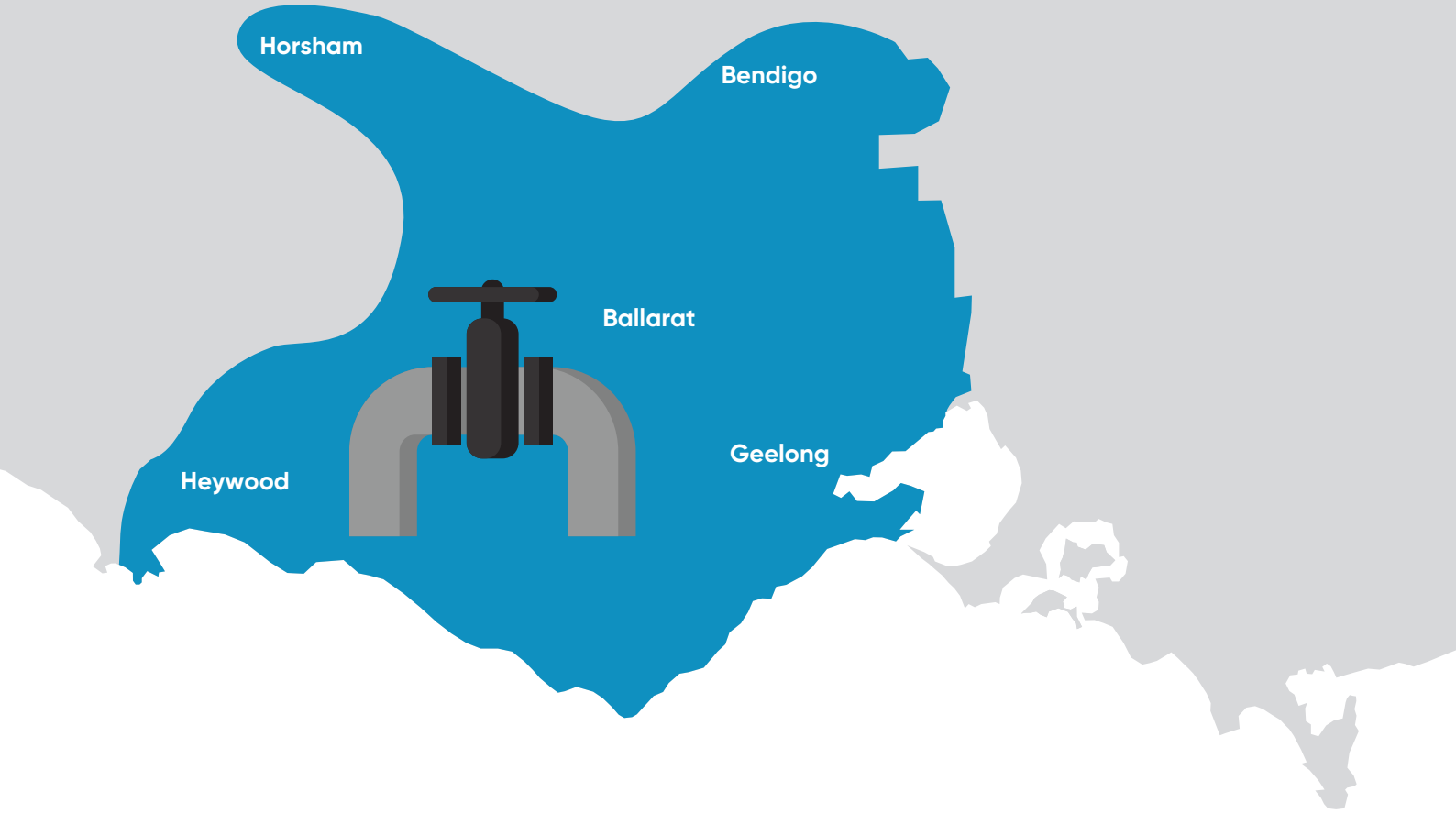
AusNet

Our gas network proposal 2024–28

Contents



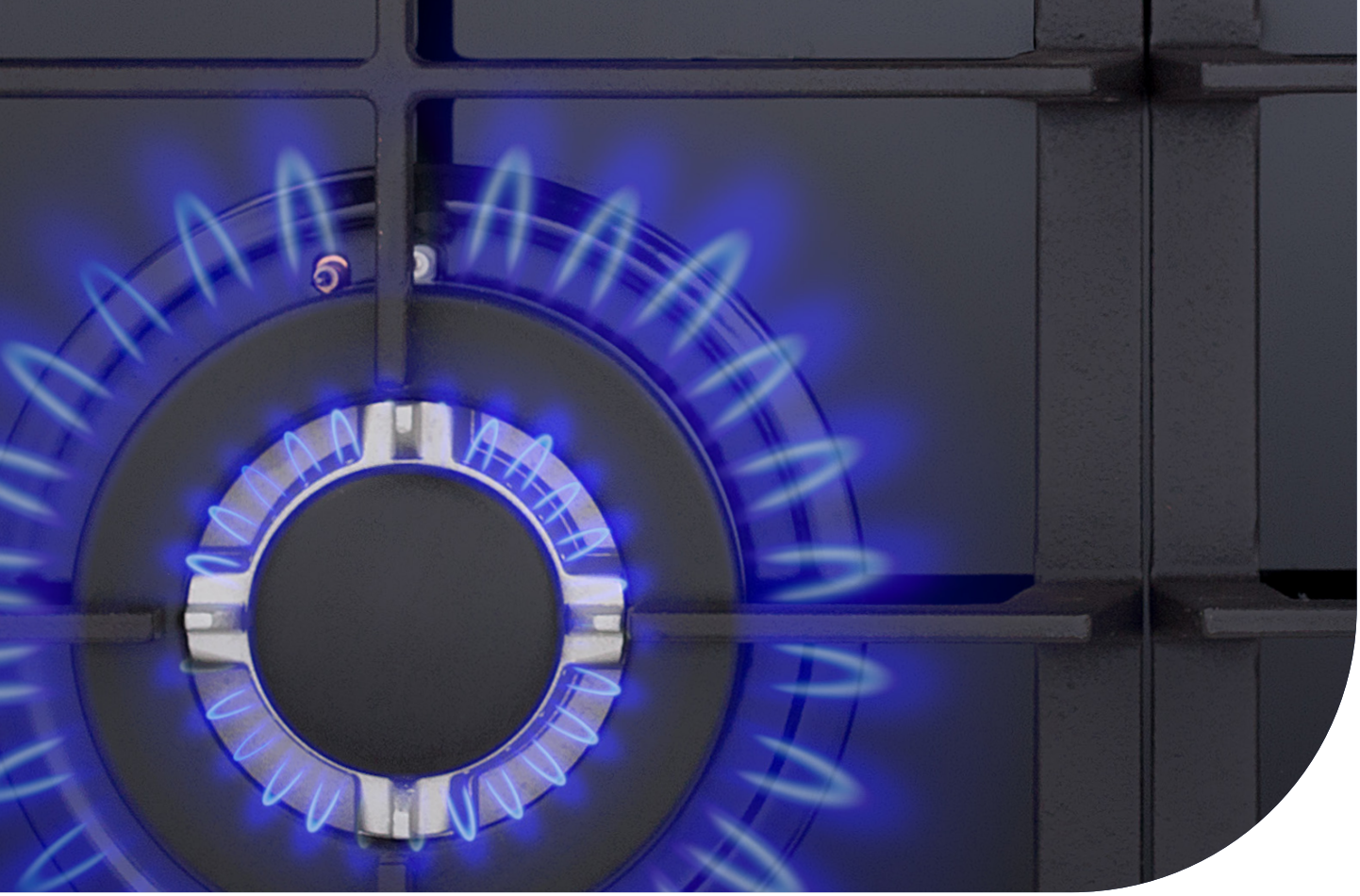
Introduction

Our gas network provides affordable, safe and reliable energy network services to over 760,000 homes and businesses across western and central Victoria, including the outer-northern and north-west metropolitan areas of Melbourne and major population centres, such as Geelong, Ballarat and Bendigo.

Our gas network supplies affordable, safe and reliable energy to over 760,000 homes and businesses across western and central Victoria, including the outer-northern and north-west metropolitan areas of Melbourne and major population centres, such as Geelong, Ballarat and Bendigo. Approximately 4 in 5 households in our service area are connected to the gas network.

As an essential service, the gas network has been built over decades with long-term investments. These investments have been consistently made despite low stable returns as the capital recovery of efficient investment is guaranteed by customers through the regulatory regime.

The network transports natural gas from the principal gas transmission system through 12,000 km of mains (pipelines) and hundreds of pressure regulating facilities (such as city gates and field regulators) to individual gas meters, which supply residential and business customers.



Introduction CONTINUED

However, the domestic gas market is facing several challenges arising from meeting Victoria's legislated net-zero greenhouse gas emissions by 2050 target[1]. While it is currently more environmentally friendly to use gas than non-renewable electricity from the electricity grid, natural gas accounts for approximately 13% of Victoria's annual emissions. That said, we also know that our customers value gas, and have a preference to continue using it (over the long-term), particularly if there is an affordable and safe zero emissions option available.

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 such as hydrogen which, when burnt, does 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 or all of the gas network.

