



ATCO GAS 2025-29 DRAFT PLAN

ATCO Mid-West and South-West Gas Distribution System

April 2023



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2025-29 Draft Plan

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TABLE OF CONTENTS

ABBREVIATIONS	IV
OUR ROLE IN THE ENERGY TRANSITION	V
OUR 2025-29 DRAFT PLAN	VII
EXECUTIVE SUMMARY	X
1. PURPOSE OF THIS DRAFT PLAN	2
2. BUSINESS OVERVIEW	4
3. THE FUTURE ROLE OF GAS	13
4. CUSTOMER & STAKEHOLDER ENGAGEMENT	23
5. PIPELINE SERVICES	35
6. DEMAND FORECAST	39
7. KEY PERFORMANCE INDICATORS	44
8. FORECAST OPERATING EXPENDITURE	47
9. FORECAST CAPITAL EXPENDITURE	56
10. CAPITAL BASE	75
11. RATE OF RETURN	80
12. GAMMA AND COST OF TAX	82
13. WORKING CAPITAL	86
14. TOTAL REVENUE	89
15. REFERENCE TARIFFS	92
16. TARIFF VARIATION MECHANISM	99
17. INCENTIVE MECHANISMS	102
18. FIXED PRINCIPLES	111
19. TEMPLATE SERVICE AGREEMENT	113
20. POLICIES & NON-TARIFF COMPONENTS	115

ABBREVIATIONS

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
AA4 / AA5	ATCO's fourth / fifth Access Arrangement	LNG	Liquefied Natural Gas
AA5 FD	The ERA's Final Decision on ATCO's AA5 submission	MHQ	Maximum Hourly Quantity
AA6	ATCO's sixth Access Arrangement (2025-29)	MRP	Mains Replacement Prioritisation
AER	Australian Energy Regulator	NGL	National Gas Access (Western Australia) Law
ALARP	As low as reasonably practicable	NGR	National Gas Rules (WA)
ALS	Asset Lifecycle Strategies	NIS	Network Innovation Scheme
AMP	Asset Management Plan	Opex	Operating Expenditure
ATCO	ATCO Gas Australia	PE	Polyethylene
BST	Base Step Trend	PGC	Portfolio Governance Committee
Capex	Capital Expenditure	PIG	Pipeline Inspection Gauge
CBD	Central Business District	PMD	Pressure Monitoring Devices
CCUS	Carbon Capture Utilisation and Storage	PP&E	Property Plant & Equipment
CIBD	Commercial & Industrial and Builders & Developers	PVC	Unplasticised Polyvinyl Chloride
CRG	Customer Reference Group	RAB	Regulatory Asset Base
EDD	Effective Degree Day	RORI	Rate of Return Instrument
ERA	Economic Regulation Authority	SaaS	Software as a Service
ERP	Enterprise Resource Planning	SAIDI	System Average Interruption Duration Index
GDS	Gas Distribution System	SAIFI	System Average Interruption Frequency Index
GHG	Greenhouse Gas	SCADA	Supervisory Control and Data Acquisition
GIS	Geographic Information System	TAB	Tax Asset Base
HHV	Higher Heating Value	TJ	Terajoule
HP	High Pressure	TRIFR	Total Recordable Injury Frequency Rate
IP	Intellectual Property	UAFG	Unaccounted for Gas
IT	Information Technology	WA	Western Australia
KPI	Key Performance Indicator	WACC	Weighted Average Cost of Capital

DOCUMENT NOTES:

- All forecast and past expenditure values are expressed in real dollars as at 31 December 2023 unless otherwise stated.
- All revenue amounts are expressed in nominal dollars unless otherwise stated.
- Some tables may not add up due to rounding.

OUR ROLE IN THE ENERGY TRANSITION

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The transition to a net zero economy is indeed a challenge. Fortunately, we have a powerful ally in the gas distribution network. ATCO's gas network is uniquely positioned to enable decarbonisation and support the energy transition.

John Ivulich

Country Chair, ATCO Australia



Climate change is an undeniable threat, and transitioning to a sustainable energy future is crucial to mitigate its impact.

The Federal Government has set a target for Australia to be net zero greenhouse gas emissions by 2050, and we have to work together to find new ways to reach this target. This Draft Plan outlines how we propose to do this over the next access arrangement period.

The transition to a net zero economy is indeed a challenge. Fortunately, we have a powerful ally in the gas distribution network. ATCO's gas network is uniquely positioned to enable decarbonisation and support the energy transition.

We have already commenced our renewable energy journey. In 2019 we opened our world-class Clean Energy Innovation Hub in Jandakot – a demonstration of solar, battery and renewable hydrogen production through electrolysis. We're trialling hydrogen appliances in our hybrid home and training centre, we're demonstrating that hydrogen can be blended into the gas distribution network (through a trial in 2,700 homes), we're generating electricity from hydrogen through an onsite fuel cell, and we're refuelling hydrogen fuel cell vehicles as part of our fleet.

In addition, we are considering the injection of biogas into the network, a renewable equivalent of natural gas that can be produced from waste.

ATCO is also investigating other renewable energy technologies around Australia and the world. In NSW, ATCO is investigating a pumped-hydro project and power transmission in Renewable Energy Zones. In Canada, ATCO is looking at large-scale solar and wind projects, and sequestration (storage) of carbon dioxide in naturally occurring underground salt caverns.

There is a significant investment in the 14,500km of pipeline buried under Perth's greater metro area, and it's an investment that can be leveraged to be part of the solution.

With renewable and lower emissions gases, the gas network can be repurposed as a critical and integrated part of a lower-cost and sustainable energy future. Not only to deliver cleaner energy, but also to work with the electricity sector as an energy storage mechanism to support the intermittent nature of renewables – a 'giant battery' connected to over 800,000 Western Australian homes and businesses. We could use that 'battery' to store excess wind and solar energy for use when the wind's not blowing and the sun's not shining.

By repurposing our gas network to store and transport renewable gases, we can enable the widespread adoption of these clean energy sources, reduce our carbon footprint, improve energy security, and create new economic opportunities for Western Australia.

However, investments in renewable and lower emissions infrastructure require a long-term horizon, longer than the period of our Draft Plan. These investments must also be made early enough to accelerate the market transition. This is why we are proposing these now.

Our Draft Plan is an essential step in this journey, and we are proud to be taking bold action towards a cleaner, greener future.

John Ivulich

Country Chair, ATCO Australia

With renewable and lower emissions gases, the gas network can be repurposed as a critical and integrated part of a lower-cost and sustainable energy future. Not only to deliver cleaner energy, but also to work with the electricity sector as an energy storage mechanism to support the intermittent nature of renewables.



OUR 2025-29 DRAFT PLAN

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Through this consultation, I'm very interested in hearing from you about how this Draft Plan aligns with the long-term interests of our customers and our broader community.

Stevan Green
ATCO Gas President



I am pleased to present this 2025-29 Draft Plan for ATCO Gas Australia. This Draft Plan represents part of our ongoing and extensive customer and stakeholder engagement program. It proposes how we will deliver safe, affordable, reliable, and sustainable services to our customers over the next five years.

Firstly, I want to acknowledge the Traditional Custodians of the land on which we operate, and pay my respects to their Elders, past, present, and emerging. In Australia, we have the unique privilege of living with the oldest living culture in the world, and at ATCO, we recognise the enduring connection that indigenous people have to their land, sea, and community. ATCO globally has a long history of valuing the importance of indigenous owners, including partnerships with the First Nations in Canada. In the spirit of reconciliation, we continue to commit to working together for our shared future.

Since our 2020-24 Plan was submitted, we have witnessed an extraordinary period of change. The start of our AA5 period was unexpectedly marked by a pandemic that caused profound global changes. People and businesses had to learn and adapt far quicker than we could have expected, and we have all shown incredible resilience in getting through this crisis. It has not been an

easy ride, but it's remarkable what we can achieve when we all work together for a common cause.

Despite these challenging circumstances, in the current AA5 period I'm proud that we've delivered a strong performance in customer service, safety, and network reliability while maintaining high levels of operating efficiency. Our focus on efficiency has resulted in ATCO Gas having one of the lowest operating costs per customer connection for gas network operators in Australia. Our commitment to providing top-tier customer service has also been reflected in our continued ranking as a leading customer service performer in benchmarking among Australian gas businesses. However, we remain vigilant and will not become complacent.

Resilience and collaboration are as important in AA6 and beyond as they were during the pandemic because our era of uncertainty is far from over. The Australian energy market continues to face both geopolitical and national challenges as we accelerate towards a decarbonised society. We have a once in a lifetime opportunity to create a cleaner and more sustainable energy system for current and future generations of users, and we believe that the gas network has a vital role to play in this energy transition.

ATCO recently commenced a scenario-based research program into the Future of Gas, which is shaping our thoughts for AA6. Although the research is ongoing, we are recognising that technology advancements, policy decisions, and customer demand will ultimately determine the long-term future of the network, and this may not be a smooth or predictable pathway.

WHAT OUR DRAFT PLAN MEANS FOR OUR CUSTOMERS

The publication of our 2025-29 Draft Plan has been shaped using the insights from our stakeholder engagement program. I attended many of the meetings and experienced first-hand what our customers and stakeholders are thinking. With the release of this Draft Plan, we are now seeking further input from all of our stakeholders to help guide us forward for the next five years of AA6 and many years beyond that.

In AA6, we propose to deliver the following:

- Continued safe and reliable delivery of gas to over 800,000 households and businesses.
- Approximately 78,000 new customer connections.
- Replacement of 320 km of 'end of life' PVC pipeline with modern polyethylene (PE) pipe. This represents about 2% of the +14,500km of gas mains we have.
- Replacement of over 110,000 domestic and commercial meters.
- Using renewable gases as part of our unaccounted for gas to reduce greenhouse gas emissions for our customers.
- Hydrogen and biogas readiness infrastructure.

ATCO has always been committed to keeping prices as low as possible for our customers, and our 2025-29 Draft Plan continues this focus. Affordability is one of our strategic pillars, and it was raised many times during our customer engagement activities.

However, you will notice that our distribution charges for AA6 are forecast to increase. This increase is largely due to factors beyond our control, including rising inflation and the increased regulated rate of return.

We are doing what we can, including our ongoing focus on efficiency to manage our costs in AA6. In real terms (i.e., adjusting for inflation), we are proud to say that our AA6 distribution charge for an average residential customer is still below those in AA4 (2014-2019).

The forecast increase in our annual distribution charges at the start of the next Access Arrangement in 2025 for the average residential customer will be around \$48. This is a preliminary forecast however and may be refined over the coming months.

