract prices of $11.00/MWh
- for QLD – an increase of base futures contract prices of $31.00/MWh and an increase of cap contract prices of $6.50/MWh
- for SA – an increase of base futures contract prices of $43.20/MWh and an increase of cap contract prices of $14.80/MWh.

These contract prices have decreased since the government began to signal a firm intent to intervene in coal and gas prices. However, the trade-weighted average contract price remains elevated from the 2022–23 period as a result of:

- the more expensive contacts 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 ageing coal-fired generation assets creating expectations of higher future wholesale energy costs
- the closure of the Liddell Power Station in NSW in April 2023.

These factors are outweighing the amount of utility scale renewable capacity coming online between 2022–23 and 2023–24.

Contract prices have also been impacted by the increasingly peaky shape of the net system load profile. The continued uptake of solar PV systems reduces effective demand for grid-scale generation during daylight hours. As a result of this low demand, and exacerbated by grid-scale solar which generates at the same time, spot prices are often less than base contract prices during the middle of the day while the cap contracts required to cover high demand peak periods are much more expensive.

As mentioned above in section 5.3.3, we will be investigating how to include the impact of solar PV systems in the load profiles in future DMO decisions. We plan to provide this to stakeholders in the DMO 6 issues paper for their consideration.

In addition, several other factors contributed to regional wholesale increases:

- Compensation costs arising from the administered pricing periods, market suspension and market intervention in winter 2022 increased the wholesale cost by $2.05/MWh for the NSW DMO regions, $0.89/MWh for SE QLD and $.0.67/MWh for SA.
- Extreme weather led to SA being isolated from the rest of the national market in mid-November, leading to a need for additional frequency control ancillary services to maintain system security.[63] This added $1.55/MWh to wholesale costs in SA. These costs were offset by slight decreases in forecast system security direction costs in SA for 2023–24.

The draft wholesale costs for the 2023–24 DMO 5 are set out in Table 5.1, together with the costs used for the 2022–23 DMO 4 for comparison.

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

Customer type	Region	2022–23 (final) ($)	2023–24 (draft) ($)	Change year-on-year (%)
Ausgrid (NSW)	Flat rate	122.23	185.28	52%
	CL 1	88.62	114.53	29%
	CL 2	87.26	111.17	27%
Endeavour Energy (NSW)	Flat rate	124.25	188.98	52%
	CL 1	114.5	173.64	52%
	CL 2	114.5	173.64	52%
Essential Energy (NSW)	Flat rate	115.97	177.77	53%
	CL 1	87.48	112	28%
	CL 2	87.48	112	28%
Energex (SE QLD)	Flat rate	110.53	165.11	49%
	CL 1	86.65	110.15	27%
	CL 2	93.47	116.17	24%
SA Power Networks (SA)	Flat rate	134.53	223.32	66%
	CL 1	73.52	105.38	43%

Note: CL refers to controlled load.
Source: ACIL Allen, *Default market offer 2023–24 Wholesale energy and environment cost estimates for DMO 5 draft determination*.

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

6 Environmental costs

6.1 Issues paper

In our issues paper 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 our DMO 5 draft determination generally supported retaining the environmental cost forecasting methodology.

6.2 Stakeholder views

Most submissions did not discuss or raise any issues with the approach we proposed in the issues paper. Momentum Energy is the only retailer that commented on environmental cost forecasting, noting the NSW Peak Demand Reduction Scheme had commenced in November 2022 with compliance obligations taking effect from April 2023. Momentum Energy suggested that this scheme should be included in any cost forecasting going forward.[64]

6.3 Draft determination

We agree with Momentum Energy's submission and have included the NSW Peak Demand Reduction Scheme costs in our draft DMO prices. Having considered stakeholder submissions and the available information on environmental costs, we propose to retain our market-based approach to environmental cost forecasting with updates for new and amended schemes.

6.3.1 Environmental cost inputs

The environmental cost inputs for 2023–24 are given in Table 6.6.1, together with inputs used for 2022–23 for comparison.

Table 6.6.1 Environmental costs for 2022–23 and 2023–24 (excl. GST, nominal)

Distribution region	Tariff	2022–23 $/MWh	2023–24 $/MWh	Change year-on-year
Ausgrid (NSW)	Flat rate	20.68	18.72	-9%
	CL 1	20.74	18.77	-9%
	CL 2	20.74	18.77	-9%
Endeavour (NSW)	Flat rate	20.82	18.88	-9%
	CL 1	20.82	18.88	-9%
	CL 2	20.82	18.88	-9%
Essential (NSW)	Flat rate	20.45	18.42	-10%
	CL 1	20.45	18.42	-10%
	CL 2	20.45	18.42	-10%
Energex (SE QLD)	Flat rate	17.10	15.10	-12%
	CL 1	17.10	15.10	-12%
	CL 2	17.10	15.10	-12%

[64] Momentum Energy, *Submission to DMO 5 Issues Paper*, 30 November 2022, p. 5.

Distribution region	Tariff	2022–23 $/MWh	2023–24 $/MWh	Change year-on-year
SA Power Networks (SA)	Flat rate	20.38	18.28	-10%
	CL 1	20.38	18.28	-10%

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

7 Retail costs

Retailers incur various costs when selling electricity, such as operating expenses as well as costs required to comply with regulatory obligations. Retailer costs include:

- **costs to serve** – such as billing, call centres and hardship programs
- **costs to acquire and retain customers** – such as advertising campaigns and informing new customers of their options, rights and obligations
- **depreciation and amortisation** – retailers may from time to time make up-front purchases and investments, such as software and IT system upgrades, which are depreciated over time.
- **type 4 (and type 4A) meter ('advanced meter') costs** – such as any installation and ongoing costs of advanced meters
- **bad and doubtful debt** – retailers often set aside revenue to cover instances where customers cannot repay their electricity debt.

For DMO 4 we determined a cost build-up approach as being the most appropriate approach for the DMO to continue meeting the DMO policy objectives. This position was broadly supported by stakeholders.[65]

ACCC's November 2022 report average retail costs for 2021–22

We have used the annual retail costs identified by the ACCC in its November 2022 report[66] as a central component of our retail cost determination. These annual retail costs relate to the 2021–22 year so we have escalated them using the RBA's forecast inflation rate[67] for the DMO 5 period, to ensure retailers can cover their retail costs in 2023–24.

Using the retail costs reported to the ACCC is a consistent and transparent process using a reliable source of cost information that is publicly available, efficient to obtain and consider, and comprehensively covers retailers that sell to around 90% of small customers in DMO regions.

Because the ACCC does not collect information on some types of costs, we include an additional allowance for advanced metering costs and bad and doubtful debt.

Advanced meter costs

Given the ACCC's retail costs do not include advanced meter data, we request information from retailers on the rate and costs of smart meter installation for both residential and small business customers in each DMO region.

For DMO 5 we sought to expand our request for advanced meter installation and average cost information to include the average total up-front advanced meter fees incurred by both

[65] Simply Energy submission, 30 November 2022, Alinta Energy submission, 30 November 2022, Energy Locals submission, 30 November 2022 and Red/Lumo submission, 30 November 2022.

[66] ACCC, *Inquiry into the National Electricity Market November 2022 Report*.

[67] We have applied forecast inflation of 6.75 and 3.5% for the 2 years ending 30 June 2023–24 from the RBA February 2023 Statement on Monetary Policy.

residential and small business customers (in all DMO regions) when they request to install a meter.

We requested both advance meter installation and costs data from 9 retailers that collectively sell electricity to 93% of the customer base.

Bad and doubtful debt

We estimate bad and doubtful debt using the weighted average cost of 3 publicly listed retailers that reported provisions for bad and doubtful debt expenses in their most recent annual reports.

7.1 Issues paper

As outlined in our DMO 5 issues paper, the approach of using publicly available average cost information provides an appropriate balance of transparency and accuracy in pricing determinations and a way to avoid information asymmetry.

Advanced meter costs reported by retailers are commercially sensitive, so we can only publish aggregated costs. This means we cannot fully address transparency concerns from stakeholders. However, for DMO 5 we are making minor refinements to the smart meter calculation, aimed to provide stakeholders with greater detail on the extent to which retailers recover smart meter costs from up-front fees.

In our issues paper we proposed to make an adjustment by subtracting these up-front/one-off advanced meter costs from the advanced meter allowance component in DMO 5, so that retailers do not over-recover the costs incurred from smart meters. Any up-front/one-off fees that retailers charge as part of a market or standing offer (such as a connection fee or an additional meter read) are not included in the total annual cost of an offer for the purposes of assessing whether a standing offer complies with the DMO, or when calculating the discount off the reference price for market offers.