The key question facing gas networks is 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. The relative uptake of either one of these two pathways is currently unknown.

Regardless of the path to net zero chosen, this means major long-term changes for our network. However, it is also important to understand that under either scenario, the community will require a safe and reliable gas distribution service in some form up to 2050 and likely beyond and we must manage and invest in the network accordingly.

Within that context, this executive summary provides an overview of our plans for the gas distribution network for the next five years (from 1 July 2023) and the associated revenues required to deliver those plans[2].

[1] The Victorian Government has legislated a long-term target for Victoria of net-zero greenhouse gas emissions by 2050. In its Climate Change Act 2017 (Vic), it commits to supporting communities and businesses through the transition to reduce the impacts of climate change and help support growth in the economy. The Government has set achievable but ambitious targets to reduce Victoria's greenhouse gas emissions from 2005 levels by 28–33% by 2025 and 45–50% by 2030.

[2] The dollars presented below (and across this whole proposal) are stated in real $2023 terms unless noted otherwise.

Transitioning to a low carbon future

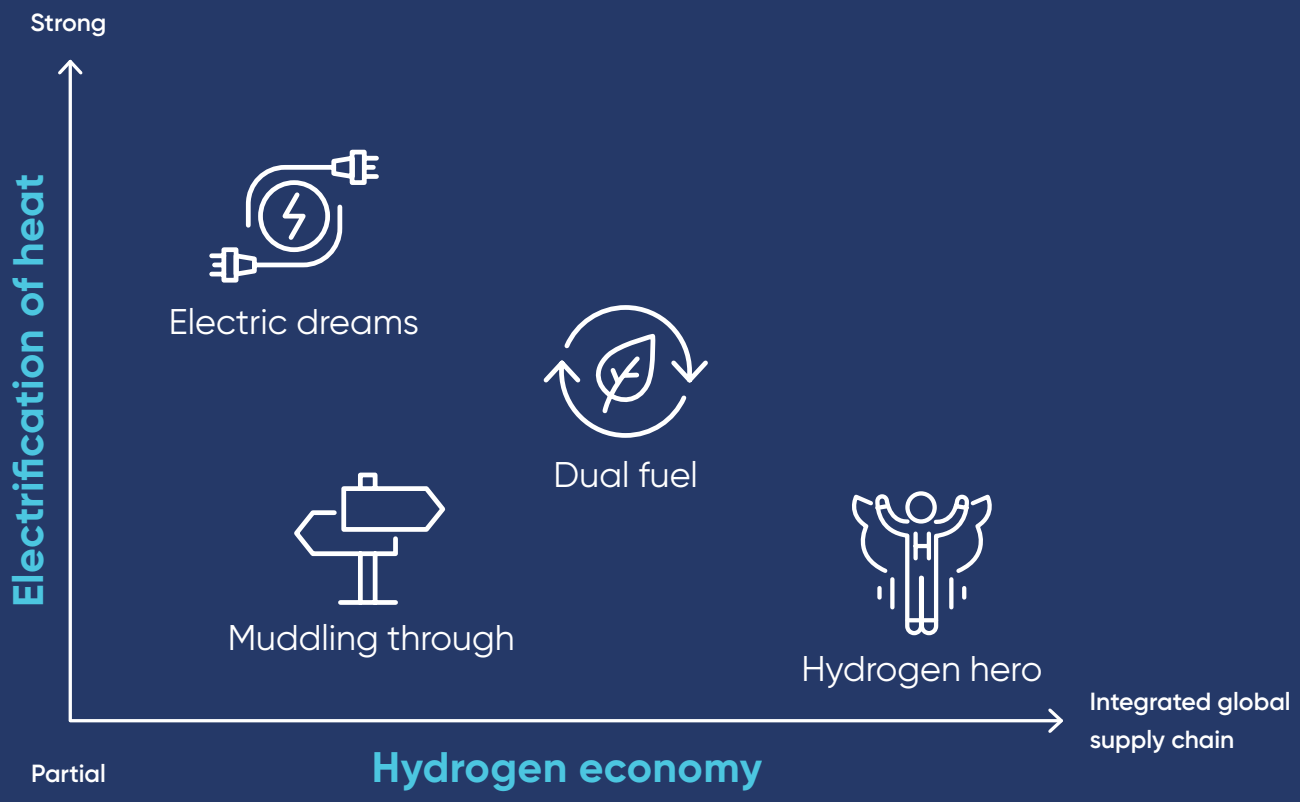
Dealing with an uncertain future

While we expect our gas services to remain largely unchanged in the short to medium-term, the role our gas networks will play in Victoria's long-term energy mix is not yet clear. This makes planning for the future challenging.