We understand that this increase may concern our customers and stakeholders, and we will discuss this issue in our next round of engagement.

Through this consultation, I'm very interested in hearing from you about how this Draft Plan aligns with the long-term interests of our customers and our broader community. I encourage you to provide your feedback for consideration as we finalise our Plan for submission to the ERA in September 2023.

Stevan Green

ATCO Gas President

WHAT WE WILL DELIVER

In AA6, we will continue to deliver a **safe, reliable, affordable, and sustainable** gas network to support the growth of Western Australia for the long-term interest of customers, enabling our shared journey towards net-zero by 2050.

This Draft Plan is to stimulate robust discussion about the priorities for our gas network and our services for customers, so that we can provide a credible and authentic foundation for our September 2023 submission.



Safe

- Maintaining our strong performance in timely attendance to broken mains and loss of gas supply incidents
- ATCO will continue to drive for a TRIFR consistently less than 1.0 and build on our recent strong safety performance in AA5
- Review and enhancement of ATCO's Cyber Security capability
- Upgrade of step-touch mitigation systems, improving the safety of individuals near high pressure steel pipelines

Reliable

- 320 km of PVC mains replacement
- Replacement of over 110,000 domestic and commercial meters reaching their 'end of life'
- Completion of the metallic mains replacement program
- Upgrade of our Geographic Information System (GIS), improving asset location services for maintenance and emergency response
- Upgrade of our Enterprise Resource Planning (ERP) systems to support our digital transformation

Affordable

- Connecting approximately 78,000 new customers to the network in AA6 allowing us to spread our costs over more customers
- An annual distribution charge increase of \$48 (<\$1 per week) between 2024 & 2025 for the average household customer
- A continued focus on efficiency, resulting in lower AA6 distribution charges for the average household customer than in AA4 in real-terms
- One of the most efficient gas network operators in Australia

Sustainable

- Continued reduction of our UAFG rates
- Renewable gas preparedness, including a new 100% H₂ community and 6 renewable gas injection points
- Targeting a reduction in Scope 1 Greenhouse Gas (GHG) emissions to 50% below 2020 levels by 2030
- Using renewable gases as part of our unaccounted for gas to reduce greenhouse gas emissions for our customers

EXECUTIVE SUMMARY

ATCO Gas Australia (**ATCO**) owns and operates Western Australia's largest natural gas network - delivering natural gas to more than 785,000 homes and businesses through over 14,500 km of pipelines. We're continuing to work hard for the people of Western Australia to ensure that the network remains safe, reliable, affordable, and sustainable.

In September 2023, ATCO will submit its sixth Access Arrangement Proposal (**AA6**) to the Economic Regulation Authority of WA (**ERA**) for the five years from 1 January 2025 to 31 December 2029. The ERA will then conduct a transparent and public process to test that our plans are in the long-term interests of customers.

An extensive customer and stakeholder engagement program will underpin our AA6 Proposal. The publication of this 2025-29 Draft Plan is part of our program, and through it, we seek to obtain feedback on our planned activities, investment, and proposed services.

OUR CUSTOMER ENGAGEMENT

We value the insights of our customers and the community and recognise the importance of actively listening to their feedback. This 2025-29 Draft Plan is part of our customer and stakeholder engagement (AA6 Engagement) program.

The AA6 Engagement program has sought open dialogue with diverse stakeholders, including residential customers, large commercial and industrial customers, builders and developers, peak bodies, and gas retailers. The program was designed in four stages, with the release of this Draft Plan at the end of Stage 3.

Our initial engagement activities were open and exploratory, followed by a comprehensive Choice Model Survey designed to measure and quantify the qualitative insights gathered in the previous engagement activities. The full results of the choice modelling will be included in our September 2023 submission. Still, some early survey findings show that most of our proposed AA6 investments are important to customers, particularly regarding mains replacement and future support for renewable gas (*see Chapter 4*).

Following the release of this 2025-29 Draft Plan for public consultation, ATCO will conduct a further round of engagement to validate findings with key stakeholders before refining and incorporating these insights into our September 2023 submission.

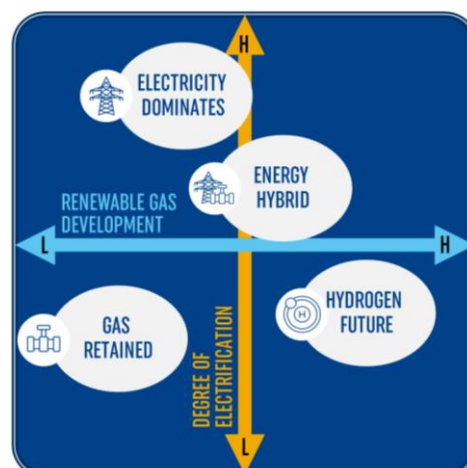


Our commitment for the AA6 period continues to be a focus on the long-term interests of customers by providing a safe, reliable, affordable, and sustainable gas distribution network while supporting a competitive retail market, enabling growth for Western Australia, and building the foundation for a clean energy future.

THE FUTURE OF GAS

With Australia's commitment to a set of 2030 and 2050 emissions targets, Australian gas networks will be required to pursue a path towards decarbonisation. We believe that the reticulated gas network will have an essential and continuing role in supporting the future energy transition, be it with natural gas, biogas, hydrogen, or other renewable gases. We are considering a range of activities to prepare for the future and have included these in our investment forecasts.

To assist with further developing and refining our investment forecasts for the September 2023 submission, ATCO is developing four future scenarios for the WA energy sector:



- **HYDROGEN FUTURE:** Rapid learning rates are experienced in clean hydrogen and other renewable gas production.
- **NATURAL GAS RETAINED:** Global and local factors result in natural gas being retained in the ATCO network, broadly in line with the medium-term expectations from AA5.
- **ELECTRICITY DOMINATES:** Renewable electricity generation and storage experience a rapid reduction in cost leading to a broad-based electrification of industry and households and a move away from gas.
- **ENERGY HYBRID:** Technical learning rates for renewable gases and electrification develop at a similar pace, resulting in some customers choosing to electrify and some remaining with gas.

We are interested in your feedback on the four scenarios, and we will use the outcomes of the scenario modelling to inform our September 2023 submission (*see Chapter 3*).

2025-29 DRAFT PLAN HIGHLIGHTS

- Our Haulage reference services remain unchanged from AA5 and are proposed as reference services for AA6. Our AA6 Ancillary reference services will remain mostly unchanged, with the addition of the previous non-reference service, 'Cut and cap service pipe at the main'. (*See Chapter 5*)
- Our average customer base is forecast to grow at 1.5% pa. Consumption per customer during AA6 is forecast to decline, resulting in overall forecast consumption decreasing at 0.3% pa. (*See Chapter 6*)
- ATCO has selected 12 key performance indicators (**KPIs**) that align with our strategic pillars of safety, reliability, affordability, and sustainability. (*See Chapter 7*)
- Our AA6 operational expenditure (**opex**) forecast is \$449 million, compared to the ERA's AA5 Final Decision of \$379 million. The increase from AA5 is primarily due to a shift in how information technology (**IT**) expenditure is accounted for, a greater focus on sustainability initiatives, and our new 'Cut and Cap' service. (*See Chapter 8*)

- We are proposing to invest \$499 million of capital over AA6, which is \$16 million (3%) above the ERA's AA5 Final Decision. Major programs include network expansion, mains replacement, meter replacement, and sustainability initiatives.
(See Chapter 9)
- Although we do not have any incentive mechanisms currently in AA5, we are seeking stakeholder feedback on the form of a possible Network Innovation Scheme (NIS) to encourage innovation that would benefit the operation of the network and consumers beyond the current access arrangement period. We are interested in our customers' and stakeholders' views on whether such a mechanism should be implemented in AA6. (See Chapter 14)

AA6 TARIFFS

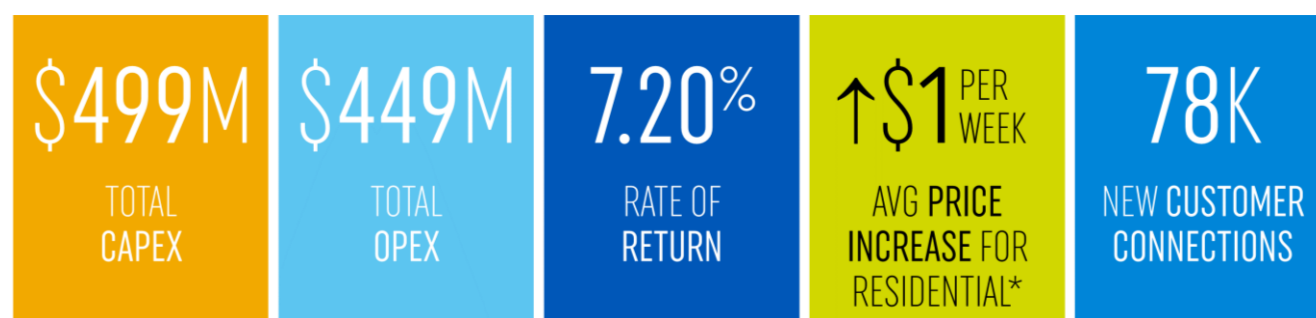
Our existing tariff classes will be retained for AA6. ATCO will also maintain the reference tariff structures for AA6 with an amendment to the B3 tariff structure to remove the first tariff band that currently provides for the first 1.825 GJ to be provided at no charge (see Section 15.3.2).

Due to the considerable uncertainty with current financial and economic conditions, we have adopted the rate of return published in the ERA's 2022 Rate of Return Instrument (see Chapter 11 for further details), rather than predict the risk-free rate for the second half of 2024 (when we expect the ERA to make their Final Decision for AA6). The resulting rate of return has a material impact on our cost of service and distribution charges for AA6, but this may change following future movements in the risk-free rate.

In addition, a high inflationary environment is being experienced, which has also had a material impact on our proposed charges for AA6. The effect of these external factors is that our distribution charges may be increasing in AA6 by more than we have experienced in previous access arrangements.

For an average residential (B3) customer, the average distribution charge will increase by \$48 between 2024 and 2025. If retailers fully pass on this increase, this represents an increase of 8% on an annual retail gas bill at the gazetted retail price. The effects of inflation and the regulatory rate of return represent around 95% of the proposed increase (see Section 15.4).

HIGHLIGHT NUMBERS



*Increase in the average distribution charge between 2024 & 2025 for a B3 customer with average consumption.

