

AusNet

Access Arrangement Information

Gas access arrangement review 2024-28

Variation Proposal – 30 September 2024

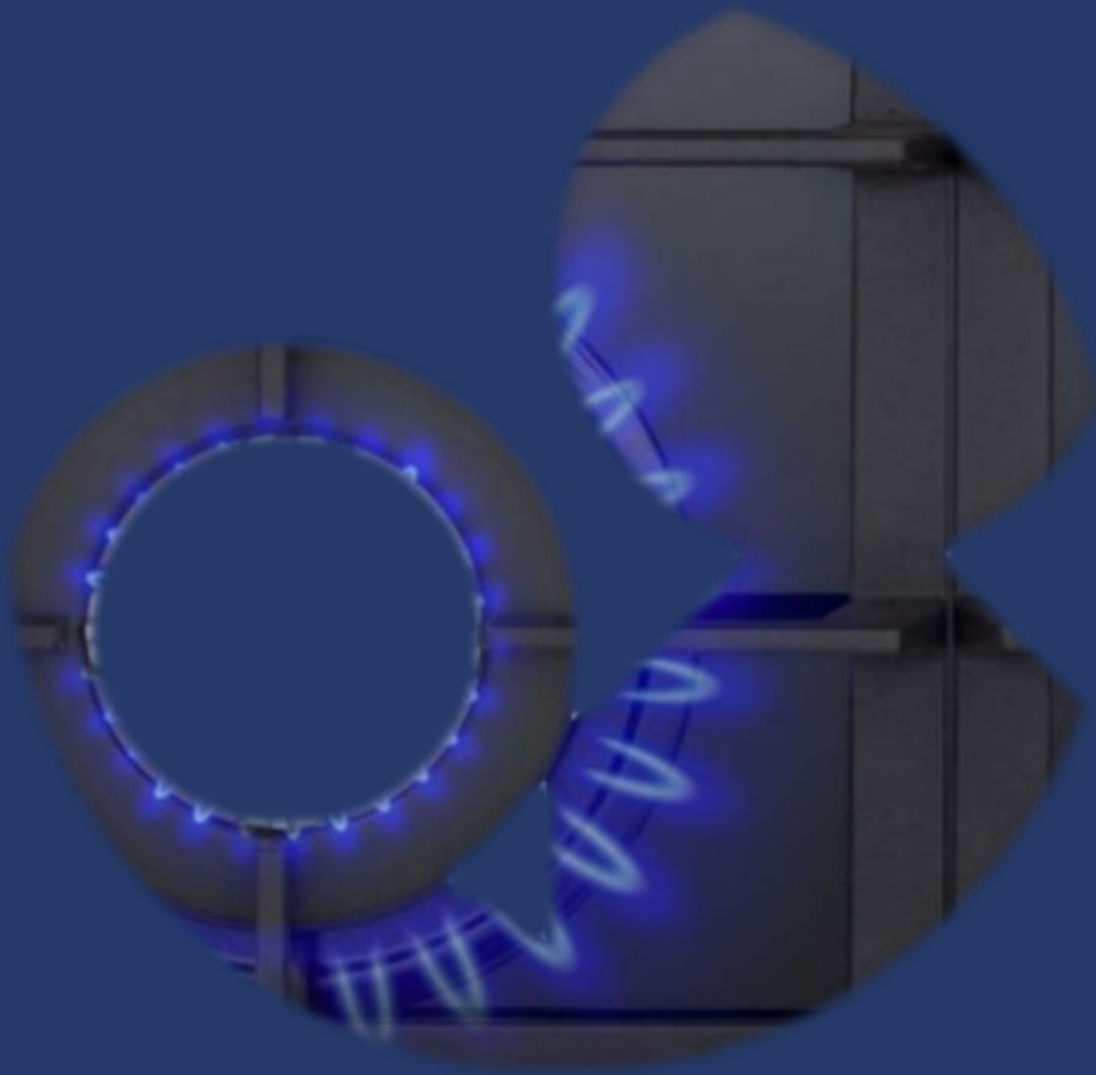


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1. Executive summary

On 2 June 2023, the AER made a Final Decision on our Access Arrangement (AA) Proposal for the 1 July 2023 to 30 June 2028 AA period.

Since that time, the transformation of the energy sector has continued apace with the Victorian government introducing material policy changes affecting the outlook for gas and setting out a clear path to electrification:

- From 1 January 2024, the Victorian government has banned new gas connections for dwellings, apartments, residential subdivisions where planning permits required.¹
- The updated gas distribution code of practice requires gas distributors to impose full upfront charging for new connections from 1 January 2025.²
- The Victorian Government is consulting on a Regulatory Impact Statement (RIS) on an appliance ban for rental properties during 2024.³
- The Victorian Government will be consulting on a RIS in late 2024, that would look at electrifying commercial buildings and introducing an end-of-life appliance replacement ban for residential customers.⁴

Our previous submission noted the significant uncertainty between two likely paths. One path of electrification — where homes and businesses throughout Australia will be powered by a single energy source (electricity); down the other path, renewable gas (particularly hydrogen). The renewable gas path is now increasingly unlikely for Victorian Households, with hydrogen and renewable gases a possible option only for the hard to abate industrial sector. These policy and regulatory changes have Victoria accelerating towards rapid electrification. Critically, now that a ban on new connections has been implemented, our network must inevitably cease growing and start declining in size. This crystallises that the medium to long term challenge is now managing a declining network. The key unknown factor is how quickly and how far the network usage declines, but in the face of this uncertainty early action is essential to give AusNet, the AER and other policymakers the flexibility to respond.

This is a material change to our operating environment, such that the assumptions that underpinned the Final Decision for our AA, no longer reasonably represent the expected future circumstances of our network. Importantly, the customer number forecast approved by the AER had our residential customer numbers growing throughout the regulatory period. This continued growth is no longer a credible forecast. We are already seeing policy changes impact our network with the projected rate of gas reticulation declining significantly, a rapid take up of electrification incentives and increasing abolishments and dormant connections. We reasonably expect the new policies will further accelerate customers' transition away from gas.

In the near term, this shift means difficult decisions need to be made to make the transition as equitable as possible for both current and future customers. Early actions such as faster capital recovery is the best way to protect customers and enable us to continue managing network safely and reliably for as long as it is needed by Victorians. Stabilising the long-term price, recovering sunk costs and managing the impacts of a network that is declining are best addressed while the customers for which the sunk investment was made remain on the network. Putting off decisions around sunk cost recovery for some future point is no longer tenable – it is markedly unfair to knowingly place most of the recovery on the future customer base, most likely to be those that are least able to transition through no fault of their own.

As a result of the above, we are proposing to increase our accelerated depreciation from the amount of \$105m approved by the AER to \$175m. As has been recognised by the AER and several other stakeholders, accelerated depreciation is the appropriate economic tool to address the risks we are facing. While the AER's Final Decision recognised this, in the materially changed environment, the AER's judgement call on the balance between cost recovery and short-term price impact when setting our accelerated depreciation allowance no longer reaches the right trade-off between short- and long-term price paths or addresses the increased stranding risk on our investment.

¹ Amendment VC250 was gazetted on 1 January 2024 and introduces new requirements for the construction of new dwellings, apartments and residential subdivisions that require a planning permit through a new particular provision at clause 53.03.

² ESC reviewed and remade the code of practice to make obligations fit for purpose, align the code of practice with recent changes to the National Gas Rules, and to support policy developments. See [Gas Distribution Code of Practice | Essential Services Commission](#) (accessed 25/07/2024)

³ Gas Substitution Roadmap update provides important information about the progress made towards decarbonisation since the release of the first Roadmap in 2022. [Victoria's Gas Substitution Roadmap \(energy.vic.gov.au\)](#) (accessed 29/07/2024)

⁴ In line with the Victorian Government's commitments under the Gas Substitution Roadmap Update and the transition towards net zero emissions by 2045, additional minimum standards for rental properties and rooming houses relating to energy efficiency are proposed. See [Minimum Standards for Rental Properties and Rooming Houses | Engage Victoria](#) (accessed 25/07/2024)

The proposed \$175m is consistent with the amount approved by the AER for AGN and remains less than the \$200m that AusNet proposed in its revised regulatory proposal for the current AA. We maintain that given long term network decline is now inevitable that an accelerated depreciation well above \$200m is justified on economic grounds. However, we consider (consistent with the AER's position) that the short-term impact on customer bills remains a relevant consideration. As such, our proposal of \$175m is moderate and reasonable as it:

- Constrains the short-term bill impact to a reasonable degree.
- Matches the level previously approved in the regulatory precedent for AGN
- Remains lower than our previous proposal.

There are also some other areas of the proposal, where we have made changes only to the degree necessary to address the changed environment that we are now operating in. These are:

- Demand and customer number forecasts:
 - Revised in line with updated modelling from our external consultant.
- Opex:
 - Output growth forecasts. We have amended them in line with the revised demand and customer number forecasts.
 - ESV levy. We are seeking an additional amount for the ESV levy for the remainder of the period. We are not looking to include further step changes at this stage for the introduction of additional compliance and reporting obligations given changes to the *Gas Distribution Code of Practice* and the *Pipeline Information Disclosure Obligations*.
- Capex:
 - Lower connections capex. Connections capex will be reduced consistent with the reduced connections forecast. Additionally, the capital contributions will increase due to the introduction of full upfront charging as required by the ESC.
 - Augmentation capex. We have investigated where we can safely reduce the Augmentation program

As a result of the above, we have revised our reference service tariffs to account for the re-forecasts. We have also made minor edits to our Gas AA to acknowledge the revised gas distribution code which commenced 1 October 2024 relating to the requirement for new customers to contribute the full costs of their connection upfront.

Our proposal better protects the long-term interests of our customers. First by meeting the immediate needs of the network, including providing efficient gas services in a prudent, safe and reliable manner, while also keeping the long-term distribution charge lower bill for customers that will remain on network. In an uncertain environment, where there are significant cost-of-living pressures, we have carefully balanced the concerns raised by stakeholders against the stranding risk we face. This risk continues to increase with, for example, Federal Government announcements of further support for low-income households to electrify⁵ and the recent Victorian Government announcement it is introducing *Building Legislation Amendment and Other Matters Bill 2024* in December this year, which explores options for electrifying Victorian homes when existing gas appliances reach end of life⁶.

Accordingly, in accordance with rule 65(1) of the NGR we submit this variation to amend our AA. This submission, including all supporting documents, collectively the 'Access Arrangement Variation Proposal' (Variation Proposal), sets out variations to our existing AA for the 2023-2028 access arrangement period and accompanying access arrangement information.¹ We propose that the variation to the AA is done on a forward-looking basis with changes applied from 1 July 2025 and ending 30 June 2028. We have made amendments to our AA to update reference service tariffs and apply them on and from 1 July 2025. All information provided in this submission is in real 2023 prices unless stated otherwise – this is consistent with the AER Final Decision on our AA and allows easy comparison and incorporation into the existing decision.

1.1.1.1. Bill Impacts

AusNet is currently the cheapest gas distributor in Australia. Despite the proposed adjustments to our prices, we will remain one of the least expensive networks in Australia.

⁵ Australian Government, *Energy Savings Plan*. See: [Energy future plan | energy.gov.au](https://www.energy.gov.au/energy-future-plan) (accessed 1/08/2024)

⁶ Victorian Government, *Shoring Up Our Gas Supply And Supporting Our Transition*. See: [Shoring Up Our Gas Supply And Supporting Our Transition | Premier](https://www.premier.vic.gov.au/shoring-up-our-gas-supply-and-supporting-our-transition) (accessed 19/09/2024)

Our Variation Proposal will result in an additional \$76 increase to a residential customers bill relative to the current Decision or an average of \$49 per year for the last three years. An average residential bill in AusNet's Central Region is about \$2,100 with the network component of that bill, around \$300, which is just 15% of a residential customer's bill.⁷ This means residential customers total retail bill increases by approximately 5% per annum for the remainder of the regulatory period.

Figure 1 Average revenue per customer (\$ June 2023)

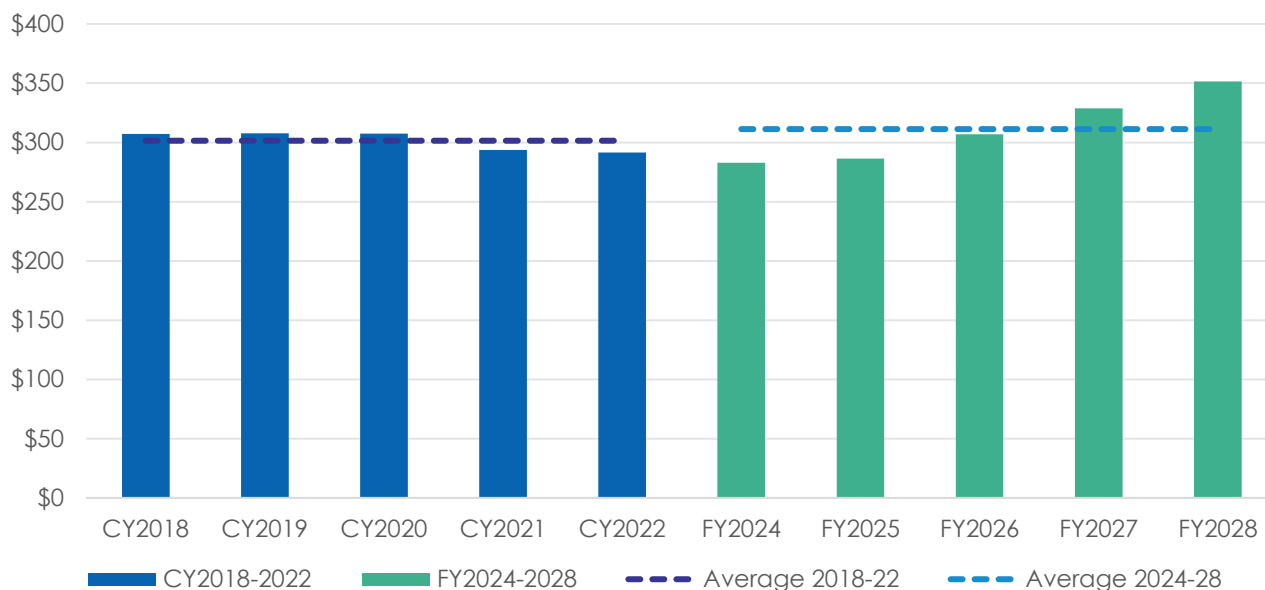


Table 1 Price change (% real)

	2023-24	2024-25	2025-26	2026-27	2027-28
Final Decision	2.41%	2.41%	2.41%	2.41%	2.41%
Variation Proposal	2.41%	2.41%	8.87%	8.87%	8.87%
Change from Final Decision to Variation Proposal (%)	0.00%	0.00%	6.46%	6.46%	6.46%

Source: AusNet Services PTRM (2024-28).

1.1.1.2. Our revenue forecast

Our Variation Proposal forecasts revenue of \$1,360m This is 7.2% (\$90.8m) higher than the Final Decision. In the table below, we outline our revenue requirement under our Variation Proposal and how it compares to the Final Decision.

Table 2 Unsmoothed Revenue Requirement (\$m, nominal, unsmoothed)

	Final Decision	Variation Proposal	Change
Return on Capital	568.1	554.9	-13.2
Return of Capital	281.4	361.7	80.3
Operating Expenditure⁸	381.7	390.8	9.2

⁷ St Vincent De Paul, *Victoria Energy Prices January 2024*. See [2024-january-victorian-energy-report.pdf \(vinnies.org.au\)](https://vinnies.org.au/2024-january-victorian-energy-report.pdf) (accessed 22/08/2024)

⁸ Excluding Ancillary Reference Services.

Revenue Adjustments	-3.8	-3.8	0.0
Net Tax Allowance	42.0	56.5	14.5
Unsmoothed Revenue Requirement	1,269.3	1,360.1	90.8

Source: AusNet Services PTRM (2024-28). Excluding Ancillary Reference Services

1.1.1.3. Smoothed revenue requirement

We have smoothed the revenue requirement to deliver a stable annual revenue profile over the forthcoming access arrangement period. In accordance with the requirements of rule 92(2), the revenues defined by the smoothed profile return the same NPV as the unsmoothed revenue shown in the table above.

Our smoothed revenue requirement is set out in the table below.

Table 3 Smoothed revenue requirement (\$m, real)

	2023-24	2024-25	2025-26	2026-27	2027-28	Total
Total Revenue Requirement	223.7	229.8	248.1	265.7	282.5	1,249.8
Price Change (% real)	2.41%	2.41%	8.87%	8.87%	8.87%	

Source: AusNet Services PTRM (2024-28)

In real terms, the changes in revenue from 2025-26 increase by 8.87% in each subsequent year.

2. Regulatory framework for AA Variation Proposal

In accordance with Rule 65 of the NGR, a service provider may propose to vary an AA, and in doing so, must state the variation and the reasons for it. As set out in this proposal, we are proposing to vary our AA for the 2023-28 regulatory period primarily in respect of the reference service tariffs to apply from 1 July 2025.

In line with rule 72(2), the service provider must also submit relevant access arrangement information that justifies the variation. In support of the change to the reference service tariffs, we have included updated information in respect of:

- Demand and customer number forecasts.
- Capex and opex forecasts; and
- Accelerated depreciation.

An AA Variation Proposal cannot be submitted between a review submission date for the AA and the commencement of the new AA period. Our review submission date for the current AA period is 1 June 2027,⁹ and so accordingly, a variation proposal can be made.

The AER's ability to consider a variation to an existing AA is informed by Rule 66 of the NGR. If the AER does not consider the proposed variation non-material, the AER must refer the proposal to be dealt with as an AA proposal under Division 8. We consider the variation being proposed is material, due the size of the impact on AusNet's revenue requirement and tariffs, and accordingly, the process under Division 8 for the consideration of this variation proposal should apply.¹⁰

The NGR does not include any specific criteria which the AER must apply when deciding to approve an AA variation approval. AusNet considers that the AER should be guided by rule 68B which relevantly provides that the provisions of an AA must be consistent with the national gas objective as well as the Rules.

Specifically, the NGR operates within the broader context of the National Gas Law (NGL) which establishes the overarching objective of regulatory decisions to promote the long-term interests of consumers with respect to price, quality, safety, reliability and security of natural gas services, whilst also reflecting broader climate goals.¹¹

Specifically, the NGL seeks to ensure that regulatory decisions facilitate the efficient investment in, and efficient operation and use of, natural gas services. The recent inclusion of emission reduction targets ensures that regulatory decisions, such as variations to access arrangements, promotes not only efficient and reliable gas services, but also takes into account their impact on greenhouse gas emissions.¹²

At a high level, when considering a variation, the AER is tasked with assessing whether the proposed change aligns with these objectives (as also informed by reference to the pricing principles outlined in the NGL)¹³, balancing the needs of consumers for affordable and reliable gas services, with the interest of service providers in being afforded a reasonable opportunity to recover their efficient costs. As noted in this proposal, gas service providers' ability to secure a commensurate return on their investments is being significantly impacted by government policies aimed at phasing out gas to meet emissions reductions targets. As these policies drive a transition away from natural gas and promote electrification and renewable energy alternatives, gas networks are experiencing declining demand and usage, which places increased pressure on a service provider's ability to reasonably recover their investments as contemplated by the NGL.

⁹ AusNet 2023-28 Access Arrangement Information, 1 July 2022, section 20.3.1

¹⁰ NGR 66(3).

¹¹ NGL, section 23.

¹² Section 23 of the National Gas Law (NGL) was amended by the Statutes Amendment (National Energy Laws) (Emissions Reduction Objectives) Act 2023), which expanded the National Gas Objective to include considerations of greenhouse gas emissions.

¹³ NGL, section 24.

3. Changes to environment since the AER Final Decision

The Victorian domestic gas market is facing unprecedented changes that will impact its longer-term future as major policies are introduced to drive the decarbonisation of the economy. In response, we are proposing a reopener to our existing AA decision that is focused on key forecasts that are now materially wrong. These changes in forecasts result in required updates to the reference tariffs set out in Part B of our AA.

There has been a fundamental change of circumstances since the last AA.

- In May 2023 the Victorian government set its greenhouse emissions reduction target for 2035 at 75-80% of 2005 levels. This foreshadowed but did not set out the major policy changes that were to be implemented to drive this outcome.
- The *Renewable Gas Consultation Paper* was released in September 2023, with renewable gas clearly directed to meet the needs of 'harder to electrify' sectors across the economy. With a policy directions paper expected to be released in late 2024.
- *Victoria's Housing Statement* released on 20 September 2023 announced new planning exemptions for a small secondary dwelling (granny flat) on the condition they were required to be all-electric.
- In November 2023, a notice of intent was issued by the Minister to prevent the offering of inducements (incentives) for consumers to retain or initiate new gas connections, or for installation of gas appliances.
- Also in November 2023, Victoria amended the *Plumbing Regulations (2018)* to remove standards that required gas boosting of solar water heaters.
- The *Gas Substitution Roadmap (update)* was released in December 2023. This document sets out Victoria's decarbonisation plans. Annual updates are expected to the Roadmap – with the next release planned for late 2024. This further the strengthened policy intent that electrification of household and small commercial heating load would be the decarbonisation pathway backed by policy.
- It was mandated new dwellings, apartment buildings and residential subdivisions requiring a planning permit would be all-electric from 1 January 2024
- Incentives for residential gas appliances were removed from the Victorian Energy Upgrades scheme and new incentives added for those switching to efficient electric appliances. New Victorian Energy Upgrades electrification discounts came into effect in mid-2023 with the new inclusion of induction cooktops to the scheme
- Victorian government established the State Electricity Commission (SEC). The SEC's *Strategic Plan 2023–2035* named supporting the switch to all-electric households as one of the SEC's three priorities over the next ten years.
- The Essential Service Commission remade the *Gas Distribution Code of Practice*, which comes into effect 1 October 2024 – introducing more stringent requirements and full upfront charging for new gas connections not captured by the ban from 1 January 2025.
- In line with the Victorian Government's commitments under the *Gas Substitution Roadmap (update)* and the transition towards net zero emissions by 2045, additional minimum standards for rental properties and rooming houses relating to energy efficiency are currently being consulted on. The *Gas Substitution Roadmap (update)* also outlined planned future consultations – including a gas appliance replacement ban.

With these changes to policy and law, customers' future investment decisions have been and will continue to be materially impacted. Customers views on remaining connected to gas have understandably shifted, with only half of current existing AusNet gas customers who own their own home/business expecting to remain connected in 10 years. The percentage of customers expecting to disconnect has doubled since our last AA proposal. This shift in customer outlook impacts their future decisions on whether to retain gas appliances at end of life and ultimately their gas connection.

While there is uncertainty as to the speed and length of time this will take, a reasonable position is that it will start to materially impact both customer numbers and per customer demand from next year and into the next regulatory period.

The remainder of this section looks at:

- The gas policy changes not accounted for in the current AA; and
- How we are seeing customers respond to those changes.

3.1.1. Key Policy changes since the AA Decision

3.1.1.1. Gas connection ban

In July 2023, the Victorian Government announced it intended to ban residential gas connections requiring a planning permit. Starting 1 January 2024, new dwellings, apartment buildings, and residential subdivisions requiring new planning permits are not allowed to be connected to the reticulated gas network. This includes all new public and social housing delivered by Homes Victoria.¹⁴ The ban was expanded to small dwellings that were exempted from planning permits.

This was implemented through an Order in Council¹⁵ through the following changes to the planning provisions:

- Victoria's Planning Provisions amendment (VC250) was gazetted on 1 January 2024 and introduces new requirements for the construction of new dwellings, apartments and residential subdivisions that require a planning permit through a new particular provision at clause 53.03.
- Clause 53.03 prevents a permit being granted to connect to reticulated natural gas when constructing a new dwelling, apartment development or subdividing land for residential purposes.
- The clause also requires a mandatory condition to be applied to a planning permit to construct a new dwelling, apartment development or subdivide land for residential purposes to ensure no gas connections can be constructed after the development is completed.

3.1.1.2. Upfront connection charges

In May 2024, the Essential Services Commission updated its *Gas Distribution Code of Practice*, with the updates taking effect on 1 October 2024. Consistent with the connections ban and wider Victorian Government policy intent, one of the key updates introduced full upfront charging for residential and developers applying for a new gas connection from 1 January 2025.¹⁶

Prior to these changes, the cost of connection for gas customers was determined by an economic feasibility test. The economic test considered the cost of connection offset against the revenue to be collected from customers over the expected lifetime of the connection. This meant connections were effectively free upfront for the majority of residential customers. This was justified because the addition of new customers reduced the average cost for all customers.

Therefore, the full upfront connection charge is a fundamental change to existing connection charging. It effectively disincentivises reticulation of the remaining new estates that have the required planning permission to reticulate gas, individual connections in existing and new residential estates and existing brownfield locations that do not require a planning permit. These incentive effects will be seen first in the initial step in our connection pipeline where developers with pre-1 January 2024 planning permits apply to reticulate mains in greenfield areas. Developers have a backlog of these planning permits, so AusNet is still receiving applications to reticulate new subdivisions. Once full upfront charging is in effect, we expect applications will rapidly decrease from the current already dwindling numbers of applications.

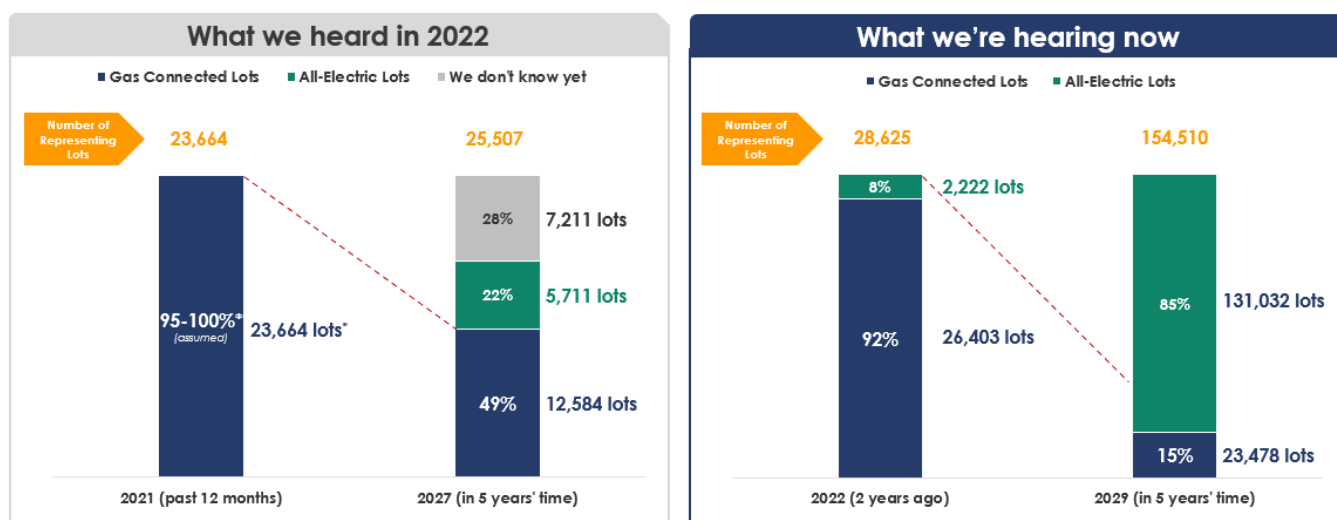
This trend away from gas has also been researched with the property development sector. The evidence shows the projected rates of gas reticulation by developers declining significantly from the previous AA period. In 2022, there was significant uncertainty among one-third of developers on the future of gas reticulation in their estates. However, all developers could forecast the gas reticulation proportion in our latest survey with around 85% of lots expected to be all-electric and the remaining proportion largely or fully reflecting applications currently in train.

¹⁴ This requirement is aligned with Victoria's Gas Substitution Roadmap Update

¹⁵ See [Victoria Planning Provisions Planning Scheme - Amendments](#) (accessed 26/08/2024)

¹⁶ See [Gas Distribution Code of Practice | Essential Services Commission](#) (accessed 1/08/2024)

Figure 2 Projected rates of gas reticulation in new estates



Source AusNet

It is important to note applications only account for developers' intentions to reticulate new estates at a point in time. The property developers' decision to reticulate determines whether a home has the option to eventually connect when built but does not guarantee a home builder or home buyer will connect the home to gas when the lot is developed. Given the shifting customer and home builder sentiment, rising up-front costs to connect to gas, changing home building standards and policy environment, a growing proportion of homes will choose to go all-electric.

3.1.1.3. Gas Substitution Roadmap update

Through its *Gas Substitution Roadmap (update)*, the Victorian Government has changed incentives to help Victorians see the benefits of electrification and are encouraged to shift away from gas given the net zero and decarbonisation objectives.

The updated Gas Substitution Roadmap announced:

- The expansion of incentives to induction cooktops, in addition to the previously announced incentives for the replacement of gas heating with energy efficient electric ducted and reverse cycle air conditioners and gas hot water with heat pump or solar water heaters.
- Gas instantaneous and gas water storage, as well as gas/LPG boosted solar water heaters and gas space heating are no longer eligible for incentives under the Victorian Energy Upgrades program

3.1.1.4. Future RIS Processes

Since the release of the *Gas Substitution Roadmap (update)* the Victorian Government has also started consulting on a Regulatory Impact Statement (RIS) on *Minimum Standards for Rental Properties and Rooming Houses* which proposes additional minimum standards for rental properties and rooming houses relating to energy efficiency and end of life replacement of gas appliances with electric alternatives. These policy proposals are required if Victoria is to reach its emissions reduction targets.

A RIS has been prepared that examines the costs and benefits of the proposed Regulations. Preferred option outlined in the RIS implement an effective appliance ban for gas hot water / heating in rental properties from 30 October 2025.