Conscious that developing a strategy for the future of gas networks would benefit from a whole-of industry approach, rather than an individual network approach, we along with our fellow Victorian networks, Australian Gas Networks and Multinet Gas Networks, convened a panel of independent industry experts to develop potential future scenarios that Victorian gas networks could consider. The purpose of the scenario development was not to pick a winner, but to understand the various ways the future could unfold and plan for these eventualities.

The four scenarios identified by the Expert Panel are outlined below.

Figure 1 – Expert Panel scenarios



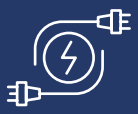
A brief description of each scenario is outlined below

Muddling Through

This scenario reflects stop-start progress toward net zero with 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 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 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.



Electric Dreams

This scenario is characterised by widespread electrification of the gas load underpinned by strong market driven growth of 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.

Leaving options open

Given the ongoing level of uncertainty around our role in a zero-emissions world, we determined that customers are best served by keeping both decarbonisation pathways—hydrogen and electrification—open as possibilities at this time. This meant that we did not pick a winner from the four options identified by the Expert Panel, nor have we taken an average of the possible scenarios as the basis of our plans. Rather, we have made decisions that keep both pathways open at lowest long-term cost to customers.

One of the key benefits of our approach is that once there is sufficient certainty, we can quickly start to develop plans that are consistent with the known direction and, where required, undertake the necessary investment. This means we will not need to discard any investment we make, whereas selecting a specific transition path now would expose us and our customers to that risk.

In developing our proposal, we have explicitly *not* incorporated the Victorian Government's Gas Substitution Roadmap (the Roadmap). The Roadmap was only released in June 2022 and we did not have time to meaningfully incorporate it into our regulatory proposal. Engaging on and reflecting the implications of the Roadmap will be a key part of our post lodgement engagement.

Ensuring stable prices into the future

To reflect the uncertain future of our network, there is one major action we are proposing that will lead to a modest impact on price in the short term, but lower and more stable prices in the future. We are proposing to recover our investment in the network at a faster rate – this is called accelerated depreciation and is the best way for us to maintain stable long-term prices while also lowering our capital recovery risk. If we were not to pursue this option, our customers would face greater price volatility and significant price increases in the future, not least if we are recovering our investment from a shrinking customer base (given the relative competitiveness of gas diminishing or the gas network being wound down).

The value of accelerated depreciation that we have proposed is $150 million over 5 years. This is a significant increase from the current access arrangement period, where we did not propose any accelerated depreciation.

While we tested several different accelerated depreciation scenarios (covering the range from zero to approximately $430 million) we concluded that $150 million of accelerated depreciation strikes the best balance between the long- and short-term price impacts on our customers and between affordability and investment risk.

While our proposed accelerated depreciation is slightly higher than the $130 million contained in our draft proposal, we feel confident that our stakeholders understand the potential usefulness of accelerated depreciation as a tool to help control long-term prices. However, stakeholders have mixed views as to whether using accelerated depreciation is appropriate, notwithstanding our customers seeing value in maintaining affordability and price stability.

Given we are a regulated business facing significant uncertainty, and we are required to invest and connect new customers to our gas network, accelerated depreciation is one of the few levers we can pull to ensure we recover the efficient cost of our investment. While we appreciate that some stakeholders and customers may not support bringing these costs forward, our proposal helps us keep prices stable while also maintaining the 'regulatory compact' (which is that we invest and deliver safe and reliable energy to our customers and in exchange we are provided an assurance that we can recover the efficient cost of that investment over the life of those assets). Lower future prices are also key to assisting the gas network to remain competitive if we transition to a hydrogen network or, where the gas network needs to be wound down. Specifically, it assists in keeping prices lower for the customers that remain on our network.

What we have heard from our customers

Over recent years, AusNet has made a conscious effort to systematically integrate customers and stakeholders into the development of our strategies, plans and how we deliver our services both inside and outside of regulatory review processes. This enables us to deliver higher quality, more relevant services and strengthens our understanding of the impact our decisions have on the essential services our customers rely on.

As most of the challenges and considerations facing us in the upcoming access arrangement period are common across Victoria's gas distributors, we chose to undertake joint engagement with the two AGIG networks. This approach, which was strongly supported by stakeholders, recognised that stakeholders' time is valuable and under pressure from the multitude of energy transition issues that require their attention.

Given the uncertainty around the future of gas in a net zero economy, we deliberately created opportunities to have the hard discussions openly and honestly with stakeholders, knowing there may be a very wide range of views expressed. Our joint process with AGIG has delivered those opportunities in a variety of forums, including:

- Regular round tables with customer representatives, retailers and big business.
- Targeted stakeholder co-design workshops on specific issues, such as the Gas Network Innovation Scheme (which we are no longer pursuing) and the Priority Service Program;
- Residential and small business customer workshops; and
- Deep dives on the major components of expenditure and the future of gas.