We sought stakeholder feedback on whether we should further consider any changes to our approach.

7.2 Stakeholder views

Nine stakeholder submissions discussed issues relating to retailer costs. A number of those stakeholders considered that the AER's approach from DMO 4 was appropriate for meeting the objectives of the DMO or that no change was needed to determine retail costs.[68]

7.2.1 ACCC retailer costs

1st Energy opposed the approach of utilising ACCC retailer costs, who noted their concerns about the impact to mid-size and smaller retailers and the harm to competition[69]. SACOSS were also concerned about the transparency of the retail costs and margins and recommended that the AER ensure all costs are justified and efficient.[70] As with DMO 4,

[68] Simply Energy, *Submission to DMO 5 Issues Paper,* 30 November 2022, Alinta Energy, *Submission to DMO 5 Issues Paper,* 30 November 2022, Energy Locals, *Submission to DMO 5 Issues Paper,* 30 November 2022, Red Energy/Lumo Energy, *Submission to DMO 5 Issues Paper,* 30 November 2022.

[69] 1st Energy, *Submission to DMO 5 Issues Paper,* 30 November 2022.

[70] SACOSS, *Submission to DMO 5 Issues Paper*, 5 December 2022.

PIAC did not support the inclusion of retail costs to acquire and retain customers in the calculation of retail costs to serve in the DMO.[71]

7.2.2 Advanced meter costs

Stakeholders raised concerns with the calculation of advanced meter costs in the cost build-up methodology, citing a need for more transparency on how retailers incur and recover their advanced meter costs.[72]

AGL argued that retailers not charging up-front smart metering fees would recover less of interval metering costs than if they do.[73] This could incentivise retailers to begin using up-front fees to recover some of the annual costs they incur for advanced meters.

Additionally, PIAC argued that advanced meter costs should not be explicitly included in retail cost calculations unless there is greater transparency around how retailers are incurring and recovering those costs (noting there are various ways retailers can recover advanced meter costs from customers apart from energy prices).[74]

7.2.3 Bad and doubtful debt

In its submission Energy Locals specifically touched on the consideration of bad and doubtful debt in our current methodology, highlighting that many customers are switching in the current environment. Energy Locals suggested that switching often leads to churn of customers who have built up debt, leaving their previous retailer with limited means of recovering this. Energy Locals considers smaller retailers are exposed in this instance.[75]

We acknowledge it is likely that individual retailers' actual costs (including bad and doubtful debt) could vary. We note that no small retailers provided any evidence of their expenses due to bad and doubtful debt being higher than those of the 3 entities with public reporting obligations – Snowy Hydro (which owns retailers Red Energy and Lumo Energy), AGL and Origin Energy. In Chapter 9 on retail allowance, we have stress tested the margins available within the retail allowance for retailers with average Tier 2 retailer costs.

7.3 Draft determination

To estimate the relevant retail operating costs in DMO 5 we will use the following data:

- ACCC 'retail and other costs' set out in Supplementary Table D14.1b of Appendix D to the ACCC's November 2022 report[76]
- advanced meter installation and costs data provided by retailers selling to 93% of DMO customers[77]

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71 PIAC, *Submission to DMO 5 Issues Paper,* 30 November 2022.

72 AGL, *Submission to DMO 5 Issues Paper,* 1 December 2022, PIAC, *Submission to DMO 5 Issues Paper,* 30 November 2022 and 1st Energy, *Submission to DMO 5 Issues Paper,* 30 November 2022.

73 AGL, *Submission to DMO 5 Issues Paper,* 1 December 2022.

74 PIAC, *Submission to DMO 5 Issues Paper,* 30 November 2022.

75 Energy Locals, *Submission to DMO 5 Issues Paper,* 30 November 2022.

76 ACCC, *Inquiry into the National Electricity Market November 2022 Report*, Appendix D Supplementary Table D4.1b.

77 We asked retailers to complete a voluntary information request outlining smart meter installation numbers and average costs as of 30 September 2022.

- bad and doubtful debt costs reported in the 2021–22 financial reports of 3 entities with public reporting obligations.[78]

7.3.1 ACCC's retail costs

We note that other economic regulators, such as the Independent Competition and Regulatory Commission (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.[79]

The cheapest offers in each region are being made by smaller retailers and their offers are well below the regulated rate.[80] This suggests that smaller retailers are not necessarily disadvantaged by pricing decisions that estimate retail costs based on the costs of the largest 15 retailers.

The ACCC costs are based on 2021–22 data expressed in 30 June 2022 dollars, so we will apply forecast CPI using RBA forecast inflation for 2022–23 and 2023–24 to retain the value of these costs in real terms across the DMO 5 period.[81]

7.3.2 Advanced meter costs

We remain satisfied that advanced meters do incur significant costs for retailers and that there is a great risk of the DMO determination failing to meet the DMO objectives if our estimates of advanced meter costs are not included in the DMO 5 price.

This is because:

- these costs are not captured by the ACCC's retail costs
- the available information suggests that the cost to retailers is material and will increase
- there is a risk that retailers may be disincentivised from rolling out advanced meters if they believe the DMO price does not allow them to recover costs – this would not be consistent with the DMO's objective of maintaining incentives for innovation
- 1 in 4 standing offer customers already have advanced meters and it is reasonable for the DMO price cap to reflect the costs to serve this group.

For the purpose of our expanded advanced meter request, we defined up-front fees as:

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

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[78] AGL, *Annual Report FY2022,* p.38; Origin, *Annual Report FY2022*, p. 34; Snowy Hydro, *Annual Report FY2022*, p.65.

[79] 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.

[80] AER analysis of EME data; ESC, *Victorian Energy Market Report 2020–21*, November 2021 Figure 2 p. 9.

[81] For the draft determination, we have used the RBA's estimates of inflation of 6.75% for 2022–23 and 3.5% for 2023–24 from its February 2023 Statement on Monetary Policy.

- the recovery of both installation and capital costs.

Two retailers provided data on up-front installation fees. These fees amount to around $5 per residential customer and $8 per small business customer, which we have removed from the DMO to avoid the over-recovery of costs. Appendix B provides further detail on the extent to which retailers recover advanced meter costs from one-off fees.

Advanced meter costs for DMO 5 are set out in further detail in Tables 7.1 and 7.2. Appendix B sets out a breakdown of our calculation of advanced meter costs.

Table 7.1 Average residential advanced meter cost, per distribution region

Retailer	Average annual cost per smart meter (ex GST)	Average annual cost per customer (ex GST)
Ausgrid	$105.70	$19.33
Endeavour	$106.30	$23.74
Essential	$113.70	$20.21
Energex	$106.80	$25.26
SAPN	$105.80	$26.61

Table 7.2 Average small business advanced meter cost, per distribution region

Retailer	Average annual cost per smart meter (ex GST)	Average annual cost per customer (ex GST)
Ausgrid	$118.90	$19.02
Endeavour	$115.60	$17.91
Essential	$125.60	$20.06
Energex	$123.30	$21.43
SAPN	$114.30	$19.70

We found that:

- similar proportions of standing offer (26%) and market offer (28%) customers in DMO regions have advanced meters
- average annual costs range from $105.70 to $113.70 for residential customers and $114.30 to $125.60 for small business customers, depending on the region. This is a decrease in both groups in real terms from the DMO 4 period.

Weighting these annual advanced meter costs by the proportion of customers with advanced meters in each network region, we calculated the weighted costs for residential and small business customers in each region. This approach spreads the annual costs over the entire small customer base, not just those with smart meters. These costs are presented in Tables 7.1 and 7.2.

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

7.3.3 Bad and doubtful debt

As with DMO 4, bad and doubtful debt costs will be included in our estimation of retail costs in DMO 5.

The 3 entities with public reporting obligations considered represent the majority of DMO customers, currently selling electricity to 66% of residential and 65% of small business DMO customers.

Analysis of the retailer performance reporting debt data shows that these 3 entities have slightly higher instances of debt and debt per overall customer base than the overall average for DMO regions, suggesting that this approach should not underestimate typical costs incurred due to bad and doubtful debts.[82]

Table 7.3 Estimated costs due to bad and doubtful debt in DMO regions

Retailer	Expenses related to bad and doubtful debts 2020–21 ($m)	Small customer numbers ('000s)	Bad and doubtful debts per small customer ($) (ex GST)
AGL	80	4,200	19.05
Origin	58	4,458	13.01
Red-Lumo	20.5	1,210	16.94
Total	158.5	9,868	16.06

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

For DMO 4 bad and doubtful debt costs were $26 per small customer. As demonstrated in Table 7.3, this has decreased to $16.06 per small customer.