As a result of this policy, we would anticipate about 2% of gas heating and hot water systems would be removed each year. These appliances make up most of residential gas consumption in Victoria.¹⁷ As households have multiple appliances, we expect abolishment's would not immediately increase but would be driven higher over time.

The *Gas Substitution Roadmap (update)* also outlined plans for additional consultation. Consultation will be on the costs and benefits of requiring existing gas appliances in homes and relevant commercial buildings be replaced with electric appliances when the current appliance reaches end-of-life. The same consultation process will also consider options to progressively electrify all new and existing residential and most commercial buildings. This policy would apply to the broader customer base and would have an even stronger effect on gas consumption and disconnections.

¹⁷ Victorian households that use gas for space heating consume approximately double the amount of gas as those that don't. See [Residential energy consumption benchmarks - 9 December 2020 \(aer.gov.au\)](https://www.aer.gov.au/publications/Residential-energy-consumption-benchmarks-9-December-2020) (accessed 17/09/2024)

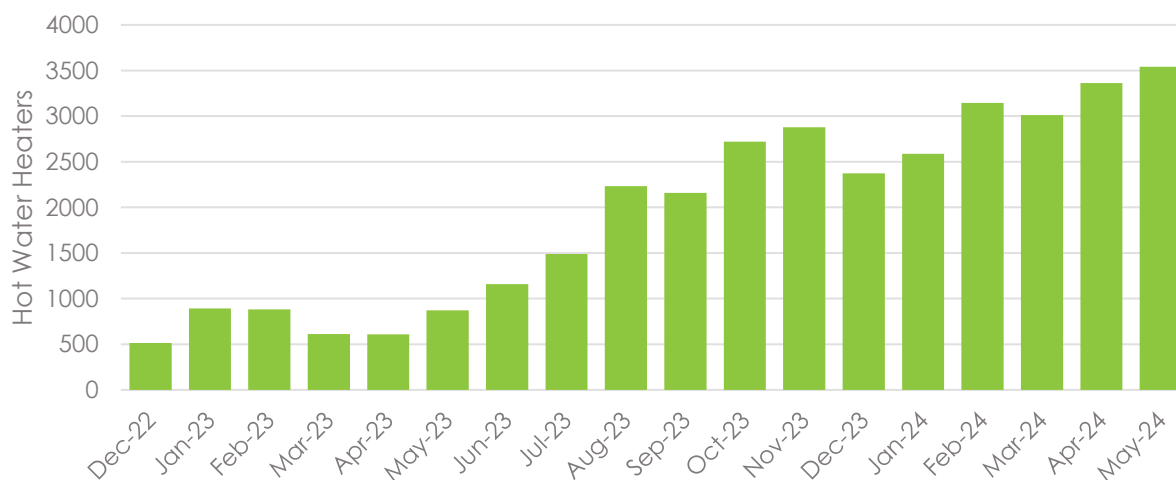
A.1.1.1. Expanded scope and rapid take-up of electrification incentive programs

Hot water, in combination with heating, makes up most residential gas usage. While technologies such as electric heat pumps have been around for a while they are increasingly seen as a viable alternative to gas. The rapid uptake of these technologies recently is a direct result of government policy and will materially reduce gas demand.

Recent programs incentivising the electrification of households and small businesses since the last AA include:

- Recent changes to Victorian Energy Upgrades program have had strong uptake. As of June 2023, introduction of incentives to replace gas hot water with heat pumps there have been ~5,800 and for high efficiency air-conditioners ~3400 activities registered under the Victorian Energy Upgrades program within our gas distribution area to date.¹⁸
- A Homes Victoria program to progressively electrify its social housing stock which will mean approximately 5,000 houses are fully electrified in the next few years.
- The Solar Victoria Programs – \$10m Residential Electrification Grants program to entities providing installations to more than 50 new or existing homes, including builders, property developers, energy retailers launched in September 2023.¹⁹
- The State Electricity Commission (SEC) released its strategic plan as of October 2023. With investment in renewable energy to accelerate the energy transition and households by developing products and solutions to support the switch to all-electric key pillars of its strategy. SEC intent is to reduce the complexity in switching to all-electric barriers and note their plan to encourage more households to switch by offering simple pathways and solutions to help.²⁰ Recently, in partnership with AusNet, the SEC has commenced an electrification trial in Ballan to determine gas demand management through appliance switching can be used as an alternative to a gas supply augmentation in the town.
- The Solar Homes Program which provides rebates and loans for energy-efficient products. The success of which is demonstrated through take up of electric hot water appliances has been rapid with more than 30,000 gas hot water heaters swapped out in the last 12 months.

Figure 3 Solar hot water rebates



Source: Solar Victoria

3.1.1.5. 2024 GSOO Outlook

Australian Energy Market Operator (AEMO) in its 2024 Gas Statement of Opportunities (GSOO) noted policy incentives to limit future gas connections are expected to increase the rate of electrification of residential and commercial customers. In accounting for the rapid electrification scenario, it noted a key driver is 'gas to electric appliance switching' with most electrification of natural gas demand projected to occur in the residential and commercial sectors, driven by switching gas heaters in homes to electric heat pumps. Victoria's current gas use is predominantly for space heating, which increases consumption particularly in winter.²¹

¹⁸ Count of Victorian Energy Upgrades program activities in AusNet distribution area as of July 2024. See [VEU Registry \(veu-registry.vic.gov.au\)](https://veuregistry.vic.gov.au) (accessed 30/07/2024)

¹⁹ See [Home electrification rebate flooded with interest as gas exodus gears up - One Step Off The Grid](#) (accessed 1/08/2024)

²⁰ See [SEC-Strategic-Plan.pdf \(secvictoria.com.au\)](#) (accessed 1/08/2024)

²¹ See [2024 Gas Statement of Opportunities \(aemo.com.au\)](#) (accessed 1/08/2024)

3.1.2. We are already seeing a reduction in customers expected to connect to gas

When our previous AA proposal was made, new connections had reached a consistently high level off the back of record 2021 applications for reticulation. Since the connection ban announcement, there has been a significant change observed on our network.

Applications for reticulation relate to new estates whereby gas mains are required to be laid down the streets. It is an early step in a ~12-18-month process of connecting a new customer – with subsequent steps occurring once the pipes are laid, houses are built, and the customer makes a choice to connect their property to the mains with a service line. New estate developments consist of the majority of the growth in our network. This means in the upcoming few years we would be anticipating a similar large drop in in new connections. The latest policy changes will further bear down on these trends.

- Applications for reticulation – the start of the connections pipeline – has been weakening for the past two years. With a cumulative reduction of approximately 70% from 2021 numbers.
- Service connection requests – where the service line is laid to the property near completion of construction – have been weaker throughout this year, and weekly monitoring suggests a clear downwards break from historical trends has started.
- Meter fix requests – the final stage in the process of connecting to the gas distribution network. These figures have stayed stable reflecting the time between applications and connection however latest figure observed in meter fixes show the start of a downward trend.

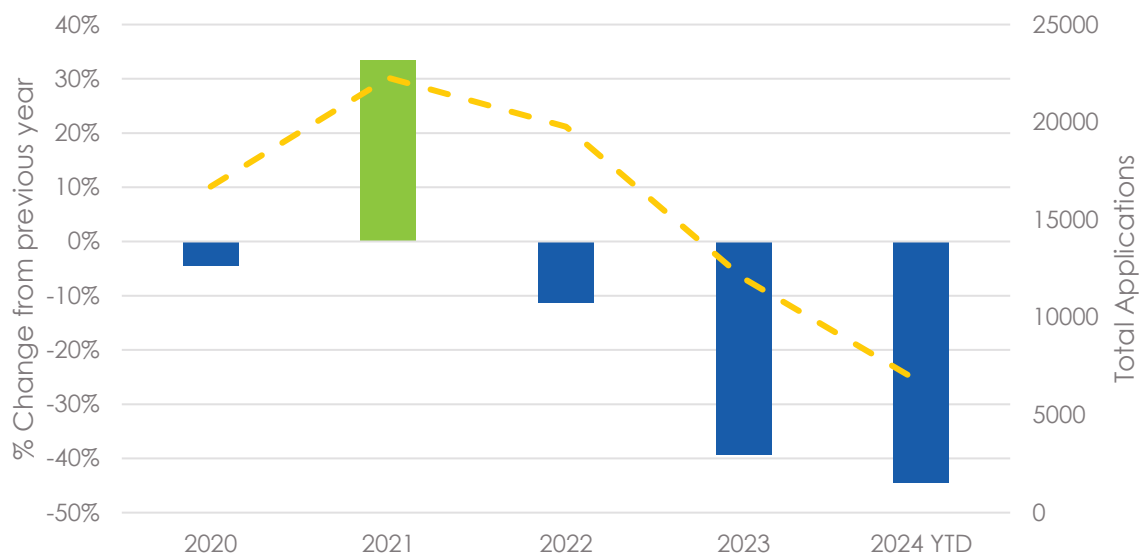
Table 4 The connection lifecycle (key indicators)

TYPE	YTD CHANGE
Applications to reticulate a residential estate	-44%
Service Connection Requests	-17%
Meter Fix (finished connections)	-0.4%
Service disconnection requests	25%

Source: AusNet – YTD comparison against 2023 as of 13 September 2024

This step change reduction in customers looking to connect is evident when comparing current connection applications against historical averages. Our 2023 application and 2024 figures have dropped off significantly when compared to the number of lots in 2021.

Figure 4 Connection applications (number of lots)

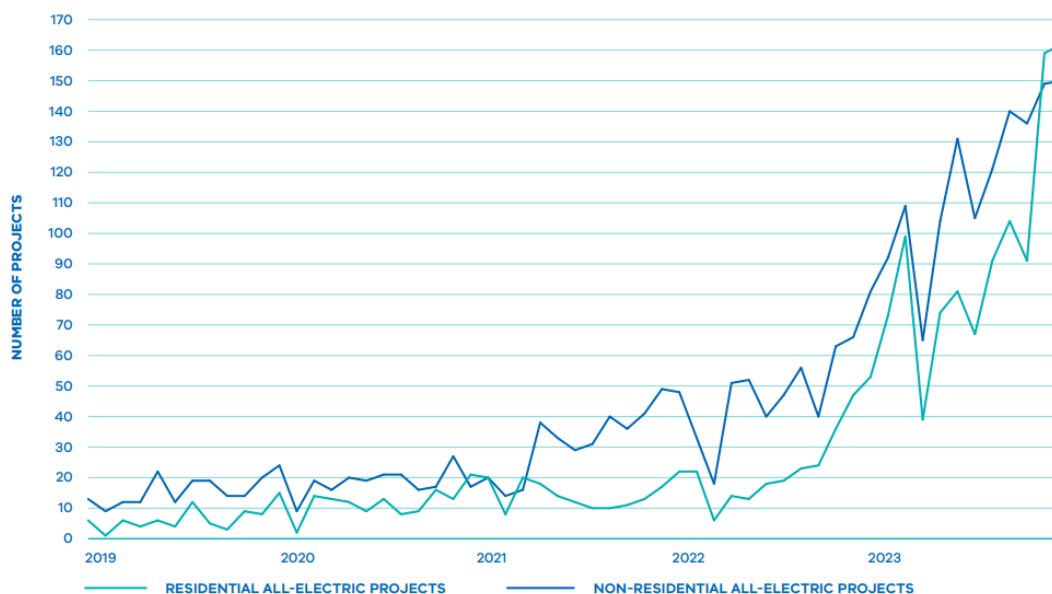


Source: AusNet

While the drop in applications is likely also related to weak construction in this period, a recovery is highly unlikely. This means, unlike in other periods whereby a housing downturn may reverse the trends in customer growth as the market recovers, the impacts of policy and regulatory changes effectively place a break on the relationship between these variables.

This break in gas connections and housing developments is also evident in Victorian government analysis of development approvals data (see Figure 5 below). The Victoria Planning Provisions and all planning schemes changes in August 2022 to remove requirements for developments to be connected to reticulated gas. Since then, the number of residential and commercial developments committing to build without a gas connection has risen dramatically.²²

Figure 5 Developments committed to build without a gas connection



Source: Gas Substitution Roadmap (update) based on an extract of Built Environment Sustainability Scorecard data from 35 Victorian councils from 2019 to August 2023 cleaned, aggregated and provided upon request for the purposes of the Gas Substitution Roadmap bess.net.au

This data does not reflect the requirement that new homes requiring a planning permit will have to be all-electric from 1 January 2024.

²² See [Victoria's Gas Substitution Roadmap \(energy.vic.gov.au\)](https://energy.vic.gov.au) (accessed 25/07/2024)

4. Customer and stakeholder engagement

4.1. Key points

Our engagement for this targeted variation has focussed on:

- Gathering the information needed to understand changing customer and market behaviours and sentiment, including in response to but not limited to the policy and regulatory changes outlined in Chapter 2, and
- Engaging on the more detailed inclusions in this Variation Proposal. That is, how we respond to the previous point and flow this and other contextual factors through our capex and opex plans.

While this Variation Proposal is narrow in scope, our research and engagement has been extensive. Given only 18 months have passed since we were engaging on our 2023-28 proposal, we have been able to draw most of our Gas Roundtable members back to discuss this variation. We have complemented meetings of the Roundtable with one-on-ones with consumer groups and industry associations, and meetings of industry associations' members, plus leveraging business-as-usual research and engagement activities to prepare a robust and informed Variation Proposal we are confident reflects and responds to customer and stakeholders' interests and concerns.

In particular, the proposal for higher accelerated depreciation in response to our materially changed operating environment helps deliver on customers' need and desire for price stability over time, and reduces the risk of renters, customers in financial hardship and large industrial customers unfairly bearing greater future risk – an approach we know has the support of large gas users and consumer groups.

4.2. Our engagement activities

AusNet's Variation Proposal reflects the material changes to policy and regulation made since the start of the access arrangement period, discussed in Chapter 2. Noting the limited scope of the Variation Proposal, our engagement has focussed on appropriately and meaningfully:

- Monitoring customer sentiment on gas electrification intentions and actions
- Monitoring actions and intentions of the residential estate development and homebuilding sector on the mix of fuels going into new residential estates
- Monitoring customer experiences with the current cost-of-living crisis and its impacts on electricity pricing preferences
- Engaging with customer advocates and the industry on how we account for changes in the operating environment in this Variation Proposal.

Since we submitted our revised proposal in early 2023, AusNet has continued engaging with customers and other stakeholder groups through a variety of activities to a) monitor gas customer and market sentiment and/or b) engage specifically on our Variation Proposal.

4.2.1. Monitoring changing customer and market behaviours and sentiment

We have been keeping abreast of customer and market behaviours and sentiment since we submitted our Revised Proposal to the AER in January 2023. The research and engagement we've undertaken has enabled us to understand the implications of the policy and regulatory changes in Chapter 2 for our business, reconcile their fit with the AER's Final Decision and our AA for 2023-28, and inform the engagement we've undertaken with customer advocates and stakeholders on the details of this Variation Proposal. Our monitoring activities have included:

- **Our bi-annual Energy Sentiments survey**, through which we track gas electrification intentions and actions via a survey of 400 households and businesses on the AusNet gas network. We do likewise for our electricity distribution network which provides added visibility for Victoria-wide sentiment and gives additional confidence in trends observed. The Energy Sentiments surveys include questions on other topics such as customers' priorities, perceptions of AusNet and our performance, appliance ownership and energy behaviours. Noting our study is more representative of AusNet's customers base, Energy Consumers Australia's (ECA's) Sentiments and Behaviours surveys provide a useful cross-reference to Victorian and national averages. Many of the questions we ask are the same as or similar to questions in ECA's surveys and their survey's findings are broadly consistent to ours, where comparisons are available.
- **Our Customer Satisfaction (C-SAT) monitoring program**, which involves phone surveys of AusNet gas customers each month on their satisfaction with service received during a planned or unplanned outage, new connection, or complaint interaction.
- **A survey of Victorian greenfield property developers and their consultants** on gas reticulation plans and forecasts for new residential estates, with key findings referenced in 3.1.1. This study was an update on the study undertaken for our Final Proposal in late 2022, and again we had a very strong response rate from the property development sector.
- **Engaging with our Developer Consultative Committee** to prepare for and debrief on to the results of the survey to ensure we were interpreting the results of the above survey correctly.
- **Deep engagement on energy futures with Victorian customers for Electricity Distribution Price Reviews 2026-31**. AusNet along with the 4 other Victorian electricity distribution networks – Citipower, Jemena, Powercor and United Energy – have been engaging extensively with customers as they prepare their EDPR 2026-31 proposals. Networks are receiving consistent feedback on gas electrification, and all are planning for steady electrification of homes and businesses. The conversations being had through EDPRs have helped maintain our understanding of customers' plans. AusNet's gas distribution network closely overlaps with the Jemena and Powercor electricity distribution areas.

4.2.2. Engaging on the details of our Variation Proposal

We have undertaken targeted engagement on our Variation Proposal via:

- **Meetings of our Gas Roundtable**. We re-convened stakeholders and customer advocates involved in the Victorian Gas Networks Stakeholder Roundtable for our initial and revised Proposals, which had last met in March 2023. We tested this approach with our Customer Consultative Committee and the AER, who both felt it was appropriate and important to use the same group for the Variation Proposal, given their knowledge of the proposal case, and the targeted nature of the Variation Proposal not warranting a ground-up re-design of the engagement approach.

Our meetings have been extremely well-attended, with each meeting attracting between 17 and 21 people (plus the AusNet team and AER observers). Roundtable members were generally unsurprised that AusNet is proposing a variation as Victorian government's delays in releasing key gas policies and the possibility of re-opening were discussed extensively in earlier engagement.

The following organisations are represented on the Gas Roundtable, and were invited to all meetings, received all materials and were invited to participate and comment in- and out-of-session:

- | | |
|--|--|
| • AGL | • Lumo Energy |
| • Alinta Energy | • Master Plumbers' Association |
| • Australian Energy Council | • Momentum Energy |
| • Australian Industry Group (Ai Group) | • Municipal Association of Victoria |
| • Brotherhood of St Laurence | • Property Council of Australia |
| • Department of Energy, Environment & Climate Action (DEECA) | • Red Energy |
| • Perpetual Energy | • Sumo Energy |
| • Energy Australia | • Tango Energy |
| • Energy Consumers Australia | • Urban Development Institute of Australia |
| • Energy Users' Association of Australia | • Victorian Council of Social Services |
| • Energy & Water Ombudsman of Victoria | • Vinnies |
| • Ethnic Communities' Council of Victoria | • Weston Energy |
| • Grattan Institute | • 1 st Energy |

The Gas Roundtable met 3 times through this variation process. Details of the 3 meetings are below, and meeting summaries and slide packs are available on Community Hub.

- **Meeting #1 – 16 July 2024** | The focus of this meeting was:
 - Sharing the rationale for re-opening and presenting the evidence AusNet had gathered on the changes in our operating environment. We sought feedback from the Roundtable on whether the evidence was in line with what they are seeing and whether they thought it justified reopening. No members had refuting evidence and several commented that it is in line with the trends they are recording and what they are hearing anecdotally. There was clear support for re-opening the proposal.
 - Sharing the aspects of our proposal that we thought warranted re-opening. There was no disagreement with the aspects of the proposal AusNet put forward for updating in the Variation Proposal, being demand forecasts, accelerated depreciation, the ESV levy and specific aspects of capex and opex impacted by demand forecasts and gas code changes. A stakeholder requested AusNet seek to re-open the AER's Final Decision to socialise gas abolishment costs but ultimately it was decided this be excluded given the limited scope of the Variation Proposal.
 - The proposed engagement ahead of AusNet submitting its Variation Proposal, which was supported with the addition of another Roundtable session, taking the total to 3. This extra session was added to allow for more detailed discussion on the proposal, with an invitation to stakeholders to meet separately if they wished to go into more detail on specific aspects and/or talk in more detail about what it means for customers or their industry sector. Several groups took us up on the offer. In response to feedback AusNet also added charging connecting customers for network augmentation to the agenda for Meeting #3.
- **Meeting #2 – 7 August 2024** | The focus of this meeting was:
 - Sharing and discussing AusNet's demand forecasts in more detail. There was a lot of discussion on various trends and clarification on many aspects of the demand forecasts, but participants did not raise any issues that required changing the demand forecasts presented.
 - Sharing the capex and opex implications in more detail for feedback. Again, there was robust discussion on this, but it was primarily focussed on building participants' understanding and confirming that AusNet had accounted for considerations that were top-of-mind for them. The issue of contributions towards augmentation capex was raised and a specific session added to meeting #3 for AusNet to respond.
 - Responding to requests for more information (taken as action items in meeting #1) on call centre trends and gas abolishments.
- **Meeting #3 – 27 August 2024** | The focus of this meeting was:
 - Sharing AusNet's accelerated depreciation plan and its bill impacts for feedback. There was limited discussion on this item, which surprised us given the materiality of this topic, with only 2 Roundtable members expressing views (though several more asked clarifying questions). One Roundtable member said AusNet should not plan for a decline in the network given the exact timings and arrangements for customers electrifying and decommissioning the network are uncertain. Another Roundtable member countered the uncertainty is a very good reason to act now, and not acting increases the risks to vulnerable customers in the future, and that we need to find an equitable solution for all customers. Given the limited discussion, AusNet undertook additional out-of-session meetings to speak with Roundtable members and their members/organisations in more detail, to ascertain views.
 - Sharing augmentation expenditure plans in more detail, following a request for this at Meeting #2. Stakeholders did not share any concerns with the material presented but did ask several clarifying questions.
 - Sharing options for charging connecting customers for upstream augmentation, which was added at the request of a stakeholder. There was significant discussion on this item, and a variety of views expressed for each of the 3 options presented. There was no clear preference reached, so again AusNet took this as an action to speak with people in more detail on separately if they wished and encouraged participants to consider it further and share views via the AER's public consultation process on this Variation Proposal. Based on the lack of clear consensus, AusNet has proposed an approach to charging for upstream augmentation and is happy to continue engaging on this going forward.

After these meetings a modelling error was discovered and after consultation with key stakeholders the slides were updated for the corrected numbers and re circulated. Arguments and conclusions were unchanged by these revisions.

- **Meetings with specific stakeholder groups to talk about our Variation Proposal** have also been held, to allow groups to speak in more detail, or with a smaller or more targeted audience, about aspects of the proposal that are important to them. We have met with the following groups to discuss and seek feedback on this Variation Proposal:
 - Grattan Institute
 - Energy Consumers Australia
 - Energy Users' Association of Australia (EUAA)
 - The EUAA's Gas Committee of large gas users
 - The Australian Energy Council's Retail Working Group
 - Social service organisations and advocates (arranged by Brotherhood of St Laurence [BSL]). Attendees included BSL, IEEFA, Financial Counsellors Victoria, First Nations Clean Energy Network, Rewiring Australia, Environment Victoria, Grattan Institute, Council on the Ageing, Anglicare, Victorian Council of Social Services, South Australian Council of Social Services, ACT Council of Social Services and independent advocates.
- **Engagement with retailers on implementing upfront connections charges** have also been held to consult on the specific details of the implementation of the connection charges. These meetings were held jointly with AGN and MGN representatives to deliver a consistent industry message. These meetings focused on clarifying the processes and coordination that was needed between retailers and distribution businesses.

We have been actively encouraging all groups we've met with to provide submissions to the AER via its public consultation process and understand many intend to do this.

4.3. Customer & stakeholder feedback and how our proposal responds

4.3.1. Customers want prices to be predictable and stable over time

For our revised proposal in the original AA Review, AusNet undertook a detailed survey to understand customers' preferences on how costs are spread over time. A detailed overview of this study is included in our Final Proposal for the 2023-28 period.

The key findings of this study were:

- Customers care about bill predictability and smoothness over time, and those who are impacted by the cost-of-living crisis even more so.
- Customers' preference for long-term price stability over short-term price relief if short-term price relief means pushing costs to a later time.
- These trends hold across all demographic groups, including the key indicators of vulnerability tested. Further evidence indicates that bill predictability over time becomes more important when customers are struggling to afford their bills, as forecasting bills accurately is important for managing household budgets.

The study was undertaken in December 2022 against the backdrop of the cost-of-living crisis still underway, and what was at the time significant media attention and community angst about future gas supplies and prices, which has since eased slightly as world energy markets have recovered from the shock from the invasion of Ukraine.

We believe the findings to still be current so have not replicated the full pricing study for this Variation Proposal, but have been monitoring for any changes in sentiment on price paths findings via:

- some informal "sense checking" with social service organisations, and
- tracking some key questions asked in the December 2022 study in our ongoing Energy Sentiments survey.

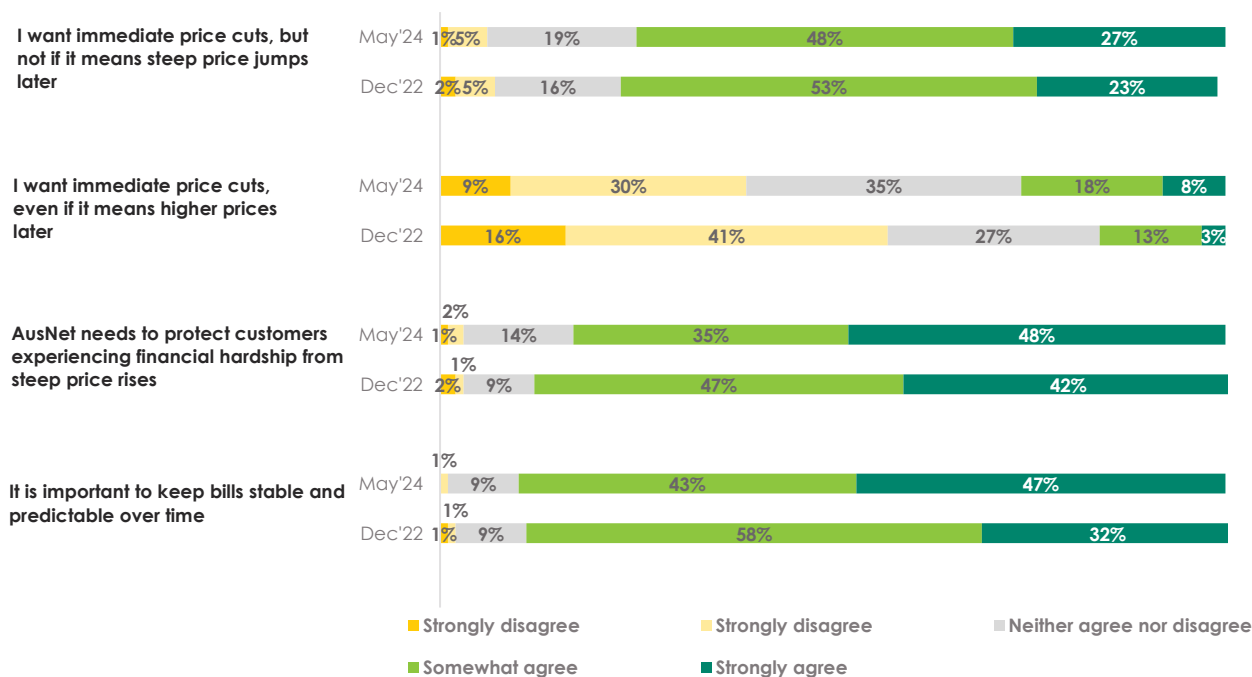
The data from our most recent Energy Sentiments wave in May 2024 is compared to the data from our December 2022 study below. There is variously some softening and strengthening of sentiment across questions

but it is clear that the preference for stability in pricing holds true. We also examined variations in this sentiment across demographic groups and found a strong relationship between customers' self-assessment of the impact of the cost of living on their household and the importance they place on keeping bills stable and predictable over time, which aligns with the December 2022 survey. Households that reported feeling a significant impact from the cost-of-living crisis were more likely to agree with the following statements:

- 'It is important to keep bills stable and predictable over time' (91% agree, 0% disagree, compared to 92% agree, 2% disagree in 2022).
- 'We need to protect customers experiencing financial hardship from steep price rises' (89% agree, 3% disagree, compared to 92% agree, 2% disagree in 2022).
- 'I want immediate price cuts, but not if it means steep price jumps later' (81% agree, 5% disagree, compared to 80% agree, 6% disagree in 2022).

In contrast, customers who reported no impact from the cost-of-living crisis had considerably lower agreement levels, at 79%, 63%, and 58% for these statements, respectively.

Figure 6 Household and businesses' views on gas pricing in December 2022 vs May 2024 have remained broadly consistent



How our proposal addresses this feedback

Much higher gas distribution charges are inevitable as electrification proceeds. Our Variation Proposal responds to AusNet customers' need for long-term price stability by proposing reasonable accelerated depreciation – in line with what the AER is approving for other networks but significantly below the level of actual risk to reflect affordability concerns. More stable recovery of AusNet's Regulatory Asset Base (RAB) helps protect customers against steeper, future price-rises later which would disproportionately disadvantage those with least ability to control and pay for their energy bills.