PART A | Introduction



ATCO

1. PURPOSE OF THIS DRAFT PLAN

1.1 INTRODUCTION

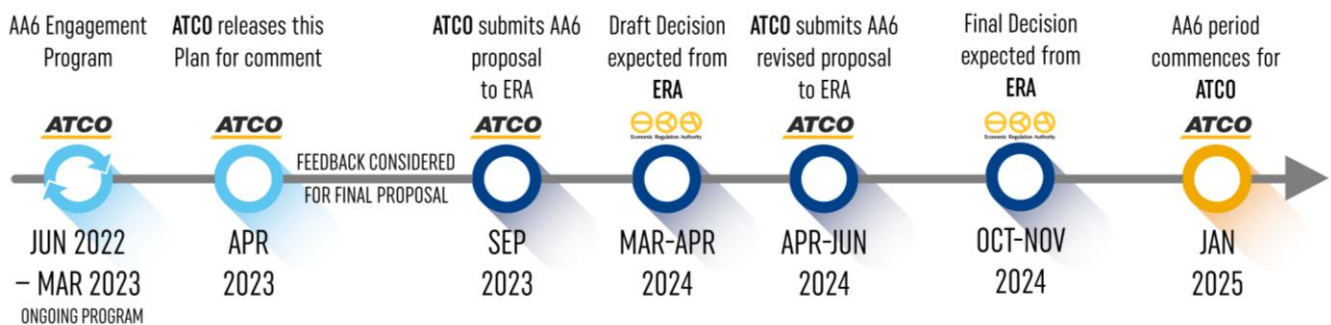
This 2025-29 Draft Plan is part of our engagement program with ATCO customers and stakeholders. It is important that our decisions and plans for the Mid-West and South-West Gas Distribution System (**GDS**) are supported and guided by effective customer and stakeholder engagement.

The GDS is a designated pipeline under the National Gas Access (WA) Act 2009. This means that we are required to periodically submit revisions to our access arrangement (AA) to the ERA in accordance with the requirements of the National Gas Rules (NGR). Our next submission for the AA6 (2025-29) period is due to the ERA by 1 September 2023. The ERA will then review our submission against the NGR and undertake further public consultation before issuing a draft decision. The ERA will then publish their Final Decision on our revisions to the access arrangement, see Figure 1.1.

This document outlines our intended investment plans, our planned services to Western Australians, the findings emerging from our AA6 Engagement, and the resultant prices for our services over the AA6 period.

By providing the information in this document, we intend to stimulate robust discussion about the priorities for our gas network and our services for Western Australian customers. Customer and stakeholder feedback will ensure we can provide a credible and authentic foundation for our September 2023 submission to the ERA.

Figure 1.1: Timeline for ATCO's AA6 submission



1.2 NEXT STEPS

After considering this information, we encourage all our customers and stakeholders to provide feedback so that we can finalise our Plan for the September 2023 submission. A full list of questions for your consideration is contained in Appendix A, although we encourage your feedback on any topic included in this Draft Plan.

1.3 HOW TO PROVIDE YOUR FEEDBACK

You can provide feedback via the following options:

1. Through our website: www.atco.link/draftplan, or use the QR Code on the right
2. Send us an email: haveyoursay@atco.com
3. Call us: 08 6163 5000
4. Post your feedback: Locked Bag 2, Bibra Lake DC, WA 6965.
5. Visit us in person: Please contact Hugh Smith, GM Regulation & AA6 Lead, via email hugh.smith@atco.com to arrange an appointment.



So that we can finalise our plan in time for September, we ask that you please provide your feedback by 17 May 2023.

1.4 USING YOUR FEEDBACK

1.4.1 YOUR CONSENT

We may publish stakeholder feedback on our website www.atco.link/draftplan and may include some submissions, or reference information contained in submissions, in the final access arrangement proposal that we submit to the ERA.

By submitting feedback to this Draft Plan you consent to us using your submission in this way unless you expressly ask us not to. Your consent will continue until you inform us that you want to withdraw it, and at that point, we will not publish your feedback in any further material (unless we are legally required to). If you have a preference on how you would like your feedback referenced, please let us know in your submission.

Please also let us know in your submission whether you wish us to treat all or any part of your feedback as confidential. Where a submission contains only some confidential or commercially sensitive information, you may consider providing a public version of the submission with a clear indication of where the confidential information is included.

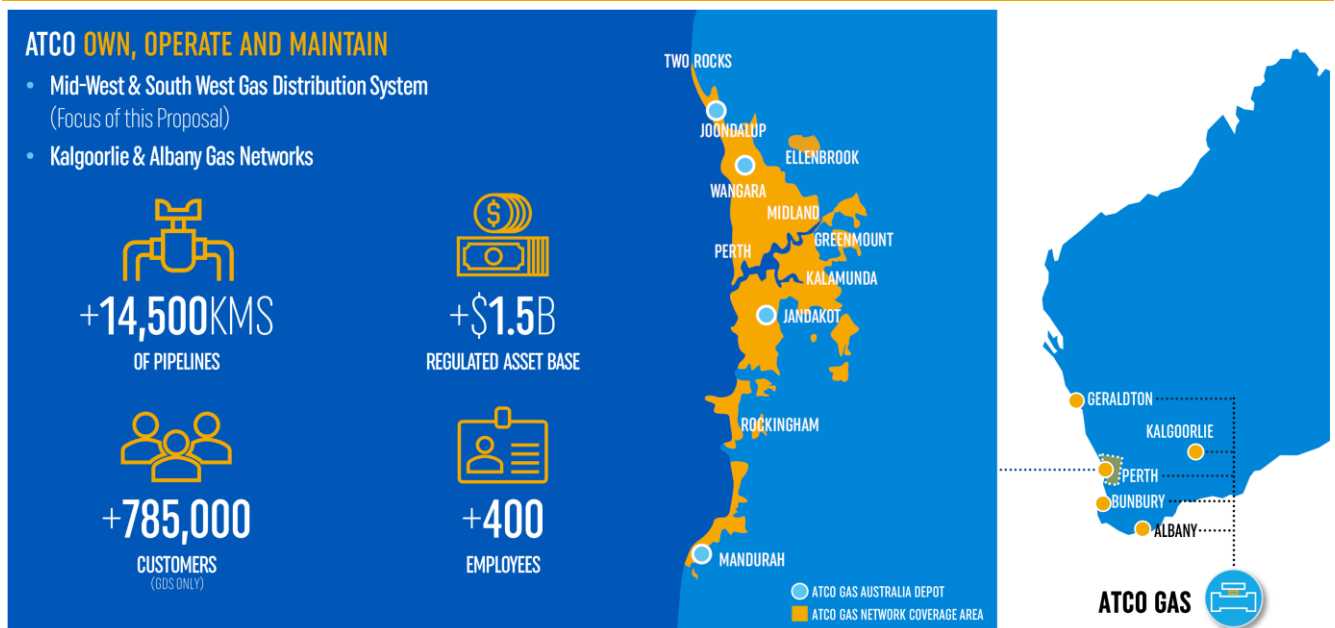
The ERA provides guidance on how it treats confidentiality claims on its website (www.erawa.com.au). The information on the ERA website indicates that your submission (if and to the extent it is provided or referred to by us in the final access arrangement proposal) may still be disclosed under the terms of the Economic Regulation Act 2003 or the Freedom of Information Act 1992 (or any other applicable written law), despite being marked as confidential.

2. BUSINESS OVERVIEW

2.1 ABOUT OUR BUSINESS

ATCO owns and operates Western Australia’s largest gas infrastructure network, the Mid-West and South-West GDS. Our core business is owning, operating, and maintaining natural gas distribution networks and providing a safe, reliable, affordable, and sustainable network service to residential, commercial, and industrial customers, see Figure 2.1.

Figure 2.1: ATCO Business Overview



The GDS currently supplies approximately 785,000 customers through a network of pipes that are over 14,500 km in length, supported by an ATCO workforce of more than 400 employees and an additional contracted workforce.

Our networks are in Geraldton, Bunbury, Busselton, Harvey, Pinjarra, Brunswick Junction, Capel, and the Perth greater metropolitan area. More than 80% of the Perth metropolitan area is serviced by our underground network of pipelines.

Further information on our gas network can be found [here](#) or at www.atco.com.

This 2025-29 Draft Plan does not include our gas distribution networks in Albany and Kalgoorlie, as these networks do not require an access arrangement proposal to the ERA.

2.2 OUR ROLE IN THE NATURAL GAS SUPPLY CHAIN

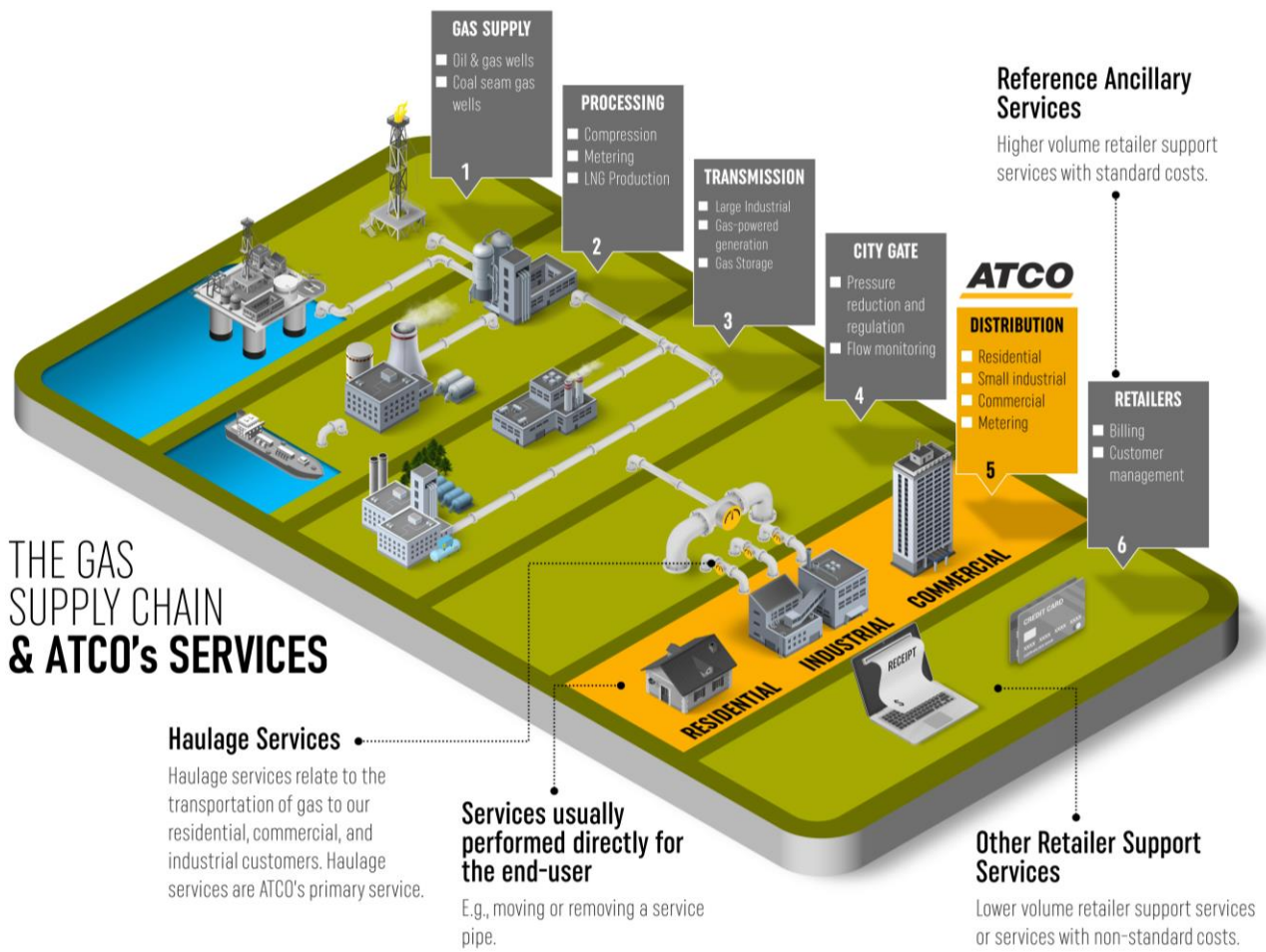
Natural gas has been used as a fuel in Australia for nearly 60 years, and it features strongly in Western Australia’s current energy profile. Natural gas accounts for around half of the total energy consumption in Western Australia. Natural gas produces fewer emissions than coal when used for