We heard clearly that our residential and small business customers highly value gas, see it as broadly affordable (and more affordable than electricity), safe and reliable. They have generally low awareness of the uncertainty facing gas networks and most see gas being part of their home and business' energy mix for the foreseeable future.

Our commercial and industrial customers also highly value their gas service but are very concerned for their future with geopolitical issues sending energy costs higher and gas shortages in south-east Australia. Many of them want help with their own net zero pathways.

Stakeholder representatives expressed hugely diverse views. While some recognised the value of small price increases now to avoid larger future increases and more volatile prices in the future, many are pessimistic about the hydrogen pathway for domestic heat and are frustrated by policies and regulatory obligations that are unclear or conflict with their views. They all struggle with accelerated depreciation being justified while further new investment is still being made in the network.

Other important feedback from stakeholders included:

- The need for AusNet to play an important role in supporting customers experiencing vulnerability, especially during a period of transition.
- Capital expenditure to be minimised where possible, particularly until a viable pathway becomes clearer. This includes expenditure on new connections (capex), notwithstanding a legal obligation to connect new customers on request.
- The need for us to reconsider our operating expenditure proposal, particularly the step changes we proposed. We were also questioned on whether our proposed productivity (0.4%) was sufficiently robust.
- Many also questioned whether our obligations regarding connecting new customers and to a lesser extent, maintaining network performance continued to be in the long-term interest of the existing customer base and wanted further evidence to be provided on these issues.

How we are responding

As a result of our engagement program we have made several changes to our proposal to ensure better alignment with our customers' views and preferences. Our amendments include:

- We are proposing a Priority Service Program that is fully aligned across all three gas distributors. Importantly, costs have been revised downwards and we will continue to work with customers and vulnerable customer experts on the detailed design and implementation of this program.
- We have removed our ($11.2 million) future of gas readiness program, recognising the current uncertainty about the future of the gas networks.
- We have reduced capitalised overheads ($18 million) following the availability of updated information.
- We have removed the Gas Network Innovation Scheme from our proposal ($4 million) due to the level of uncertainty regarding the future of gas.
- We have agreed to take on more risk by absorbing several step changes, including bushfire insurance, digital meter trial project, transmission pipeline inline inspections, upgrading custody transfer meters and new state tax and levies ($6 million).
- We have carefully reassessed our ICT expenditure and reduced costs by $11 million. Nonetheless, ICT expenditure is lumpy in nature and has increased to replace several key systems that are no longer supported and may be subject to cyber or system failure if not replaced. Our proposed replacement will occur on a 'like-for-like' basis – we are not looking for state-of-the-art systems.
- In response to stakeholder questions on the ambition of our proposed productivity, we engaged an independent consultant to develop a productivity forecast. Its best estimate is 0.2% per annum, significantly less than the 0.4% per annum we have proposed.

Recognising the need to balance immediate and long-term affordability concerns with the risks facing our investors, we have also increased our proposed accelerated depreciation from $130 million to $150 million. This reflects updated modelling and our view that we are in a higher risk environment as foreshadowed by stakeholders and the gas substitution roadmap modelling. This level of depreciation is prudent and efficient given current uncertainty, and our modelling has been made available for all customers, stakeholders and other interested parties to consider.

Post lodgement engagement

We will continue to engage with customers and stakeholders throughout the remainder of 2022, in the lead up to submitting our revised proposal.

We anticipate there may be material changes to our operating environment and the context in which this proposal has been developed before the AER's final decision in early 2023. These include changes to interest rates, government policy and positions (including on the Roadmap), or clarity over different aspects of our proposal.

We will continue to maximise the opportunities to engage with our customers and stakeholders on key new information throughout the remainder of the review process.

In the event of a material change of circumstances after the AER has made its final decision, there is scope for amendments to the access arrangement to be made. Importantly, in such circumstances, customers and other stakeholders will have the opportunity to make submissions on the variation proposal.