7.4 Summary of determinations for retail costs

Table 7.4, Table 7.5 and Table 7.6 set out the components for our cost build-up approach in DMO 5.

Table 7.4 Residential without controlled load retail costs

Region	Retail and other costs sourced from ACCC Inquiry	Advanced meter costs	Bad and doubtful debt costs	Forecast CPI adjustment	Total	Difference to DMO 4 (%)
Ausgrid	$135.65	$19.33	$16.06	$17.97	$189.37	-0.4%
Endeavour	$135.65	$23.74	$16.06	$18.43	$194.23	-1.4%
Essential	$135.65	$20.21	$16.06	$18.06	$190.34	-1.5%
Energex	$128.26	$25.26	$16.06	$17.75	$187.07	-2.7%
SAPN	$133.07	$26.61	$16.06	$18.42	$194.09	-3.6%

Table 7.5 Residential with controlled load retail costs

Region	Retail and other costs sourced from ACCC Inquiry	Advanced meter costs	Bad and doubtful debt costs	Forecast CPI adjustment	Total	Difference to DMO 4 (%)
Ausgrid	$135.65	$19.33	$16.06	$17.97	$189.37	-0.4%
Endeavour	$135.65	$23.74	$16.06	$18.43	$194.23	-1.4%
Essential	$135.65	$20.21	$16.06	$18.06	$190.34	-1.5%

[82] AER, *Quarter 2 2022-23 Retail Performance Reporting Data*, December 2022, Schedule 3.

Energex	$128.26	$25.26	$16.06	$17.75	$187.07	-2.7%
SAPN	$133.07	$26.61	$16.06	$18.42	$194.09	-3.6%

Table 7.6 Small business retail costs

Region	Retail and other costs sourced from ACCC Inquiry	Advanced meter costs	Bad and doubtful debt costs	Forecast CPI adjustment	Total	Difference to DMO 4 (%)
Ausgrid	$165	$19.02	$16.06	$20.98	$221.06	-15.9%
Endeavour	$165	$17.91	$16.06	$20.86	$219.83	-18.3%
Essential	$165	$20.06	$16.06	$21.09	$222.21	-13.5%
Energex	$131	$21.43	$16.06	$17.67	$186.16	-13.2%
SAPN	$145	$19.70	$16.06	$18.95	$199.71	-1.7%

8 Retail allowance

As part of our cost-stack methodology, the retail allowance covers retailer profit margin and an allowance to meet the DMO objectives.

The retail allowance is set such that:

- customers are protected from unreasonable prices
- retailers recover a reasonable margin
- retailers are incentivised to invest, innovate and compete in the market
- customers are incentivised to engage in the market.

Therefore, the level of the allowance needs to reflect a return on retailer risk, provide some leeway for differences in retailers costs relative to our model and provide room for competition.

In our DMO 4 draft determination we set out an intended 'glidepath' for the retail allowance across DMO 4, 5 and 6, with the retail allowance converging on 10% and 15% for residential and small business customers, respectively.

Our issues paper sought stakeholder feedback on whether the retail allowances envisaged in the glidepath published in our DMO 4 draft determination remain appropriate in the context of expected significant price increases for DMO 5.

8.1 Stakeholder views

There was strong support from retailers not to lower the current retail allowance or switch it to a fixed dollar amount.[83] Retailers submitted that adhering to the glidepath towards retail allowance targets of 10% and 15% provides consistency and certainty to retailers.[84] Retailers noted that the purpose of the glidepath proposed in DMO 4 for DMO 4, 5 and 6 was to provide transition to these targets on a stable basis.[85]

Retailers acknowledged that continuing this approach would lead to an increase in the retail allowance in dollar terms due to the forecast increase in wholesale energy costs. However, they argued that the DMO is not an appropriate mechanism to provide vulnerable customers with financial relief and that tightening the retail allowance would provide little bill relief to customers.[86]

[83] Submissions from Momentum Energy, Origin, AEC, 1st Energy, Alinta, Tango, AGL, EnergyAustralia.

[84] Australian Energy Council (AEC), *Submission to DMO 5 Issues Paper,* 30 November 2022, p.2; 1st Energy, *Submission to DMO 5 Issues Paper,* 30 November 2022, p.2; Alinta Energy, *Submission to DMO 5 Issues Paper,* 30 November 2022, p.2; Powershop, *Submission to DMO 5 Issues Paper,* 30 November 2022, p.6; Next Business Energy, *Submission to DMO 5 Issues Paper*, 5 December 2022,p. 1; AGL, *Submission to DMO 5 Issues Paper,* 1 December 2022, p. 6; EnergyAustralia, *Submission to DMO 5 Issues Paper,* 30 November 2022, p. 3.

[85] Alinta Energy, *Submission to DMO 5 Issues Paper,* 30 November 2022, p.2.

[86] Australian Energy Council (AEC), *Submission to DMO 5 Issues Paper,* 30 November 2022, p.2; 1st Energy, *Submission to DMO 5 Issues Paper,* 30 November 2022, p.2; AGL, *Submission to DMO 5 Issues Paper,* 1 December 2022, p. 6; Simply Energy, *Submission to DMO 5 Issues Paper*, 30 November 2022, p.4.

Retailers discussed forecast wholesale price increases and argued that:

- the increase in wholesale energy costs and volatility has a proportionate impact on the risks faced by retailers – therefore, it is appropriate to increase the retail allowance to reflect the increased risk to retailers[87]
- retaining a retail allowance that is a function of total costs faced, set at a suitable level, is appropriate and consistent with good regulatory practice.[88]

Retailers also noted the current general reduction in market offer discounts off the reference price, which they considered is evidence of margin suppression, with a number of retailers now offering tariffs at the level of the DMO (i.e. zero discount) compared with discounts levels of up to 34% pre-DMO 4. Retailers argued further reductions in the retail allowance would exacerbate this trend and particularly impact smaller retailers and diminish competition.[89]

Retailers considered it appropriate for the retail allowance to retain the higher uplift (in dollar terms) to reflect expected changes in costs and the risk of under-estimating:

- retail operating costs for smaller retailers[90]
- retailers with significant amounts of depreciation and amortisation[91]
- the costs of providing support to customers experiencing hardship and natural disasters[92]
- bad debt costs, which are likely to increase as retail bills become larger across a broader group of customers[93]
- working capital and cash flow challenges from managing higher debts before receiving payments from customers[94] and greater prudential requirements linked to hedging activities.[95]

In contrast, the consumer representative organisations PIAC, ECA and SACOSS supported the AER reviewing the retail allowance part of the cost stack.[96] PIAC strongly disagreed that headroom allowance over and above retail cost and retail profit margin is required to meet the objectives of the DMO, or is an effective means of incentivising retail innovation or

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[87] Origin Energy, *Submission to DMO 5 Issues Paper,* 5 December 2022, p.2; Powershop, *Submission to DMO 5 Issues Paper,* 30 November 2022, p.6; EnergyAustralia, *Submission to DMO 5 Issues Paper,* 30 November 2022, p.4; 1st Energy, *Submission to DMO 5 Issues Paper*, 30 November 2022 p.2; Simply Energy, *Submission to DMO 5 Issues Paper*, 30 November 2022, p.4.

[88] Origin Energy, *Submission to DMO 5 Issues Paper,* 5 December 2022, p.2; Energy Locals, *Submission to DMO 5 Issues Paper,* 30 November 2022, p.4; Tango Energy, *Submission to DMO 5 Issues Paper*, 30 November 2022, p.3.

[89] Origin Energy, *Submission to DMO 5 Issues Paper,* 5 December 2022, p.2; Next Business Energy, *Submission to DMO 5 Issues Paper,* 5 December 2022, p.1; 1st Energy, *Submission to DMO 5 Issues Paper*, 30 November 2022 p.2; Australian Energy Council (AEC), *Submission to DMO 5 Issues Paper*, 30 November 2022, p.2; AGL, *Submission to DMO 5 Issues Paper,* 1 December 2022, p.6.

[90] EnergyAustralia, Submission to DMO 5 Issues Paper, 30 November 2022, p.12.

[91] EnergyAustralia, Submission to DMO 5 Issues Paper, 30 November 2022, p.12.

[92] Energy Locals, *Submission to DMO 5 Issues Paper,* 30 November 2022, p.4.

[93] 1st Energy, *Submission to DMO 5 Issues Paper,* 30 November 2022, p.2; Simply Energy, *Submission to DMO 5 Issues Paper*, 30 November 2022, p.4.

[94] Alinta Energy, *Submission to DMO 5 Issues Paper,* 30 November 2022, p.4.