generating electricity¹ and is an important fuel that will support a future with intermittent forms of renewable energy (e.g., wind and solar). We believe natural gas will remain a crucial part of Australia’s energy mix.

Our role in the natural gas supply chain is distributing gas to consumers, as shown in Figure 2.2. Following production and processing, the gas is delivered through high-pressure transmission pipelines (such as the Dampier to Bunbury Pipeline and the Parmelia Pipeline). The gas is then delivered to homes and businesses through our distribution network. ATCO owns, operates, and maintains the distribution pipelines up to the customer’s meter box, owns and maintains the meter in the meter box, and conducts the meter readings at each property.

Retailers then organise gas contracts from producers and on-sell gas to customers. Retailers are also responsible for managing the customers’ accounts and are the primary customer contact point.

Figure 2.2: ATCO’s role in the gas supply chain and our services²



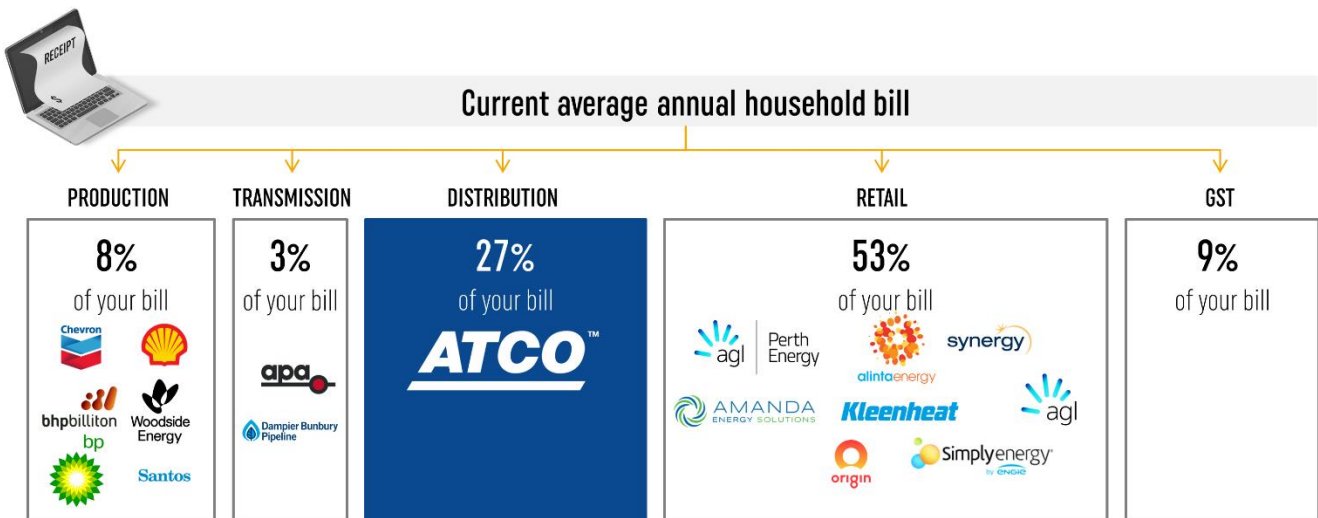
All the costs associated with the gas supply chain are inputs into customers’ gas bills. In 2022, the network distribution component (ATCO costs) represented about 27% of the average residential gas bill³, see Figure 2.3.

¹ <https://www.eia.gov/energyexplained/natural-gas/natural-gas-and-the-environment.php>

² Adapted from an image at <https://aemo.com.au/learn/energy-explained/energy-101/industry-overview>

³ Average B3 residential customers at average consumption under non-discounted retail gazetted price

Figure 2.3: Average annual residential household gas bill breakdown

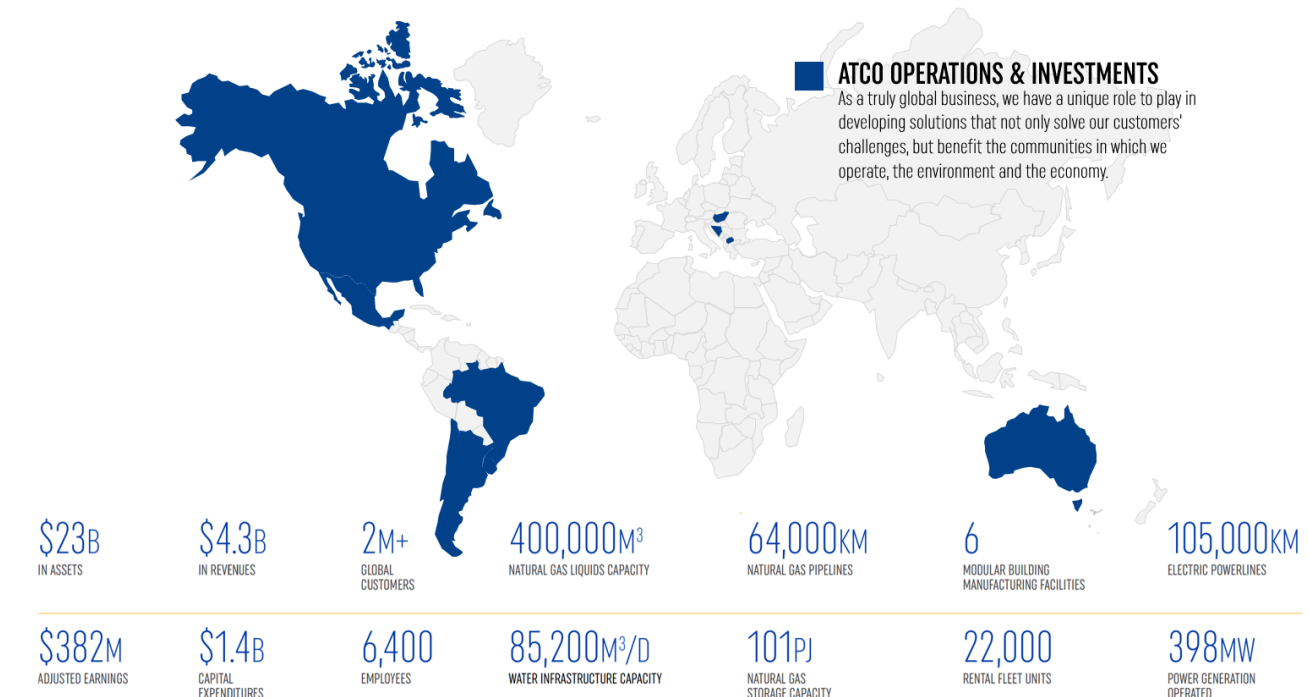


2.3 CORPORATE STRUCTURE

ATCO Gas Australia is part of the ATCO Group of global companies. ATCO has been proudly operating in Australia for more than 60 years. Initially supporting the resources sector with our modular structures and logistics expertise, ATCO has expanded to offer a full range of energy infrastructure services, including electricity generation and transmission, gas distribution, and renewable energy solutions, including hydrogen and storage.

ATCO Group employs more than 6,000 people globally and has approximately \$23 billion worth of assets, see Figure 2.4. The ATCO Group is engaged in structures and logistics, electricity, pipelines and liquids (natural gas transmission, distribution, infrastructure development, energy storage, industrial water solutions), and retail energy.

Figure 2.4: ATCO Operations Worldwide



2.4 OUR VISION AND AA6 COMMITMENT

ATCO Group's mission is to build a global portfolio of energy-related assets that consistently deliver operational excellence. We are a unique organisation – geographically dispersed, incredibly diverse, and built to expertly serve a wide range of customers.



ATCO Gas Australia's Vision reflects this ongoing role and our need to adapt to our changing landscape for a more sustainable energy future.

Over 2025-29, we anticipate further progress towards a more sustainable, competitive, and customer-centric energy system. We are confident that natural gas will continue to play a significant role in the energy mix, as supported by feedback from our customers.

ATCO Gas Australia's Vision reflects this ongoing role and our need to adapt to our changing landscape for a more sustainable energy future. We are confident that our AA6 business priorities are in the right areas, and we look forward to receiving your feedback on our 2025-29 Draft Plan.

ATCO GAS AUSTRALIA VISION

ATCO will continue to deliver a safe, reliable, affordable, and sustainable gas network to support the growth of Western Australia for the long-term interest of customers, enabling our shared journey towards net-zero by 2050.