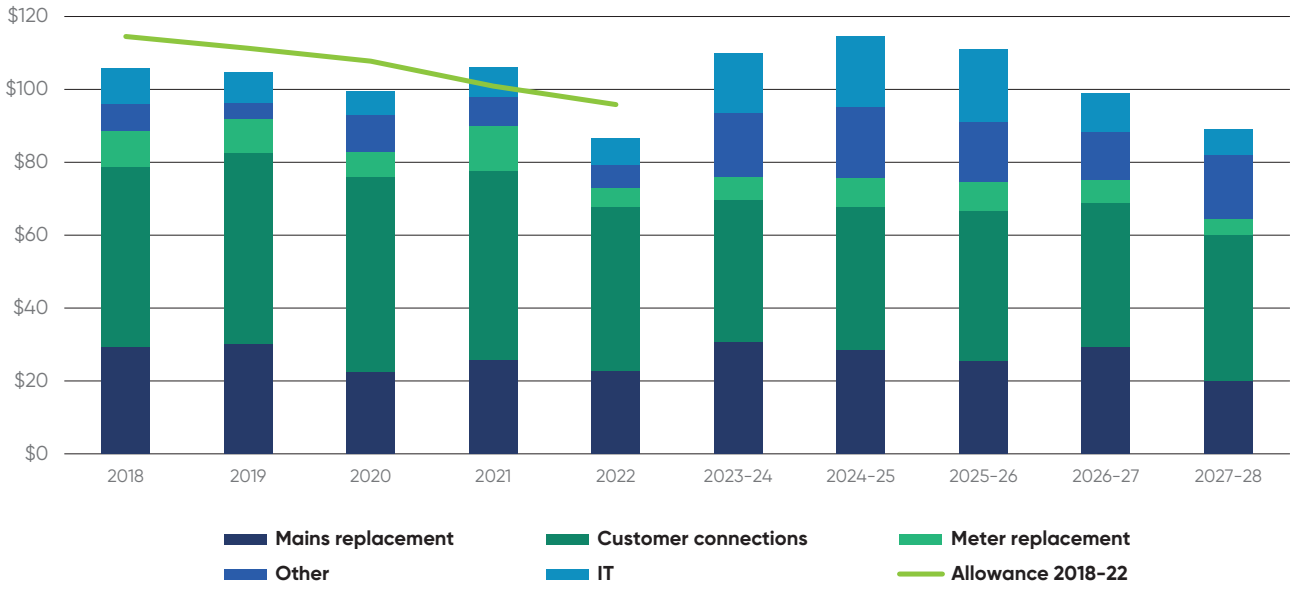
Capital expenditure

Having listened carefully to the concerns of our customers and stakeholders, we have reduced our capex forecast. We have done this by, amongst other factors, removing any expenditure that was discretionary, including our $11.2 million future of gas project. While that project would have allowed us to undertake some preparatory hydrogen capability work, we have removed it as we recognise the level of uncertainty surrounding the future of gas and that we may be able to leverage lessons from other networks and jurisdictions who are transitioning to the new energy future ahead of us.

We are proposing total net capex of $521.9 million over the access arrangement period, which is 3.9% ($19.5 million) higher than the net capex we expect to incur in the current access arrangement.

Key components of our capex proposal are outlined below.

Figure 2 – Net capex, actual and forecast ($m, real 2023)



Low pressure mains replacement

We are proposing to complete the final stage of our low pressure mains replacement program – a key safety program – which we have progressed over multiple access arrangement periods. This $81.4 million program will address safety risks on the network, indicated by increasing Leakage Incident Rates by replacing the last remaining (273.3 kms) of low pressure mains and replacing them with high pressure mains. Once complete, we will have fulfilled safety commitments agreed with Energy Safe Victoria. The volume of low pressure mains that need to be replaced will also drop significantly in subsequent years.

Medium pressure mains replacement

Our proposed medium pressure replacement program involves replacing 94.5 km of medium pressure mains. These mains operate at between 15 kPa – 140 kPa and are largely located in built up urban areas. This $29.1 million program is driven by the presence of relatively high leakage rates in several high population density areas of our network and the associated increased safety risk that represents.

High pressure mains replacement

In recent years, we have experienced a material step up in the number of ad-hoc high pressure mains replacements that we have had to undertake. We are, therefore, proposing a proactive replacement program to address the increasing risks associated with early generation high pressure mains. While some ad-hoc replacement will still be required, the approach we are proposing has a lower unit rate (therefore cost) while also reducing the risk associated with any leaks – given the high pressures and flow rates associated with high pressure mains, when a leak occurs, a large volume of gas typically escapes, which results in greater levels of risk.

Our $11 million proactive program will focus on 35 km of mains in Melton where we have been experiencing particularly poor performance (higher leaks).

Capital expenditure CONTINUED

Customer connections

While our new connections have moderated slightly from record highs in the current access arrangement period, we are expecting significant connection volumes to continue into the next access arrangement period.

While some stakeholders have expressed concern at our proposal to meet those forecast volumes, given the uncertainty around the future of gas, as a regulated business, we must, upon request and within specified time periods, connect a customer to the distribution network on fair and reasonable terms. The Gas Distribution System Code of Practice specifies the minimum standards for connection and disconnection of customers to our distribution network. For this to change, a broader review of our regulatory obligations would be required.