[95] Origin Energy, *Submission to DMO 5 Issues Paper,* 5 December 2022, p.2; Simply Energy, *Submission to DMO 5 Issues Paper*, 30 November 2022, p.4; EnergyAustralia, *Submission to DMO 5 Issues Paper,* 30 November 2022, p.4.

[96] PIAC, *Submission to DMO 5 Issues Paper,* 30 November 2022, p.4; SACOSS, *Submission to DMO 5 Issues Paper,* 5 December 2022, p.10; Energy Consumers Australia (ECA), Submission to DMO 5 Issues Paper, 29 November 2022, p. 2–4.

competition in the market.[97] Similarly, while ECA acknowledged that the DMO objectives require higher than efficient margins to incentivise competition and consumer engagement, ECA considered the 10% and 15% retail allowances to unreasonably exceed the efficient margins used by other economic regulators such as ICRC and the Essential Services Commission of Victoria.[98] ECA noted that there is continued retailer competition in Victoria despite the Victorian Default Offer having a smaller 5.7% retailer margin.[99]

Customer Consultative Group (CCG) and ECA considered the difference between the residential and small business allowances to be arbitrary.[100] ECA noted that small businesses are both more likely to be on standing offers and are a higher margin market segment, which it considers emphasises a greater need for small business consumer protection from unreasonable prices.[101]

PIAC and CCG members recommend calculating the allowance as a percentage of the retail cost to serve only, and that this cost to serve should not include costs to acquire and retain customers (CARC) or profit.[102] PIAC considers CARC costs are more appropriate as 'retail expenditure' and can be allowed for as part of the retail margin rather than accounted for explicitly.[103] SACOSS considered a retail allowance (if included) should be based on the marginal costs of the retailer and not on the price stack as a whole.[104]

In its submission, the SA Department for Energy and Mining opposed the AER implementing a universal margin across all regions and reiterated its concerns of the higher price impacts this would have for SA customers.[105]

8.2 Draft determination

We have decided to continue the cost stack approach established in DMO 4 and apply the retail allowance as a percentage of total costs.

Our draft determination for DMO 5 is to apply a modification to the retail allowance glidepath by delaying the increases in the retail allowance percentage in SAPN and Energex for residential customers without controlled load and in SAPN for residential customers with controlled load. The pause reflects the very large increase in prices expected in DMO 5. We want to consider whether the glidepath remains appropriate once we have observed market conditions for longer and have a clearer view of the outlook beyond DMO 5.

Otherwise, the retail allowance percentages will be the same as originally envisaged in the retail allowance glidepath set out in the DMO 4 draft determination.[106] This means small business retail allowance percentages will decrease from DMO 4 in all regions except SAPN, which was already at 15% retail margin in DMO 4. This decrease in the small business retail

[97] PIAC, *Submission to DMO 5 Issues Paper,* 30 November 2022, p.4.

[98] Energy Consumers Australia (ECA), *Submission to DMO 5 Issues Paper,* 29 November 2022, p.2-3.

[99] Energy Consumers Australia (ECA), *Submission to DMO 5 Issues Paper,* 29 November 2022, p.3.

[100] Customer Consultative Group, *Joint submission to DMO 5 Issues Paper*, 9 December 2022, p.2; Energy Consumers Australia (ECA), *Submission to DMO 5 Issues Paper,* 29 November 2022, p.3.

[101] Energy Consumers Australia (ECA), *Submission to DMO 5 Issues Paper,* 29 November 2022, p.4.

[102] PIAC, *Submission to DMO 5 Issues Paper,* 30 November 2022, p.4; Customer Consultative Group, *Joint submission to DMO 5 Issues Paper*, 9 December 2022, p. 2.

[103] PIAC, *Submission to DMO 5 Issues Paper,* 30 November 2022, p.4.

[104] SACOSS, *Submission to DMO 5 Issues Paper,* 5 December 2022, p.11.

[105] SA Department for Energy and Mining, *Submission to DMO 5 Issues Paper,* 15 December 2022, p.3.

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

allowance percentage mitigates increases in other areas of the cost stack, particularly in Ausgrid.

This provides consistency and certainty through adhering to the methodology established in DMO 4 intended for DMO 4, 5 and 6.

Table 8.1 and Table 8.2 set out the DMO 4 and DMO 5 retail allowances in percentage and dollar amounts, respectively.

Table 8.1 Retail allowances % in DMO 4 and DMO 5

Customer type	Region	DMO 4 retail allowance (%)	DMO 5 retail allowance (%)
Residential without controlled load	Ausgrid	10	10
	Endeavour	10	10
	Essential	10	10
	Energex	8.4	8.4
	SAPN	6	6
Residential with controlled load	Ausgrid	10	10
	Endeavour	10	10
	Essential	10	10
	Energex	10	10
	SAPN	6	6
Small business	Ausgrid	25	20
	Endeavour	16.6	16
	Essential	20.3	17.5
	Energex	17	16
	SAPN	15	15

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

Customer type	Region	DMO 4 retail allowance ($)	DMO 5 retail allowance ($)	% change
Residential without controlled load	Ausgrid	151	185	22.2%
	Endeavour	184	222	20.9%
	Essential	209	255	22.1%
	Energex	136	163	19.8%
	SAPN	110	134	21.8%
Residential with controlled load	Ausgrid	212	258	21.5%
	Endeavour	238	295	23.7%
	Essential	249	302	21.4%
	Energex	196	234	19.5%
	SAPN	137	166	21.3%
Small business	Ausgrid	1,090	1,000	-8.3%
	Endeavour	628	726	15.6%
	Essential	995	1,008	1.3%
	Energex	586	658	12.4%

	SAPN	681	853	25.4%

We note the SA Department for Energy and Mining's concerns of increasing the retail allowance percentage in SA. While we have not increased the retail allowance in SAPN for DMO 5, we will reconsider how we proceed with the glidepath targets for DMO 6. We consider a uniform retail allowance is preferable because it results in greater interregional equity and mitigates interregional cross-subsidisation. This approach would allow retailers to compete in SA without relying on relatively higher margins from a separate customer base in another region.

We do not consider that the suggestion from PIAC and SACOSS to base retail margins solely on retailer costs is appropriate. It is common practice for regulated prices to set a margin as a percentage of either underlying costs or revenue recovered from customers. We are not aware of any regulated prices that set a margin as a percentage of a single cost component. Doing so could also reduce the incentives for retailers to become more efficient and reduce retail operating costs over time, as this would directly reduce the margins they could recover from standing offer customers and lower the base from which market offer discounts are calculated.

The DMO regulations require us to have regard to costs to acquire and retain customers in our pricing determination[107] and we consider it appropriate that our final costs include this consideration.

We acknowledge retailers' various concerns relating to increased risk, potential bad and doubtful debt increases, working capital costs and impacts to competition that could arise if we lowered the retail allowance percentage to preserve the same retail allowance in dollar terms as DMO 4.

8.2.1 Analysis of variations in retailer costs

We acknowledge that individual retailer costs will vary. Some may face higher depreciation costs and smaller retailers may have not 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.

8.2.1.1 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–

[107] *Competition and Consumer (Industry Code—Electricity Retail) Regulations 2019*, 16(4)(c)(iv).

22 annual report showing total depreciation expenses of $139 million for its retail business (encompassing gas and telecommunication customers as well as electricity).[108]

For the purposes of 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, EBITDA margins).

Residential customers

Adding a hypothetical $36 on to the ACCC's average of largest 15 retailers' residential retail costs (that is, our base DMO 5 retail cost figure), we found effective DMO 5 retail allowances would range from 4.4% (SAPN) to 8.8% (Endeavour 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 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% (SAPN) to 9.6% (Endeavour and Essential controlled load customers).

The analysis indicates that retailers with these levels of depreciation costs would achieve earnings before interest taxes margins that are equal to or higher than the EBITDA margins by Essential Services Commission of Victoria, ICRC and the Office of the Tasmanian Economic Regulator allowed EBITDA margins. 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% (SAPN) to 17.3% (Ausgrid).

8.2.2 Analysis of Tier 2 retail costs

[108] 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/customer or $36 including GST. *AGL 2021–22 Annual Report*, September 2022, p.16,37.

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[109] to the DMO retail cost component.

Residential customers

Adding $59 to the ACCC's average retail costs, we found a retailer with these costs would achieve effective DMO 4 EBITDA retail allowances ranging from 3.4% (SAPN) to 8.0% (Endeavour and Essential controlled load customers).

While these figures suggest retailers with this level of costs would have less scope to offer discounts off the reference price and make a return in comparison to a retailer with lower costs in DMO 5, 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 SAPN 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 6.2% and 7.1% 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% (SAPN) 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.