SAFE

- i. Asset Management:** Improve leak detection and reduce network leaks to maintain network safety and reduce GHG emissions
- ii. Emergency Response and Prevention:** Continue to improve prevention programs to reduce and minimise damage to our assets
- iii. Workplace Safety:** Continue to engage employees and key stakeholders to improve safety and well-being at ATCO



RELIABLE

- i. Network Condition:** Maintain pipeline infrastructure to ensure safe operation of pipelines through improved pipeline remediation and maintenance programs
- ii. Network Operations:** Continue to work with our stakeholders to find innovative solutions and technology improvements to reduce network outages



AFFORDABLE

- i. Competition:** Maintain customer pricing at competitive levels and continue to grow the customer base to reduce cost per customer
- ii. Improve Efficiency:** Continue to invest in process improvement, Information Technology and Operational Technology to support prudent investment and industry productivity



SUSTAINABLE

- i. Reduce GHG:** Reduce Scope 1 GHG emissions to 50% below 2020 levels by 2030
- ii. Improve Customer Impacts:** Reduce customer GHG emissions (scope 3) through improved technology and communication
- iii. Innovation:** 10% H₂ blend and renewable gases in the gas network by 2030 (scope 1 & 3)
- iv. People:** Secure skilled and capable personnel through inclusivity and increasing diversity

2.5 OUR OPERATING ENVIRONMENT

2.5.1 WESTERN AUSTRALIAN ECONOMY

Since the publication of our 2020-24 Plan, the WA economy has experienced significant fluctuations, mainly due to the COVID-19 pandemic and its impact on global trade and travel.

At the start of AA5, the WA economy was showing signs of recovery after a prolonged period of sluggish growth, with a focus on diversifying beyond the resources sector. This had been supported by several key projects, including the completion of Elizabeth Quay, progress on the Perth City Link project, and the new Perth Stadium. The resources sector also saw growth in areas such as lithium and other minerals used to manufacture electric vehicles and renewable energy technologies.

However, in 2020, the WA economy was hit hard by the COVID-19 pandemic, leading to a sharp decline in commodity demand and disrupted supply chains. WA's border closures also severely impacted tourism and hospitality, forcing many businesses to close or operate at reduced capacity.

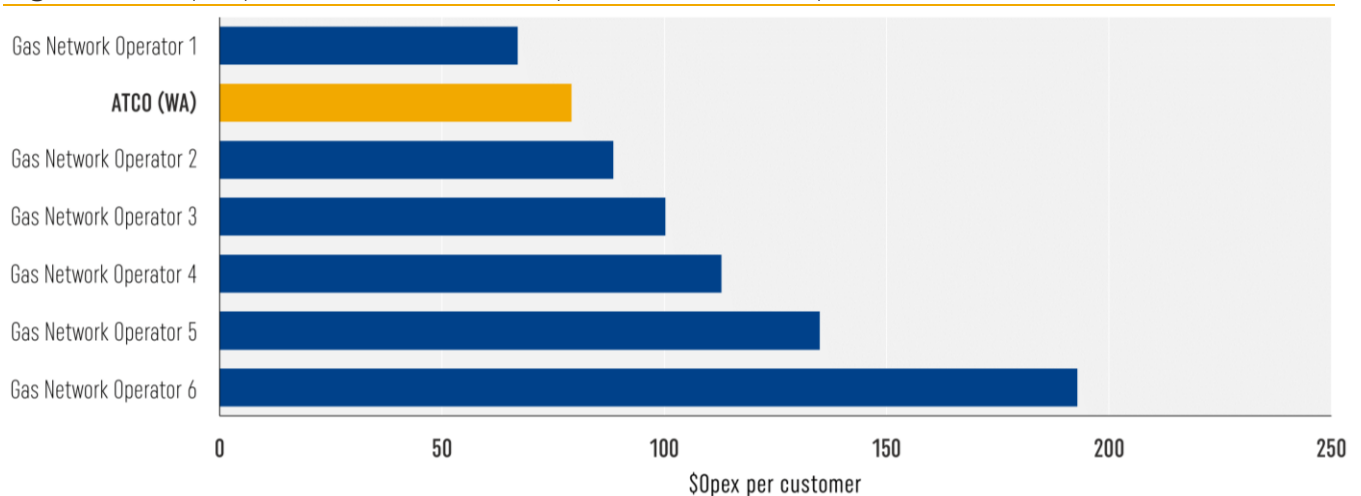
Despite these challenges, the WA economy has shown incredible resilience, with the mining industry continuing to perform strongly and the WA State Government introducing several major infrastructure projects. Like many other businesses, ATCO is experiencing the effects of this economic recovery with increased competition for labour and materials and rising inflation. We expect these effects will continue into AA6.

2.6 OUR STRONG PERFORMANCE

AN EFFICIENT BUSINESS

The Australian Energy Regulator (**AER**) publishes performance data on regulated gas networks each year through its "Gas Network Performance Report"⁴, allowing us to compare efficiency information against our national peers. Figure 2.5 shows ATCO's opex per customer against six gas distribution network service providers. ATCO is performing strongly, using opex per customer as a measure of efficiency.

Figure 2.5: \$Opex per customer, ATCO comparison to Australian peers, 2021.



⁴ AER, [Gas Network Performance Report, 2022](#) and ATCO analysis.

Our efficiency performance supports one of our strategic pillars, affordability. Reticulated gas remains affordable when compared to other energy sources, and we want to see this continue in AA6 and beyond. The affordability of gas in WA is also underpinned by other factors, including the following:

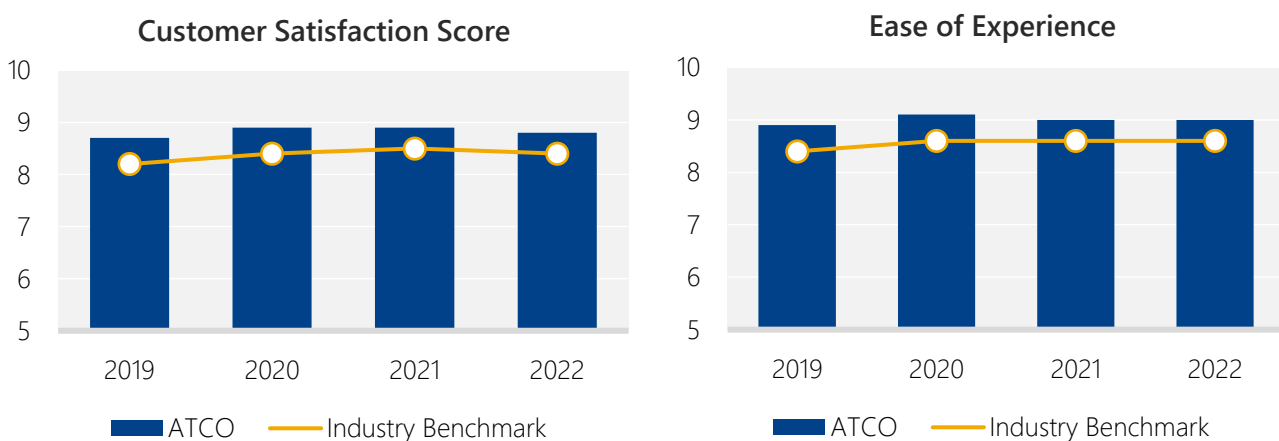
- **Retail competition:** The WA gas market is open to retail competition, a key differentiator from electricity, with just a single retailer for most residential customers. Retail competition enables gas customers to benefit, with retail discounts and other offers readily available. ATCO’s systems and business processes play an important role in supporting competition in the market.
- **Low gas prices:** WA has an abundant supply of gas that, due to the Domestic Gas Reservation Policy, is also lower cost than other jurisdictions in Australia and internationally.
- **Customer service:** ATCO’s customer service teams keep our customers informed about their energy choices, including that in WA, gas is delivered to a home at around half the cost of grid-based electricity on a cents per kWh basis.

A CUSTOMER-FOCUSED BUSINESS

ATCO participates in a customer service benchmarking program through Customer Service Benchmarking Australia. The monthly study allows us to track the ATCO customer experience and benchmark our performance against other Australian gas network operators. The participants in the program include AGN, Multinet, Ausnet, Allgas, and ATCO, and ATCO has been the leader in customer service since the benchmarking exercise began. In AA5, ATCO has averaged a customer satisfaction (CSAT) score of 8.8 compared to the average benchmark score of 8.4 (based on 5,355 customer interactions that were surveyed).

In addition to CSAT, the benchmarking program also measures how ‘easy’ an interaction was as rated by a customer. Once again, ATCO leads the program with an average score of 9.0 compared to the average benchmark of 8.6. Over the last few years, we have consistently scored above the average benchmark in both these customer experience metrics, as shown in Figure 2.6.

Figure 2.6: ATCO Customer Experience Benchmarking Scores



In the AA5 period to date we have delivered a strong performance across other customer performance metrics. Some highlights include:

- ATCO has delivered on average 10,988 new residential connections and 287 new commercial and industrial connections annually (2020-2022).

- We continue to work with our industry stakeholders and are participating members of organisations such as Urban Development Institute of Australia (UDIA) and the Master Plumbers & Gasfitters Association (MPGA).
- Our Contact Centre has averaged 47,627 customer calls per year. 87.8% of customer calls to the Contact Centre were answered within 30 seconds (91.7 % in 2022) with a 2.0% call abandonment rate (1.5% in 2022).
- 90.5% of customers rated their Planned, Unplanned interaction, or New Connection experience with ATCO as either 'Good' or 'Excellent'.
- 92.2% of customers said their Planned, Unplanned interaction or New Connection experience with ATCO was 'Easy'.

2.7 SUSTAINABILITY AND THE FUTURE ROLE OF GAS

Australia's energy markets are undergoing a profound transformation with the ongoing global shift towards a decarbonised and more sustainable society. In 2022, the Australian Federal Government committed to new 2030 emissions targets, with a commitment to net zero emissions by 2050. This will require the decarbonisation of domestic gas use in Australia, most likely through introducing renewable gases and reducing fugitive emissions. Energy Networks Australia recently reported that "Emissions across the domestic gas industry can be reduced by between 16% to 50% by 2030, depending on the level of policy support, across all emission types"⁵.








The reticulated gas network is key in the future energy portfolio, be it through transporting natural gas or renewable gases. The uptake of renewable gases will be driven by the rate of development and commerciality of zero-emission technologies and Federal and State government policy. Additionally, the role of the network may expand to include energy storage, complementing its existing role in energy distribution.

To assist with our investment plans for AA6 and to ensure we are proactively preparing for the future, ATCO has included expenditure programs within this Draft Plan that will enable renewable gases to be injected, stored, and transported across our network. We are interested in our customer and stakeholder views on the role of renewable gases and their uptake over AA6.

ATCO's priority areas for sustainability are founded on three pillars: Community, Planet, and Governance. We believe the AA6 priority areas respond to some of the most pressing concerns that our community and ATCO is facing, see Figure 2.7. In particular, we are proposing investments in AA6 to reduce our own and our customers' GHG emissions.