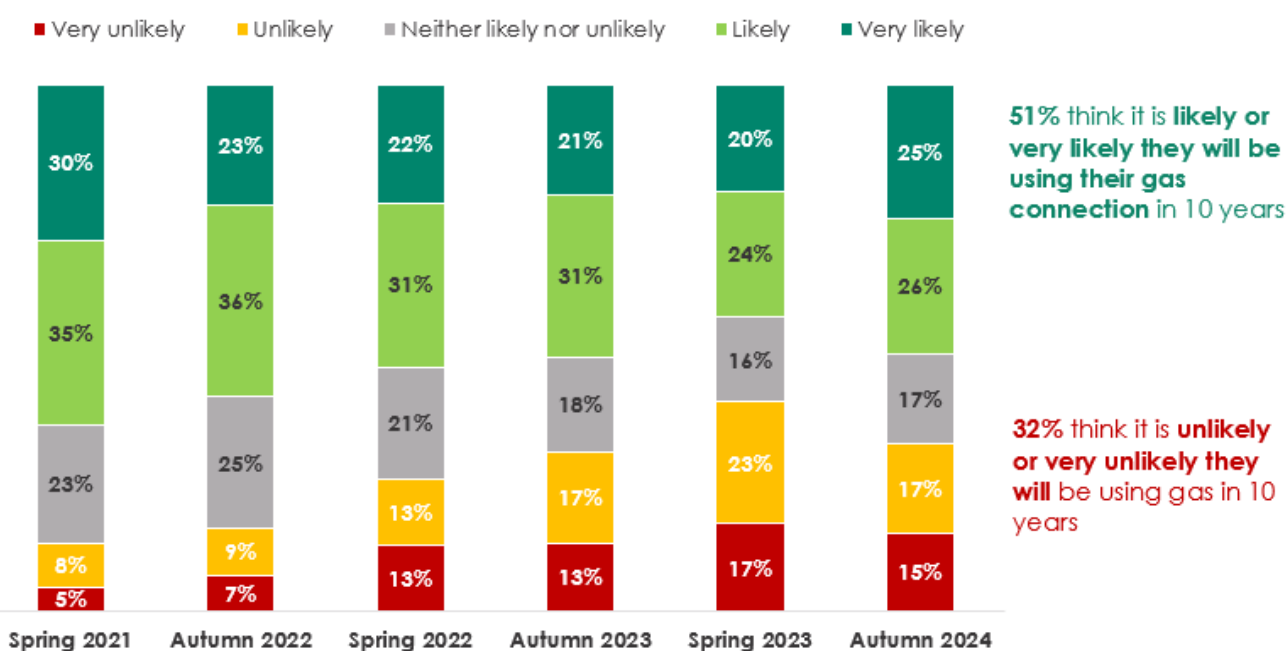
4.3.2. Many customers are planning to go all-electric and have started taking steps

We have seen a steady rise in the proportion of customers expecting to be off gas in 10 years' time since we started tracking their intentions in Spring 2021. The last wave, in Autumn 2024, showed a slight drop for the first time, which our data suggests may be due to:

- Concerns about moving to a single fuel following the major outage event Victoria experienced in February 2024 and widespread media coverage on electricity supply shortages at the tail-end of fieldwork in May 2024, following the release of AEMO's updated 2023 Electricity Statement of Opportunities. Our Energy Sentiments tracker showed that wanting gas as a back-up option in case electricity jumped from fourth biggest barrier to electrification to the second, below customers' preferences (1) for gas but above not seeing any benefits to switching (3) and the cost of switching (4)
- Households and businesses recognising electrification will likely be a gradual process for them (rather than replacing gas appliances in one fell swoop), at least in the earlier stages, with 7 in 10 expecting a gradual swap-out. While customers are starting the electrification journey, it may take longer than some initially thought.

Figure 7 Household and business premises owners' intention to stop using mains gas has risen over time, dropping slightly in the latest wave but remaining above Autumn 2023 levels.

Q. In 10 years' time, how likely are you to be using the gas connection at your house/business?



In our Spring 2023 wave we started tracking what customers what replace an existing gas appliance (that they had told us earlier in the survey they had) with if it stopped working today – another gas appliance or an electric alternative. The findings have been consistent across both surveys with the vast majority of customers (between 70-90% depending on the appliance) foresee themselves selecting an electric option. This holds true for all mains gas appliance types we tested, from instantaneous gas hot water to gas cook tops, to ducted gas heating.

Furthermore, we've seen a rise in customers taking steps toward electrification. Of the roughly 1 in 3 home/business owners who think it unlikely they'll be using gas in 10 years' time, those researching gas-free homes was up 11% in the 12 months to Autumn 2024 (to 21%), enquiring about disconnection up 7% (to 13%) and those who've started proactively replacing gas appliances with electric ones up 14% (to 28%).

This sentiment and intentions research is backed up by data we've received from the Victorian Government on the take-up of appliance switching subsidies.

How our proposal addresses this feedback

We haven't used our customer research directly in our modelling – we've relied on independent forecasts of gas electrification – but it has been a very valuable source of information for understanding trends we are observing (such as those in 3.1.2) and validating independent data sources against customer insights.

Our proposal demand and customer number forecasts reflect customer intentions and actions. We cut opex and capex accordingly to match these intentions and prevent customers paying for investment that is not needed.

In addition, AusNet is engaged in several trials of electrification with the SEC and DEECA and working with Homes Victoria on bulk abolishment processes for their social housing electrification program.

4.3.3. Commercial and industrial customers' views vary, but given many expect to be among the last to disconnect, they support reasonable recovery of the Regulatory Asset Base

AusNet has engaged with the Energy Users' Association of Australia (EUAA) as members of our Customer Consultative Committee, Gas Roundtable and via one-on-one meetings. We also met with commercial and industrial customers through the EUAA's Gas Committee Meeting on 15 August 2024. The purpose of this meeting was to help large gas users understand AusNet's proposal and hear their feedback on it.

It is now widely understood and accepted that large gas users' needs of energy networks through the transition to net-zero are highly varied, depending on their use cases and options they have to decarbonise, economic considerations such as how confident they are that they will still be operating in the near-to-medium-term, the replacement life of their plant, and many other factors.

As is the case for renters and households and businesses with lower capacity to pay, many commercial and industrial customers expect to be among the last customers connected to and reliant on the gas network. We understand the majority of commercial and industrial customers are uncomfortable with this risk and support or are likely to support reasonable recovery of AusNet's RAB in the near term. We know some large gas user representatives want lower prices today and are willing to wear the risk of higher prices later though we believe this is a minority view largely limited to those who don't see a long-term future in Australia and/or are in roles where they are motivated to obtain lowest-possible short-term prices for their employers.

How our proposal addresses this feedback

Our Variation Proposal responds to large gas users' preferences by planning for prudent recovery of the RAB to reduce the future risks to them. This helps reduce the risk they will be burdened with the future cost recovery of parts of the network largely built to service residential and small commercial customers.

A number of large gas users said they intend to provide submissions to the AER's public consultation process.

4.3.4. Consumer groups & social service organisations

Consumer advocates' priorities vary but the key ones raised during this process were:

- Supporting decarbonisation of the energy system
- The importance of early planning to minimise negative impacts on households and small businesses less able or unable to electrify their gas consumption
- Responsible recovery of the RAB – who pays, how much and when – and the role of government (if any).

We heard general support from advocates for AusNet's position that faster recovery of RAB via accelerated depreciation comes with the responsibility of not worsening stranded asset risk through discretionary capital and renewable gas expenditure.

Discussion on keeping costs down also covered potential to re-purpose gas infrastructure, and rebalancing of tariffs between residential, commercial and industrial customer classes.

Many are working to develop their organisation's positions on gas regulatory arrangements as household usage declines and found value in the information we provided.

How our proposal addresses this feedback

Our proposal directly addresses all the key issues raised by consumer groups, except for rebalancing tariffs which we think best addressed via the full access arrangement process rather than this limited-scope reopener. We expect several customer advocates to provide submissions via the AER's public submissions process.

4.3.5. The property development and home building sectors are responding to government policies and changes in public sentiment

The greenfield property development and home building sectors have been materially impacted by the Victorian government's new regulations and policy changes and feel the future for the fuel mix they are putting in now much more certain. Where uncertainty exists, it is largely around what will happen for projects in-train, for example whether homes will connect into the gas pipes that have been laid, or whether future stages of existing projects will be dual-fuel or all-electric with respect to how the regulations are applied and changing customer and stakeholder sentiment. There is no discussion on whether new estates and new properties, or buildings undergoing major renovations, will be connected to gas in the medium-term – the sector understands and is planning for all-electric buildings. This is captured in more detail in Section 2 above.

While not engaged on in detail, we expect the property sector to strongly oppose greater up-front charges for properties connecting to the gas network, e.g. to pass on the cost of upstream network augmentation.

Brownfield property developers' views and intentions have not been explored in detail through our engagement, but the Property Council of Australia, along with the Urban Development Institute of Australia, are represented on our Gas Roundtable.

How our proposal addresses this feedback

Information provided by the property sector have been fundamental to the updating of our demand forecasts and have flowed through the capex and opex sections in this Variation Proposal.

Note 5.5. outlines our approach to upfront charging, which we don't expect all developers and the home building sector to support.

We have encouraged the property sector to provide submissions to the AER's public submissions process.

4.3.6. Retailers

A range of retailers have actively participated in our Gas Roundtable meetings, and we separately met at their invitation with the Australian Energy Council's Retail Working Group.

While attitudes toward our proposal among retailers varied, most engaged only by asking clarifying questions. One retailer expressed views opposing our proactive preparation for declining customer numbers, but we believe this view is an anomaly among retailers.

How our proposal addresses this feedback

Retailers' views where expressed are all captured in the Gas Roundtable summaries above. We have encouraged and expect a number of retailers to provide submissions via the AER's public consultation process.

5. Changes to our forecasts

5.1. Key points

- We are proposing revenue of \$1,360.1m, which is 7.2% (\$90.8m) higher than outlined in the Final Decision.
- We have maintained all elements of the AER's Final Decision including (demand, capex, opex and the incentive schemes) for the first two financial years of the regulatory period. All changes we have made are from the commencement of the third regulatory year, starting from 1 January 2026.
- We have revised the demand and customer number forecasts. As a result of the shifts in the regulatory and policy environment, our previous customer number forecasts are now materially wrong. Given the changes to the environment since the AER Final Decision, we are anticipating considerably fewer connections and lower demand with the trend towards electrification continuing to accelerate.
- We are proposing \$175m (net) in accelerated depreciation. This amount of accelerated depreciation delivers investors the protection from the increased stranding risk guaranteed by the regime and better meets customer preferences for price stability over the longer term, makes allowances for equity issues between current and future customers by not unduly placing the burden on future customers that may be either unwilling or unable to electrify. In doing so our proposed approach provides better protection for vulnerable customers and is more consistent with the NGO.
- While we welcomed the AER's previous decision accepting our approach to accelerated depreciation we consider the AER must reconsider the right balance between short- and long-term price paths and recognises the increasing stranding risk on our investment
- Capex has been reduced to reflect lower connections forecasts and lower augmentation expenditure. Additionally capital contributions have been increased, reflecting the upfront connection charges, which further reduces the net capex.
- Overall, our opex forecasts have increased. This is a combination of:
 - Reductions in our opex forecast due to lower output growth parameters
 - We are proposing to recover higher ESV levies through an additional step change. We have also made adjustments to reflect the changes to forecast abolishments as a result of the new demand forecasts.
 - Increases in the cost of socialising abolishments as a result of a higher abolishment volumes.
- We have proposed an upfront capital contribution to implement the upfront connection charges as required by the new *Gas Distribution Code of Practice*. These tariffs are required to take effect by 1 January 2025.

5.2. Forecasts of demand and customer numbers

We developed an independent view of network demand forecasts in our network for the access arrangement period by engaging The Centre for International Economics (CIE). In 2021, CIE prepared forecasts for the 2023 to 2028 Gas AA Review period. CIE has updated its forecasts for 2024 to 2028 based on the latest available information.

5.2.1. Approach

CIE's approach to forecasting demand has been performed using the following high-level approach:

1. A customer number forecast is developed. This is based on 2023 customer numbers, which projected forward as follows:
 - a. New connections added. This is based on dwelling growth projections and assumptions about how many of these new dwelling will connect to the gas network. All connect to the network. This marginal penetration rate has been adjusted downwards to account for the recent policy changes.

- b. Disconnections are removed. This has been based on historical levels, with an escalation applied for expected growth in disconnections.
- 2. A usage per customer forecasts is developed. This is based on 2023 usage per customer, which projected forward as follows:
 - a. Weather normalised to convert 2023 into an 'average' year of consumption.
 - b. Usage per new connection (less than older connections) and usage for existing connections is calculated.
 - c. An econometric model is used to project usage per customer, which incorporates projections of wholesale gas prices and expected trends in weather.
 - d. Additional adjustments to account for electrification applied (based on the 2023 GSOO).
- 3. The customer numbers and usage per customer are multiplied together to get a forecast of total consumption.

Details information on CIE's forecasting methodology and the key assumptions that input into it are set out in Appendix A.

5.2.2. Results

AusNet's customer numbers have been revised downwards compared to the AER Final Decision and demand forecasts are also lower. Table 5 below shows a comparison of the Variation Proposal against the AER Final Decision. Residential customer numbers are reduced by 28,204. Residential customers comprise approximately 96% of our revenue and the fixed daily charge comprises over 50% of the revenue we receive from residential customers. As such, the reduction in the residential customer forecast has a significant impact on the validity of our demand forecasts.

Table 5 Residential customer numbers

	2023-24	2024-25	2025-26	2026-27	2027-28
Final Decision	781,161	792,591	802,844	808,824	812,193
Variation Proposal	781,161	792,591	791,983	789,892	783,990
Change from Final Decision to Variation Proposal	-	-	-10,861	-18,932	-28,204
Change from Final Decision to Variation Proposal (%)	-	-	-1.4%	-2.3%	-3.5%

Source: AusNet

Table 6 Residential gas consumption

	2023-24	2024-25	2025-26	2026-27	2027-28	Total
Final Decision	30,595,873	30,156,233	29,338,860	27,941,877	26,044,333	144,077,177
Variation Proposal	30,595,873	30,156,233	29,101,067	27,927,869	26,467,216	144,248,260
Change from Final Decision to Variation Proposal	-	-	-237,793	-14,008	422,883	171,083
Change from Final Decision to Variation Proposal (%)	-	-	-0.8%	-0.1%	1.6%	0.1%

Source: AusNet

5.2.3. Consequential Impacts of changing forecasts

5.2.3.1. Capex forecasts

We are forecasting total gross capital expenditure (capex) of \$461.6m for the forthcoming access arrangement period. This 8.5% (\$41.8 m) below the capex approved in the current AA and reflects updates to the following areas of our proposal given the changing forecasts:

- Connections capex – reflecting the reduction in gross connections
- Capital contributions – reflecting additional capital contributions as a result of the upfront connection charge
- Planned augmentation works – reflecting the proposal to delay a portion of our planned augmentation works to the next regulatory period or potentially indefinitely.

We have maintained the Final Decision in relation to capex expenditure and only made the changes necessary to reflect the updated forecasts. Growth in customer numbers is the key driver of the new customer connections capex forecast. Similarly, augmentation projects are driven by the gas throughput forecast.

5.2.3.1.1. Connections Capex

In the Final Decision, we were approved \$187m (gross) or 37% of our capex in connecting new customers.

From 1 January 2025 we are now required to charge an upfront charge to customers under the revised Gas Distribution System Code of Practice (version 1), whereas previously we would apply an economic feasibility test, resulting in free upfront connections for the majority of residential customers.

There are two major adjustments we propose to make to connections capex in response:

- Gross Connections Capex falls by a further \$38m to reflect our changed expectations around new connections. This reflects our revised connections forecasts.
- Capital contributions rise to equal 100% of connections costs by 2028, with an additional \$17m being received. This reflects our expectations there will be a lag before there is full cost recovery noting a portion of our connections pipeline (those that have applications in prior to 31 December 2024) will not be subject to the upfront connection charge.

Table 7 Connections capex (\$m June 2023)

Regulatory year	2023-24	2024-25	2025-26	2026-27	2027-28	Total
Connections Capex - Final Decision	46.7	43.2	38.5	31.5	27.2	187.0
Capital Contributions – Final Decision	8.5	11.1	13.5	14.2	13.8	61.1
Net Connections Capex – Final Decision	38.2	32.1	25.0	17.3	13.4	125.9
Connections Capex – Variation Proposal	46.7	43.2	25.1	19.1	14.8	148.9
Capital Contributions – Variation Proposal	8.5	11.1	24.2	19.1	15.0	77.9
Net Connections Capex – Variation Proposal	38.2	32.1	0.9	0.0	-0.2	71.0
Net Connections Capex - Difference	0.0	0.0	-24.0	-17.3	-13.6	-54.9

Source: AusNet

5.2.3.1.2. Augmentation works

We were approved \$19.8m on our program. The majority of our expenditure was to comply with our ongoing regulatory obligations or was critical to maintaining the safety and/or integrity of our network.

We are proposing to delay a portion of our planned augmentations works – specifically at Werribee and the Bellarine Peninsula to outside the regulatory period. With the expected reduction in new connecting customers and demand forecasts a portion of this expenditure that is in relation to projected pressure issues (deemed necessary based on previous demand forecasts) can be deferred to outside this regulatory period.

These issues may still need to be addressed even with reduced overall demand as the nature of growth means some areas may be higher (or lower) than average. Our planned works program is required to maintain minimum pressure standards in areas where the usage of the network is increasing, in accordance with rules 79(2)(c)(ii), 79(2)(c)(iii) and 79(2)(c)(iv). Given these considerations we are not yet able to conclusively state that this augmentation work will not be needed in future regulatory periods, but indefinite deferral is a credible possibility.

Our approach to network planning and the CESS help us find the lowest cost option for network augmentation, and so are prudent and efficient in accordance with clause 79(1)(a).

Table 8 Augmentation capex (\$m June 2023)

Regulatory year	2023-24	2024-25	2025-26	2026-27	2027-28	Total
Final Decision	4.9	6.5	3.6	2.1	2.6	19.8
Variation Proposal	4.9	6.5	3.6	-	-	15.1
Difference	-	-	-	-2.1	-2.6	-4.7

Source: AusNet

5.2.3.1.3. Mains replacement program review

In the current period, we were approved \$132.3m on our mains replacement program. We note mains replacement programs are a key safety and reliability program and is critical to maintain and improve the safety of services, as required by rule 79(2)(c)(i)) As such, we do not consider that any changes to the Mains replacement program is necessary.

5.2.3.1.4. Adjustments to the capex program

These proposed changes to our gross capex forecast are outlined below in Table 9 below.

Table 9 Capex Costs - Comparison (\$m June 2023)

	Final Decision	Variation Proposal	Change
Mains replacement	132.3	132.3	-
Residential new customer connections	158.8	121.7	-37.1
Commercial and industrial new customer connections	28.2	27.2	-1.0
Residential meter replacement	25.6	25.6	-
Commercial and industrial meter replacement	8.1	8.1	-
Augmentation	19.8	15.1	-4.7
IT capex	72.0	72.0	-
SCADA	3.2	3.2	-
Other	56.3	56.3	-
Total Gross Capex	504.4	461.6	-42.8
Capital Contributions	76.8	93.6	16.8
Total Net Capex	427.6	368.0	-59.6

Source: AusNet

The net impact is that we forecast our capex forecast to decrease by \$59.6m or 14% compared to the AER Final Decision.

5.2.3.2. Opex

There are three adjustments we propose to make to opex:

1. **Decreasing output growth parameters** (customer numbers, mains length and energy throughput) compared to the AER approved forecasts.

2. **Adding a step change for increased Energy Safe Victoria (ESV) levies** imposed after the AER's Final Decision. This is discussed further in Recovery of the ESV Levy section.
3. **Adjustment for the differences in abolishment forecasts** given abolishment costs are socialised a change in these forecasts requires a corresponding opex adjustment.

We forecast our opex will increase by \$8.2m or 2.5% compared to the AER Final Decision as a result of these changes.

Table 10 Opex allowance comparison (Excluding ARS and DRC) \$m June 2023)

Regulatory year	2023-24	2024-25	2025-26	2026-27	2027-28	Total
Final Decision	67.3	68.5	65.7	64.8	64.6	330.9
Adjustment for growth parameters	-	-	-0.3	-0.6	-1.0	-1.9
Adjustment for ESV levy	-	-	1.7	1.7	1.8	5.1
Adjustment for abolishment forecast	-0.0	-0.0	1.8	1.7	1.5	5.0
Variation Proposal	67.3	68.5	68.9	67.5	66.8	339.1
Difference	-0.0	-0.0	3.2	2.8	2.3	8.2

Source: AusNet

5.2.3.2.1. Output growth parameters

We have adjusted our output growth parameters downwards to reflect our expectations of lower demand and customer number forecasts. In total these adjustments lower our opex allowance by \$1.9m. These adjustments are based on the revised demand and customer number forecasts provided by CIE.

5.2.3.2.2. ESV levies adjustment

We have calculated the step change (\$5.1m) by escalating our 2024-25 actual invoice by 3% year-on-year to arrive at our forecast for the period from 2024-25 to 2027-28. For the AER's Final Decision, the AER allowed us to recover the ESV levies through our base year allowance. As such, the step change is only the amount above the base year allowance. This adjustment is discussed in more detail in section 5.3 below.

Table 11 ESV Levies Step Change (\$m June 2023)

Regulatory year	2023-24	2024-25	2025-26	2026-27	2027-28	Total
Final Decision	0	0	0	0	0	0
Variation Proposal	0	0	1.7	1.7	1.8	5.1
Difference	-	-	1.7	1.7	1.8	5.1

Source: AusNet

* FY26-28 is estimated based on 3% budget uplift from FY25 as per the CY2025 annual budget. There was a 42% increase noted in FY24 from FY23, but it is not yet known as to whether this is a one-off uplift. Historically increases have been significantly above ESV forecast expectations.

We are required to make annual payments to the ESV in respect of its reasonable costs and expenses as determined by the relevant Minister (via a Levy Scheme). The rationale for including this as a step change allowance is discussed in Section 5.3

5.2.3.2.3. Abolishment forecast

A portion of the upfront cost for residential connection abolishment is paid by the customer with the remainder socialised across remaining gas customers. Most abolishment costs were moved from ancillary reference service tariffs to haulage tariffs which means that those costs, and the expected increase in the number of abolishments are

now reflected in the forecast revenue requirement with the differences between forecast and actual subject to a true-up.

As our forecasts for abolishments have been updated because of the Victorian government's policy to support electrification we need to adjust our opex forecasts. This will require a step change in the forecast opex allowance to reflect the difference in forecasts.

Table 12 Abolishment forecast opex allowance comparison (\$m June 2023)

Regulatory year	2023-24*	2024-25*	2025-26	2026-27	2027-28	Total
Final Decision	1.5	1.9	2.4	3.7	5.0	14.5
Variation Proposal	1.5	1.9	4.2	5.4	6.5	19.5
Difference	0.0	0.0	1.8	1.7	1.5	5.0

Source: AusNet

Calculation assumes an upfront customer contribution of \$220 for connection abolishment and shares the remainder between all customers.
* 2023-24 and 2024-25 have not been adjusted for actuals

5.3. Recovery of the ESV Levy

Section 8 of the *Electricity Safety Act 1998* (Vic) (ESA) requires us to make annual payments to the ESV in respect of its reasonable costs and expenses as determined by the relevant Minister (via a Levy Scheme).²³

The ESV responsibilities continue to increase as the energy transition continues as reflected in the substantial growth in funding required over time. Recent changes in the Victorian energy policy and law including the shifts towards renewable energy for hard to abate sectors as discussed in the *Gas Substitution Roadmap (update)* have also increased the scope of ESV remit as reflected in the 42% increase in funds required in the 2023-24 period.

We noted in our revised proposal that have experienced unexpected and substantial increases in the ESV levies over recent years (see the table below). This trend of ESV levies substantially above expected price growth has now continued into this regulatory period.

Table 13 ESV levies historical price growth (\$m, nominal)

	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
ESV levies	3.3	3.5	3.7	4.4	4.8	5.5	5.7	8.0	8.3
Increase (%)	5.5%	5.8%	5.9%	20.0%	10.4%	13.2%	3.0%	42.2%	2.9%

Source: AusNet

To allow for unforeseen increases, the AER may approve a cost pass-through mechanism, which allows tariffs to be varied within a regulatory period in response to defined events (cost pass through events).²⁴ However, for such a change to trigger the cost pass-through mechanism the increased cost must be greater than 1% of the allowed revenue for the year in which the costs are incurred. The current increase, while substantial, is not above one percent of our allowed revenue (arriving just under the threshold), and therefore does not meet the relevant threshold for a pass through.

Our revised proposal forecast projected that these costs would increase by escalating our 2021-22 actual invoice by 2.8% to arrive at our 2022-23 forecast, and then adopting a 5% year-on-year increase for the period from 2023-24 to 2027-28. The 2.8% escalation was based on the ESV's 'Levies Determination' letter to us stating that the increase from 2021-22 to 2022-23 will be 2.8%. The AER instead determined that the levies would be included in our base opex.²⁵

²³ Confidential letter from ESV to AusNet

²⁴ NGR 97(1)(c) specifically points to a new or change in tax as one such event

²⁵ AER Final Decision, Attachment 6 Operating Expenditure, pg. 10

We had sought, but at the time of submitting our previous proposal had not received, the ESV's view on the accuracy of our forecast approach. Our forecast approach was based on historical averages – as discussed above has been shown to not be a reliable measure of costs in the changing environment. The actual historical growth across the periods has doubled since our previous proposal with increases averaging around to 10% year on year.

We remain of the view that recovery via the price control mechanism is the most appropriate approach to recovering these costs due to the departure from expected price growth and other parameters of the base-step-trend method. It would also mean customers will only pay for the exact amount levied by ESV – noting that we have no control over the level or way these levies are set. In addition, such an approach avoids the need for us to continually propose a step change for large increases in the ESV levies as seen in recent years or to factor in historical expectations of large increases into our forecasts on an ongoing basis.

However, making changes to the price control formula to introduce a new parameter is a significant change to our Access Arrangement and the incentive properties of the regulatory regime. In order to limit the scope of changes we have proposed a step change to account for the differences in expected ESV levies only for the last three years of the regulatory period. We this is the simplest approach to correcting this issue in the short term and AusNet will likely again seek a change to the price control formula at the next full GAAR.

5.4. Accelerated Depreciation

Since the AER's Final Decision, substantial shifts in gas policy have significantly heightened the risk of asset stranding. This new reality justifies a more rapid approach to capital recovery, protecting both investors and customers, while ensuring the long-term provision of safe, reliable gas services to the diminishing customer base that will continue to rely on them.

There is a clear consensus that accelerated depreciation is an effective response to these increased risks. The following points outline why early implementation is essential:

- **Increased Stranding Risk:** Recent policy changes have resulted in a fundamental change in circumstances, which has created an environment where gas infrastructure is at a much greater risk of becoming obsolete. Accelerated depreciation provides a necessary mechanism for investors to recover their capital in the face of this uncertainty.
- **Prudence of Early Action:** Early adoption of accelerated depreciation offers better risk mitigation than delayed action. Taking steps now allows the network to manage stranding risks while the customer base is still substantial, minimizing potential future impacts as demand diminishes.
- **Balancing Short-Term Price Impacts:** While accelerated depreciation may result in short-term price increases, these impacts are proportionate to the elevated risks. It results in a manageable financial burden for customers, while protecting against much greater future price volatility. In comparison, delaying this adjustment would increase exposure to higher costs in the future at a time there will be fewer customers to spread the burden.
- **Long-Term Customer Protections:** By addressing these risks now, the network can help prevent the smaller set of customers who will continue to rely on gas services are from bearing excessive costs in the future.
- **Maintaining Competitive Pricing:** Even with the proposed acceleration of depreciation, AusNet's gas distribution charges will remain among the lowest in Australia by the end of the period. This underscores the company's commitment to maintaining affordability while responsibly managing long-term risks.

The proposed changes to accelerate depreciation are a necessary and balanced response to the heightened risks resulting from recent policy shifts. This approach offers better protection for both customers and investors, while ensuring that short-term price impacts remain proportional and manageable. We urge the AER to support this responsible adjustment, as it addresses current and future challenges in a manner that benefits all stakeholders.

5.4.1. Background on environment leading up to the AER Final Decision

The AER's Final Decision on our AA was prepared in a period of great uncertainty, with the Australian energy market facing several geopolitical and domestic challenges affecting both the cost and speed of the transition to a decarbonised energy sector.

At the time the Victorian Government had legislated a long-term target for Victoria of net-zero greenhouse gas emissions by 2050. However, it remained viable for decarbonising the gas sector can be achieved through two primary pathways – introduction of renewable gas or electrification. The first pathway involves replacing natural gas with renewable gases like hydrogen that, when burnt, do not release greenhouse gases. The second pathway

involves making electricity generation 100% renewable and shifting the energy supplied by the gas network to the electricity network and decommissioning some/all of the gas network.

The key question facing gas networks was what proportion of the energy needs that are currently met by natural gas will be (or can be) met by renewable electricity or renewable gases like hydrogen in the future. Given this uncertainty, when we first prepared our AA Proposal, we left the door open to different possibilities in relation to the future of gas.²⁶

In collaboration with our fellow Victorian networks, Australian Gas Networks (AGN) and Multinet Gas Networks (MGN), we previously convened a panel of nine independent industry experts to design potential future scenarios that Victorian gas networks could consider and plan for. Over the course of four workshops, the Expert Panel defined four plausible scenarios. Each scenario envisaged different degrees of transition to a renewable gas (hydrogen) network, or the electrification of the load. The Expert Panel then explored the potential future impact of those scenarios on the gas distribution network. A brief description of each scenario is outlined below:

- **Electric Dreams:** This scenario is characterised by widespread electrification of the gas load underpinned by strong market driven growth of electricity renewables, investment in system flexibility and efficiency, and policy support for net zero by 2050. Accelerated electrification of a wide range of applications leads to a rapid rise in electricity demand, which outstrips renewable supply and briefly prolongs the reliance on fossil fuel generation. This is largely replaced with renewables and grid firming infrastructure at an orderly and increasing pace over the next decade. Gas distribution networks become increasingly stranded as consumers electrify through the late 2030s.
- **Dual Fuel:** This scenario is characterised by the fusion of extensive domestic electrification and the development of a material export industry for hydrogen in the medium term. Domestic hydrogen is utilised for certain industrial applications and in select residential locations. Net zero is achieved by 2050 due to focused market and policy action, and the orderly retirement of fossil fuel use. Gas distribution networks are largely stranded by 2050; however, a subset services 100% hydrogen customers.
- **Muddling Through:** This scenario reflects an uncontrolled, uncoordinated future characterised by stop-start progress toward net zero and limited change to energy market dynamics. In this scenario net zero by 2050 is at risk, driven by disorderly and uncoordinated industry and Government policy action. This leads to a combination of electrification and the use of renewable gases, with some gas distribution networks converted to low carbon fuels in the late 2030s as they attempt to remain viable.
- **Hydrogen Hero:** This scenario involves Australia reaching net zero by 2050 through the orderly growth of a significant hydrogen industry for export and domestic use, enabled by widespread renewable gas generation. Hydrogen and electricity markets become linked in the 2030s to provide stable, economically competitive, decarbonised energy. Gas distribution networks are fully utilised to deliver hydrogen for home, commercial and industrial applications.