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, ICRC 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 3 market offer is $99 to $208 below the lowest Tier 1 offer (in February 2023), which is a further 5% to 13% discount off the DMO 4 reference price compared with the lowest Tier 1 offer.

8.2.3 Conclusion

Our analysis in section 8.2.1 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.

[109] $59 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.

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 from 3 entities with public reporting obligations. 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, as 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

9.1 Annual usage amounts

9.1.1 Issues paper

Retailers are required to communicate discounts off market offers based on the difference between the market offer and the DMO price at the DMO assumed usage amount. Therefore, the decision about usage amounts is an important factor in customers' ability to effectively compare the options available to them.

In our DMO 4 final determination we decided:

- for residential customers, to retain the same usage amounts for general usage and controlled usage as in previous determinations
- for small business customers, to adopt a 10,000 kWh per year annual usage benchmark.

In the issues paper we proposed to use these settings for the DMO 5 and DMO 6 determinations, with the intention to review these in the next DMO methodology review as part of the 2025–26 (DMO 7) process.

The issues paper also noted the ACCC had released its Inquiry into the National Electricity Market – May 2022 report, which includes the most recent findings on residential and small business usage. We considered these findings show that our DMO 4 assumed annual usage amounts remain broadly representative of their respective customer groups[110].

9.1.2 Stakeholder submissions

Most submissions did not consider annual usage amounts. However, submissions from SACOSS and the Customer Consultative Group (CCG) expressed concerns.

Both submissions considered households with solar would use less electricity from the grid than households without solar. Including these households in assessments of region-wide consumption could result in lower average usage figures than an average of only non-solar households, which SACOSS and CCG consider would better represent standing offer customers and customers experiencing vulnerability.[111]

SACOSS suggests SA's average household usage data is lowered by the high uptake of solar by households in SA. Therefore, it supports increasing the assumed residential annual usage to reflect the higher consumption of customers experiencing hardship and other customers who may be less engaged, unable to access solar and on a standing offer.[112]

Because the current DMO consumption amounts are based on average consumption data that includes solar households, CCG members believe this could disproportionately impact households experiencing vulnerability or those unable to take advantage of Consumer

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[110] AER, *Default market offer prices 2023-34 Issues paper*

[111] SACOSS, *Submission to DMO 5 Issues Paper*, 5 December 2022, p. 11; Customer Consultative Group, *Joint submission to DMO 5 Issues Paper*, 9 December 2022, p. 2.

[112] SACOSS, *Submission to DMO 5 Issues Paper*, 5 December 2022, p. 11.

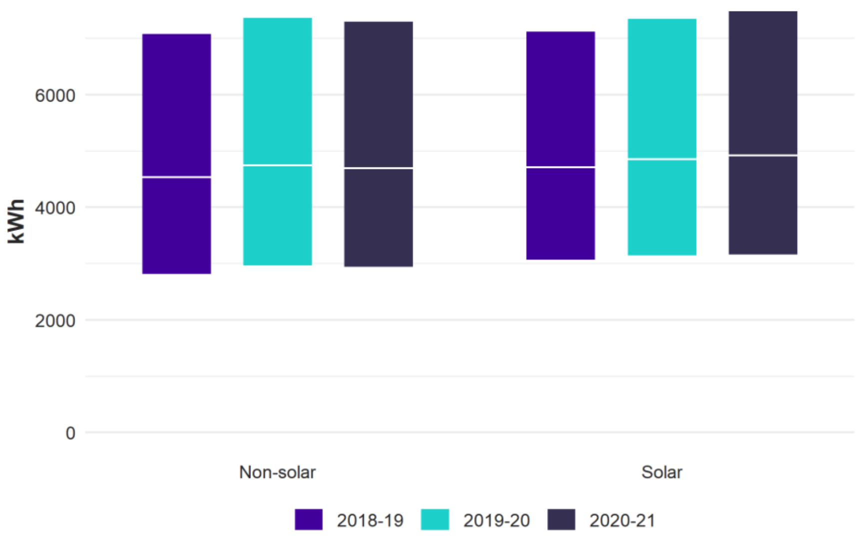
Energy Resources such as solar PV and batteries. If the DMO assumed usage amounts are lower than the actual usage for a particular group of customers, these customers may select market offers that do not provide the best discount available in the market at their actual usage. CCG strongly support more accurate usage benchmarks and especially benchmarks that exclude solar customers.[113]

9.1.3 Our considerations

9.1.3.1 Solar and non-solar households

We have further considered the ACCC analysis of billing data in its May 2022 report that represents the usage of residential customers with and without controlled load in each region. This analysis includes the separate distributions of household usage for households with and without solar.[114] The median and interquartile ranges are very similar, as demonstrated in Figure 9.1.

Figure 9.1 Annual grid usage by residential non-solar and solar customers, all regions combined



Source: ACCC, *Inquiry into the National Electricity Market,* May 2022, Supplementary Table A3.28. Tables A3.30 – A3.32 contain individual NSW, SE QLD and SA usage distributions.

We also note the ACCC Electricity Report shows the hardship and payment plan customers use more electricity than the overall average shown in Figure 9.2.

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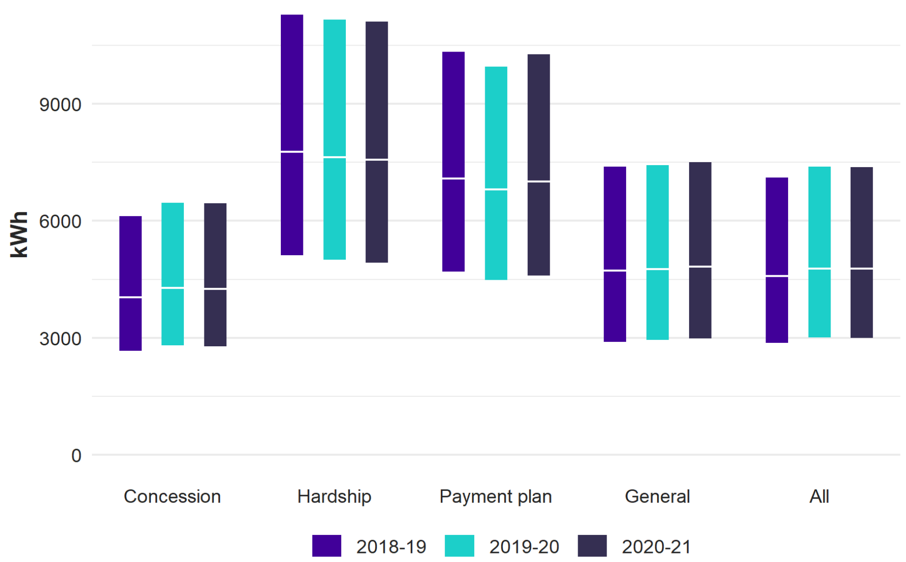
[113] Customer Consultative Group, *Joint submission to DMO 5 Issues Paper*, 9 December 2022, p. 2.

[114] ACCC, *Inquiry into the National Electricity Market,* May 2022, Supplementary Tables A3.30 - A3.32. A key finding of this ACCC analysis was that households with solar grid usage are very close to households without solar usage

Figure 9.2 Annual grid usage by residential customer groups, all regions combined



Source: ACCC, *Inquiry into the National Electricity Market,* May 2022, Supplementary Tables A3.18.

We acknowledge the DMO usage amounts are lower than the usage amounts for these customers, but we are required to determine an annual usage amount that is broadly representative of all customers. The hardship and payment plan group of customers represents a very small percentage of households – 1.3% and 1.4% of all customers, respectively.[115] If we selected an annual usage amount around the median annual usage for hardship or payment plan customers so that the DMO usage was broadly representative of this small group, this usage would be situated at or possibly exceed the 75th percentile usage across the much larger group of customers not on hardship or payment plans, as well as the broader group of all customers. We consider adopting such usage amounts would be less representative of all customers and less useful as a comparison point for the population as a whole.

9.1.3.2 Usage amounts by distribution region

We have also compared the DMO usage amounts to average usages provided by the 5 DMO distribution businesses as part of a voluntary information request to understand the spread of outcomes across regions.

Table 9.1 Comparison of DMO annual usage for residential without controlled load and DNSP average

Distribution region	DMO annual usage for residential without CL* (KWh)	DNSP average usage fixed rate residential customers without CL 2021–22 (KWh)	DMO % usage difference relative to DNSP average usage
Ausgrid	3,900	4,379	-11%
Endeavour	4,900	5,251	-7%
Essential	4,600	4,843	-5%
Energex	4,600	4,984	-8%

[115] AER, *Quarter 1 2022-23 retail performance data*, December 2022, Schedule 3 and Schedule 4.