⁵ <https://www.energynetworks.com.au/miscellaneous/2030-emission-reduction-opportunities-for-gas-networks-by-enea-consulting-2022/>, page 2

Figure 2.7: ATCO Gas Australia: AA6 Priority Areas Summary

MATERIAL THEME	AA6 PRIORITY AREAS	
COMMUNITY		
 Health & Safety	<ul style="list-style-type: none"> ■ To continuously improve our wellbeing and safety performance ■ To reduce the risk to public safety 	
 Community & Indigenous Engagement	<ul style="list-style-type: none"> ■ Foster healthy, sustainable and prosperous communities ■ Increase procurement spend from Indigenous suppliers 	
 Diversity, Equity & Inclusion	<ul style="list-style-type: none"> ■ Increase female representation at Board and senior leadership levels ■ To promote a workforce that encompasses all cultures, backgrounds, ages, and abilities 	
PLANET		
 Climate Change & GHG Emissions	<ul style="list-style-type: none"> ■ Reduce reported scope 1 emissions to 50% below 2020 levels by 2030 	
 Energy Transition & Resilience	<ul style="list-style-type: none"> ■ Reduce the intensity of emissions of the energy delivered through the ATCO network 	
GOVERNANCE		
 Risk Management	<ul style="list-style-type: none"> ■ To have zero cyber security or data breaches ■ To begin reporting against our sustainability targets by 2025 	
 Compliance & Performance	<ul style="list-style-type: none"> ■ To maintain compliance to mandatory reporting frameworks 	

2.8 RELEVANT REGULATORY FRAMEWORK

We operate our networks in accordance with the Energy Coordination Act (WA) 1994, National Gas Access (WA) Act 2009 (incorporating the National Gas Access (Western Australia) Law (NGL)), National Gas Rules (NGR), and various state-based operating guidelines. The ERA monitors our compliance with our Gas Distribution Licence, the National Gas Access (WA) Act 2009, the NGL and the NGR. See Figure 2.8.

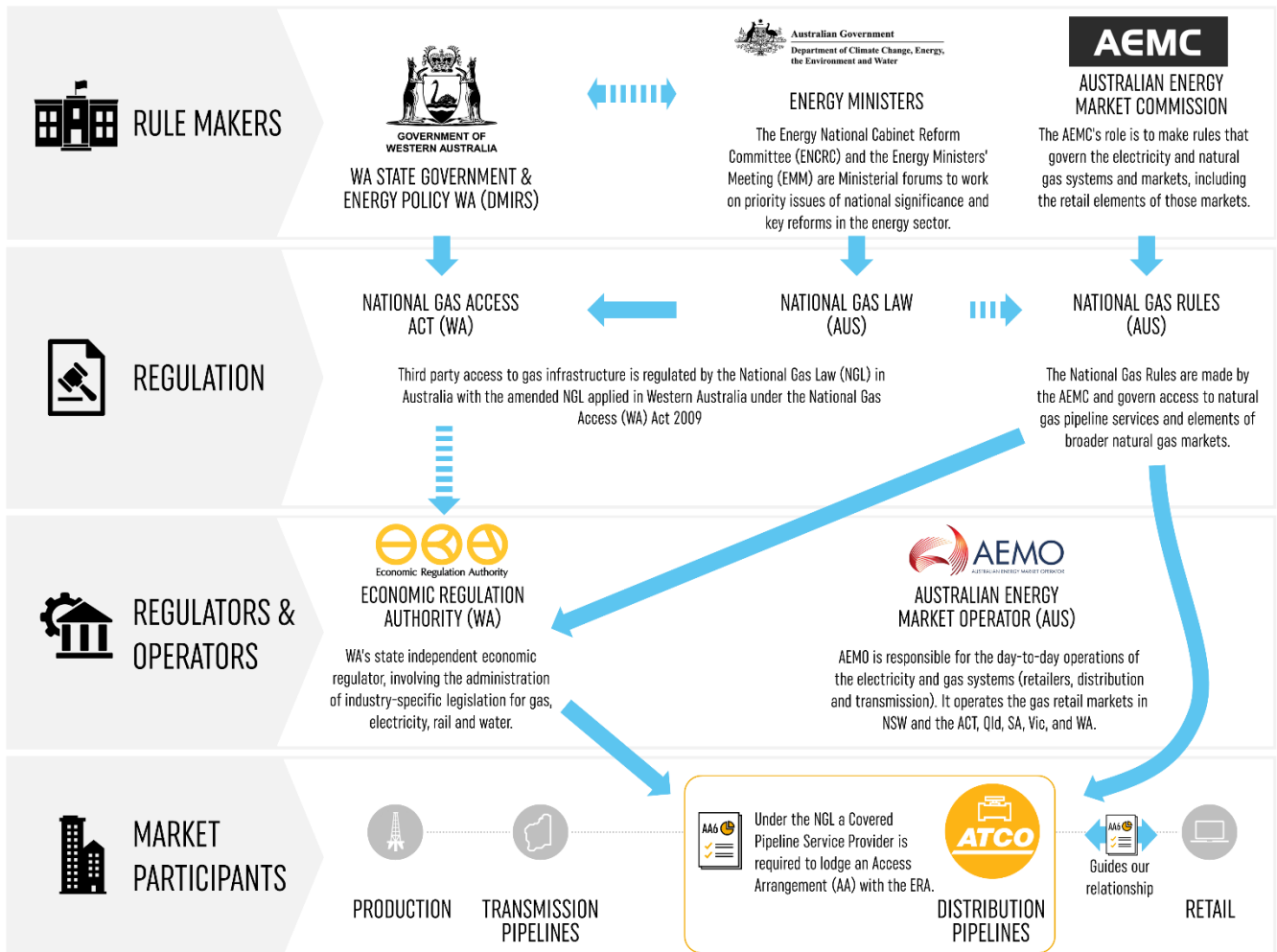
The NGL and the NGR together provide a framework for the preparation and approval of AA6. We anticipate that there will be changes to this regulatory framework over the next twelve months to:

1. Incorporate the final package of gas pipeline regulatory amendments.
2. Extend the framework to hydrogen blends and renewable gases.
3. Incorporate an emissions reduction objective into the National Gas Objective.

Our AA6 proposal will be prepared assuming that these changes to the regulatory framework are made.

The NGR set the process to be followed and the regulatory tests to be applied for approval of AA6 regarding the 'building blocks' for allowed total revenue. These building blocks include a return on the capital we have invested and *will invest* in the network, depreciation of that capital, an allowance for income tax, and our total regulated operating expenditure. Prices are then derived from this total revenue.

Figure 2.8: Our Regulatory Framework



3. THE FUTURE ROLE OF GAS

CHAPTER HIGHLIGHTS

1. The reticulated gas network has a key role in the future energy portfolio, be it natural gas or renewable gas, but policy support from Government is needed.
2. To assist with our planning and investment forecasts for AA6, ATCO is exploring four future scenarios for the WA electricity and gas sectors. We are considering a range of activities to prepare for the future, and we are interested in your feedback.

3.1 INTRODUCTION

With Australia's commitment to a set of 2030 and 2050 emissions targets, Australian gas networks will be required to pursue a path towards decarbonisation. Decarbonising the network will likely be achieved by introducing renewable gases and reducing fugitive gas emissions.



'Renewable gases' is a term to describe gases produced from renewable sources and do not produce additional greenhouse gas emissions when consumed.

'Renewable gases' is a term to describe gases produced from renewable sources (e.g., organic waste) and do not produce additional greenhouse gas emissions when consumed (i.e., they are 'carbon-neutral'). Examples of renewable gases are hydrogen produced from renewable energy (e.g., solar and wind), and biogas and biomethane produced from organic waste. We will use this definition of 'renewable gas' throughout this Draft Plan.

The reticulated gas network is key in the energy transition, whether through natural or renewable gas. The uptake of renewable gases will be driven by the emergence and rate of development of zero-emission technologies and Federal and State government policy.

This chapter explores some of the challenges we are facing and proposes some possible ways forward for our customers and stakeholders to consider.

3.2 AUSTRALIA'S CLIMATE CHANGE POLICY ENVIRONMENT

Australia's climate change policy environment has been intensely debated and scrutinised in recent years. However, the election of a new Federal Government in May 2022 resulted in Australia adopting stronger emissions reduction targets. An updated obligation for Australia under the Paris Agreement and supporting legislation through the Climate Change Act 2022, sets commitments to reduce greenhouse gas emissions by 43% below 2005 levels by 2030 and net zero emissions by 2050. The Federal Government will utilise its Safeguard Mechanism policy to lower emissions from Australia's largest industrial facilities. The policy will set a total cap for emissions by all facilities covered by the scheme and progressively lower allowable emissions over time. ATCO's network is captured by the scheme, and initiatives planned in AA6 will assist in meeting emission reductions.

At a state level, Western Australia has also adopted climate targets aligned with the Federal Government's commitments. By the end of 2023, the WA State Government will introduce legislation to reduce Government emissions by 80% below 2020 levels by 2030. The achievement of this aim will be driven by the retirement of state-owned coal power stations and the investment of \$3.8 billion in new cleaner power infrastructure.

In line with this renewed focus on tackling climate change from both Federal and State governments, ATCO is committed to playing its part in reducing emissions. Our 2025-29 Draft Plan is important in outlining our initiatives to respond to these policy reforms.

3.3 CLIMATE CHANGE: THE ROLE OF THE GAS NETWORK

Gas distribution networks transport natural gas to homes, businesses, and industrial facilities across the country and contribute significantly to Australia's economy. However, the gas industry is also a major source of greenhouse gas emissions, as natural gas is a fossil fuel and releases carbon dioxide when consumed. As a result, there is increasing pressure on the gas industry to reduce its emissions and transition to cleaner energy sources. Moreover, the network's function may broaden to encompass energy storage in addition to its current role in energy distribution.

Overall, the role of gas distribution networks in Western Australia is likely to be shaped by a complex mix of economic, environmental, and policy factors, including Federal and State governments' response to climate change and the ongoing transition to cleaner energy sources. Our Future of Gas scenarios (see Section 3.5) explore possible futures to guide 'no regrets' actions over AA6.

3.4 THE GAS NETWORK: RENEWABLE GASES

We believe a lower carbon (or decarbonised) gas network will play a key role in WA's future energy mix. Energy Networks Australia recently noted that repurposing existing pipelines and networks to use renewable gas is the best solution to reaching net zero emissions. Preparing for these possible options is in the best interests of customers.