We are forecasting net expenditure of $204.4 million for customer connection over the forthcoming access arrangement period. This is a decrease of 18.7% ($46.9 million) compared to the expenditure we expect to incur in the current access arrangement.

Augmentation

Connected to the continued strong connections growth we are expecting, we are proposing $23.3 million to ensure our mains continue to operate above the prescribed pressure levels. This is an increase of $7.8 million or 50.3% and is driven by two new city gates (a station that receives gas from the Victorian Transmission System pipelines and then injects that gas into our pipes at a lower pressure) in Werribee and Craigieburn, as well as 25 km of pipe re-enforcement.

Information and communications technology

We are proposing expenditure of $73 million for ICT expenditure over the next access arrangement period. This is $34 million higher compared to the expenditure we expect to incur in the current access arrangement. This increase reflects the cyclical nature of IT replacements and our need to replace several key systems that are past their useful life and no longer have vendor support.

Most of this expenditure (60%) reflects the gas network's share of corporate-wide initiatives that were approved by the AER in its most recent final decisions for our electricity distribution and transmission networks. However, we have also proposed additional expenditure that is specific to our gas network assets and operational management systems.

Other capex

We are also proposing $30.6 million in other capex. This captures capex not captured elsewhere within our proposal, including $16.4 million for major alterations to our network due to third parties (such as the government) requests, $2.9 million for security fences and CCTV upgrades, $5.9 million to assess pipe thickness and deformities and $5.3 million to ensure buildings and equipment remain fit for purpose.

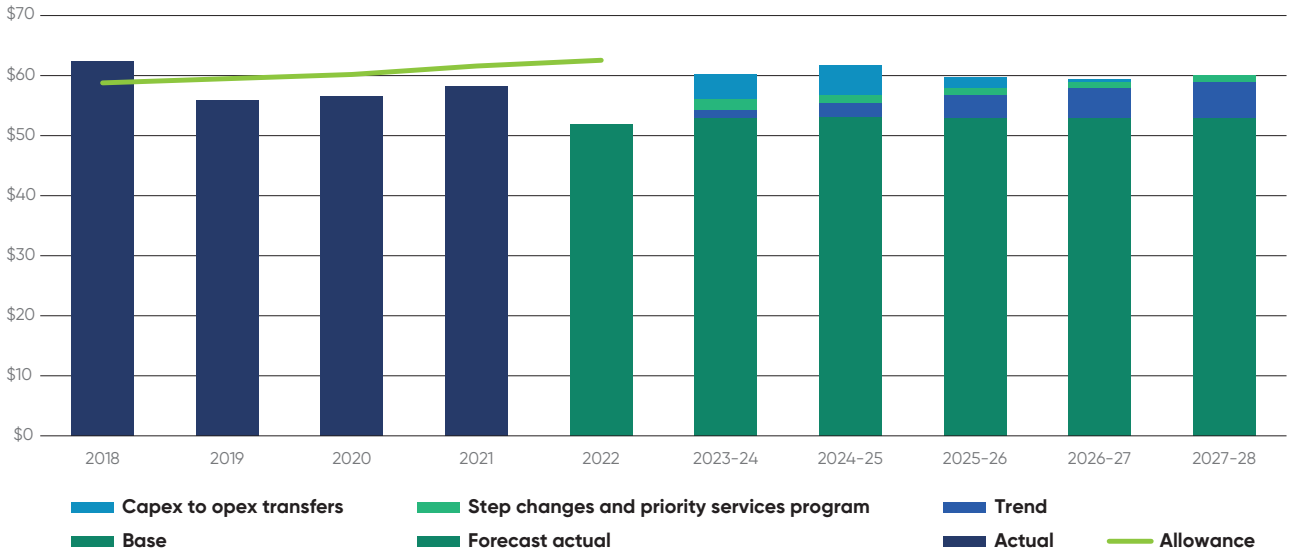
Operating expenditure

We have consulted with customers and stakeholders to develop an operating expenditure proposal that allows us to continue to operate and maintain the network to a standard that ensures a safe and reliable gas supply, as well as comply with all regulatory obligations and requirements.

Our opex forecast has been prepared using the AER's preferred base-step-trend approach and has resulted in a $300.6 million forecast for the 2024-28 access arrangement period. While this is greater than the current access arrangement's approved allowance and actual spend by 1.2% and 5.6% respectively, we have absorbed $6 million of costs associated with various initiatives and new state taxes and levies. We have only been able to do this as we have successfully undertaken a strong company-wide cost reduction program and continue to be one of the most efficient gas networks in Australia.