By the time the AER made its Final Decision, the AER appeared to contemplate there would be a limited role for residential gas consumption in the future. However, the Gas networks had not yet been set on an unavoidable path of declining customer numbers at that time. As such, when weighing the appropriate amount of accelerated depreciation to approve, the AER appeared to have considered short term price impacts were particularly important in avoiding harming the future viability of the gas network. The AER's Final Decision was not focussed on the challenges of dealing with a declining network.

5.4.2. Fundamental change in Circumstances

There has been a fundamental change of circumstances since the AER made its previous decision. As a result of numerous administrative decisions taken, it is now clear that the future our residential gas network is one of long-term declining customer numbers. In particular:

- Renewable Gas Consultation Paper released in September 2023, with renewable gas clearly directed to meet the needs of 'harder to electrify' uses across the economy. With a policy directions paper expected to be released in mid-2024.
- In November 2023 a notice of intent to prevent the offering of inducements for consumers to retain or initiate new gas connections, or for installation of gas appliances.
- Also in November 2023, Victoria amended the Plumbing Regulations 2018 to remove standards that required gas boosting of solar water heaters.
- The Gas Substitution Roadmap (update) was released in December 2023. This document outlines annual updates are expected to the Roadmap – with the next release planned for late 2024.

²⁶ More information is available at:

<https://www.aer.gov.au/system/files/ASG%20E2%80%93%20GAAR%20E2%80%93%20Appendix%201%20E2%80%93%20KPMG%2C%20Future%20of%20gas%20report%20E2%80%93%20October%202021%20E2%80%93%20PUBLIC.pdf> (accessed 09/07/2024).

- New dwellings, apartment buildings and residential subdivisions requiring a planning permit will be all-electric from 1 January 2024
- Victoria's Housing Statement released on 20 September 2023 announced new planning exemptions for a small secondary dwelling (granny flat). These small secondary dwellings are required to be all-electric.
- Incentives for residential gas appliances have been removed from the Victorian Energy Upgrades scheme and added new incentives for those switching to efficient electric appliances. New Victorian Energy Upgrades electrification discounts came into effect in mid-2023 and there has been an introduction of induction cooktops to the scheme
- Victorian government established the SEC. The SEC's Strategic Plan 2023–2035 named supporting the switch to all-electric households as one of the SEC's three priorities over the next ten years.
- Strengthened 7-star energy performance standards for new homes were adopted in May 2023 and become mandatory May 2024. The Essential Service Commission remade the *Gas Distribution Code of Practice*, which comes into effect 1 October 2024 – introducing more stringent requirements and full upfront charging for new gas connections from 1 January 2025.

Victoria has committed to a 45% fall in emissions by 2030²⁷, and stopping the growth in connections (in addition to shifting existing residential customers off gas towards electrification) will be a key means of achieving that objective. Furthermore, renewable gases are not projected to be a viable alternative for growth in new residential connections with their most efficient use planned for hard to abate industrial settings, not the household.²⁸

While the speed at which residential customers cease connecting to the gas network could follow a range different trajectories, we assume there will be very little (if any) growth in new residential connections past 2026 given the combined effect of the 7-star efficiency standards and changes to the planning provisions, connection moratorium, and full upfront charging for connections will have impacted on customers. Customer sentiment will also play a part as gas becomes a much less viable fuel source for new connecting customers. This lack of future viability in customer expectations would be more pronounced should the rental appliance ban take effect as expected.

The requirement for 7-star energy efficiency standards, which came into effect in May this year²⁹ will also increase the upfront costs of installing gas at a new property. To comply with the 7-star energy efficiency requirements carbon budget it is likely a new home builder will need to instal solar if intending to connect gas at the property.³⁰ This is because solar acts as an offset to gas in the carbon budget (as part of the Whole-of-Home budget).³¹ While the usage change was considered in our previous proposal, the application of a carbon budget for gas compounds the negative incentive effects of upfront charging for connection costs and therefore the penetration rate.³²

The impact of the above decisions is that our customer base will start materially declining by the 2030s. This is a fundamental change from the position in the AER's Final Decision, where we still had growing customer numbers throughout this regulatory period. Faced with a declining network, it becomes critically important to consider how AusNet's RAB will trend over the long term and ultimately how quickly it needs to be brought down to a level near zero.

5.4.3. The benefits of early action and balancing short-term price impacts

Accelerated depreciation offers a balance between higher prices in the near term and greater price stability, reducing the potential for sharp price increases in the 2030s and 2040s. A straightforward case study, illustrated in Figure 8 and Figure 9 below, examines the effects over the current and forthcoming regulatory periods.

The analysis includes two accelerated depreciation profiles, each with corresponding price trajectories for the next two regulatory periods. Both profiles recover the same amount of the RAB over that time period. The periods extend through 2032, a time during which AusNet is still expected to retain a significant customer base. Delaying recovery of a substantial portion of our asset base beyond this point presents increasing financial risks, as our customer base is likely to start materially declining. The analysis holds consistent when additional regulatory periods are considered and so the conclusions remain unchanged over longer time periods.

²⁷ See [Climate action targets \(climatechange.vic.gov.au\)](https://climatechange.vic.gov.au) (accessed 1/08/2024)

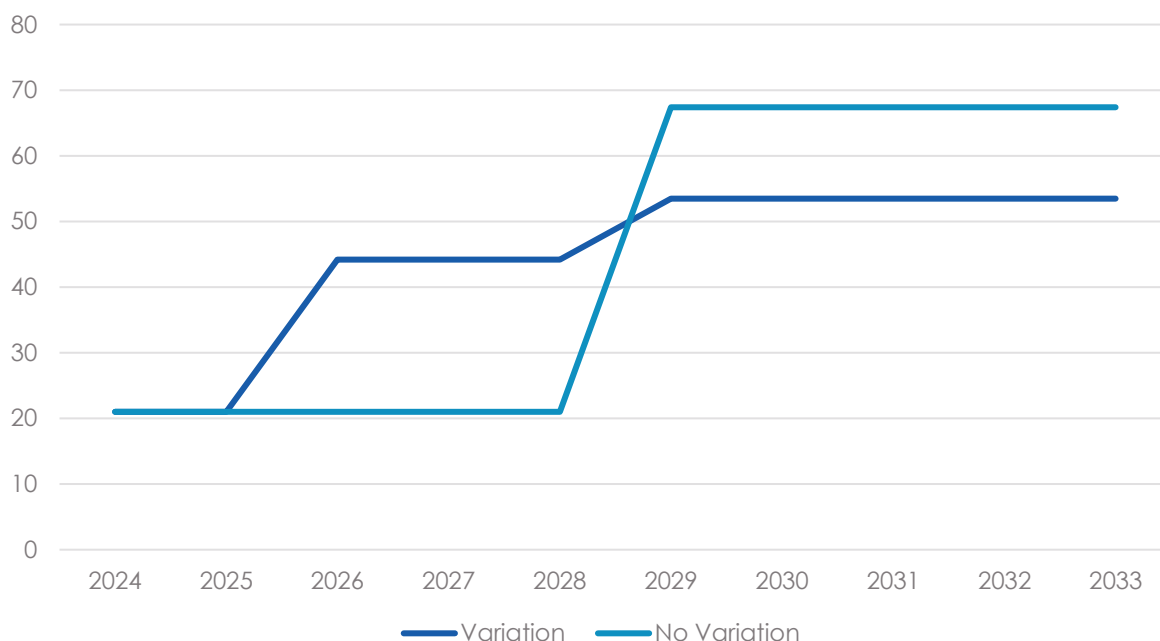
²⁸ Gas substitution roadmap (update), pp. 23-27

²⁹ See [7 star energy efficiency building standards](https://www.sustainability.vic.gov.au) (accessed 1/08/2024)

³⁰ The whole-of-home tool favours the installation of solar PV over appliance efficiency with most homes not meeting the required societal cost metric of 60 without adding some solar PV. See [Document-7-Star-Homes-Program-technical-research-report.pdf \(sustainability.vic.gov.au\)](https://www.sustainability.vic.gov.au), p. 5

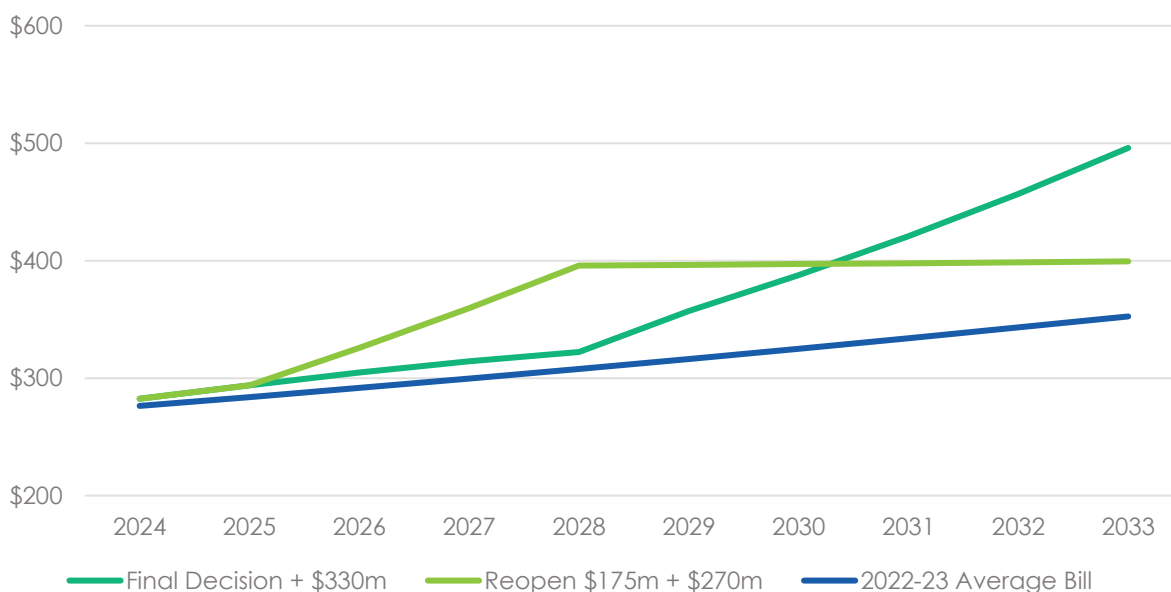
³¹ DCCEEW (2022). Nationwide House Energy Rating Scheme (NatHERS): NatHERS Whole of Home national calculations method
³² A higher assumed upfront cost would further reduce the number of customers that are willing to connect.

Figure 8 Accelerated depreciation profiles



Source: AusNet

Figure 9 Average Annual Residential Bill (\$ nominal)



Source: AusNet

Key conclusions that can be drawn from the figures above are that, regardless of what level of accelerated depreciation we propose in the next regulatory period:

1. For any given level of accelerated depreciation recovered over the next 8 years, the highest tariffs required will be significantly lower, compared to a scenario where the same amount is only recovered over 5 years.
2. Increasing the tariffs now, means that a smaller price increase will be needed for the next regulatory period.

The AER may argue that they are under no obligation to approve a higher amount in the future. As such, they may suggest that they do not need to make a decision now and can wait to make a decision for the next regulatory period. That is correct, however, if that is the AER's line of reasoning, then we ask the AER to explicitly acknowledge that the result of that decision is that AusNet would receive a lower amount of accelerated depreciation in total over two regulatory periods and that this would leave us with higher stranding risk after the end of the next regulatory period. The AER should then explain why this higher amount of stranding risk should be borne by AusNet compared to other DNSPs.

5.4.4. Weighing short term and long price impacts

We note that in their Final Decision, the AER already anticipated a limited role for natural gas after 2050. However, much of the reasoning in their decision also appeared to be predicated on the need to avoid high gas prices to avoid customers leaving the gas network. It appears that the AER was seeking to avoid a 'death spiral' effect, where prices cause a downwards spiral of the network. The AER stated:

*[The AER] must have regard to consumers' interest in having **affordable and stable or reasonably predictable gas access prices to encourage their use of the gas infrastructure**. Having said that, it is fair to note that regulated businesses **also have an interest to maintain price affordability to avoid further decline in gas customer numbers**.*

With the imposition of a connection moratorium, AusNet's residential gas network (from which we recover ~96% of our revenue) is now on an inevitable downwards trend. This is an unavoidable consequence of the fact that we have some (increasing) level of people leaving the gas network and new customers joining the network will now stop. Indeed, with the Victorian Government subsidising residents to remove gas appliances, and consulting on possible end of life appliance bans, we understand that the policy direction is to increasingly reduce the number of customers using the gas network.

As such, the AER should now disregard any concerns about increasing disconnections from the gas network due to price impacts. Indeed, we do not think this is a material short term issue in any event:

- Gas usage is relatively price-inelastic in the short to medium term, meaning that usage changes little as price changes. Much of this is evident in the fact that prices rose dramatically in 2023, and there has been little deviation of usage from pre-existing trends. This finding is consistent with AEMO's assumptions of low-price elasticity of demand in the GSOO 2024 forecasts.³³
- Our prices are the lowest of a Gas distribution business in Australia. Residential customers network prices are up to 80% higher per customer or 247% higher per GJ in other networks. These networks have not faced a death spiral yet from these network charges and so increases in AusNet's network charges are unlikely to trigger this in the short term.
- At the time the AER's Final Decision was made, wholesale gas prices were at record high levels with quarterly averages up to \$28.8 per GJ and the high gas prices were a source of understandable community angst. However, wholesale gas prices more than halved since the AER's decision was made (though still high by historical standards). There was a spike during 2024 where quarterly averages got back up to about \$13.6 per GJ, but at the time of writing, Victorian wholesale gas prices are sitting at about \$10.5 per GJ. Customers should start to see significant reductions in their retail bills as these lower prices are factored in going forward.

Given distribution network prices are currently not a significant portion of the overall bill, it is clear the downward trend will be primarily driven by wholesale prices, changes in public perception, or direct government subsidies for switching. All of these are outside the control of AusNet and the AER and AER action to limit price impacts can have a small impact at best.

As such, the impact of network price increases in driving customers off our network should not be a material concern for the AER. The much more important consideration is for AusNet to recover its sunk investments when it has more customers now, than it will be when it has fewer customers in the future. Recovering our sunk investments from a smaller customer base necessarily requires higher prices in the future and so is not in the long term interest of those customers. Any short-term price increase may have a marginal impact on the number of customers leaving our network. However, the customers that do leave in the short term are those who have the greatest capacity to do so (and therefore reasonably likely to disconnect anyway), these customers may be:

- relatively more affluent. Possibly have a solar system at home.
- have properties that are easy/cheap to convert
- have a gas use case that is easy to electrify.

Conversely, those who do not leave the gas network are likely to be less affluent and have higher costs of transitioning. These customers may remain long term and face real hardship as network prices inevitably increase. Higher gas prices in the short term, allow for much greater recovery of our asset base, over a much broader customer base (including those best placed to bear the costs) and better mitigates future price rises. It is clearly a more equitable outcome to recover the sunk costs from those customers with the greatest capacity to pay for it.

5.4.5. Long Term outcomes and objectives

Over the long term, the price and RAB recovery outcomes are critically dependent on two factors:

1. The amount of capital expenditure we incur into the future.

2. The number of customers that we have remaining.

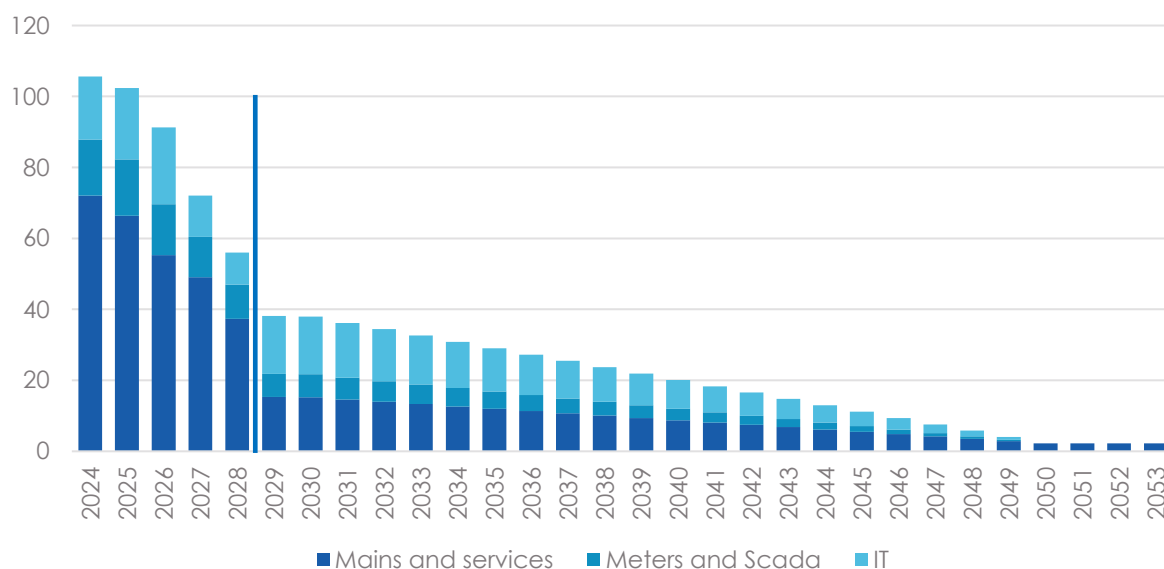
Unfortunately, as Gas networks have relatively high fixed costs, when faced with declining customer numbers, there will inevitably reach a point in the future where the cost per customer is unsustainably high. However, the inevitable nature of this outcome does not mean no action should be taken now. Critically, early action, minimises the scale of unrecovered costs AusNet would face in the future, and for any given level of stranding risk, keep the prices lower in the future than they otherwise would have been.

Figure 10 below shows AusNet will be facing significantly lower capital expenditure in the future, there are three key drivers of this:

1. Connection capex has historically been up to 50% of our expenditure. This will essentially stop and with the introduction of full upfront charging for our connections, any expenditure will be matched by a customer contribution.
2. We are completing our low-pressure mains replacement program. This long-term safety program has removed all these older, poor conditioned pipes, leaving us with a newer network, with less replacement needs.
3. Augmentation expenditure should stop as customer growth stops and consumption declines.

This places us on a more sustainable long-term footing. However, this is not sufficient to avoid long term upwards pressures in prices.

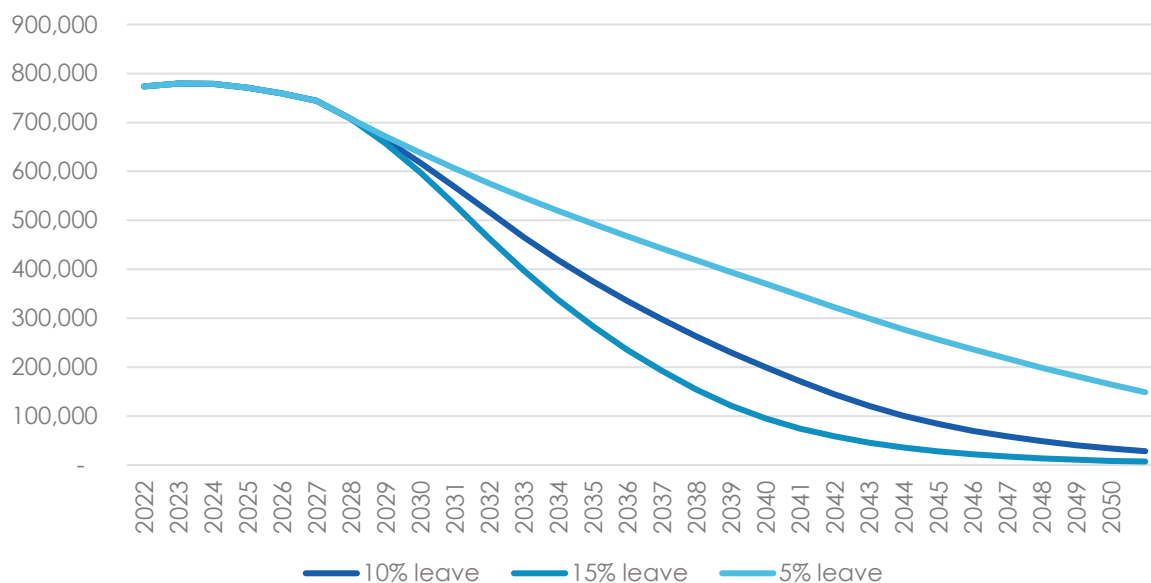
Figure 10 Long term capex forecasts



Source: AusNet

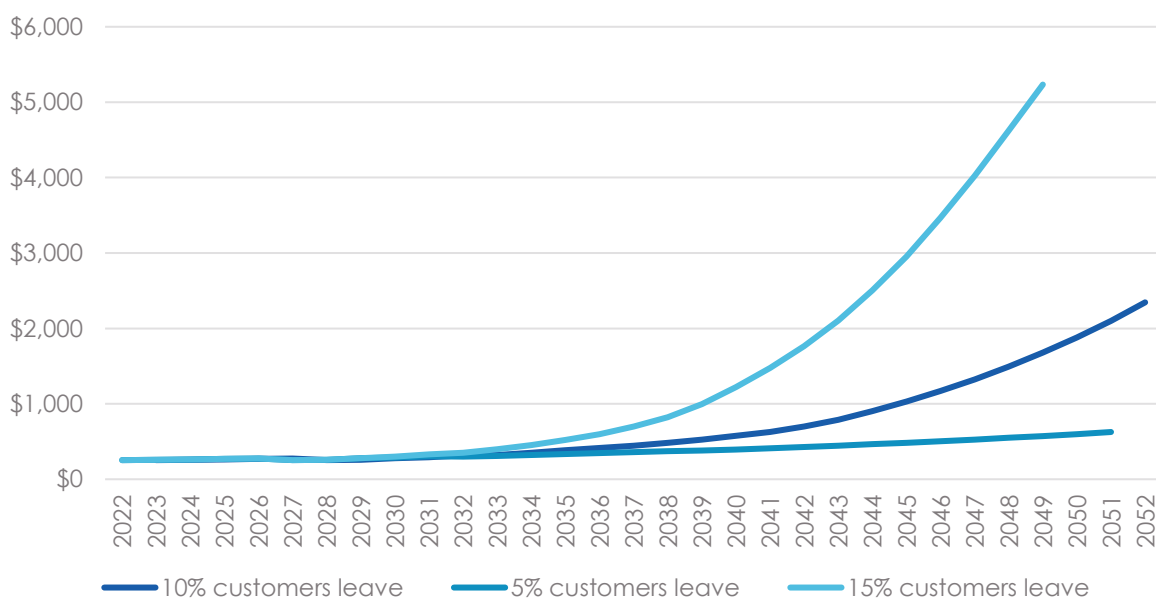
The scenarios in Figure 11 and Figure 12 below show scenarios with different % of customers that leave the network each year by 2035 (with a steady ramp-up to that level). Critically, once customer numbers get sufficiently low, then Figure 12 shows that the price inevitably rises once customer numbers reduce far enough. As the current regulatory regime does not properly deal with this end-of-life issue and changes to the regulatory regime will be necessary once customer numbers drop precipitously low. However, if we can minimise the challenges facing future decision makers, then we are providing greater optionality to them.

Figure 11 Customer Numbers



Source: AusNet

Figure 12 Prices

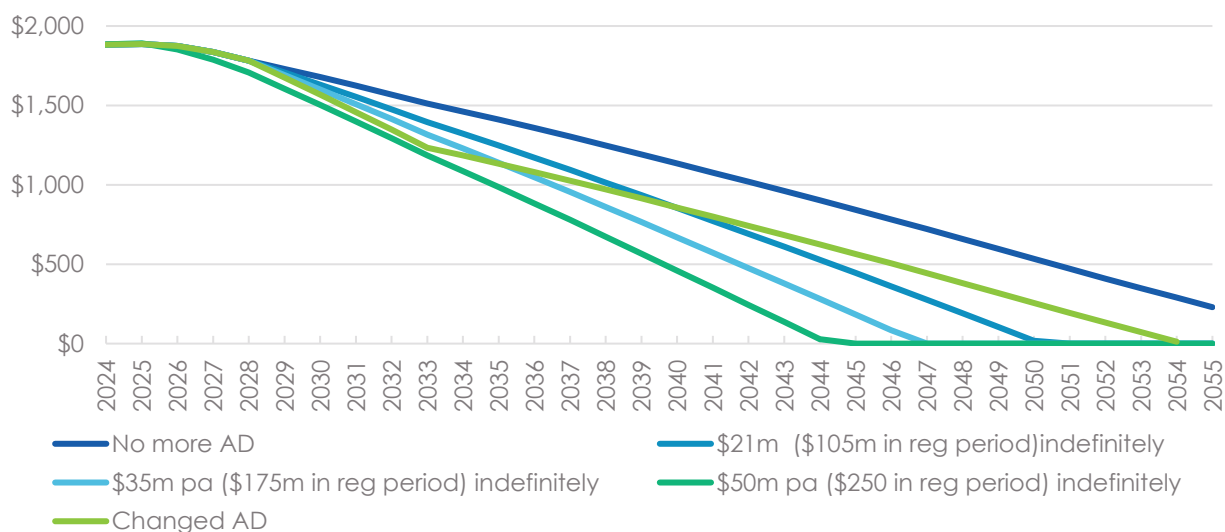


Source: AusNet

Figure 13 below shows our RAB Recovery under several depreciation profiles. If our current depreciation amount is maintained indefinitely and we can maintain a significantly reduced capex profile and with no significant decommissioning costs, then we would be on track to recover our RAB by 2050. However, we note the very large caveats in that statement and note that Figure 12 above shows that depending on the speed at which customers leave the network that the prices are likely to be unacceptable at some point in the 2040's. As such, that accelerated depreciation profile cannot be maintained indefinitely, and it leaves us with material risk of asset stranding.

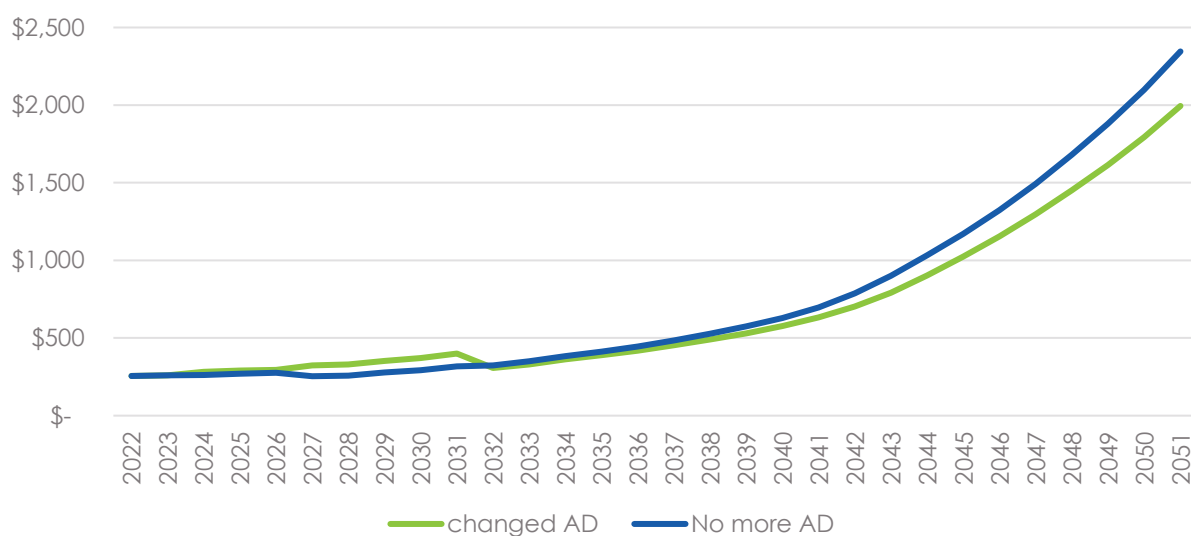
To reduce the risk of asset stranding, we need to be tracking in front of the trend, which gives us an opportunity to slow/stop accelerated depreciation in the future. This gives some ability reduce price pressure in the future (either in a step downwards as shown in Figure 14, or with smoothed lower amount of accelerated depreciation over time. As such, accelerated depreciation of \$250m per annum is likely the necessary accelerated depreciation in the short to medium term. However, we have not proposed to reach that level in the next three years. This is because we consider that will be too quick a ramp-up of our tariffs and that it would be better to re-examine at the next GAAR what level of accelerated depreciation and price impacts can be supported at that time. Regardless, a more aggressive short-term approach provides options in the future that do not exist if we are overly cautious now.