In this respect, we seek to ensure that by 2030, the network can accept renewable gases, including hydrogen and other renewable gases such as biogas and biomethane.

In our recent AA6 Engagement initiative, our customers emphasised the importance of ATCO's innovation and exploration of renewable gas options to ensure the continued relevance of the network in the transitioning low-carbon environment. By offering renewable gas products, gas retailers can also expand their product offerings and appeal to customers looking for more sustainable alternatives. Furthermore, by producing and selling renewable gases, gas retailers can help support emissions reduction targets while preparing for potential future regulatory requirements.

“

... a decarbonised energy system that continues to utilise existing gas infrastructure is a cheaper option than full electrification and decommissioning the gas network. Gas networks and pipeline businesses are preparing to be ready to deliver renewable and decarbonised gases to contribute towards Australia's emission reduction goals.”

'Gas Vision 2050, Delivering the pathway to net zero for Australia'

Energy Networks Australia (2022)

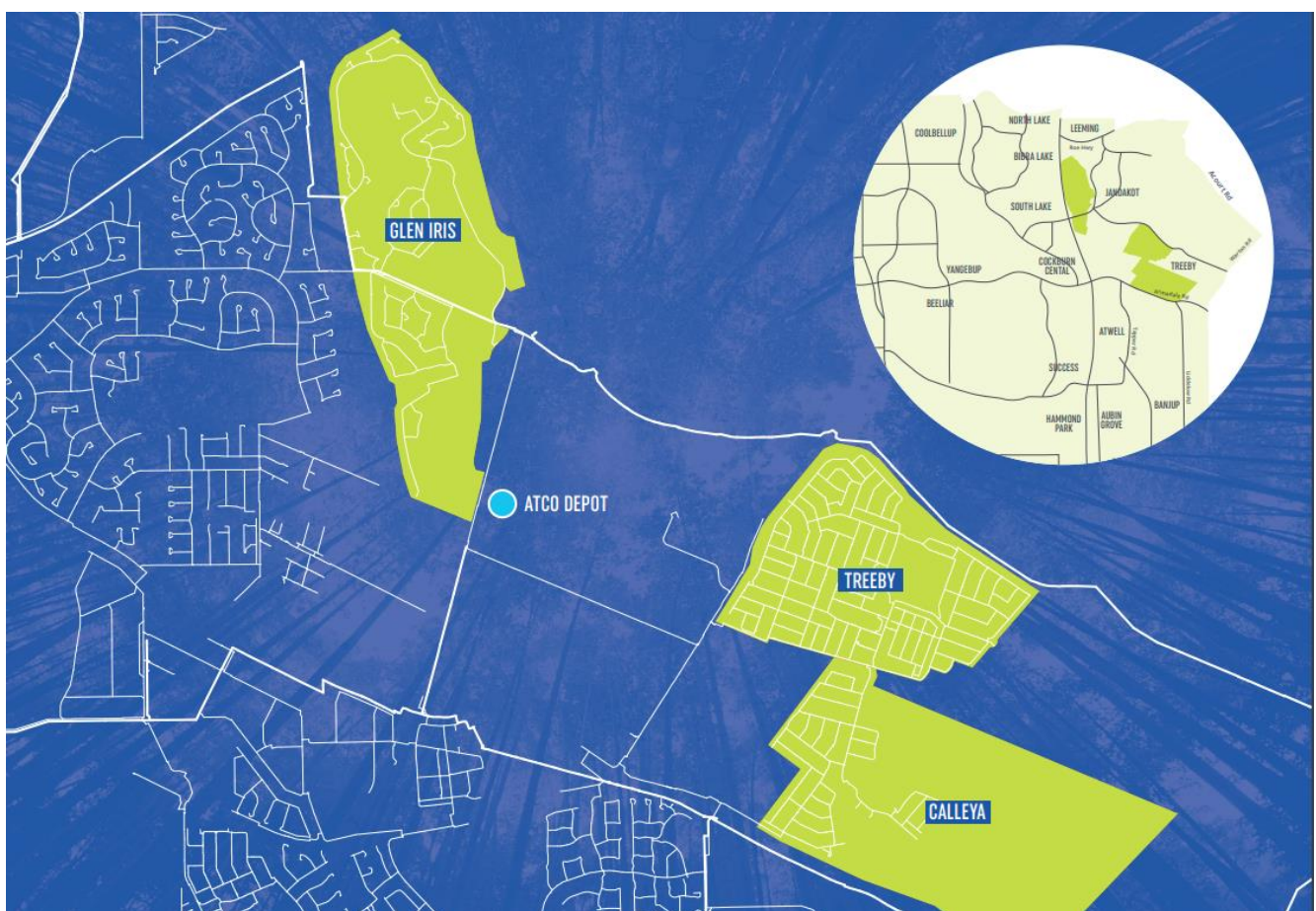
We are confident that these renewable gases will be important in both ATCO's and gas retailers' future operations. We have therefore included expenditure programs within this Draft Plan to enable the transport of renewable gases across our network. We are interested in our stakeholders' views on the role of renewable gases as part of this consultation.

3.4.1 RENEWABLE HYDROGEN

Gas networks worldwide are increasingly considering renewable hydrogen due to its potential to help decarbonise the energy sector. Renewable hydrogen is an energy source that produces only water when burned, making it a promising alternative to fossil fuels.

In 2022, ATCO commenced the Hydrogen Blending Project in the City of Cockburn, the first of its kind in Western Australia, see Figure 3.1.

Figure 3.1: ATCO Hydrogen Blending Map, City of Cockburn



This project is one of the largest of its kind in Australia, at around 2,700 connections. The project will see renewable hydrogen blended into discrete sections of the WA gas distribution network within Glen Iris, Treeby, and Calleya Estates within the City of Cockburn. The project will continue for approximately two years and will involve blending between 2% and 10% volume of renewable hydrogen into the network within the Project area⁶. The goal of hydrogen blending is to reduce the carbon footprint of our gas network by replacing a portion of the natural gas with a zero-emission

⁶ More information is available online: <https://www.atco.com/en-au/projects/hydrogen-blending.html>

fuel. We aim to gradually increase the proportion of hydrogen in the gas supply, ultimately reducing carbon emissions from gas usage, such as heating and cooking applications.

In addition to reducing carbon emissions, hydrogen offers other benefits, such as increased energy security and storage capacity. It is possible that our network could, in the future, be used for energy storage by converting excess electricity into hydrogen gas via electrolysis. The hydrogen gas can then be stored in the network infrastructure until it is needed.

When energy demand is high, the stored hydrogen can be converted back into electricity or heat through fuel cells or combustion. This solution allows for the storage of large amounts of energy for long periods, which can help to balance the intermittent supply of electricity from renewable sources.

There are several benefits to using gas distribution networks for energy storage. First, it takes advantage of the existing infrastructure and avoids the need for costly new storage facilities. Second, it provides a flexible and scalable storage solution that can help to meet the energy demands of a rapidly changing energy landscape. While we are at the start of the large-scale implementation of hydrogen, we are continuing to invest in hydrogen solutions because we are confident this is an important step towards a cleaner and more sustainable energy future.

3.4.2 BIOGAS & BIOMETHANE

In addition to hydrogen, we are also exploring the transport of biogas and biomethane, the renewably produced equivalents of natural gas. Biogas is made from the breakdown of organic matter in waste, such as landfill sites and sewage treatment facilities. Biogas is a mixture of methane, CO₂, and small quantities of other gases. Biomethane is a near-pure source of methane and can be produced by 'upgrading' biogas, a process that removes any CO₂ and other contaminants. For simplicity in our Draft Plan, we will use the term 'biogas' to mean both biogas from organic waste, and biomethane.

Biogas sourced from organic waste can reduce greenhouse gas emissions, as the process captures methane that would otherwise have been released into the atmosphere. Biogas production is a relatively mature technology, and it has been widely adopted in some countries, such as Germany, the UK, and the USA.

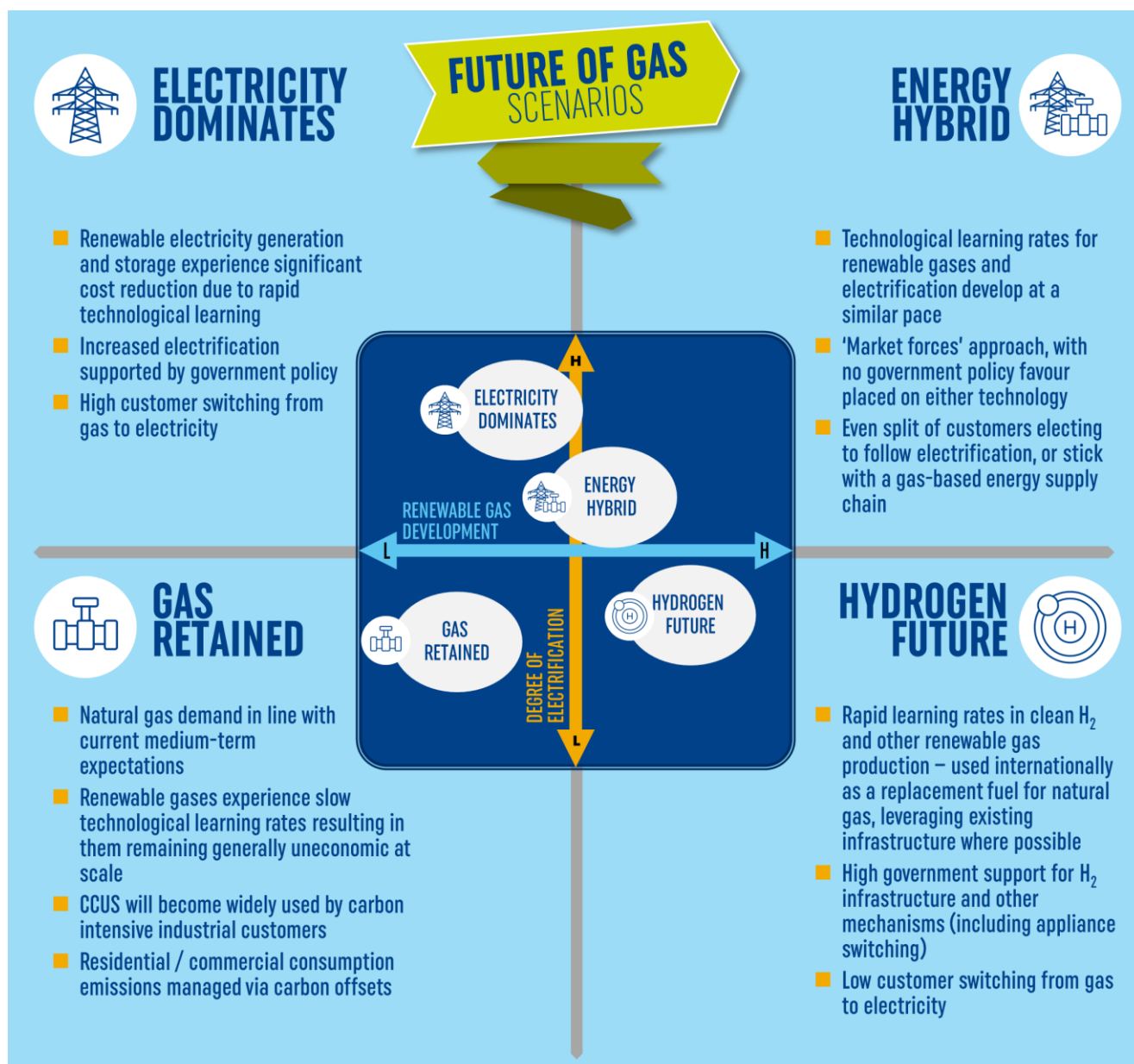
However, production of biogas in Western Australia is currently limited, with infrastructure investment required to scale up production and distribution. ATCO is exploring the potential of biogas as a source for its unaccounted for gas (UAFG) and to identify and overcome any technical, regulatory, or economic barriers to its implementation.