One important, new initiative we are proposing is a Priority Services Program ($4.4 million) to help support customers in vulnerable circumstances. We believe no customers should have to choose between food on the table or paying gas bills, and that customers who experience extra barriers to accessing or engaging with their gas service should receive fit-for-purpose support.

Figure 3 – Summary of operating expenditure forecast excluding debt raising costs ($M, real 2022-23)[3]



Incentives

We are proposing the application of three incentive schemes over the forthcoming access arrangement period:

- Efficiency Benefit Sharing Scheme (EBSS), which provides incentives to make operating expenditure efficiency improvements;
- Capital Expenditure Sharing Scheme (CESS), which provides constant incentives to make capital expenditure efficiency gains; and
- Guaranteed Service Levels (GSLs), which compensates customers who have experienced service performance below the expected standard.

The use of these schemes will help put downward pressure on costs while maintaining the standard of services to our customers.

[3] Note we are proposing to recover and addition $29 million of regulatory levies through the annual pricing process that are not shown in this diagram.

Revenue

Revenue is required to fund the operating and capital costs needed to maintain the reliability, security and safety of the gas distribution network. The various components of our proposal translate to a revenue requirement of $1,191.3 million (unsmoothed) over the forthcoming access arrangement period.[4]

Table 1 – Forecast revenue requirement ($M, nominal, unsmoothed)

	2023-24	2024-25	2025-26	2026-27	2027-28	Total
Return on Capital	94.9	96.8	99.0	100.8	101.5	493.0
Return of Capital	56.0	56.6	64.7	73.9	81.5	332.7
Operating expenditure[5]	62.7	66.4	66.0	67.7	70.4	333.1
Revenue adjustments	-15.8	5.4	1.6	1.8	2.0	-5.0
Net tax allowance	9.6	7.2	6.4	6.8	7.5	36.7
Unsmoothed revenue requirement	207.2	232.1	237.7	250.9	262.8	1,191.3

We have smoothed this requirement to deliver a stable annual revenue profile over the forthcoming access arrangement period. In real terms, this means we are proposing to deliver an initial reduction in gas distribution charges of 8.2% on 1 July 2023 (this reflects an initial 10.83% reduction that is partially offset by levies which are recovered through a different mechanism). This is a significant initial saving for our customers. Following this immediate price reduction, prices for the following years will increase by 2.35% per annum.

[4] The AER, in making its draft and final decisions of this proposal will update several inputs that are outside of our control. This will cause the revenue requirement to change even if all other aspects of our proposal remain unchanged.

[5] Excludes Ancillary Reference Services.

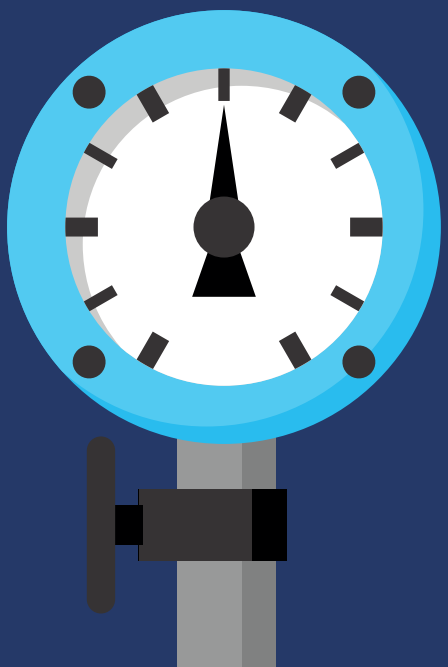
Conclusion

Our access arrangement proposal properly promotes the long-term interests of our customers by meeting the immediate needs of the network and continuing to provide efficient gas services in a prudent, safe and reliable manner.

We have carefully balanced the concerns raised by stakeholders and have made significant changes to our proposed expenditure as a result. We consider that our proposal is appropriate given the unprecedented level of uncertainty the gas sector is facing.

A key component of our proposal involves us recovering our investment in the network at a faster rate. This is a pragmatic approach that carefully balances the needs of our customers over both the short and long term, with the need to recover our investment, irrespective of whether we transition to a hydrogen network or, where the gas network needs to be wound down.

With some potentially significant policy announcements expected, we welcome further feedback from our customers and stakeholders on our plans as further information becomes available and look forward to discussing them in detail with the AER.



AusNet

AusNet

Level 31
2 Southbank Boulevard
Southbank VIC 3006

T +61 3 9695 6000
F +61 3 9695 6666

Locked Bag 14051
Melbourne City Mail Centre
Melbourne VIC 8001

www.ausnetservices.com.au

Follow us on

@AusNetServices

@AusNetServices

@AusNet.Services.Energy