Distribution region	DMO annual usage for residential without CL* (KWh)	DNSP average usage fixed rate residential customers without CL 2021–22 (KWh)	DMO % usage difference relative to DNSP average usage
SAPN	4,000	4,074	-2%

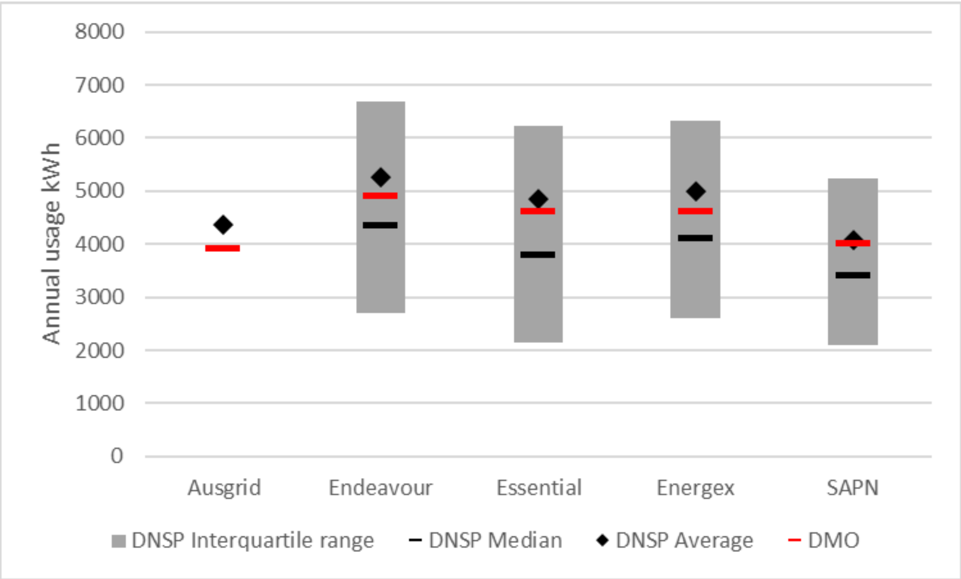
Note: *CL refers to controlled load.
Source: AER analysis of DNSP voluntary usage data information request

Table 9.2 Comparison of DMO annual usage for residential with controlled load and DNSP average

Distribution region	DMO annual usage for Residential with CL* (KWh)	DNSP average usage fixed rate residential customers with CL 2021–22 (KWh)	DMO % usage difference relative to DNSP average usage
Ausgrid	6,800	6,630	3%
Endeavour	7,400	7,898	-6%
Essential	6,600	6,802	-3%
Energex	6,300	6,540	-4%
SAPN	6,000	6,038	-1%

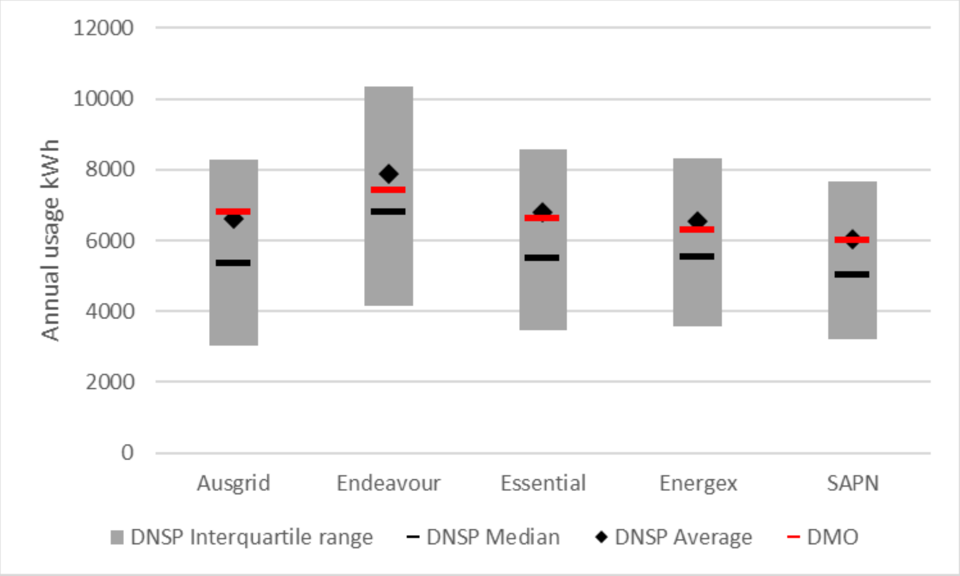
Note: *CL refers to controlled load.
Source: AER analysis of DNSP voluntary usage data information request

Figure 9.3 Comparison of DMO annual usage for residential without controlled load with DNSP average, median and interquartile range



Source: AER analysis of DNSP voluntary usage data information request. Ausgrid was unable to provide a complete dataset for the median and interquartile range for residential customers without controlled load

Figure 9.4 Comparison of DMO annual usage for residential with controlled load with DNSP average, median and interquartile range



Source: AER analysis of DNSP voluntary usage data information request

The DMO usage amounts for residential customers without controlled load in NSW, SE QLD and SA are -2% to -11% below the DNSP average usage for the same type of customers. For residential customers with CL, the DMO usage differences are -6% to 3%.

Figure 9.3 and Figure 9.4 demonstrate that the DMO residential usage amounts are situated close to the DNSP averages and in most cases between the DNSP average and median usage amounts. In all cases the DMO usage is comfortably within the interquartile range. We consider this analysis suggests that the assumed DMO annual usage amounts remain broadly representative

To test the impact of DMO usage amounts on customers, we have also examined the ability of the market offer discount off the reference price (based on the DMO assumed annual usage) to indicate the relative value of that offer at higher and lower usage amounts. Using the Ausgrid region as an example, we found the lowest offer at the DMO usage continued to be the lowest offer at usages twice as high, and the second lowest offer at usages half that of the DMO, only $21 or 2.7% above the actual lowest market offer at that lower usage. This analysis suggests that customers with different usage amounts will still select a highly competitive offer if they switch to the offer advertised with the highest discount off the DMO reference price.

9.1.4 Draft determination

Having considered stakeholder submissions and the available information on residential annual usage, we consider the amounts are still broadly representative of residential and small business customer usage. Our draft determination is to retain the current annual usage benchmarks for residential and small business customers, including the current controlled load amounts, for DMO 5.

9.2 Timing and pattern of supply

9.2.1 Issues paper

In the issues paper we proposed to continue to update the timing and pattern of supply usage profiles using new AEMO interval meter data and to retain the below key assumptions from previous determinations:

- assume the 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 considered this approach remains reasonable and provides transparency, balancing accuracy and ease of implementation to stakeholders.

9.2.2 Stakeholder submissions

The only submission that commented on this issue was from SACOSS. They expressed concerns with SA regulations[116] that mandatorily shift standing offer customers with a smart meter to ToU tariffs with no ability to opt out or change usage patterns.[117]

9.2.3 Our considerations

We do not set tariffs or specify peak time periods directly under the DMO, and therefore cannot cap peak prices as suggested by SACOSS.

We consider that retailers and policymakers are best placed to consider how to address the issues raised by SACOSS.

9.2.4 Draft determination

Our draft determination for timing and pattern of supply is that we will update the usage profiles using new AEMO interval meter data but retain our approach from DMO 4.

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

[116] *National Energy Retail Law (Local Provisions) Regulations 2013* (South Australia), r6A. This regulation commenced 24 September 2020.

[117] SACOSS, *Submission to DMO 5 Issues Paper*, 5 December 2022, p. 11.

- 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).

10 Appendices

Appendix A – List of submissions to the DMO 5 issues paper

Appendix B – Advanced meter costs

Appendix C – Draft legislative instrument

Appendix D – DMO 4 to DMO 4 price movements

A. List of submissions to the DMO 5 issues paper

Following release of the DMO 5 issues paper on 3 November 2022, we invited stakeholder submissions on the issues paper. The following are the stakeholders who engaged in this process.