Figure 13 RAB recovery (\$m)



Source: AusNet

Figure 14 Price path - 10% of customers leave pa

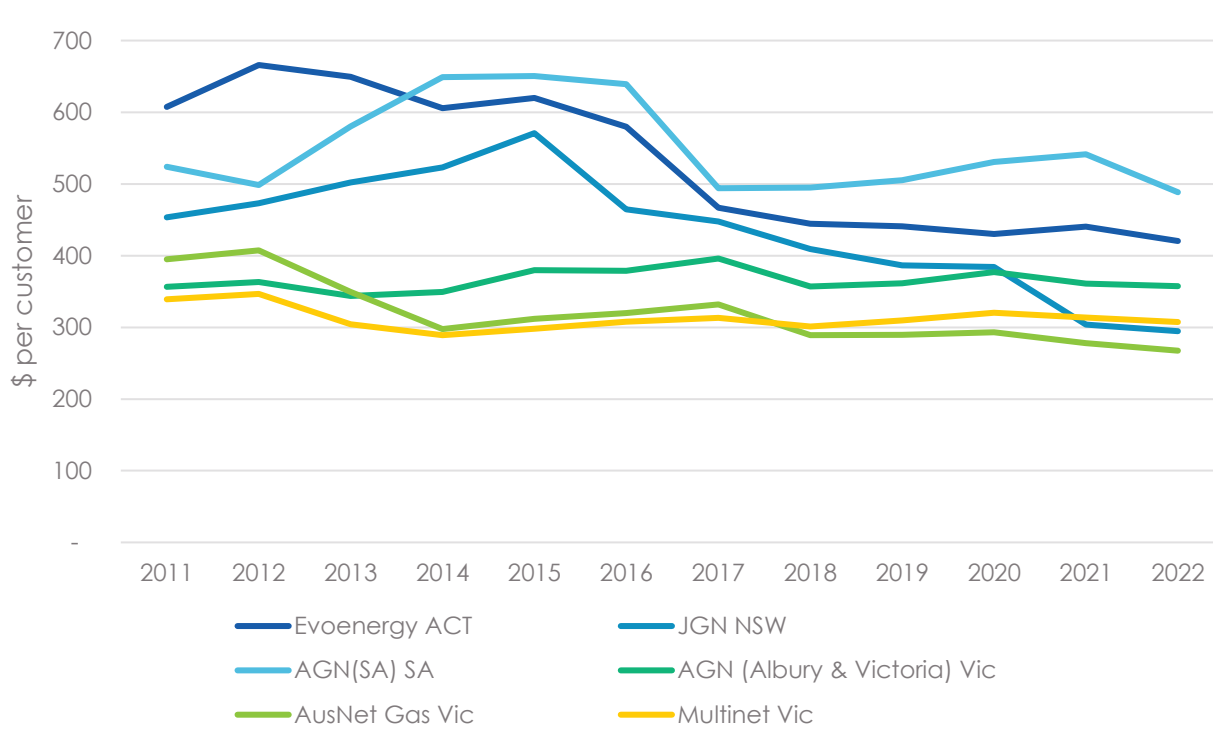


Source: AusNet

5.4.6. Peer Comparisons

AusNet has historically been the cheapest and most efficient gas network in Australia. This means our customers have benefitted from long term lower prices. As set out in more detail below, the AER should consider the relative efficiency of our network, when deciding what level of price rises might be appropriate. Figure 15 shows that AusNet has the lowest gas bills per customer in Australia and has had a long-term decline in average customer bills.

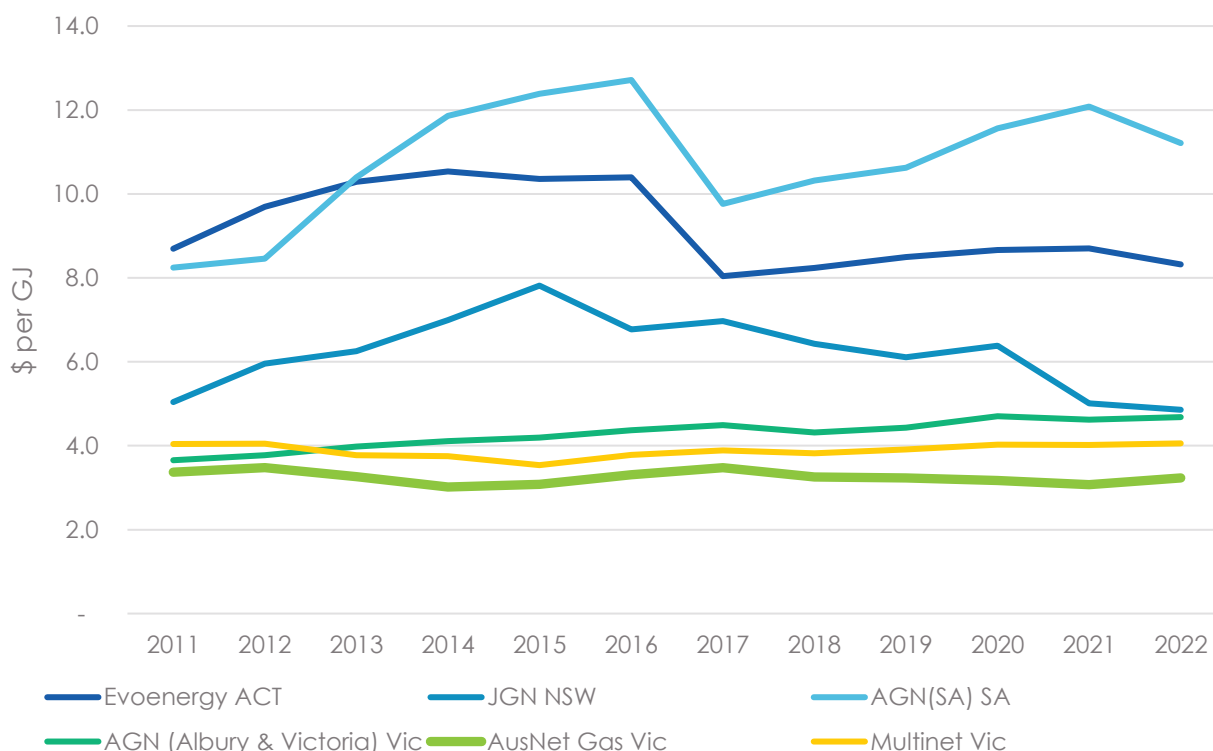
Figure 15 Average bill (or actual revenue per customer)



Source: AusNet analysis based on AER – Gas Distribution Operational Performance Data – 2023

Figure 16 shows AusNet also has the cheapest network in Australia on a per GJ basis and that on a per GJ basis, or prices have been flat for a long time.

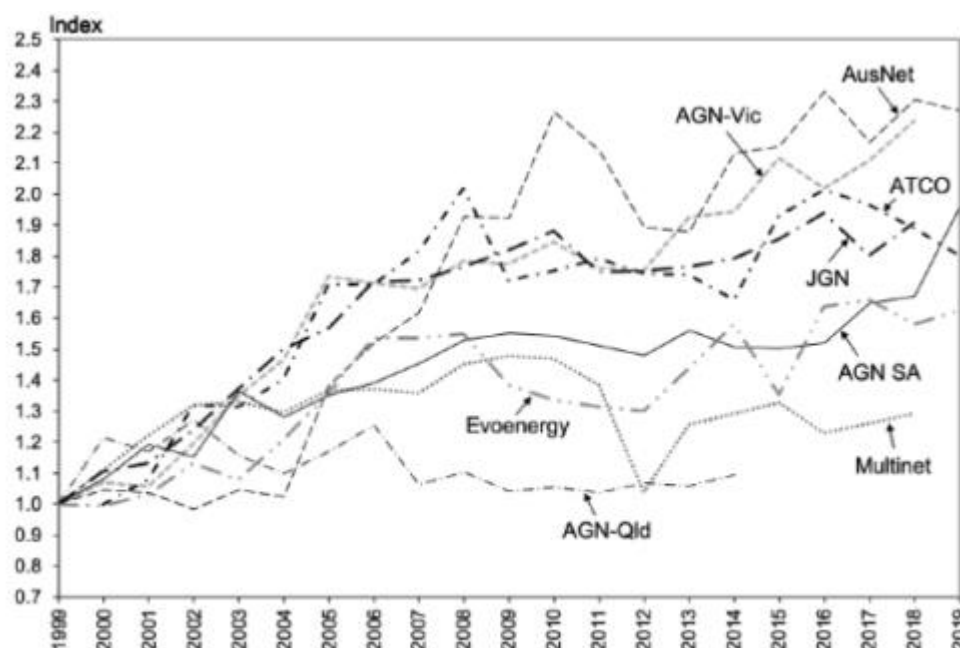
Figure 16 Actual revenue per GJ



Source: AusNet analysis based on AER – Gas Distribution Operational Performance Data – 2023

Figure 17 below, shows the results of the last gas benchmarking report that was produced. Whilst the results are now a little bit dated, AusNet has a long history of being among the most efficient gas distribution networks in Australia. We do not expect this to change when this analysis is next updated.

Figure 17 Benchmarking performance



Source: Economic Insight 2021, The Productivity Performance of Australian Gas Network’s South Australian Gas Distribution System, Report prepared for Australian Gas Networks (AGN), 15 June, Figure 3.5

In our Revised Proposal we strongly argued more weight should be given to our current low prices relative to our peers. As we are the cheapest gas distribution business in Australia and have the lowest average customer bills, we were concerned the Draft Decision limited our ability to minimise stranding risk, not because we are inefficient but because we have been more efficient and have passed these efficiencies (savings) through to our customers. The AER’s Final Decision did ultimately provide for AusNet to have a higher price increase than AGN or Multinet, but this decision was to provide the same 1.5% price rise, which was then adjusted to remove a number of distorting factors. As such, the AER’s decision was effectively to give equal ability for each DNSP to increase their current price levels and did not make any attempt to normalise the price levels between Victorian DNSPs.

We consider the more appropriate decision making criteria would be to give DNSPs equal ability to recover their asset base. The AER did not explain why each DNSP should be permitted a different rate of RAB recovery (on a per customer or per \$ basis) and so did not explain why different businesses, operating under the same regulatory framework and earning the same rate of return, should be exposed to materially different stranding risks.

We now explicitly re-argue that the AER should consider not only the price movement compared to AusNet’s existing tariffs, but also how our prices compared to our peers at a total level. This benchmarking should consider both price impacts and the rate of recovery of the asset base afforded to each business. It would be a serious impairment on our reasonable opportunity to recover at least our efficient costs, if our tariffs are arbitrarily limited to a lower level than our peers (as a direct result of us being more efficient).

Indeed, if the AER considers it important to cap AusNet’s tariffs at the current level, then it would appear disingenuous to approve any accelerated depreciation for a network that is more expensive than AusNet’s current price levels. Such a decision, would provide a less efficient DNSP a greater opportunity to recover its efficient costs than AusNet has been afforded. Importantly, we do not consider this is the appropriate outcome, rather AusNet’s prices should be permitted to rise closer to our peers. We present this argument simply to illustrate the issues raised by purely focusing on the price impacts on AusNet’s customers.

The table below shows the different amounts of accelerated depreciation approved (or proposed) by other DNSPs.

Table 14 Accelerated Depreciation Metrics

	Accelerated Depreciation \$m	\$RAB per customer (▼)	\$AD per Customer	\$AD per \$RAB
AGN (SA)		\$3,778	-	-
AGN (Vic)	\$175	\$2,499	\$233	\$0.09
Evoenergy		\$2,477	-	-
JGN*	\$300	\$2,372	\$201	\$0.08

AusNet Gas	\$105	\$2,314	\$132	\$0.06
Multinet	\$53	\$1,923	\$104	\$0.05

Source: AusNet Services

The AER has approved material amounts of accelerated depreciation for each of the 3 Victorian DNSPs and more recently JGN (NSW) has included \$300m in accelerated depreciation in its draft proposal. Despite AusNet being the cheapest DNSP, on a like for like basis, we have been afforded to date a more limited opportunity to recover our asset base. AGN is similar in size and customer numbers to AusNet and JGN is significantly bigger (but on a per customer basis our RAB is comparable to both AGN (Vic) and JGN). However, the total approved accelerated depreciation is lower than those of JGN (proposed) and AGN on a total basis, on a per customer basis and as a % of our RAB. We reiterate, it is hard to envisage how AusNet in particular is being afforded a reasonable opportunity to recover at least our efficient costs, when a greater chance is being provided to already more expensive networks.

5.4.7. National Gas Rules

The national gas regulatory framework in the National Gas Law (NGL) and National Gas Rules (NGR) essentially provides that, in exchange for supplying safe and reliable gas network services to customers at a reasonable cost, regulated gas businesses should be provided with, amongst other things:

- a reasonable opportunity to recover at least the efficient costs the service providers incur in providing reference services (gas pipeline services)
- effective incentives to promote economic efficiency with respect to reference services the service provider provides
- a return commensurate with the regulatory and commercial risks involved in providing the reference services.

AusNet now faces a real risk that it will not recover all of its sunk investment and so would not recover the efficient costs we have incurred.

In its paper on regulating gas pipelines under uncertainty, the AER stated that: *In our view, the NGL guiding revenue and pricing principle that regulated businesses should be provided with a reasonable opportunity to recover at least the efficient costs they incurred in providing services does not mean gas consumers must guarantee that the regulated businesses recover their costs under any circumstances.*³⁴

While a 'reasonable opportunity' does not reflect an ironclad guarantee of cost recovery, in these specific circumstances, where investment to expand the gas customer base has been compelled by our licence to operate since privatisation and that investment has been determined to be efficient at every subsequent regulatory review, we consider that recovery has been effectively guaranteed. Therefore, the following points are pertinent:

- The increase in asset stranding risk that we face in the 2030s onwards is foreseeable and known.
- Actions to mitigate that risk through accelerated depreciation are well established and are being proposed now. It is not contested that early action provides a superior risk and price outcome for both investors and customers in the long run.
- Therefore, if the AER delays or unreasonably limits those actions, AusNet will **not** have been afforded a reasonable opportunity to recover our efficient costs.

If AusNet's ability to manage our future stranding risk through faster capital recovery is removed, then there is an obligation on decision makers to compensate us via other means or provide an alternative risk mitigation tool. The proposed accelerated depreciation is proportionate and reasonable and even as proposed, does not remove all asset stranding risk from AusNet. If the decline of the residential gas network is now inevitable, then any decision made 15-20 years before the material decline of the network, should not leave avoidable asset stranding risk with investors when they are expected to continue to fund and operate the network. To do otherwise risks materially distorting the way the gas network is operated in the future.

5.4.8. Regulatory precedent

In the AER's Final Decision, the AER recognised the economic case for accelerated depreciation, given the uncertain future of the Victorian Gas Networks. The AER found that:

For this Final Decision, we confirm our draft decision position that there is a case for accelerated depreciation relating to the uncertain future for gas networks in Victoria. In accepting some accelerated depreciation for AusNet, we recognise that the publication of the Gas Substitution Roadmap indicates that

³⁴ Regulating gas pipelines under uncertainty information paper.

the Victorian Government is committed to the net zero emissions target by 2050. This will likely mean a limited role for natural gas beyond this date.

.....

We consider the case for accelerated depreciation is also supported by the long term 'future of gas' modelling that AusNet provided with its initial proposal and September 2022 addendum.³⁵

Therefore, the economic merits of faster capital recovery in these circumstances have been settled and there is consensus that accelerated depreciation is an appropriate lever to help mitigate long term stranding risks and price impacts.

Nonetheless, we recognise a key consideration is balancing the impact accelerated depreciation has on customers prices in both the short and long term. The AER emphasised this in their Final Decision, where the AER stated that:

we have considered the balance between accepting some accelerated depreciation and also price stability. This is also consistent with our 2021 information paper, Regulating gas pipelines under uncertainty, which stated:

'... regulated depreciation or risk compensation cannot be adjusted without constraint to guarantee cost recovery for the regulated businesses. [The AER] must have regard to consumers' interest in having affordable and stable or reasonably predictable gas access prices to encourage their use of the gas infrastructure. Having said that, it is fair to note that regulated businesses also have an interest to maintain price affordability to avoid further decline in gas customer numbers.'

Ultimately, in the AER's Final Decision, the AER decided to:

Set a base real price path constraint of 1.5% per annum for all 3 Victorian gas distributors which excludes the impact of the 2023–28 revenue adjustments for CESS and ECM.

The recent decisions by the Victorian Government mean the necessary balance between short term and long-term recovery has fundamentally changed and that the AER must now re-weigh its previous considerations.

Ausnet's proposal appropriately rebalances these considerations while maintaining that the short-term price impact on our customers is still a critical input into this decision. Indeed, Ausnet has chosen to set accelerated depreciation at the lowest end of what we consider reasonable, with the explicit aim to achieve acceptable short term price rises. AusNet will likely seek a further increase in Accelerated Depreciation in the next regulatory period and so, this proposed price rise allows the impact of that to be spread over time and total price impacts kept lower.

AusNet's proposed accelerated depreciation is \$175m, which is higher than the \$105m approved by the AER in its Final Decision. However, this is the same as the AER has already approved for AGN (Vic) which is a comparable business) and is lower than the \$200m that we asked for in our revised proposal. So, despite a material decline in the outlook for gas networks, AusNet has moderated its proposed accelerated depreciation since its last proposal. AusNet considers this proposal is exceedingly modest given our current circumstances, but we have reached this figure based on the desire to avoid large price rises in a short period of time. Having said that, we consider the AER's Final Decision of \$105m is now inappropriately low and does not reflect the declining customer base we will now face.

5.5. Upfront Connection Charges

5.5.1. Introduction of upfront connection charges via a capital contribution

5.5.1.1. Background

The previous *Gas Distribution Code of Practice* required that we used an NPV test in deciding whether to levy a connection charge on a new connecting customer who obtains the Tariff V haulage reference service. This NPV test checked whether the present value of the expected incremental revenue to be generated as a result of the expenditure exceeds the present value of the capital expenditure (as required by rule 79(2)(b)). If the NPV of the connection is not positive, then a capital contribution, which is sufficient to make the connection NPV positive was required. This approach to connection charging meant our expenditure on connecting new customers was NPV positive, and so this expenditure met the requirements of rule 79(2)(a).

Importantly, this approach meant for most residential customers the upfront cost of connecting to the network was free (or very cheap) and customers paid the cost back over time through their retail bills. The Essential Services

Commission has updated its *Gas Distribution Code of Practice*, which will take effect on 1 October 2024. One of the key updates is introducing full upfront charging for customers applying for a new gas connection from 1 January 2025.

AusNet notes our large industrial customers (those on Tariff D) already paid their connection charges upfront and so there is no change for those customers. However, changes are required for our Tariff V customers, which are our residential customers and smaller commercial customers.

In compliance with the Gas Distribution Code AusNet will commence upfront charging for all customers from 1 January 2025, and we will do this in the form of the capital contribution to be paid by new customers.

Specifically, rule 82(1) permits a service provider to impose a capital contribution towards its capital expenditure. To comply with the Gas Distribution Code, we are changing the connecting customer's capital contribution to now comprise 100% of the direct forecast costs of the connection (either presented as an averaged standard charge or quoted price).

The AER will have oversight of the revised capital contributions approach used in approving our capital base and forecast capex, and adjustments for capital contributions.

5.5.1.1.1. Relevant approach

In accordance with the gas distribution code, the capital contribution amount to be recovered from new Tariff V customers will be calculated in one of two ways:

- A fixed capital contribution for **basic connections** which will apply to the majority of new residential customers looking to connect to the gas network. This contribution amount will be \$1839 for a basic connection.
- An individually calculated capital contribution for **non-basic connections** which will apply to new customers that do not fit the definition of a basic connection. We expect this will involve a more limited number of customers.

As noted above, Tariff D Industrial customers already have an individually calculated capital contribution, where they pay 100% upfront, so no change is required for these customers.

5.5.1.1.2. Basic Connection

A basic connection at a residential property would involve two stages:

- The laying of the service line (and upstand) – from the gas main to the property (a service connection request)
- The connection and installation of a meter (also called a meter fix).

Each of these is subject to a separate service order from a retailer to us and has a different period for us to comply depending on the request. In addition to the direct connection costs, in setting a connection charge we are also required to include the cost of any augmentation that may be required because of that connection.

In response to stakeholders' requests for consistency between networks wherever practical and in customers' interests, we have sought to align our approach to charges and definitions with those of the other Victorian gas networks where possible.

Tariff V customers will have a basic connection unless they exceed the thresholds set out below. This criterion is broadly consistent with our current process for basic connections and utilises existing processes as much as possible to reduce complexity and cost. In principle a basic connection would not involve augmentation or extension to the shared network. This basic connection should capture the majority of new residential connections.

Request type	Guidance for shipper process (basic vs non-basic connection)
New connection	New Tariff V connections that require a standard meter would be a basic connection. Greater than 1000mj/h low and medium pressure areas; 2300mj/h high pressure areas which usually requires a non-standard meter would fall under a non-basic connection.
Units	All new units would fall under a basic connection. Existing units would be a non-basic connection given additional costs and require a shipper process.
High rise/mixed use/multiple connection points	All high rise, mixed use and multiple connection points would fall under a non-basic connection.
Mains extension	All connections requiring mains extension would fall under a non-basic connection.

Service upgrade or alteration

All connections requiring a service upgrade or alteration would fall under a non-basic connection.

Source: AusNet

We propose that any connection that does not fit the definition of a basic connection would go through our 'shipper process' (which is already used for all commercial and industrial connections) for an individual quote.

This is appropriate noting that connections outside these criteria will require an assessment to understand the complexity and cost involved in connecting gas at the premises. Given that the cost of these connections can be highly variable and are likely to be more expensive than a basic connection this approach is also consistent with the Gas Distribution Code of Practice changes.

We are not proposing to introduce new haulage reference tariffs for customers who have paid their connection costs upfront. While we note, there are some possible arguments that they should have a materially lower ongoing tariff, we do not propose to introduce new lower tariffs for the following reasons:

- (1) There will be significant costs and complexity introduced if new tariffs are created. As this will only apply to new connections (which are coming to an end) these tariffs will need to be maintained indefinitely for a small number of tariffs. This will impact retailer systems and make communications with customers harder.
- (2) The Victorian Government will likely continue to provide incentives to disconnect from the gas network. Creating a new subset of customers with extremely low tariffs may be a barrier to eventual electrification of their connections.

Prospective new customers can assess both the upfront charge and ongoing tariffs. As such, they will only connect to the gas network if they value the service more than the combined expected cost.

5.5.1.2. Calculation of a basic connection charge

We have calculated the directly attributable connection costs as follows:

- Historical costs are derived based on the average costs incurred for residential meter fix and service connections for Calander year 2023.
- We have escalated this to FY 2024, which will be the basis of charging from 1 January 2025.
- The total costs will be \$1711.64 for this part of the connection.

Table 15 Service components (average cost)

SERVICE	TOTAL
Meter fix (MFX)	\$294.71
Service connection request (SCR)	\$1,416.93
Total	\$1,771.64

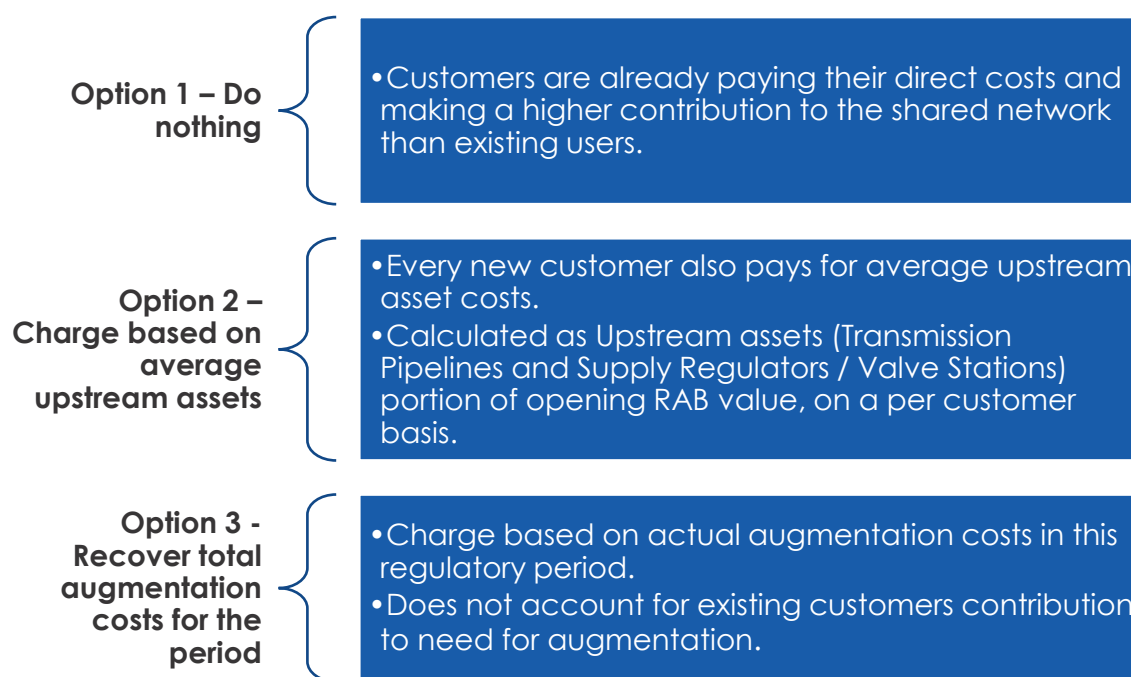
Source: AusNet

5.5.1.2.1. Approach to recovery of augmentation costs

Clause 4.2.1 Gas distribution code requires that the connection charge also includes the cost of augmentation of the shared distribution system which may be required to support the additional load resulting from the connection service. Residential customers are too small to individually trigger an upstream augmentation. However, their cumulative load is a key driver of augmentation needs. In our engagement we explored the option of an additional average charge for new connections to reflect the contribution that these customers make to the need for augmentation.³⁶

³⁶ This is similar to the "Incremental Cost Shared Network" that the AER as included in its Connection charge guidelines for electricity customers.

Figure 18 Options for recovery of augmentation costs



We consider that Options 1 and 2 are more equitable in relation to the contribution that is made by new and existing customers. We consider there is a weak link between new customers and the augmentations we have planned for the rest of this period because:

1. This augmentation is addressing network issues that already exist on the network.
2. If a customer joins in an area where no augmentation is planned, there is no link between them and the cost.

Stakeholders raised preferences for both Option 1 and Option 2 in our customer roundtables. AusNet considers Option 2 explicitly addresses the requirements of the gas distribution code and so is the preferable approach (whereas option 1 is not explicit that the higher costs being paid by new customers are to cover their augmentation costs as well as direct costs). As such, we propose Option 2 for the recovery of augmentation costs as a portion of the upfront capital contribution to be made by new connecting residential customers. This leads to residential customers making an additional customer contribution of approximately \$127 to the cost of augmentations.

As commercial and industrial customers are large enough to trigger an augmentation, it is appropriate they continue to be charged for any augmentation that they trigger. For this reason, we are not proposing to introduce an additional average augmentation charge for these customers.

5.5.1.3. Approach to non-basic connection charges for Tariff V customers

For connections that do not fit the definition of a basic connection customers we will use our 'shipper process' to provide an individual quote. We validate the service connection request from the retailer prior to forwarding the request to our service provider. Our service provider gives the retailer a quote, and the retailer obtains sign-off from the customer prior to undertaking works. The service providers rates are in accordance with contracted unit rates as determined through a competitive process.

5.5.2. Capital contribution for new estates

For developers seeking to reticulate a new estate, they will continue to go through the shipper process. The key change is that this will now be 100% funded by the developer, rather than receiving a discount based on the cost revenue test.

5.5.3. Minor changes to AA to acknowledge requirement for up-front capital contributions

The current AA includes clause 5.6.2 which provides guidance on, relevantly, how the costs of network extensions and expansions impact the calculation of reference tariffs for new customers. Specifically, clause 5.6.2(b)

contemplates that where AusNet applies the economic feasibility test in respect of capital expenditure which grows the network, that reference tariffs will remain as is, but the associated capital expenditure is capable of being rolled into the capital base. We have proposed a minor amendment in this clause to ensure that it is interpreted in the context of any regulatory requirement that provides that such capital expenditure is required to be funded by the customer, as is the case now, under the revised *Gas Distribution Code of Practice*.³⁷ The amendment provides greater clarity to stakeholders with respect to who is to bear the costs of a new connection which involves an extension of the network.

³⁷ For this purpose, we have also amended the definitions to update for the revised new Gas Distribution Code of Practice (which superseded the old Distribution System Code of Practice, and explicitly called out this Code within the definition of Regulatory Instrument, given that it (as well as the ESC Act) are key instruments which regulate the gas industry in Victoria, including with respect to connection services, connection charges, service reliability and service standards and disconnection and abolishment processes.

6. Key outputs from the updated forecasts

Reflecting all the updates outlined above, our Variation Proposal results in real price rises of 8.87%. Importantly, real average bills over the next AA period will only be 5% higher than the current AA period.

This increase sits within what an average gas customer pays in Victoria for network costs and should be acceptable to our customers and the AER.

Our proposed revenue requirement is \$1,360m in unsmoothed nominal dollar terms. In real, smoothed dollar terms, the proposed revenue requirement is \$1,246m, or an average of \$249m, which is 11% above the expected revenue in the current AA period.

Our new revenue proposal is set out in the table below.