Government and market bodies

1. SA Department for Energy and Mining, 15 December 2022
2. SACOSS, *Submission to DMO 5 Issues Paper*, 5 December 2022

Industry association

3. Australian Energy Council (AEC), 30 November 2022

Retailers

4. 1st Energy, 30 November 2022
5. AGL, 1 December 2022
6. Alinta Energy, 30 November 2022
7. EnergyAustralia, 30 November 2022
8. Energy Locals, 30 November 2022
9. GloBird Energy, 29 November 2022
10. Momentum Energy, 30 November 2022
11. Origin Energy, 5 December 2022
12. Powershop, 30 November 2022
13. Red Energy/Lumo Energy, 30 November 2022
14. Simply Energy, 30 November 2022
15. Tango Energy, 30 November 2022

Consumer groups/representatives

16. PIAC, 30 November 2022
17. Energy Consumers Australia (ECA), 29 November 2022
18. Energy Intelligence, 30 November 2022
19. Customer Consultative Group, *Joint submission to DMO 5 Issues Paper*, 9 December 2022.

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	Total advanced meter costs incurred by retailers	Total advanced meter costs recovered in one-off or up-front fees	Total advanced meter customers	Average cost incurred per advanced meter (ex GST)	Average cost recovered in one-off or up-front fees per smart meter	Average cost incurred per advanced meter net of average up-front fees	ACS metering allowance included in network component (ex GST)	Capital metering charge within ACS metering allowance	% of advanced meter installations where retailer incurs capital metering charge for replace accumulation meter	Average legacy capital metering charges uncured per advanced meter	Average per advanced meter costs net of up-front fees, ACS metering allowance, including legacy meter capital charges	Total customers	% of customers with advanced meters	Advanced meter cost per customer net of up-front fees, ACS metering allowance in network component, including legacy meter capital charges
Ausgrid	$35,020,666	$602,471	331,469	$105.65	$1.82	$103.84	$28.76	$15.77	79%	$12.50	$87.58	1,501,609	22.1%	$19.33
Endeavour	$30,401,730	$2,018,169	286,033	$106.29	$7.06	$99.23	$24.35	$2.38	79%	$1.89	$76.77	925,018	30.9%	$23.74
Essential	$24,425,582	$2,493,652	214,850	$113.69	$11.61	$102.08	$42.44	$11.05	79%	$8.76	$68.40	727,103	29.5%	$20.21
Energex	$42,978,510	$671,877	402,275	$106.84	$1.67	$105.17	$42.51	$28.94	79%	$22.95	$85.61	1,363,559	29.5%	$25.26
SAPN	$27,971,940	$2,013,508	264,428	$105.78	$7.61	$98.17	$25.86	$10.35	79%	$8.21	$80.52	800,230	33.0%	$26.61
DMO	**$160,798,428**	**$7,799,676**	**1,499,055**	**$107.27**	**$5.20**	**$102.06**	**$32.95**	**$15.36**	**79%**	**$12.18**	**$81.29**	**5,317,519**	**28.2%**	**$22.92**

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

Region	Total advanced meter costs incurred by retailers	Total advanced meter costs recovered in one-off or up-front fees	Total advanced meter customers	Average cost incurred per advanced meter (ex GST)	Average cost recovered in one-off or up-front fees per smart meter	Average cost incurred per advanced meter net of average up-front fees	ACS metering allowance included in network component (ex GST)	Capital metering charge within ACS metering allowance	% of advanced meter installations where retailer incurs capital metering charge for replace accumulation meter	Average legacy capital metering charges uncured per advanced meter	Average per advanced meter costs net of up-front fees, ACS metering allowance, including legacy meter capital charges	Total customers	% of customers with advanced meters	Advanced meter cost per customer net of up-front fees, ACS metering allowance in network component, including legacy meter capital charges
Ausgrid	$3,122,585	$123,343	26,272	$118.86	$4.69	$114.16	$37.52	$24.11	79%	$19.12	$95.76	132,284	19.9%	$19.02
Endeavour	$1,766,989	$50,997	15,279	$115.65	$3.34	$112.31	$35.67	$2.38	79%	$1.89	$78.53	67,005	22.8%	$17.91
Essential	$2,319,485	$181,585	18,471	$125.57	$9.83	$115.74	$42.44	$11.05	79%	$8.76	$82.07	75,581	24.4%	$20.06
Energex	$2,926,593	$408,221	23,730	$123.33	$17.20	$106.13	$42.51	$28.94	79%	$22.95	$86.56	95,838	24.8%	$21.43
SAPN	$1,962,887	$80,906	17,166	$114.35	$4.71	$109.63	$25.86	$10.35	79%	$8.21	$91.98	80,165	21.4%	$19.70
DMO	**$12,098,539**	**$845,051**	**100,918**	**$119.88**	**$8.37**	**$111.51**	**$37.06**	**$17.27**	**79%**	**$13.70**	**$88.15**	**450,873**	**22.4%**	**$19.73**

C. Draft legislative instrument

Draft legislative instrument

Draft Default Market Offer prices 2023–24

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

6. Timing or pattern of supply determination

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

a) Seasonality assumptions, all tariff and customer types

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

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

i. Ausgrid distribution region

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

Time	00:00 - 00:30	00:30 - 01:00	01:00 - 01:30	01:30 - 02:00	02:00 - 02:30	02:30 - 03:00	03:00 - 03:30	03:30 - 04:00	04:00 - 04:30	04:30 - 05:00	05:00 - 05:30	05:30 - 06:00	06:00 - 06:30	06:30 - 07:00	07:00 - 07:30	07:30 - 08:00	08:00 - 08:30	08:30 - 09:00	09:00 - 09:30	09:30 - 10:00	10:00 - 10:30	10:30 - 11:00	11:00 - 11:30	11:30 - 12:00
Usage (kWh)	**0.2326**	**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 (4,800 kWh/yr)

Time	00:00 - 00:30	00:30 - 01:00	01:00 - 01:30	01:30 - 02:00	02:00 - 02:30	02:30 - 03:00	03:00 - 03:30	03:30 - 04:00	04:00 - 04:30	04:30 - 05:00	05:00 - 05:30	05:30 - 06:00	06:00 - 06:30	06:30 - 07:00	07:00 - 07:30	07:30 - 08:00	08:00 - 08:30	08:30 - 09:00	09:00 - 09:30	09:30 - 10:00	10:00 - 10:30	10:30 - 11:00	11:00 - 11:30	11:30 - 12:00
Usage (kWh)	**0.2863**	**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 (4,900 kWh/yr)

Time	00:00 - 00:30	00:30 - 01:00	01:00 - 01:30	01:30 - 02:00	02:00 - 02:30	02:30 - 03:00	03:00 - 03:30	03:30 - 04:00	04:00 - 04:30	04:30 - 05:00	05:00 - 05:30	05:30 - 06:00	06:00 - 06:30	06:30 - 07:00	07:00 - 07:30	07:30 - 08:00	08:00 - 08:30	08:30 - 09:00	09:00 - 09:30	09:30 - 10:00	10:00 - 10:30	10:30 - 11:00	11:00 - 11:30	11:30 - 12:00
Usage (kWh)	**0.2959**	**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 (5,200 kWh/yr)

Time	00:00 - 00:30	00:30 - 01:00	01:00 - 01:30	01:30 - 02:00	02:00 - 02:30	02:30 - 03:00	03:00 - 03:30	03:30 - 04:00	04:00 - 04:30	04:30 - 05:00	05:00 - 05:30	05:30 - 06:00	06:00 - 06:30	06:30 - 07:00	07:00 - 07:30	07:30 - 08:00	08:00 - 08:30	08:30 - 09:00	09:00 - 09:30	09:30 - 10:00	10:00 - 10:30	10:30 - 11:00	11:00 - 11:30	11:30 - 12:00
Usage (kWh)	**0.3140**	**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 (4,600 kWh/yr)

Time	00:00 - 00:30	00:30 - 01:00	01:00 - 01:30	01:30 - 02:00	02:00 - 02:30	02:30 - 03:00	03:00 - 03:30	03:30 - 04:00	04:00 - 04:30	04:30 - 05:00	05:00 - 05:30	05:30 - 06:00	06:00 - 06:30	06:30 - 07:00	07:00 - 07:30	07:30 - 08:00	08:00 - 08:30	08:30 - 09:00	09:00 - 09:30	09:30 - 10:00	10:00 - 10:30	10:30 - 11:00	11:00 - 11:30	11:30 - 12:00
Usage (kWh)	**0.1963**	**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 (4,400kWh/yr)

Time	00:00 - 00:30	00:30 - 01:00	01:00 - 01:30	01:30 - 02:00	02:00 - 02:30	02:30 - 03:00	03:00 - 03:30	03:30 - 04:00	04:00 - 04:30	04:30 - 05:00	05:00 - 05:30	05:30 - 06:00	06:00 - 06:30	06:30 - 07:00	07:00 - 07:30	07:30 - 08:00	08:00 - 08:30	08:30 - 09:00	09:00 - 09:30	09:30 - 10:00	10:00 - 10:30	10:30 - 11:00	11:00 - 11:30	11:30 - 12:00
Usage (kWh)	**0.1878**	**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 (4,600 kWh/yr)