Table 16 Unsmoothed Revenue Requirement Change from Final Decision (\$m, nominal, unsmoothed)

	Draft Decision	Revised AA Proposal	Change
Return on Capital	568.1	554.9	-13.2
Return of Capital	281.4	361.7	80.3
Operating Expenditure ³⁸	381.7	390.8	9.2
Revenue Adjustments	-3.8	-3.8	0.0
Net Tax Allowance	42.0	56.5	14.5
Unsmoothed Revenue Requirement	1,269.3	1,360.1	90.8

Source: AusNet Services PTRM (2024-28). Excluding Ancillary Reference Services

Table 17 Total building block revenue requirement (\$m, nominal, unsmoothed)

	2023-24	2024-25	2025-26	2026-27	2027-28	Total
Return on Capital	104.1	108.4	112.7	114.6	115.0	554.9
Return of Capital	61.8	62.6	70.7	79.6	86.9	361.7
Operating Expenditure ³⁹	71.7	75.5	78.7	80.9	84.0	390.8
Revenue Adjustments	6.1	1.8	-1.8	-3.9	-6.1	-3.8
Net Tax Allowance	11.0	10.2	11.6	11.7	12.0	56.5
Unsmoothed Revenue Requirement	254.8	258.6	272.0	282.9	291.8	1,360.1

Source: AusNet Services PTRM (2024-28). Excluding Ancillary Reference Services

Further information on the aspect of these components that have changed from the Final Decision are available in earlier chapters of this document.

³⁸ Excluding Ancillary Reference Services.

³⁹ Excluding Ancillary Reference Services.

6.1. Smoothed revenue requirement

We have smoothed the revenue requirement to deliver a stable annual revenue profile over the remainder of the AA period. This provides relatively stable and consistent prices for our customers, while also helping to mitigate the sharp price increases that would occur in the next regulatory period should the decision to recover more of our asset base be deferred.

In accordance with the requirements of rule 92(2), the revenues defined by the smoothed profile return the same NPV as the unsmoothed revenue shown in the table above.

Table 18 Total smoothed revenue requirement (\$m, \$June 2023)

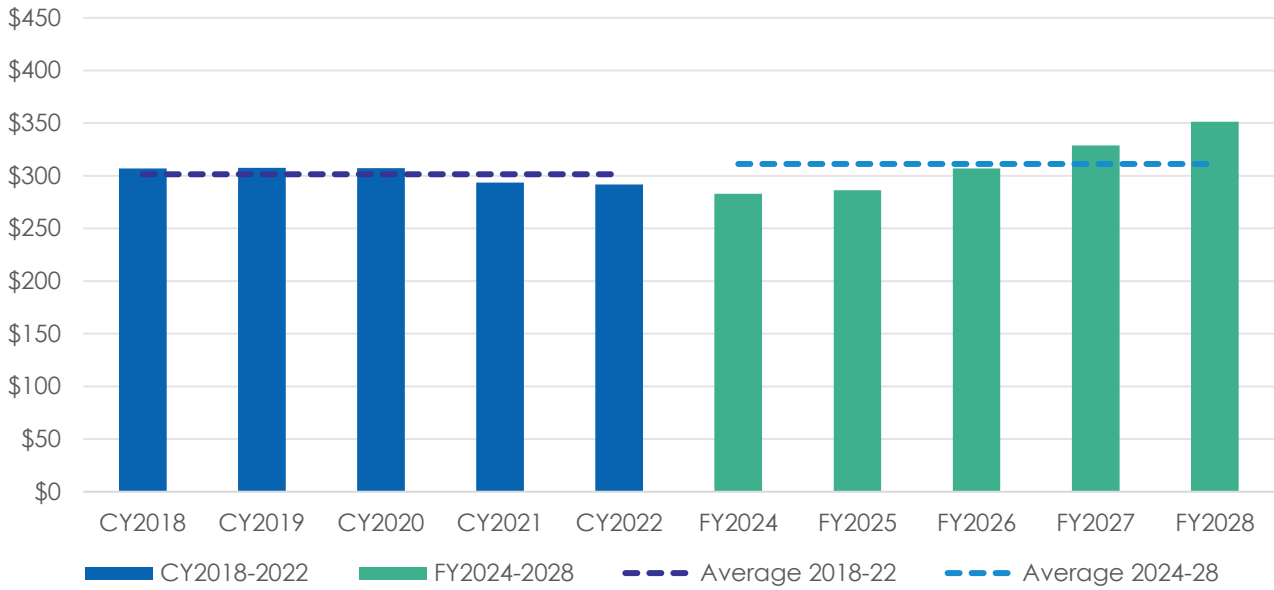
	2023-24	2024-25	2025-26	2026-27	2027-28	Total
Final Decision	223.7	229.8	234.8	237.3	237.7	1,163.2
Variation Proposal	223.7	229.8	248.1	265.7	282.5	1,249.8
Change from Final Decision	-	-	13.3	28.4	44.9	86.5
Price Change (% real)	-	-	5.7%	12.0%	18.9%	7.4%

Source: AusNet Services PTRM (2024-28)

6.2. Affordability and price/bill outcomes

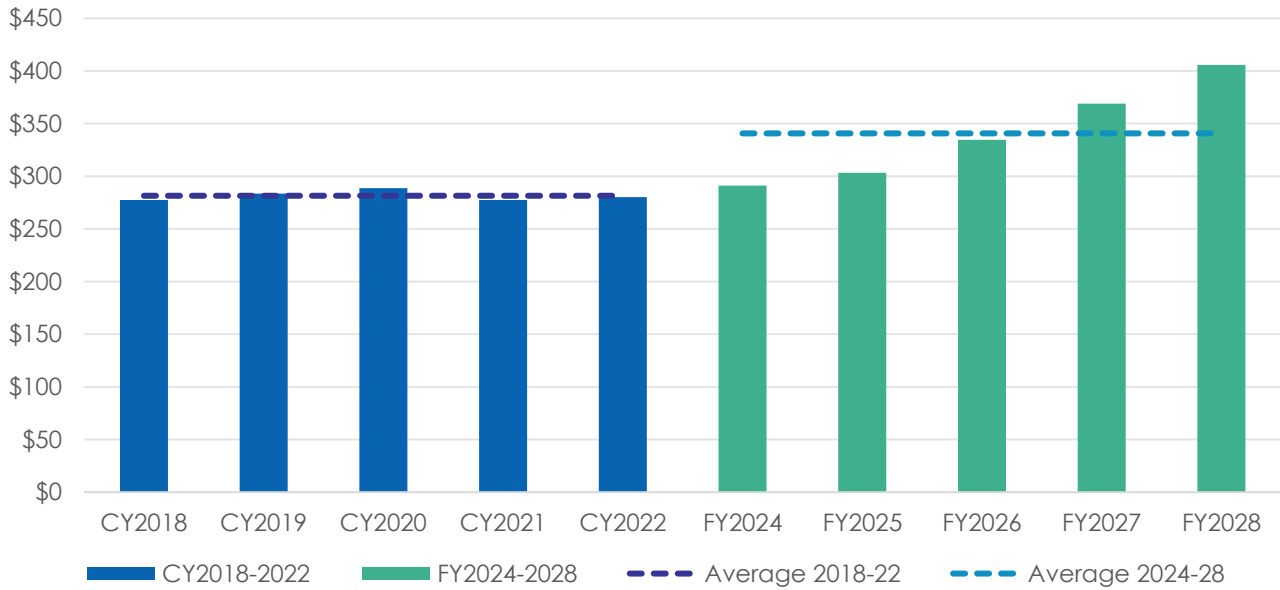
We have carefully balanced the adjustments we have made to account for the increased stranding risk with the importance of maintaining affordability. Our Variation Proposal results in a real price increase for customers of around 11.3% on average over the period and the average bill in the 2024-28 regulatory period is only above the average bill in the 2018-22 regulatory period (see Figure 19 and 20).

Figure 19 Average smoothed revenue per customer (\$ June 2023)



Source: AusNet

Figure 20 Average smoothed revenue per customer (\$ nominal)



Source: AusNet

6.3. Other key information

For completeness, outlined below is information on key issues not covered elsewhere in this document. For further information on these table, including information on the rationale/drivers of this data, please refer to the AER's Final Decision

Table 19 Projected capital base comparison (\$m nominal)

Regulatory year	2023-24	2024-25	2025-26	2026-27	2027-28
Final Decision	1,931.0	1,993.4	2,039.6	2,058.9	2,055.7
Variation Proposal	1,916.8	1,964.0	1,967.7	1,948.0	1,907.9
Change (\$)	-14.3	-29.4	-71.9	-111.0	-147.9
Change (%)	-0.7%	-1.5%	-3.5%	-5.4%	-7.2%

Source: ASG Proposal PTRM (2024-28)

Table 20 Projected capital base (\$m nominal)

Regulatory year	2023-24	2024-25	2025-26	2026-27	2027-28
Opening capital base	1,868.2	1,916.8	1,964.0	1,967.7	1,948.0
Net capex	110.4	109.9	74.3	60.0	46.8
Straight line depreciation	-116.4	-118.6	-128.0	-137.1	-143.8
Inflation on opening capital base	54.5	56.0	57.3	57.4	56.9
Closing capital base	1,916.8	1,964.0	1,967.7	1,948.0	1,907.9

Source: ASG Proposal PTRM (2024-28)

Table 21 Net depreciation allowance comparison 2024-28 (\$m June 2023)

Regulatory year	2023-24	2024-25	2025-26	2026-27	2027-28	Total
Final Decision	46.2	44.9	50.2	55.8	59.7	256.8
Variation Proposal	60.1	59.1	64.8	71.0	75.3	330.3
Change from Final Decision to Variation Proposal	13.9	14.3	14.7	15.1	15.6	73.5
Change from Final Decision to Variation Proposal (%)	30.0%	31.8%	29.2%	27.1%	26.1%	28.6%

Source: ASG Proposal PTRM (2024-28)

6.4. Variations to our AA

We are proposing to retain the existing tariff classes, tariff structures and pricing zones for this Variation Proposal. The NGR requirements relating to reference tariffs and our cost allocation approach are outlined in Rules 72(1), 93 and 94. In summary:

- Rule 72(1) (j) and (k) requires us to provide information about our proposed approach to tariff setting, including the method used to allocate costs and a demonstration of the relationship between costs and tariffs, and to explain the rationale for our reference tariff variation mechanism.
- Rule 93 governs the allocation of total revenue and costs, including requiring that any costs directly attributable to reference services should be allocated to those services.
- Rule 94 sets out provisions relating to tariffs for distribution pipelines, including that:
 - Customers for reference services are to be divided into different tariff classes.
 - The revenue collected from each class of customer should lie on or between the cost of providing those services and the avoidable cost of not providing those services.
 - Tariffs must take into account the LPMC of providing the reference service or charging parameter.

We have designed our proposed tariff structures and prices to comply with the NGR and the NGO. The principles we apply to allocate total revenue and costs are consistent our obligations under Rule 93(1) and (2). To design economically efficient pricing, we developed tariff classes based on geographic location and consumption thresholds and tested the expected revenues to be recovered against the stand alone and avoided cost of servicing these customers. Therefore, our reference tariffs comply with the requirements of Rule 94.

Reflecting the various changes outlined above, we have revised our tariffs to reflect our Variation Proposal, which are represented in updates to Part B of our AA. Outlined below is the relevant information on our estimated proposed tariffs from 1 July 2025 to 30 June 2026. Prior to the Final Decision, these indicative 2025-26 prices will need to be finalised with adjustments for actual CPI, the annual abolishment true-up and safeguard mechanism amount. We will provide these adjustments to the AER when they are available closer to the AER's Final Decision.

Table 22 Tariff V Haulage Reference Services from 1 July 2025

Central	Unit	Domestic	Non-domestic
Fixed charge	\$/day	0.5538	0.5782
Peak 0 – 0.1	\$/GJ	7.9465	1.4316
Peak > 0.1 – 0.2	\$/GJ	4.7895	1.3638
Peak > 0.2 – 1.4	\$/GJ	0.8326	1.2273
Peak > 1.4	\$/GJ	0.7480	0.9367
Off peak 0 – 0.1	\$/GJ	2.6936	1.3564
Off peak > 0.1 – 0.2	\$/GJ	2.1286	0.9491
Off peak > 0.2 – 1.4	\$/GJ	0.8158	0.7813
Off peak > 1.4	\$/GJ	0.2894	0.7576

West	Unit	Domestic	Non-domestic
Fixed charge	\$/day	0.5538	0.5782

Peak 0 – 0.1	\$/GJ	4.2003	2.1877
Peak > 0.1 – 0.2	\$/GJ	3.0244	1.8439
Peak > 0.2 – 1.4	\$/GJ	0.9770	1.1391
Peak > 1.4	\$/GJ	0.9364	0.4271
Off peak 0 – 0.1	\$/GJ	1.2987	1.0137
Off peak > 0.1 – 0.2	\$/GJ	1.2171	0.8540
Off peak > 0.2 – 1.4	\$/GJ	0.6939	0.4114
Off peak > 1.4	\$/GJ	0.1369	0.3060

Adjoining Central	Unit	Domestic	Non-domestic
Fixed charge	\$/day	0.5538	0.5782
Peak 0 – 0.1	\$/GJ	13.0138	5.3508
Peak > 0.1 – 0.2	\$/GJ	9.3786	5.0990
Peak > 0.2 – 1.4	\$/GJ	3.3405	4.8201
Peak > 1.4	\$/GJ	3.2032	4.5525
Off peak 0 – 0.1	\$/GJ	5.8282	4.9254
Off peak > 0.1 – 0.2	\$/GJ	3.3800	4.7281
Off peak > 0.2 – 1.4	\$/GJ	2.9410	4.5816
Off peak > 1.4	\$/GJ	2.8283	4.4697

Adjoining West	Unit	Domestic	Non-domestic
Fixed charge	\$/day	0.5538	0.5782
Peak 0 – 0.1	\$/GJ	9.1195	6.6029
Peak > 0.1 – 0.2	\$/GJ	7.6566	6.1980
Peak > 0.2 – 1.4	\$/GJ	3.9294	5.3235
Peak > 1.4	\$/GJ	3.5244	4.6793
Off peak 0 – 0.1	\$/GJ	5.4116	5.0761
Off peak > 0.1 – 0.2	\$/GJ	4.0928	4.8298
Off peak > 0.2 – 1.4	\$/GJ	2.9306	4.2224
Off peak > 1.4	\$/GJ	2.8388	4.0208

Source: AusNet

Table 23 Tariff M Haulage Reference Services from 1 July 2025

Blocks	Central	West	Adjoining Central	Adjoining West
s0 – 10 MHQ (GJ/hr)	899.4158	899.4158	899.4158	899.4158
10 – 50 MHQ (GJ/hr)	856.6186	856.6186	856.6186	856.6186
>50 MHQ (GJ/hr)	178.8638	178.8638	178.8638	178.8638

Source: AusNet

Table 24 Tariff D Haulage Reference Services from 1 July 2025

Blocks	Central	West	Adjoining Central	Adjoining West
0 – 10 MHQ (GJ/hr)	410.2927	410.2927	410.2927	410.2927
10 – 50 MHQ (GJ/hr)	390.7582	390.7582	390.7582	390.7582
>50 MHQ (GJ/hr)	189.7180	189.7180	189.7180	189.7180

Source: AusNet

A. Appendix – A – Detailed Demand

AusNet has developed an independent view of network demand forecasts for the remainder of the access arrangement period by engaging The Centre for International Economics (CIE). In 2021, CIE prepared forecasts for the 2023 to 2028 Gas AA Review period. CIE has updated its forecasts for 2024 to 2028 based on the latest available information.

CIE also prepared our customer and demand forecasts for both the 2008-2012 and 2013-2017 access arrangement periods, both of which were largely accepted by the AER.

A.1. Forecasting approach

The dramatic shifts in gas policy, combined with strong changes to consumer sentiment away from gas mean the current AA's assumptions are no longer reasonable. There is still substantial uncertainty about new gas connections and disconnections, because of the high number of changes in policy and customer sentiment. As such, CIE have developed a baseline scenario as well as additional scenarios which vary core assumptions to account for this uncertainty.

The baseline scenario (Scenario 0) incorporates the most recent data on gas connections and disconnections as well as the quantifiable impacts of recent policy decisions and their impacts on gas take-up and usage. This baseline scenario projects customer numbers based on customer behaviours only varying based on historical relationships with known parameters.

The baseline scenario:

- maintains the same approach as prior reviews to determine potential customers
- assumes a declining connection rate for apartments, while assuming a historical 3-year average connection rate for houses for properties that are still able to connect to gas. The declining rate considers the number of customers still eligible to connect.
- does not factor in any additional change in sentiment for detached dwellings, where home builders increasingly choose not to connect to the gas network, even where they are legally and technically able to do.

Where previously, net new customers would primarily be driven by the level of residential development, the number of net new customers is now effectively capped by planning approvals that were lodged or determined prior to 1 January 2024 and decreases over time

CIE has then overlaid additional scenarios which vary core assumptions to account for uncertainty about new gas connections and disconnections.

Assumptions varied in these scenarios include:

- The house connection penetration rate is projected to be 60% in all postcodes from 2024 onwards. This is based on an Ausnet survey finding that 40% of customers expressed a desire to leave the gas network (implying that at most 60% of new home builders will want to connect to gas). This establishes a baseline connection rate that reflects customer underlying preferences before they are impacted by policies.
- A stronger variant of this assumption is an increasing share of customers expressing a desire to leave the network over time, implying a lower share of new home builders wanting gas. We project a decline from the customer connection rate from 60% to 20% (linearly) by 2029, reflecting a declining sentiment over time.
- For disconnections, the scenarios consider different years in which disconnections reach the projected rate of 1.25%. While Scenario 0 assumes this occurs in 2028, additional scenarios 2, 4 and 6 bring this forward to 2026.

The scenarios are set out in Table A-1 below. Applying different combinations of the effects leads to lower projected customer numbers across all scenarios.

Table A-1 Scenarios for customer numbers

SCENARIO	YEAR THAT 1.25% DISCONNECTION RATE IS REACHED	CUSTOMER CONNECTION RATE FOR HOUSES
Baseline disconnections, Policy impacts – no sentiment (Scenario 0)	2028	3-year average
Earlier disconnections, Policy impacts – no sentiment (Scenario 1)	2026	3-year average
Baseline disconnections, Policy impact – sentiment data (Scenario 2)	2028	60% from 2025
Earlier disconnections, Policy impact – sentiment data (Scenario 3)	2026	60% from 2025
Baseline disconnections, Policy impacts – sentiment changes over time (Scenario 4)	2028	60% in 2025, 20% by 2029
Earlier disconnections, Policy impacts – sentiment changes over time (Scenario 5)	2026	60% in 2025, 20% by 2029

Source: CIE

In determining which scenario most reasonably reflects the likely outcome we have chosen scenario 4 which maintains the same disconnection assumptions as our baseline scenario but assumes a decline in the connection rate for houses to 60% in 2025, with a further (linear) decline to 20% in 2029. With the initial reduction reflecting the number of customers now eligible to connect and the secondary impact accounting for changing customer sentiment for those dwellings that can still connect to gas. This reflects our customer research sentiment data which demonstrates that customers and developers are increasingly shifting away from gas towards electrification.

CIE forecasting approach is outlined below:

1. A customer number forecast is developed. This is based on 2023 customer numbers, which projected forward as follows:
 - a. New connections added. This is based on dwelling growth projections and assumptions about how many of these new dwelling will connect to the gas network. This marginal penetration rate has been adjusted downwards to account for the recent policy changes.
 - b. Disconnections are removed. This has been based on historical levels, with an escalation applied for expected growth in disconnections.
2. A usage per customer forecasts is developed. This is based on 2023 usage per customer, which projected forward as follows:
 - a. Weather normalised to convert 2023 into an 'average' year of consumption.
 - b. Usage per new connection (less than older connections) and usage for existing connections is calculated.
 - c. An econometric model is used to project usage per customer, which incorporates projections of wholesale gas prices and expected trends in weather.
 - d. Additional adjustments to account for electrification applied (based on the 2023 GSOO).
3. The customer numbers and usage per customer are multiplied together to get a forecast of total consumption.

We have discussed the forecasting approach in more detail and rationale for our position in the sections below.

A.1.1. Determining potential customers

CIE bases its customer forecasts on publicly available, independent data on projections of dwellings growth.

CIE selected the Victorian Government's official projection of population and households, Victoria in Future 2023 (VIF2023) for its updated forecasts. VIF2023 contains projections of 'occupied private dwellings' at the Local Government Area (LGA) level. These occupied dwellings forecasts are the basis of the customer forecasts, being the number of houses that could potentially connect to gas networks (where available). Occupied private dwellings are a key driver of residential customer numbers.

Using LGA-postcode concordance tables correspondence data generated by CIE between 2023 LGA data and 2021 postcode data linked using mesh block correspondence data⁴⁰, CIE then mapped these occupied dwellings forecasts down to the postcode level.

To estimate both the historical and future rate of occupied dwellings, CIE combined information on dwelling approvals in each LGA and then adjust these totals by converting dwelling approvals to completions based on a completion rate.

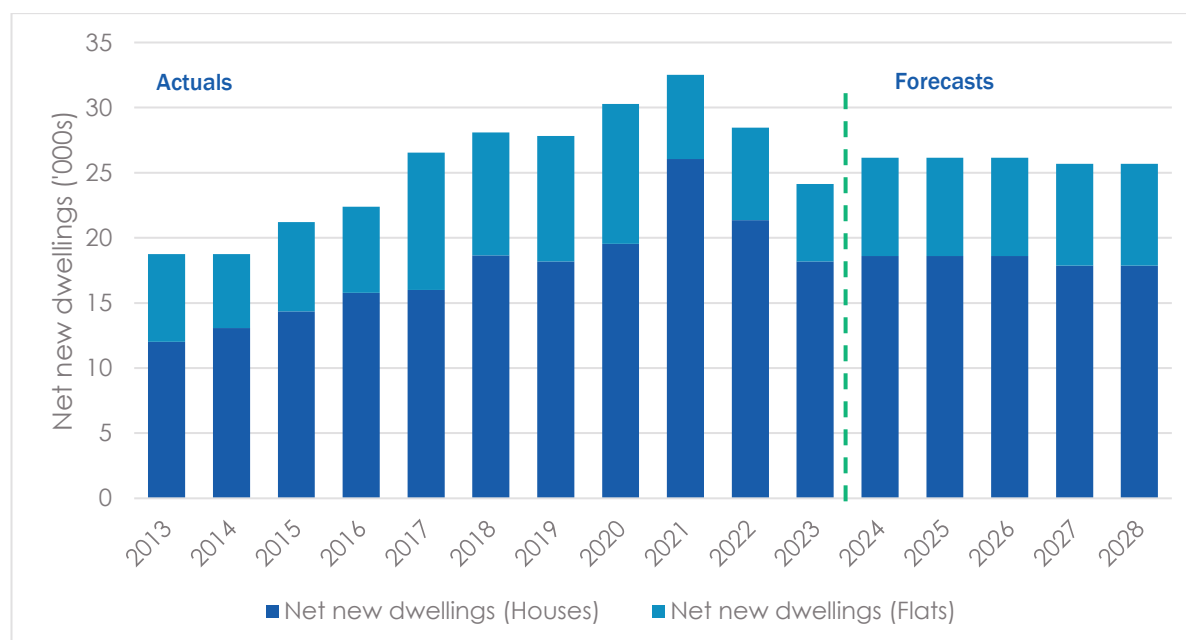
This level of granularity has several benefits, including:

- The forecasts can be easily translated into pricing zones, which are largely segregated by postcode.
- There is a large amount of publicly available data at the postcode level, or at the LGA level, which can be applied to the postcodes within each LGA.
- Forecasts of customer growth and demand at the postcode level allow us to prepare network strategies and asset management plans with more confidence, including considering what types of network investment could potentially be deferred given the shift in the gas policy landscape.

The number of net new dwellings appears to have peaked in 2021 and declined in 2022 and 2023. The latest available forecasts from the Victorian Government (the Victoria in Future projections) suggest dwelling growth will be below these recent highs.

This independent forecast provides a basis for CIE's forecast of customer growth. The figure below presents the number of occupied dwellings (a proxy for potential customers).

Figure A-1 Net new dwellings



Source: CIE

A.1.1.1. Estimating the customer connection rate

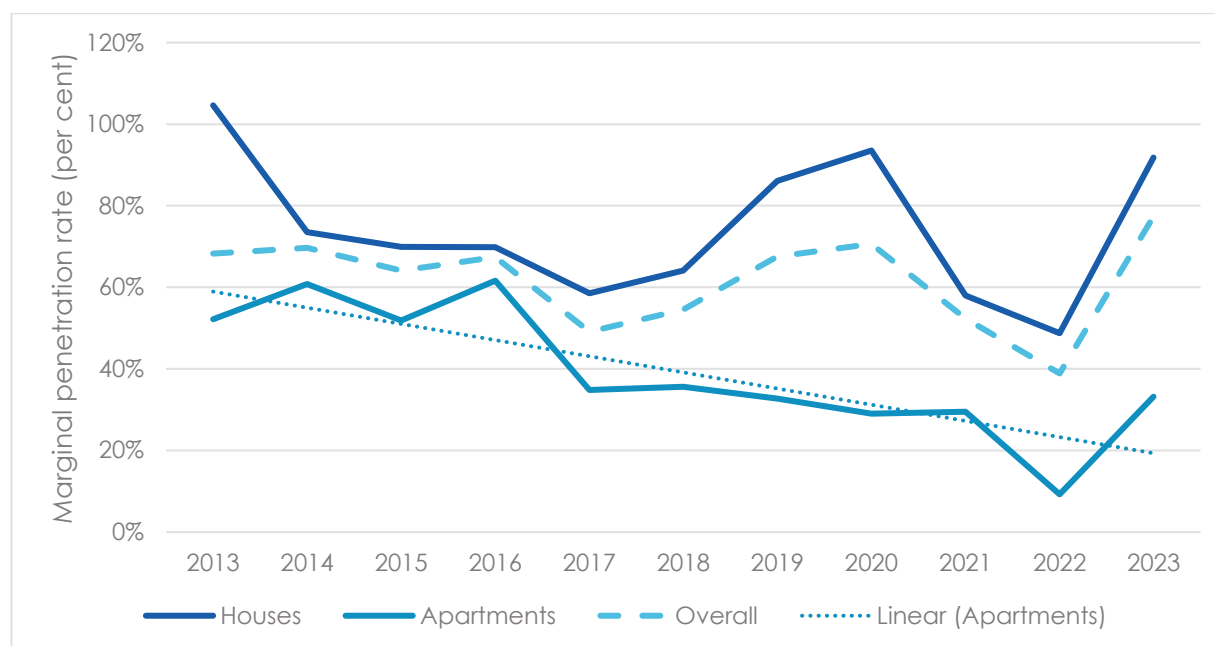
Not all households in an area supplied by a gas network connect to gas. Therefore, while the forecast number of dwellings in each postcode is a useful starting point, it needs to be reduced to account for those customers who choose not to connect to gas.

CIE uses VIF2023, together with data from the Australian Bureau of Statistics (ABS), to estimate the historic number of occupied dwellings in our network area. These numbers are then divided into historic residential gas customer numbers to estimate a 'penetration rate' of gas connections in our network. In other words, the penetration rate is the proportion of occupied dwellings that have a gas connection.

While the penetration rate for houses has fluctuated historically, it has remained stable around a mean value. In contrast, the MPR for apartments has been trending downward.

⁴⁰ CIE created correspondence data between ABS postcode area 2016 data to ABS LGA 2020 linking them using Mesh block correspondence data. This was done because the newest correspondence between LGA 2020 and postcode area 2020 was not available and due to be released at the time of analysis.

Figure A-2 Marginal penetration rate



Source: CIE

The future rate at which new dwellings will connect to gas also needs to consider the government policies designed to restrict and discourage new connections. CIE accounted for two impacts in its forecasts. These were:

- **Impact of gas connection moratorium** – Dwellings which require planning permits that have been lodged or approved after 1 January 2024 are ineligible to connect to the gas network. CIE forecasts assumed that 80% of future dwellings will be ineligible to connect to gas because of the policy. CIE forecast considered the impact on the number of dwellings that become ineligible to connect and the impact of the time between lodging a planning permit and meter connection.
- **Upfront connection charges** – CIE estimate that the Essential Services Commission decision that gas distributors pass on the full efficient costs of connection (using \$1778/dwelling assumption of additional upfront costs) led to a reduction in new customer connections of 4.5%.⁴¹

These policies are expected to have a downward impact on the number of customers that choose to connect. The impact of these policies is shown in Table A-2 below which shows a strong decline in the marginal penetration rate across all dwelling types in 2024 and beyond.

Table A-2 Impact of governments policies on the marginal penetration rate

	2024	2025	2026	2027	2028	2029
	%	%	%	%	%	%
3-year average MPR for each postcode	56.3	56.3	56.3	56.3	56.3	56.3
Percentage point reduction due to banning planning permits	1.6	9.7	20.3	28.8	35.9	40.3
Further percentage point reduction due to passing through upfront cost of connection	2.4	4.1	3.2	2.2	1.6	1.2
Final projected MPR	52.2	42.5	32.9	22.8	16.4	12.3

Source: CIE

Our baseline scenario represents home builders choosing to build a home that connects to the gas network at the three-year average rate. This scenario assumes that all else being equal customers will continue to connect at rates reflective of historical levels.