Time	00:00 - 00:30	00:30 - 01:00	01:00 - 01:30	01:30 - 02:00	02:00 - 02:30	02:30 - 03:00	03:00 - 03:30	03:30 - 04:00	04:00 - 04:30	04:30 - 05:00	05:00 - 05:30	05:30 - 06:00	06:00 - 06:30	06:30 - 07:00	07:00 - 07:30	07:30 - 08:00	08:00 - 08:30	08:30 - 09:00	09:00 - 09:30	09:30 - 10:00	10:00 - 10:30	10:30 - 11:00	11:00 - 11:30	11:30 - 12:00
Usage (kWh)	**0.2723**	**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 (4,600 kWh/yr)

Time	00:00 - 00:30	00:30 - 01:00	01:00 - 01:30	01:30 - 02:00	02:00 - 02:30	02:30 - 03:00	03:00 - 03:30	03:30 - 04:00	04:00 - 04:30	04:30 - 05:00	05:00 - 05:30	05:30 - 06:00	06:00 - 06:30	06:30 - 07:00	07:00 - 07:30	07:30 - 08:00	08:00 - 08:30	08:30 - 09:00	09:00 - 09:30	09:30 - 10:00	10:00 - 10:30	10:30 - 11:00	11:00 - 11:30	11:30 - 12:00
Usage (kWh)	**0.2723**	**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 (4,000 kWh/yr)

Time	00:00 - 00:30	00:30 - 01:00	01:00 - 01:30	01:30 - 02:00	02:00 - 02:30	02:30 - 03:00	03:00 - 03:30	03:30 - 04:00	04:00 - 04:30	04:30 - 05:00	05:00 - 05:30	05:30 - 06:00	06:00 - 06:30	06:30 - 07:00	07:00 - 07:30	07:30 - 08:00	08:00 - 08:30	08:30 - 09:00	09:00 - 09:30	09:30 - 10:00	10:00 - 10:30	10:30 - 11:00	11:00 - 11:30	11:30 - 12:00
Usage (kWh)	**0.2577**	**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 (4,200 kWh/yr)

Time	00:00 - 00:30	00:30 - 01:00	01:00 - 01:30	01:30 - 02:00	02:00 - 02:30	02:30 - 03:00	03:00 - 03:30	03:30 - 04:00	04:00 - 04:30	04:30 - 05:00	05:00 - 05:30	05:30 - 06:00	06:00 - 06:30	06:30 - 07:00	07:00 - 07:30	07:30 - 08:00	08:00 - 08:30	08:30 - 09:00	09:00 - 09:30	09:30 - 10:00	10:00 - 10:30	10:30 - 11:00	11:00 - 11:30	11:30 - 12:00
Usage (kWh)	**0.2705**	**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 – (1,800 kWh/yr)

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

c) Controlled Load (CL) annual usage allocations

i. Ausgrid distribution region (kWh/year)

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

ii. Endeavour Energy distribution region (kWh/year)

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

iii. Energex distribution region (kWh/year)

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

iv. Essential Energy distribution region (kWh/year)

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

v. South Australian Power Networks distribution region (kWh/year)[118]

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

7. Per-customer annual price determination

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

Per-customer 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	$1,847	$2,578	$5,000
Endeavour Energy	$2,219	$2,947	$4,535
Energex	$1,941	$2,344	$4,115
Essential Energy	$2,555	$3,022	$5,759
SA Power Networks	$2,241	$2,760	$5,690

DATED THIS XX DAY OF
XX 2023

Australian Energy Regulator

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

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 REZ scheme 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)

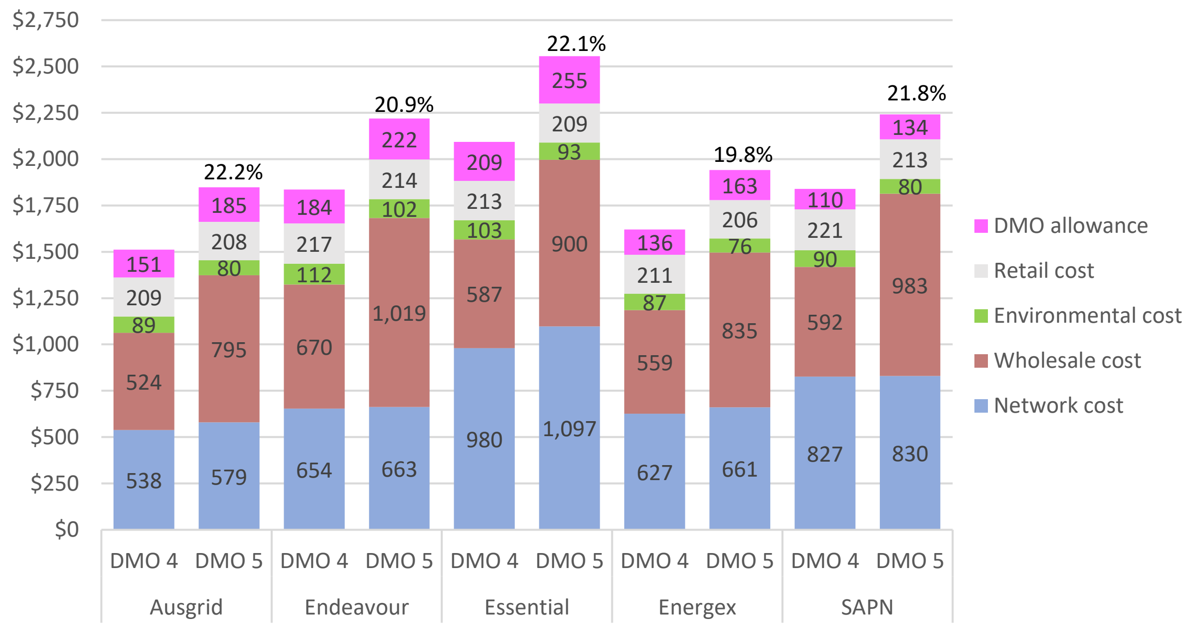


Figure D.2 Residential with CL, % change from DMO 4 (nominal)

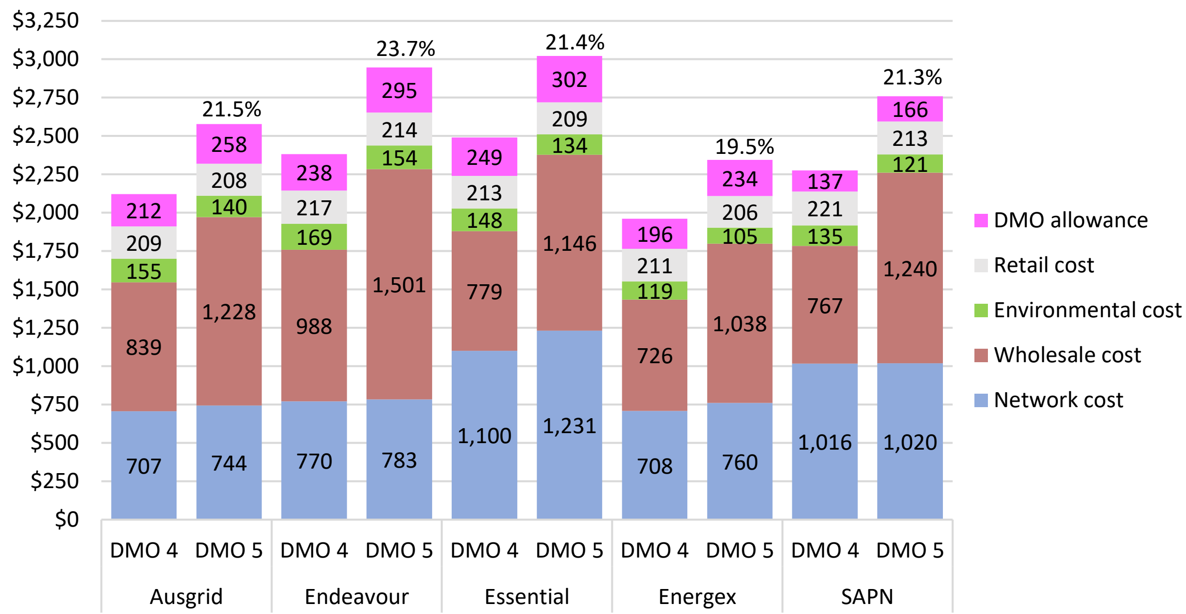


Figure D.3 Small business, % change from DMO 4 (nominal)