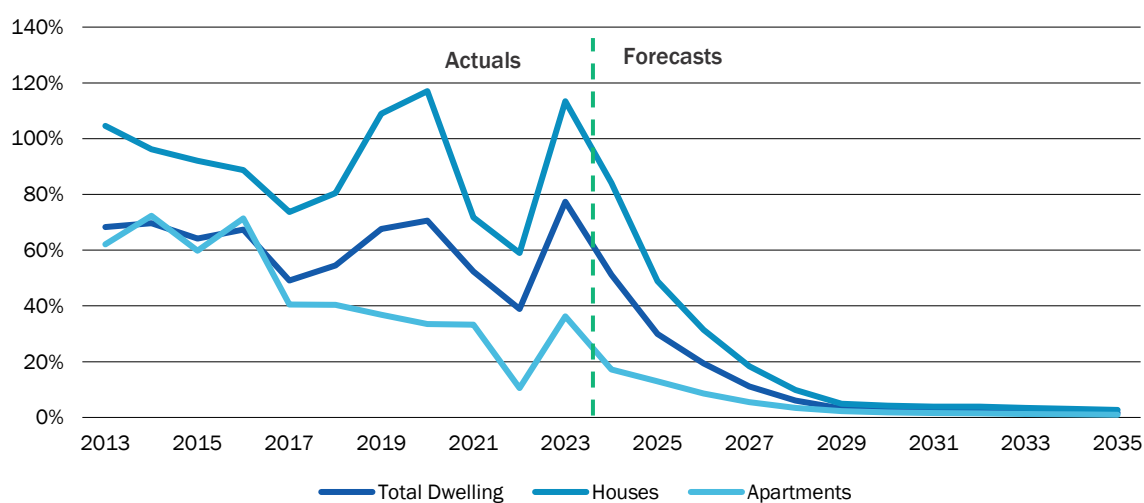
⁴¹ Price elasticity assumptions are taken from *Natural Gas Price Elasticities and Optimal Price Recovery under Consumer Heterogeneity: Evidence from 300 million natural gas bills*. See: https://www.nber.org/system/files/working_papers/w24295/w24295.pdf

The percentage point reduction due to banning planning permits, reflects the decline in the number of homes that can be connected to gas - due to the reduction in reticulation of new estates, or the need for a planning permit.

There is also a further percentage point reduction due to passing through the upfront connection charge. For this CIE have taken the upfront connection charge to customers and applied price elasticity of demand assumptions to reach a view as to the proportion of customers that will no longer choose to connect. The price elasticity assumptions reflect available information and are, therefore, relatively conservative. The number of customers that choose not to connect could increase, for example, if customers placed more weight on upfront costs as opposed to ongoing costs when making investment decisions.

Projected penetration rates for Scenario 4 are shown in Figure A-3, which apply a lower trajectory for houses than historical average penetration rate. An additional reduction in connection forecasts is shown, accounting for customers increasingly choosing not to connect houses to the gas network. This is supported by our research as well as observing a reduction in applications for reticulation and service connections requests. There are also early indicators this is starting to be reflected in our latest meter fix data which suggests changes are already starting to take effect.

Figure A-3 Scenario 4 penetration rates



Source: CIE

While CIE has only considered the direct cost of the upfront connection charges above, the effective cost of installing gas at new properties would effectively include the cost of solar installation and panels, installing gas appliances over electric appliances (which don't take advantage of the solar offsets to electricity costs), as well as the upfront costs of connection. It is also questionable once a home builder installs solar whether the value proposition of gas remains appealing. Therefore, new policies compounding previous policies will significantly impact growth in customers connections in the immediate future.

A.1.1.2. Forecasting residential gas customer numbers

Once the marginal penetration rate for each LGA has been calculated, it is multiplied by the projections of occupied private dwellings to derive residential gas customer forecasts for the remainder of the access arrangement period.

CIE also applied adjustments to convert forecasts for future calendar years into forecasts to align to the new regulatory year. That is, financial years plus a stub (half-year) period in 2023. The number of net new connections in a financial year is the average of the number of net new connections in the preceding and subsequent calendar years.

A.1.2. Disconnections

CIE state there are clear grounds to project that abolishments will increase in AusNet's gas network. Key evidence CIE considered included:

- Policy decisions by Government expected to increase abolishments, such as removal of abolishment charges and a potential effective ban on gas appliances in rental properties, which may drive further sentiment change,

- Victoria Energy Efficiency Certificates being issued for gas-to-electric appliance switching, which may precede disconnection,
- Survey data showing increasing sentiment about wanting to disconnect, and
- Increases in the number of dormant meters, which are more likely to disconnect.

CIE estimated that net disconnections will continue at their average rate over the past 3 years, which is around 2 000 customers per year, or 0.27% as a proportion of residential customers in each of the coming years. Based on this constant rate of disconnections as a share of residential customers, CIE then projected future disconnections to increase gradually with policy changes leading to additional disconnections above this historical level, reflecting a change in sentiment about gas and the removal of the abolishment charge.

CIE considered two disconnection outlooks which look at different years in which disconnections reach the projected rate of 1.25% as an input. The first outlook has disconnections reach 1.25% of the customer base by 2028. The second outlook brings this forward to 2026.

Table A-3 Customer disconnection rates

	2024	2025	2026	2027	2028	2029
Final Decision	0.36	0.45	0.63	0.91	1.05	1.05
Projected residential disconnections at historical rates (as a share of projected customer numbers)	0.27	0.27	0.27	0.28	0.28	0.28
Outlook 1: Residential disconnections including policy and sentiment changes (2028)	0.35	0.50	0.75	1.00	1.25	1.25
Outlook 2: Residential disconnections including policy and sentiment changes (2026)	0.35	0.80	1.25	1.25	1.25	1.25

Source: CIE

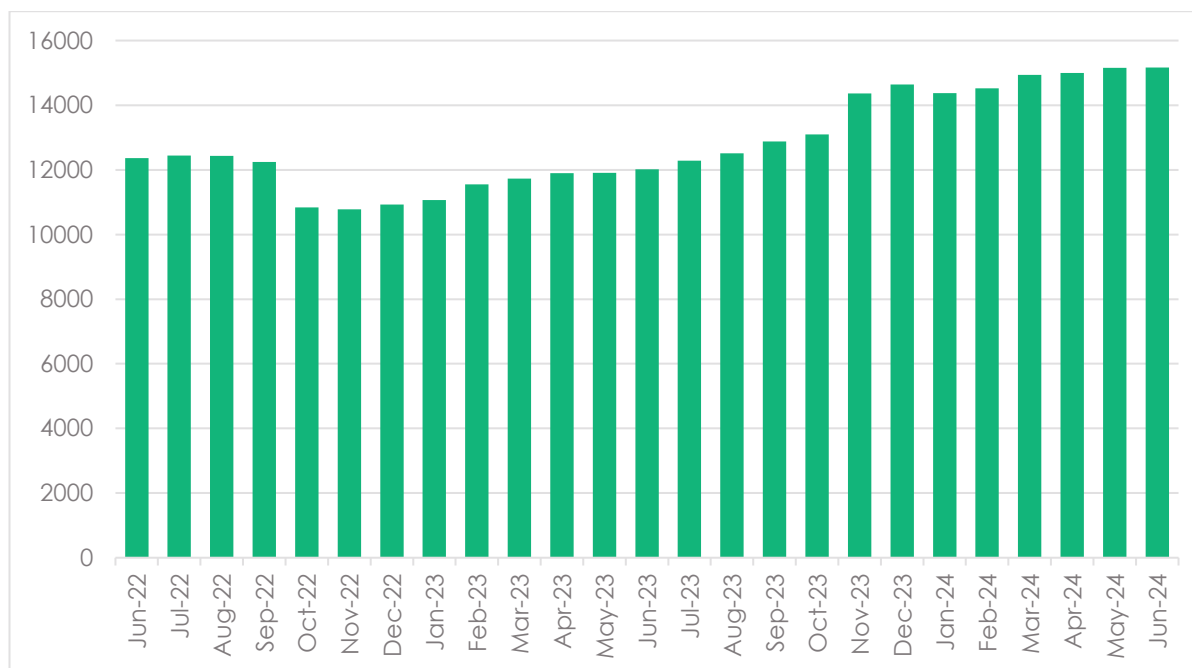
Scenario 4 is based on 'Outlook 1' where the additional disconnections increase from 0.35% in 2024 to 1.25% by 2028 expressed as a share of residential customers in 2023. The disconnection outlook reflects a conservative view as to what we are seeing on the network now - that is abolishment growth, plus a proportion of customers increasingly choosing to functionally disconnect (discussed in the subsequent section).

A.1.2.1. Functional disconnections

We have taken a deeper look at our dormant connections – this includes customers that are zero consumption but still have a meter attached to their property.⁴² We have specifically reviewed our long term zero consumption customer data (greater than 12 months) as it is less likely to capture short term effects – such as only switching on during winter or house renovations. This the best indicator available to understand 'functional' disconnections on the network. Our network is showing an increasing rate of functional disconnection growth, as can be seen in Figure A-4 below. For our residential customers, this is close to 15,000 long term zero consuming customers (i.e. greater than 12 months) or around 2% of our customer base and growing. In the last year these zero consuming customers have grown by around 20%. It is highly probable that this shift is indicative of a broader trend of customers using disconnections as a means of functionally abolishing.

⁴² AER, Gas quarterly disconnection reporting, <https://www.aer.gov.au/documents/aer-gas-quarterly-disconnection-reporting-28-august-2024> (accessed 1/08/2024) and AusNet analysis.

Figure A-4 Dormant residential connections (with meter, greater than 12 months)



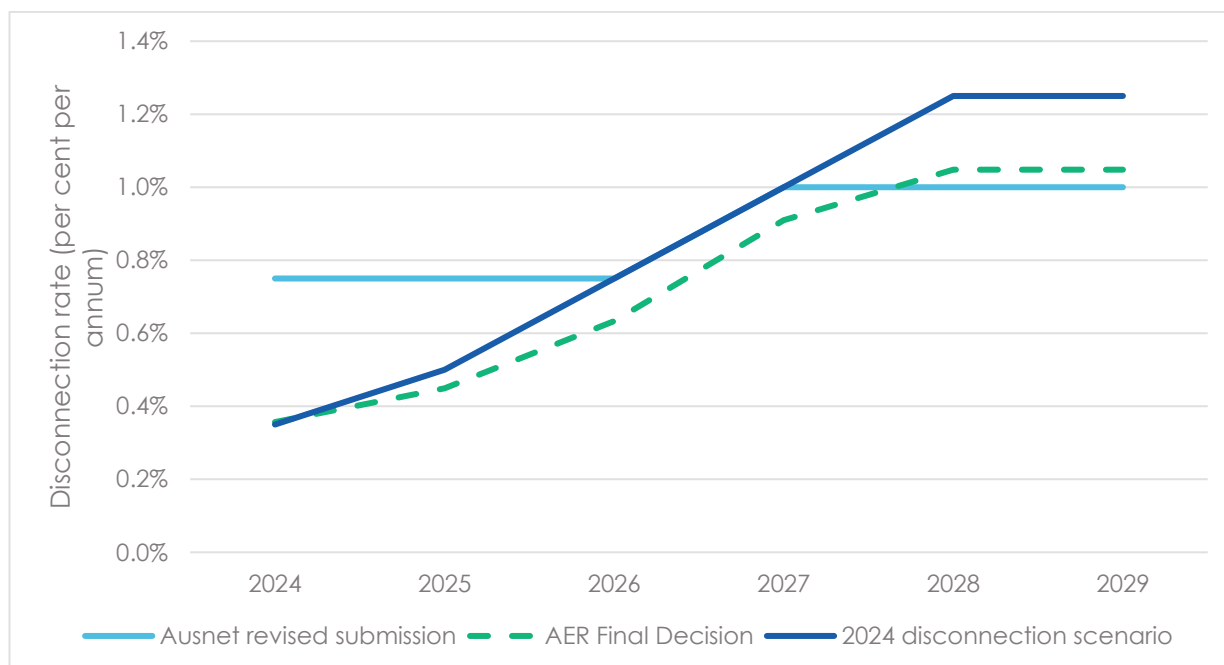
Note: These customers have a meter in place and have recorded zero consumption for a period longer than 12 months and have not yet proceeded to abolishment. These customers may or may not be paying a standing charge.

Source: AusNet

A.1.2.2. Comparison of disconnection assumptions

Abolishments have trended upwards since Victorian Government's Gas Substitution Roadmap and are forecast to continue rising given current policy settings. AusNet's abolishments in CY 2024 are tracking about 30% above CY 2023. Figure A-5 outlines that are expecting this to continue increasing over time.

Figure A-5 Comparison of disconnection rates



Source: CIE

Our disconnection growth assumptions in the revised proposal were revised downwards by the AER as it reprofiled the abolishments forecasts with a two-year lag in its Final Decision given the anticipated delay for the initial Gas Substitution Roadmap policies to take effect.⁴³ From looking at the current rates of what we assume to be functional

⁴³ AER Final Decision, Attachment 6 – Operating expenditure, pp. 17-18

disconnections (which are subject to a one-year lag) combined with the increases to our abolishment rates it is clear that these policy impacts are already impacting much faster than anticipated.

Consistent with our proposed approach to the rest of the submission we have kept our starting disconnection rate at the level of AER Final Decision with the key difference from the AER Final Decision is that we forecast this to keep increasing more strongly to 2028.

The following information is also relevant in looking at the reasonableness of the disconnection scenario above:

- Alignment with our understanding of customer sentiment and actions in relation to gas. Our Energy Sentiments survey shows customers are increasingly looking at replacing gas appliances at end-of-life with electric (see Chapter 4). We expect consumer environmental concern, perceived economic benefit of gas versus electric, increased penetration of solar, and social influence will continue to influence consumer decisions around gas.
- Experiences in the ACT noting the higher rates in Evoenergy's disconnection and abolishment rates.⁴⁴ Energy Consumers Australia latest Energy Consumer Behaviour Survey found that 25% of Canberra residents are seriously considering making their homes all-electric.⁴⁵ We expect similar trends given sentiment that we have observed in our consumer research (as well as lower new connections, and lower usage per customer in Victoria).
- The *Gas Substitution Roadmap (update)* observes achieving AEMO's Orchestrated Step Change scenario requires Victoria to reduce gas consumption by 44PJ by 2030 – roughly equivalent to electrifying 880,000 homes. Meeting this target would require approximately 500 homes to switch to all-electric each day between now and 2030.⁴⁶ In order to meet this objective this would mean around 8% per year of our customer base abolishing (or functionally disconnecting) between 2025-2030. This goal is ambitious and reflects a strong intention towards electrification.

Also supporting our position on the growth of disconnections is the outlook for policy driven electrification. It is likely that we see disconnections and abolishments increasing at a much higher rate into the next and subsequent regulatory periods.

- The current review of standards prescribed under the *Residential Tenancies Regulations 2021* and the *Residential Tenancies (Rooming House Standards) Regulations 2023* which is looking to mandate replace of gas appliances with efficient electric appliance at end-of-life. We estimate this is likely to impact in the next regulatory period about 2% of gas heating and hot water systems would be removed each year because of this policy. These appliances make up most of the gas consumption. As households generally have multiple appliances, abolishment's would not immediately increase but would be driven higher over time.
- The planned RIS to consider the costs and benefits of requiring existing gas appliances in homes and relevant commercial buildings be replaced with electric appliances when the current appliance reaches end-of-life. We are yet to see the specific details and planned implementation of the proposed gas appliance ban however consider it will put further upward pressure on our switching assumptions.

CIE has not made an adjustment to the demand forecasts for a rental appliance ban. Rather this is strong evidence that further supports our position on the growth in disconnections and our switching assumptions.

A.1.2.3. Change in abolishment forecasts

Table A-4 below shows the changes expected customer behaviour patterns in response to the Victorian Government's connection ban, upfront charging and electrification initiatives. We note the profile reflects increasing customer abolishments over time. The profile reflects our assumptions regarding that the future disconnections will increase gradually to 2028, reflecting expectations of consumer behaviour.

⁴⁴ AusNet has chosen a scenario where by 2028, abolishments rise to the level currently being experienced by Evo. CIE calculated a net disconnection rate, in order to account for differences in Evo's approach to disconnections/abolishments.

⁴⁵ Energy Consumers Australia, 2023, *Canberra residents lead the nation as government policy encourages energy transition*, available at: <https://energyconsumersaustralia.com.au/news/canberra-residents-lead-the-nation-as-government-policy-encourages-energy-transition>

⁴⁶ Gas substitution roadmap (update), pp. 23-27

Table A-4 Change in abolishment forecasts (residential customer numbers)

	2023-24	2024-25	2025-26	2026-27	2027-28
Final Decision	2463	3194	3925	6117	8310
Variation Proposal	2 463	3 194	6 975	8 926	10 873
Change from Final Decision to Variation Proposal	0	0	3 050	2 809	2 563
Change from Final Decision to Variation Proposal (%)	0%	0%	78%	46%	31%

Table A-5 shows the increase in the socialisation of abolishment costs as a result of the increased forecast of abolishments, which we have included in the PTRM. Alternatively, because a true-up mechanism was created at the last GAAR, it would be possible not to update this element of the forecasts at this time and allows the true up mechanism to work. On balance, this update is a preferable approach.

Table A-5 Change in socialisation of abolishment costs (\$m)

	2023-24	2024-25	2025-26	2026-27	2027-28
Final Decision	1.5	1.9	2.4	3.7	5.0
Variation Proposal	1.5	1.9	4.2	5.4	6.5
Change from Final Decision to Variation Proposal	-	-	1.8	1.7	1.5
Change from Final Decision to Variation Proposal (%)	0%	0%	78%	46%	31%

A.1.2.4. Residential Customer Number forecasts

The table below summarises our residential customer forecasts over the forthcoming access arrangement period, reflecting the above methodology. Forecasts reflect net growth, that is, new connections less abolishments (permanent disconnections).

Table A-6 Residential customer numbers

	2023-24	2024-25	2025-26	2026-27	2027-28
Final Decision	781,161	792,591	802,844	808,824	812,193
Variation Proposal	781,161	792,591	791,983	789,892	783,990
Change from Final Decision to Variation Proposal	-	-	-10,861	-18,932	-28,204
Change from Final Decision to Variation Proposal (%)	-	-	-1.4%	-2.3%	-3.5%

Source: CIE

A.1.3. Commercial customer forecast methodology

Commercial customers are forecast on a different basis to residential customers. Unlike household growth, there is no independent forecast of the number of businesses that will be operating in each area.

CIE identifies two options for forecasting commercial customer growth:

1. A 'top-down' approach, which use forecasts of Gross State Product in Victoria to forecast the total number of commercial customers in our area. This forecast would then be allocated to LGAs and postcodes.
2. A 'bottom-up' approach, whereby local drivers are used to forecast customer numbers at the LGA level and summing each LGA to derive total customers.

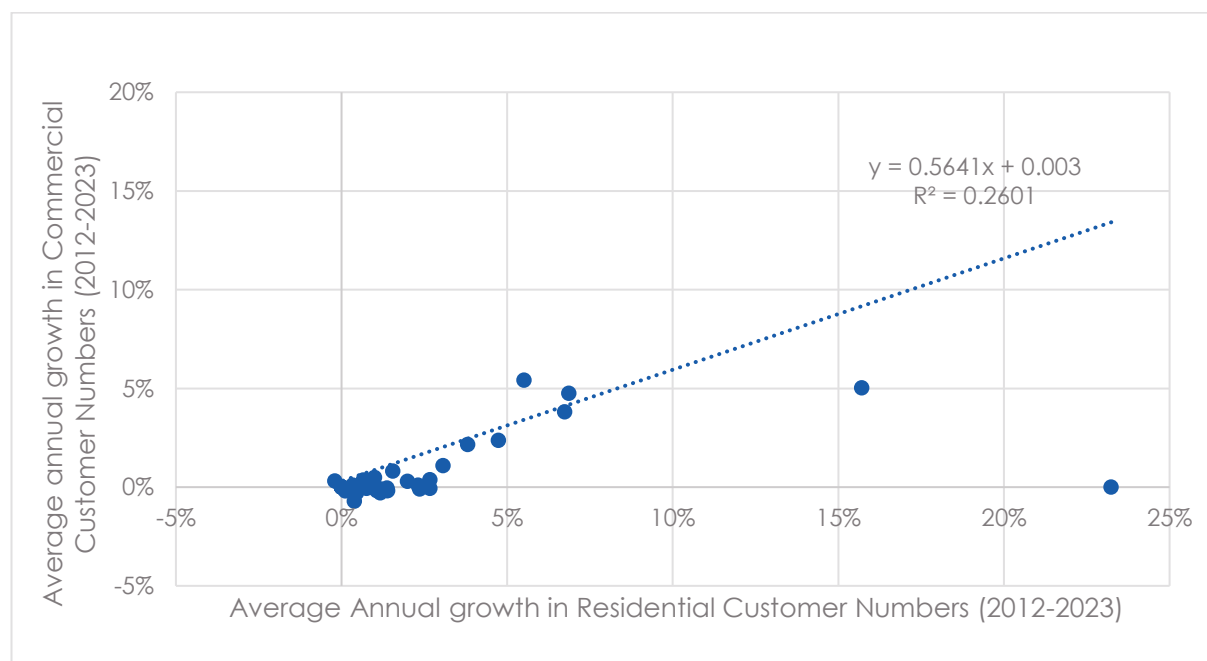
The second option is preferable, so long as reliable indicators at the local level are available. CIE note this is because local factors may be more reflective of growth in that area than statewide economic indicators.

The growth in residential customers is one such local-level indicator of economic activity in an area, and given the availability of our billing database (which has information at the postcode level) a bottom-up approach was adopted by CIE.

CIE, therefore, used the residential customer number forecast as a base and forecast how many new commercial customers would connect, given the residential growth occurring in LGAs. This same approach was used in the current AA period review and accepted by the AER.

For the revised forecasts, CIE was able to establish a statistically significant relationship between the change in commercial customers and the change in residential customers (see A-6 below).

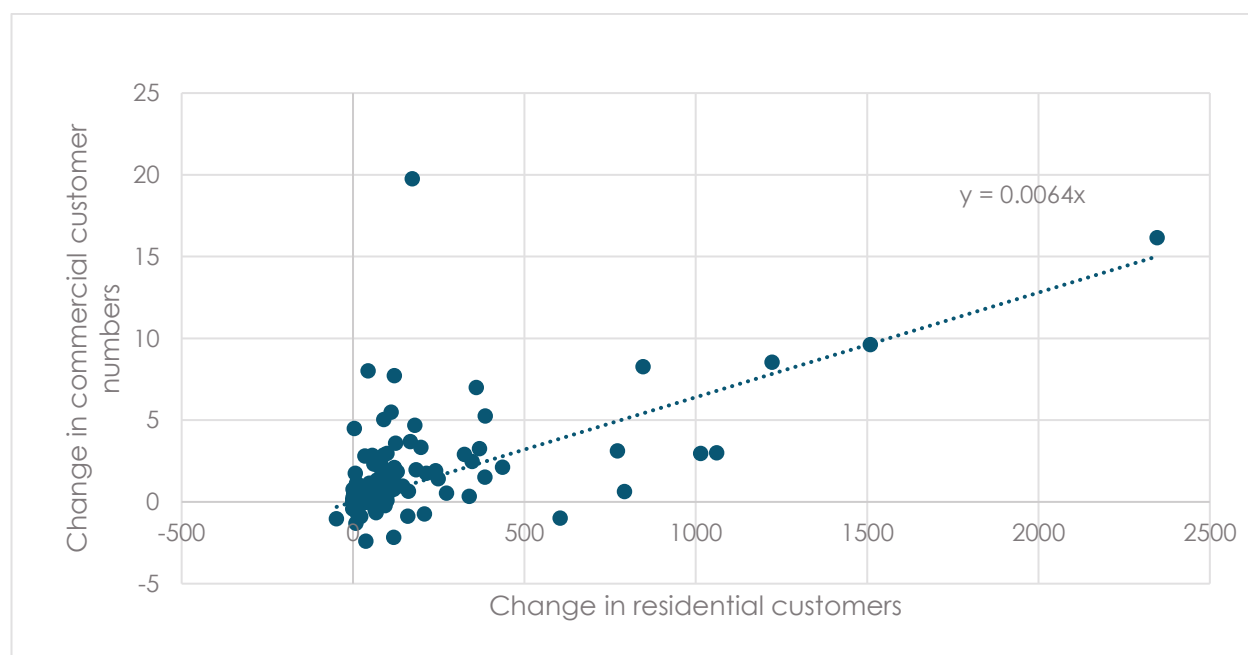
Figure A-6 Growth in commercial customers vs growth in residential customers



Source: CIE

Once CIE had established a robust relationship between the growth in residential customers and commercial customers at the LGA level (above), it then calculated what this translated to for forecast commercial customer growth in each LGA. This is depicted in the figure below.

Figure A-7 Change in commercial customer numbers vs change in residential customers



Source: CIE

Using the relationship between the number of new commercial customers per new residential customer, CIE project the number of net new commercial customers within each postcode of the Ausnet network area. The impact of the policies can be seen, with a declining rate of net new residential customers to 2025 and then a net loss in commercial customers thereafter.

A.1.4. Energy consumption forecasts

Our energy consumption forecasts are derived by multiplying the customer forecast explained in the previous section, by the average consumption per customer, for both the residential and commercial segments. This section provides an overview of the drivers of gas consumption used in CIE's model. More detail can be found in CIE's final report.

The difference between our demand forecast and AER Final Decision is only a small reduction from AER Final Decision largely reflecting the 2024 GSOO trend is slightly higher than the 2023 GSOO. When combined with lower customer numbers this leads to a similar endpoint.

Table A-7 Residential demand

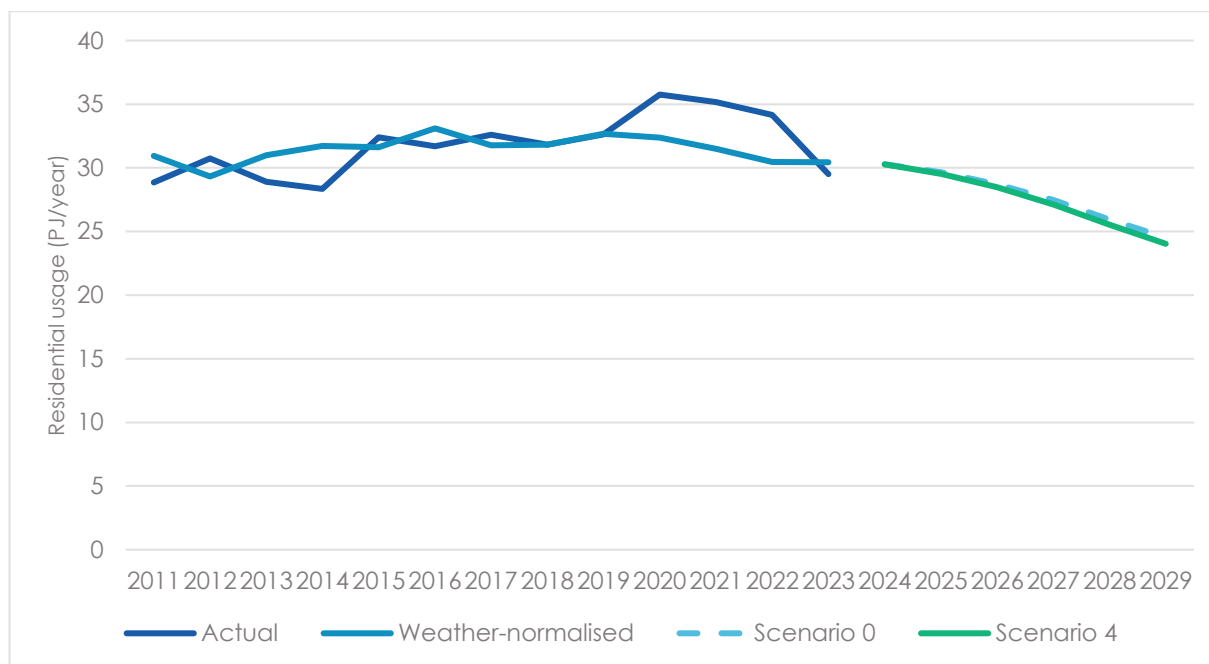
	2023-24	2024-25	2025-26	2026-27	2027-28	Total
Final Decision	30,595,873	30,156,233	29,338,860	27,941,877	26,044,333	144,077,177
Variation Proposal	30,595,873	30,156,233	29,101,067	27,927,869	26,467,216	144,248,260
Change from Final Decision to Variation Proposal	-	-	-237,793	-14,008	422,883	171,083
Change from Final Decision to Variation Proposal (%)	-	-	-0.8%	-0.1%	1.6%	0.1%

Source: AusNet, CIE

A.1.4.1. Residential Customer Demand Forecasts

The total volume of gas consumed by residential customers had been reasonably constant over the five years leading into the COVID-19 pandemic. Government imposed lockdowns caused a shift towards higher residential consumption (due to work from home orders) and lower business demand (due both to work from home orders and restrictions on opening) as well as the impacts of colder than average weather over the period. The last three years have seen a drop off in total residential usage.

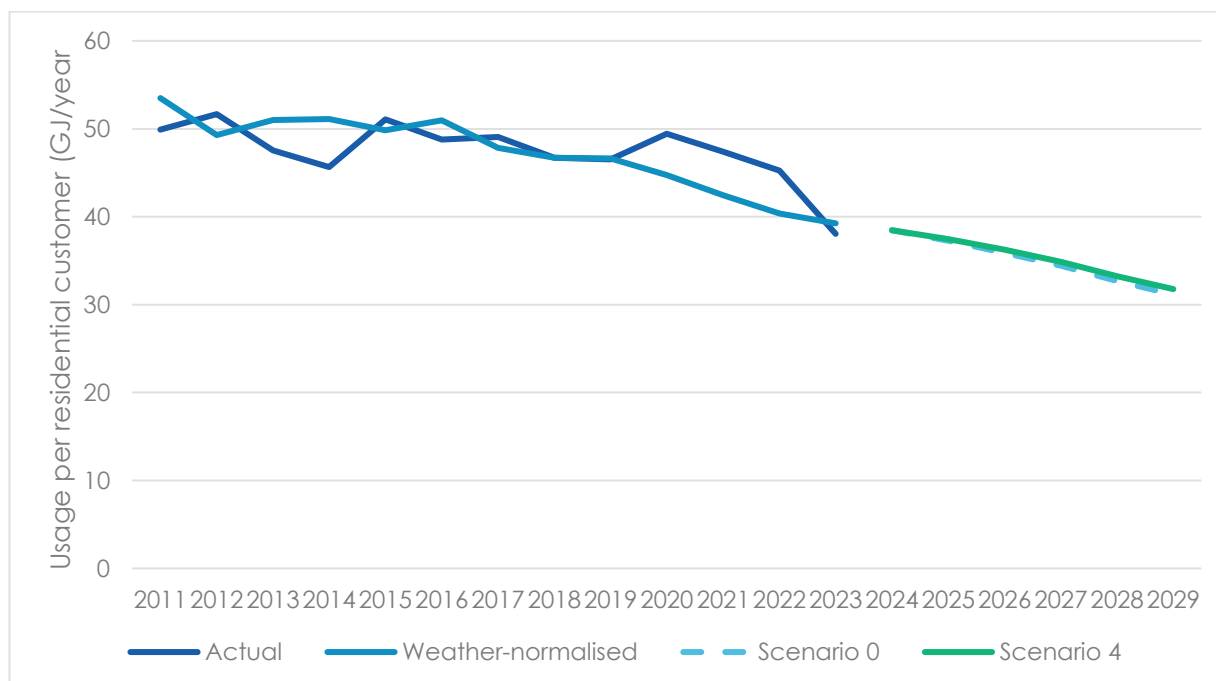
Figure A-8 Residential usage (actual, weather normalised and forecast)



Source: CIE

The use of gas by residential customers varies across different customer types and has changed significantly over time with a marked decline in the last ten years. There was a notable usage increase in 2015, however this reflected colder weather in the year. Similarly, the spike in 2020 can be attributed to a combination of weather patterns and COVID-related restrictions. Despite stable weather conditions from 2020 to 2022, residential customer usage has continued to decrease. Overall, there has been a noticeable continuing decline in underlying consumption which appears to be steadily increasing, as illustrated in below.

Figure A-9 Usage per residential customer (actual, weather normalised and forecast)



Source: CIE

Usage per residential customer reflects that customers are using less gas due to a range of factors, including:

1. **Usage per customer is declining over time** due to:
 - i. customers switching from gas to electric appliances,

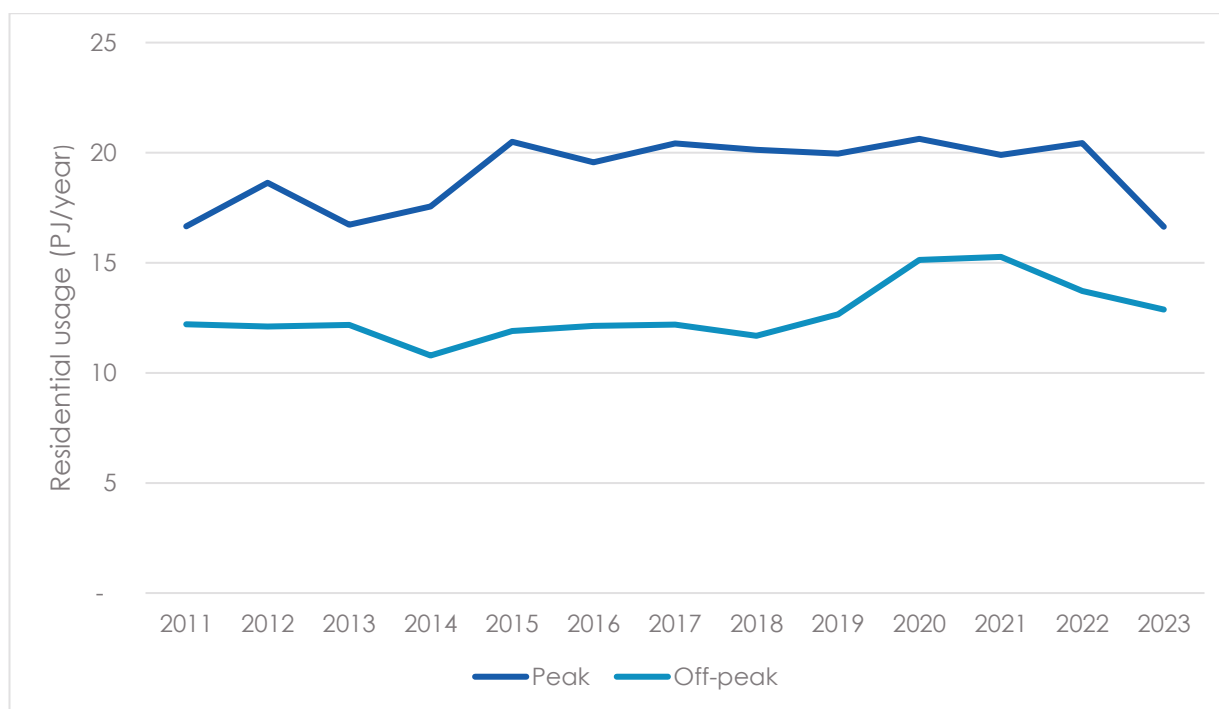
- ii. increases in temperature over time are leading to less heating load.
 - iii. energy efficiency improvements
2. **New residential houses and units use less gas** than existing dwellings of the same type.
 3. **The share of new units in total new dwellings is higher** than for the existing customer base, and units use less gas than houses.

AusNet Services' tariff structures contain a peak and an off-peak period. The peak period is between 1 June until 30 September, while the off-peak period covers all other times. Approximately 60% of annual gas consumption is consumed in the peak period (assuming average weather conditions).

Peak and off-peak usage of gas vary differently over time. CIE analysis suggests differing patterns suggest that the approach to statistical analysis should account for different relationships between usage and driver variables as well as different trends over time between the peak and off-peak periods.

- Peak usage has grown over time as the number of customers has grown, but it dropped sharply in 2022, possibly due to the increase in the number of new connections being offset by the gradual uptake of fuel switching via electrification and the adoption of the energy efficiency Victorian Energy Upgrade program and the Home Heating and Cooling Upgrades
- Off-peak usage stayed constant until 2019, implying falling usage per customer, however recently it has experienced a period of growth likely due to COVID and weather effects (chart 5.3). It stayed consistent at 2019 levels until 2021, indicating a decrease in usage per customer, before declining in 2022, possibly as the effects of COVID diminished.

Figure A-10 Comparison of peak and off-peak usage by residential customers



Source: CIE

A.1.5. Key drivers of usage

A.1.5.1. Adjustments for electrification and energy efficiency

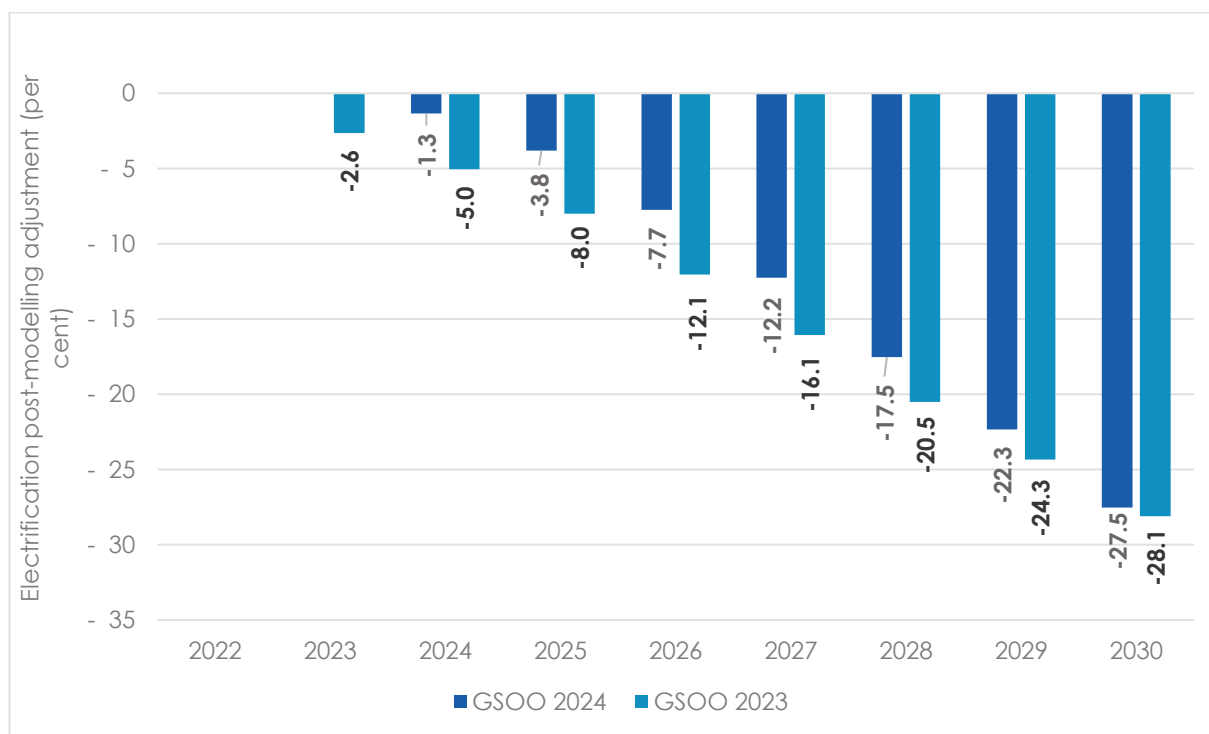
CIE apply three adjustments to projections of usage energy efficiency, appliance switching and weather normalisation. This reflects that historic trends and correlations are not adequate given the future is not expected to reflect history.

This is a particularly important consideration for two crucial drivers of future gas consumption accelerating energy efficiency and appliance switching. The time trend is limited in accounting for these effects because it models a linear trend in usage, and thus cannot extrapolate an increasing pattern of appliance switching if that was evident

historically, and the time trend will account for appliance switching only insofar as it has occurred historically, and will not be able to account for an increase in the rate of appliance switching driven by factors not accounted in the model.

To account for these expectations of energy efficiency and appliance switching which are not captured in its model, CIE incorporated a downwards post-model adjustment to its gas consumption forecasts. Rather than calculating its own adjustment, CIE considered that the assumptions in AEMO's 2024 GSOO were a reliable, publicly available and independent source that it could apply to our forecast gas consumption. While AEMO's GSOO assumptions are Victoria-wide, there is no evidence to suggest that its assumptions would not be appropriate for our network.

Figure A-11 Electrification post modelling adjustment

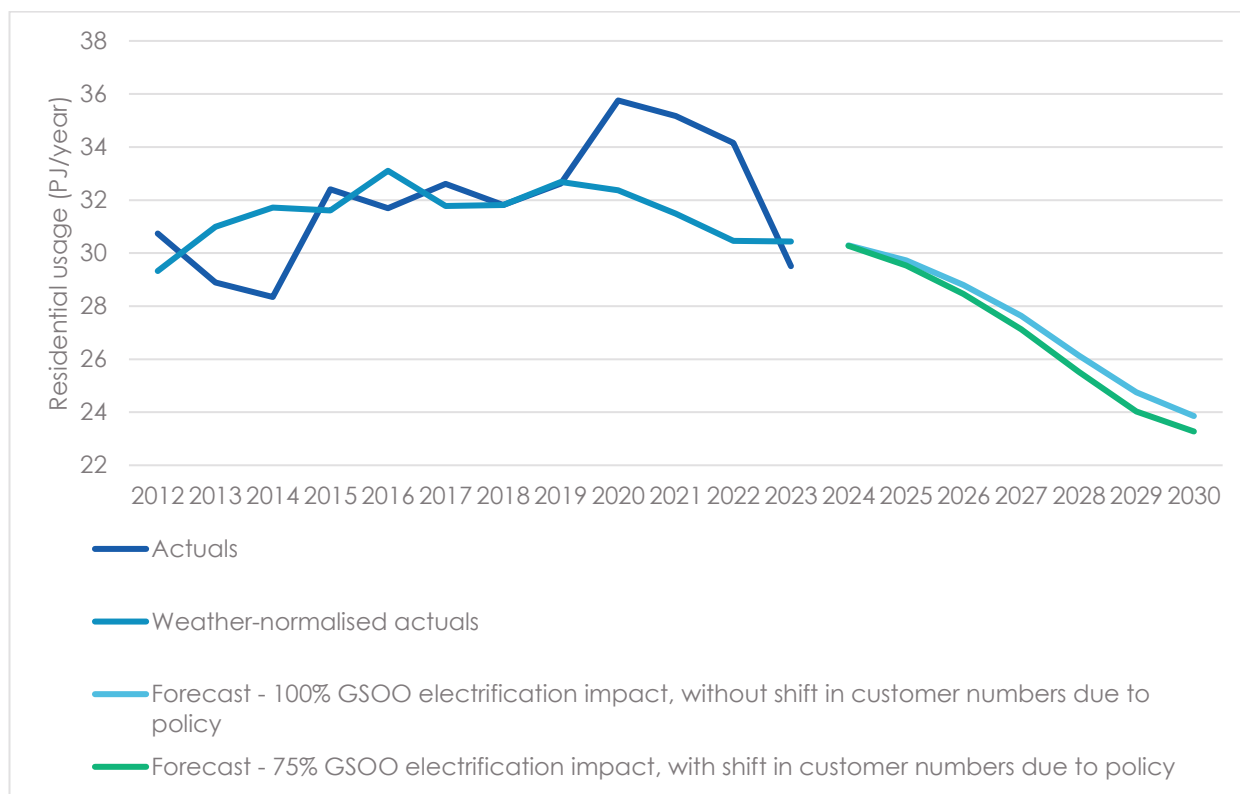


Source: CIE

CIE adopted the percentage impacts in the above table and applied these to its modelled energy consumption forecasts.

CIE have then removed 25% of AEMO's electrification adjustment estimated in the AEMO GSOO 2024, to avoid double-counting with customer number impacts.

Figure A-12 Removal of part of AEMOs electrification adjustment to exclude double counting

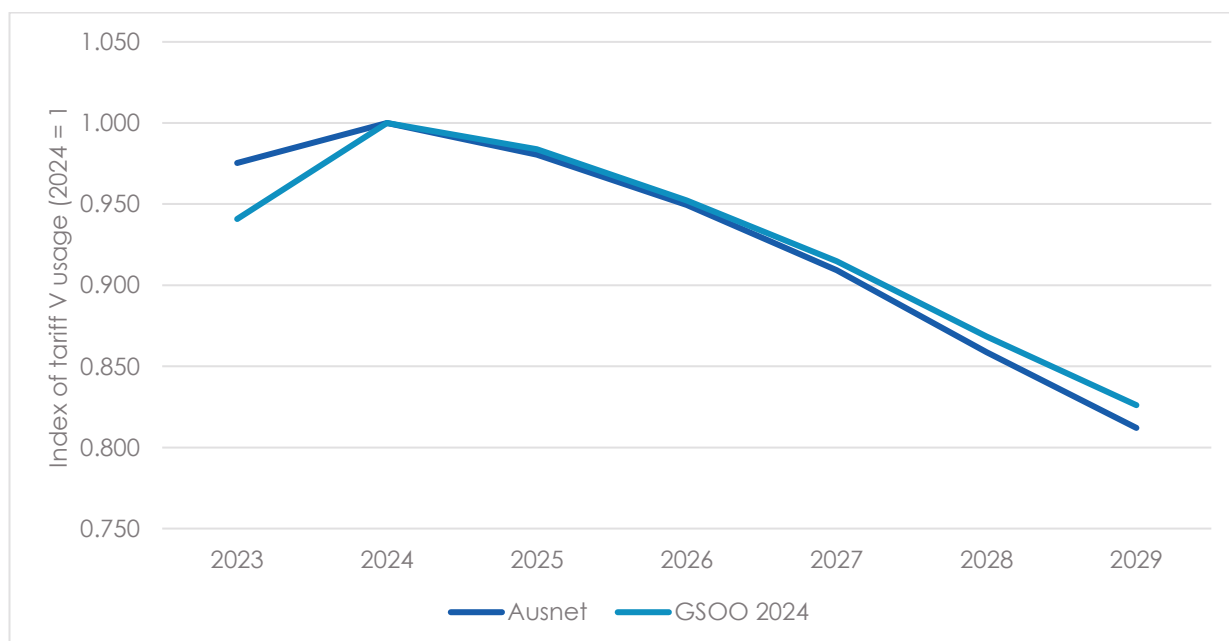


Source: CIE

CIE also made a downward adjustment to total usage based on the impact of energy efficiency estimated in the AEMO GSOO 2024. These adjustments are identical to those made for residential usage.

Below we've compared total tariff V usage, showing Scenario 4 and the GSOO forecasts applied to Ausnet's 2023 starting point for tariff V usage. The comparison in calendar years since AEMO's forecasts are only available on a calendar year basis. The difference in the change from 2023 to 2024 reflects different impacts of weather normalisation between CIE and GSOO forecasts with the trend thereafter extremely similar.

Figure A-13 Residential usage comparison (Scenario 4, 2024 GSOO)

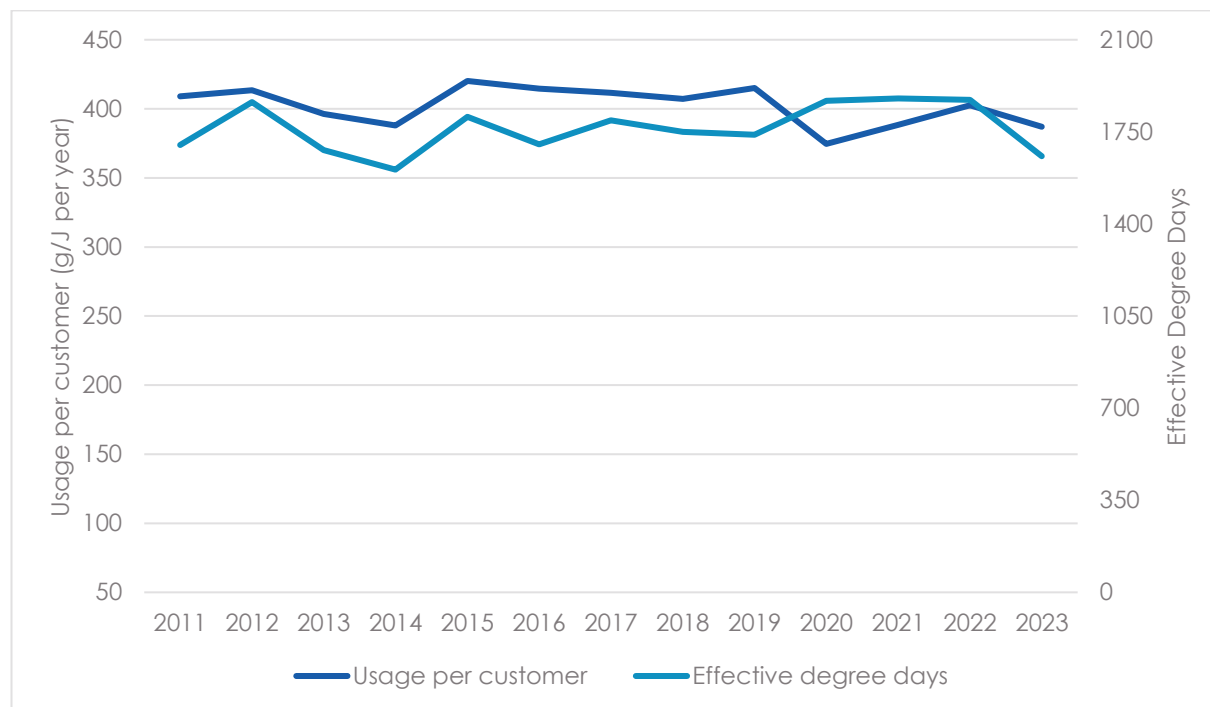


Source: CIE

A.1.5.2. Projected weather outcomes

Effective Degree Days (EDD) is the measurement unit that we use to estimate how cold the weather is. EDD are a common measure of weather and take into account temperature, wind and sunlight to produce a daily value of the level of 'coldness'.⁴⁷ EDD can be correlated with gas consumption to produce an estimate of how much additional gas a customer will use for an associated increase in EDD. As seen below, there is a strong correlation between gas consumption and EDD.

Figure A-14 Usage per customer and Effective Degree Days comparison

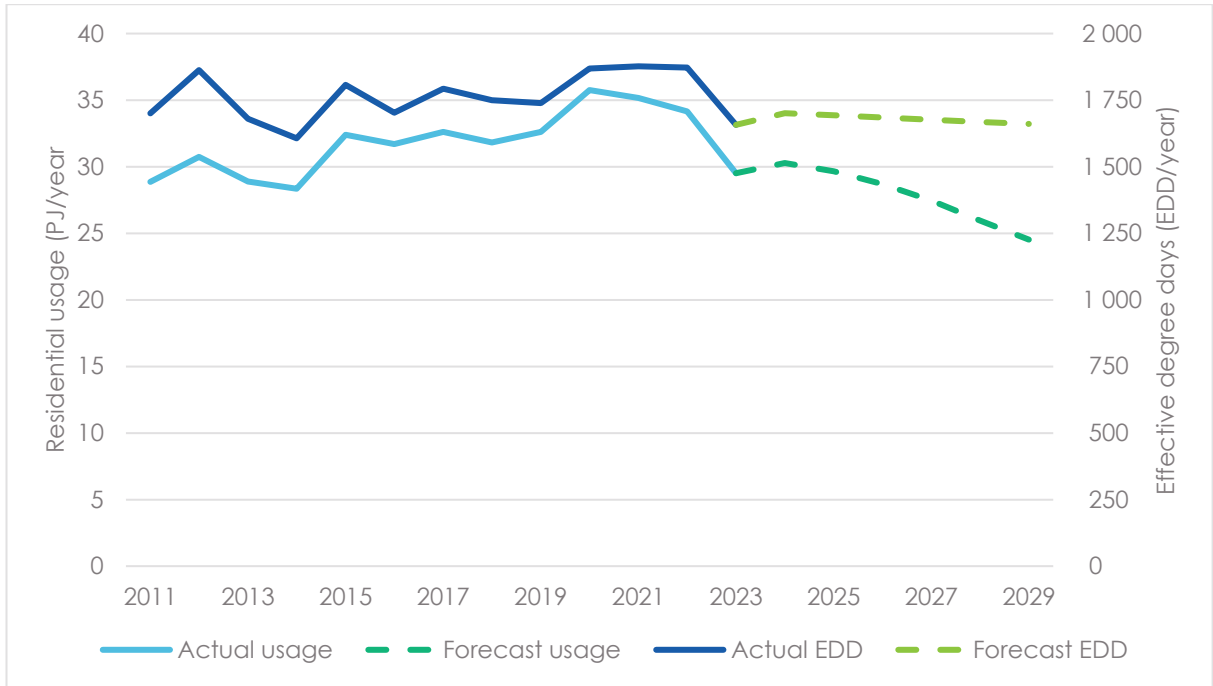


Source: CIE

Any trend towards fewer EDD – that is, warmer weather – will result in lower gas consumption. CIE established that there was in fact a trend of lower EDD over time and has projected this trend into the next access arrangement period, as shown in the figure below.

⁴⁷ The higher the Effective Degree Days, the colder it is.

Figure A-15 Forecast EDD



Source: CIE

Consistent with CIE approach to forecasting residential usage, CIE project EDD to decline at a rate consistent with the historical trend of -8.124 EDD per year.

B. Appendix B - Majority of the Final Decision unchanged

We have sought to make the minimum changes necessary to the AA to directly respond to changes announced/implemented by the Victorian Government. Limiting the scope is appropriate as it maintains the incentive properties that were in place at the time of the Final Decision. It would be inappropriate to revisit other issues on a piecemeal basis as this would lead to an inevitable incentive to selectively review forecasts that we now consider detrimental. Whilst we consider it is open to the AER to undertake a total re-examination of the proposal, we do not consider this to be the best course of action. Further, there are a number of issues that are core to the way in which AusNet is regulated that might be appropriate to reconsider and would require extensive stakeholder input. Examples, include:

- The form of control, AusNet is on a price cap and a move to a revenue cap could be considered.
- Changes to tariff structures may be appropriate.
- Socialisation of abolishment costs may grow to become inappropriately large.

However, we consider these issues would be best examined at the next full GAAR as this gives stakeholders plenty of time to do deep engagement with all parties and progress these issues on a Victoria wide basis. As such the table below details the areas of the Final Decision we have not revised and our reasoning for why.

Table B-1: Areas of the proposal unchanged

KEY ASPECT OF OUR PROPOSAL	ELEMENTS UNCHANGED	REASONING
Opex	Productivity Parameter	There is a reasonable argument that productivity will be decreased in an environment where the gas network is now starting to decline in size. However, we will not challenge the productivity parameter at this time.
Opex	Base year	We used CY2021's revealed expenditure to forecast our efficient base year opex for the 2024-28 access arrangement period. We are not proposing to make changes to this approach.
Opex	Step Changes – Additional regulatory and compliance costs	With the changed GDC, new pipeline disclosure obligations and quarterly reporting to the AER, our costs have been increased. We will not be seeking an additional pass through for these amounts.

Capex	Maintains the AER approved expenditure in 2022-23 and 2023-24	This approach maintains the incentive properties that were in place at the time the Final Decision was made.
RAB	Maintains Final Decision in relation to the starting RAB	As we have not changed the forecast capex in the first two regulatory years, there is no change to the first two years of proposal with any changes proposed forward looking.
Rate of Return	Maintains approach in Final Decision: apply the rate of return instrument—the current 2022 Rate of Return Instrument—to estimate an allowed rate of return and apply a value of imputation credits; risk-free rate averaging period and debt averaging periods; approach to estimating expected inflation.	This approach maintains the incentive properties that were in place at the time the Final Decision was made.
Corporate income tax	Maintains approach in Final Decision	There is an established method to set the tax allowance. While the amount will vary with any revised decision, we do not consider revisiting the methodology necessary.
Incentive mechanisms	Maintains Final Decision in relation to the application of incentive mechanisms	Maintains approach. Capex and Opex targets will need to be updated as a result adjustments in capex and opex.
Abolishment charge (cross subsidy)	Maintains Final Decision in relation to abolishment charges	<p>Stakeholders raised concerns in relation to the recovery of residential customer's abolishment cost from the broader customer base. Stakeholders were concerned regarding the cross subsidisation of these costs and the implications for customers that remain on the gas network, particularly in the current environment.</p> <p>We share stakeholder concerns on this matter. This cross subsidy supports customers that can afford to leave the network sooner while unfairly penalising customers that have less options available – such as through vulnerability or lack of choice. While we understand the AER's position in relation to making it easier for customers to safely abolish it is unclear that this is always achieving that objective in practice. Greater consideration is needed to ensure mechanisms put in place are appropriate.</p> <p>Given the limited scope of the Variation Proposal we have not addressed this issue in this proposal, however, note our</p>

intention to raise this issue as a matter of concern in the next AA proposal.

Price control mechanism	Maintains price control mechanism	We are not looking to move away from a price cap tariff variation mechanism in this Variation Proposal. The shift away from a growth network to a declining network means we will need to engage with customers about the most appropriate way to share risks between us and customers, while maintaining network safety and operability throughout the transition. Not every customer will be able to transition away from gas. We will continue to prioritise customer safety and access to this essential service during the transition.
Depreciation (asset lives)	Maintains Final Decision on asset lives	<p>We consider that with greater certainty about the reduced longevity of the gas network that shorter asset lives is now justified.</p> <p>However, in the interest of modelling simplicity, we will seek additional AD through a financial parameter, rather than adjusting asset lives. We intend to re-examine this issue at the next GAAR.</p>

C. Appendix C - Supporting documents

The following documents are provided in support of this chapter:

- ASG – GAAR Revision 2024-28 – Proposal PTRM - Sep 2024 – PUBLIC
- ASG – GAAR Revision 2024-28 – Capex Model - Sep 2024 – PUBLIC
- ASG – GAAR Revision 2024-28 – Opex Model – Sep 2024 – PUBLIC
- ASG – GAAR Revision 2024-28 – Depreciation tracking Model – Sep 2024 – PUBLIC
- ASG – GAAR Revision 2024-28 - Accelerated Depreciation Calculation Model – Sep 2024 – PUBLIC
- ASG – GAAR Revision 2024-28 – ARS revenue & expenditure forecast – Public
- ASG – GAAR 2024-28 – Appendix 1 – CIE Demand Forecast Update - Report – PUBLIC
- ASG – GAAR 2024-28 – Appendix 2 – CIE Demand Forecast Update - Model Scenario 4 – PUBLIC

Glossary

Abbreviation	Full name
AA	Access Arrangement
ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
AGN	Australian Gas Networks
AGIG	Australian Gas Industry Group
ARS	Ancillary Reference Services
Capex	Capital Expenditure
CESS	Capital Efficiency Sharing Scheme
CPI	Consumer Price Index
EBSS	Efficiency Benefit Sharing Scheme
ESC	Essential Services Commission
ESV	Energy Safe Victoria
GJ	Gigajoule
GAAR	Gas Access Arrangement Review
GSOO	Gas Statement of Opportunities
JGN	Jemena Gas Networks
MGN	Multinet Gas Networks
MJ	Megajoule
NGO	National Gas Objective
NGR	National Gas Rules
Opex	Operating and Maintenance Expenditure
PTRM	Post Tax Revenue Model
RAB	Regulatory Asset Base
The Roadmap	The Victorian Government's Gas Substitution Roadmap (update)
WPI	Wage Price Index

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