3.5 FUTURE OF GAS: SCENARIO PLANNING

To assist with our planning and investment forecasts for AA6, we are seeking feedback from our customers and stakeholders on four future scenarios for the Western Australian electricity and gas sectors. The purpose of these scenarios is to define plausible trajectories relating to potential market, policy, environmental and industrial sensitivities. See Figure 3.2.

These scenarios allow us to better anticipate and prepare for potential future events and changes, rather than simply reacting to them. This is particularly important for our AA6 planning, as many of the decisions we make today have implications beyond the end of the period, such as the economic lives of assets, investment levels for innovation, and network capital expenditure (**capex**) levels.

Figure 3.2: Future of Gas Scenarios Summary



3.5.1 THE FUTURE OF GAS: FOUR SCENARIOS



HYDROGEN FUTURE

Under the Hydrogen Future scenario, rapid learning rates for renewable gas production enable renewable gases to displace natural gas domestically and internationally. The resulting hydrogen industry mirrors the current natural gas and Liquefied Natural



From the perspective of ATCO’s gas distribution business, this scenario will result in continued strong demand for gas domestically, leading to modest growth in the volume of gas sold and number of customers connected.

Gas (**LNG**) industries, with a high-volume export focus enabling the economic servicing of the smaller Australian domestic market.

Internationally, clean hydrogen and in some cases biogas, is used as a replacement fuel for natural gas, leveraging existing infrastructure and supply chains where possible. This creates a large export opportunity for Australia that comes at the expense of traditional exports such as LNG. This is expected to disrupt upstream natural gas developments and thus the natural gas supply to the WA domestic market as the world and gas suppliers move to producing and consuming clean hydrogen. Under this scenario, Federal and State governments view clean hydrogen as a cost-effective pathway to decarbonise industry, gas power generation, and residential/commercial gas loads while retaining and decarbonising Australia's role as a major energy exporter. Government support to catalyse the clean hydrogen and renewable gases industry is assumed under this scenario, including support for replacing appliances so that they can operate on 100% hydrogen.

Technologies to support reductions in carbon emissions from electricity and other forms of stationary energy experience moderate technological learning rates. We expect limited customer switching from reticulated gas to electricity in the medium term.



ELECTRICITY DOMINATES

Under the Electricity Dominates scenario, renewable electricity generation and storage experience a rapid reduction in cost through increased technological learning. As such, the relative cost of electricity against natural gas and renewable gases falls dramatically, to such an extent that a broad electrification of industry and households occurs.



... the relative cost of electricity against natural gas and renewable gases falls dramatically, to such an extent that a broad electrification of industry and households takes place.

National and State governments provide support to existing natural gas users to electrify their loads, seeing this as a key factor in meeting climate goals and bringing down the cost of living for the Australian population. Government support could include grants, subsidies, and prohibitions on selling or installing new gas or other fossil fuel space or water heating appliances. This would have the effect of driving greenfield and brownfield appliance electrification.

The pace of renewable generation and storage cost reduction is expected to start slowly and ramp up by the mid-2030s as international adoption of renewable energy and associated learning rates rapidly increase. As such, the largest effect on ATCO will begin to be felt after the mid-2030s, with reduced but still economic volumes of gas assumed to be used beyond 2050. The gas within the network is assumed to remain primarily natural gas, with hydrogen blending limited to 10%.

As a result of the scenario's low electricity prices, the cost to produce renewable gas will also be reduced, making these gases more affordable. However, the scale of electricity price reductions means that comparing the use of these renewable gases to the cost-benefit of electrification will push more households and businesses to electrify their loads. As such, there is limited scope for renewable gases for commercial, residential and many industrial customers. However, renewable gases will play a role in hard-to-abate industries and in an export market setting. Thanks to rapid reductions in electricity

storage costs, gas power generation using hydrogen is also unlikely under this scenario due mainly to the large energy round trip losses experienced during this process. Investments and technical learning in technologies such as Carbon Capture Utilisation and Storage (CCUS) are also assumed to be slow. Under this scenario, cheaper electricity prices and the cost benefits faced by electrification will also significantly improve economic conditions within WA and Australia. The economic conditions internationally are also expected to benefit under this scenario, with moderate growth rates projected.



ENERGY HYBRID

Under the Energy Hybrid scenario, technical learning rates for renewable gases and electrification develop at a similar pace resulting in some customers electing to electrify and some remaining on the gas network. From an economic and environmental point of view, both electricity and renewable gases become viable options as alternatives for natural gas. This results in a mixed response from residential, commercial, and industrial customers, with an even split electing to follow electrification or stick with a gas-based energy supply chain. From a government policy perspective, this scenario represents a 'market forces' approach, with no policy favour placed on either technology.



This results in a mixed response from residential, commercial, and industrial customers, with an even split electing to follow electrification or stick with a gas-based energy supply chain.

Under the scenario settings, the benefits of cheaper electricity from moderate renewable energy learning rates and cheaper renewable gases lead to moderate economic growth both nationally and internationally. This is due to reduced consumer energy bills and improved industrial operating margins. This also means many hard to electrify industrial loads are addressed and continue to operate economically on natural gas and later hydrogen or other forms of renewable gas. Technologies to support reductions in carbon emissions from electricity and other forms of stationary energy, experience moderate technological learning rates. These moderate learning rates limit existing reticulated gas customers switching to electricity to lower emissions in the medium term.



GAS RETAINED

Under the Gas Retained scenario, global and local factors result in natural gas being retained in the ATCO network, broadly in line with the medium-term expectations from AA5. Renewable gases experience slow technological learning rates, which results in them remaining generally uneconomic at scale and low local and international uptake. As such, natural gas continues to be embraced as a 'transition fuel' used in large volumes globally to reduce carbon emissions quickly and reliably through coal to gas switching and to support renewable generation. The carbon intensity of natural gas and natural gas products such as LNG is also reduced thanks to rapid technological learning relating to CCUS.



Under the Gas Retained scenario, global and local factors result in natural gas being retained in the ATCO network, broadly in line with the medium-term expectations from AA5.

CCUS is critical to this scenario, and it is expected CCUS will become widely used by carbon-intensive industrial customers who can easily capture their emissions. In addition, CCUS will become a major industry internationally with the expected emergence of a regionally based carbon price to reflect the cost of operation. This international cooperation on CCUS will enable most natural gas emissions to be captured. This will enable the use of natural gas with limited environmental impact, supporting the upstream gas and LNG industry both locally in WA and internationally while meeting emissions reduction targets.

The impact of CCUS on ATCO is indirect, as it is not expected that ATCO would have a role to play in this industry. However, the successful development of CCUS technology would allow for the continued development of Western Australia's natural gas reserves, which are critical to maintaining a domestic gas supply through the Domestic Gas Reservation Policy. Success in CCUS may also underpin the use of gas for gas-fired power generation in Western Australia, providing a platform for the continued development of the State's gas resources.

Hard-to-capture gas loads, such as residential and commercial gas consumption, will have their emissions managed via a certified carbon offset crediting scheme. Such schemes will be fit for purpose and economic at the scale these loads represent. Economic growth domestically and internationally is assumed to be moderate under this scenario.

In this scenario, the gradual electrification of household appliances would be expected to occur, generally in line with replacement cycles, as opposed to an acceleration in the demand for switching. Industrial users would be expected to continue using carbon-neutralised natural gas, or to undertake CCUS of their own where scale permits.

3.6 POSSIBLE RESPONSES FOR CONSIDERATION

The Future of Gas study will allow us to look into the long-term future of the gas distribution network while involving our customers and stakeholders in decisions that affect them. The outcomes of this work will be completed and included in our September 2023 submission.

Scenario modelling is an important tool when faced with uncertainty and needing to make large and long-life investments. In such circumstances, approaching investments using a real-options framework reduces the risk of getting such investments wrong. The real-options approach supports investing in options that can be exercised or discarded as better information about the future becomes available. The following potential responses are 'on the table', and we are interested in our customers' and stakeholders' feedback to assist in our decision-making.

- **Continue to maintain existing assets:** While longer-term utilisation of assets may be much lower than currently in some scenarios, all scenarios indicate that the assets will continue to be at least *partly utilised* over the technical life of the assets. Prudent investment in the existing network is critical for safe, reliable, affordable, and sustainable operations.
- **Accelerated depreciation:** Accelerated depreciation of the asset base that reflects the likely lower utilisation of assets under some scenarios. ATCO is investigating options to change the depreciation profiles of its gas distribution assets to reflect likely changing economic lives. This aims to avoid imposing unreasonably large charges on smaller groups of customers in the future. (See Section 10.4.2)

- **Network Innovation Scheme (NIS):** We believe that through innovation, the gas network has an important role in the future energy mix while also supporting decarbonisation. The objective of our proposed NIS would be to encourage innovation in this area, benefitting the network and consumers beyond the current access arrangement period. *(See Chapter 14)*
- **Preparation for renewable gas in the network:** In light of the climate change policy positions at the State and Federal level, there is a likely need for ATCO to facilitate renewable gases to be transported across the network. ATCO is in the early planning stages for renewable gases (including biogas and hydrogen), and is proposing:
 - **Renewable gas injection infrastructure:** ATCO plans to build infrastructure at key locations within the network to enable the injection of renewable gas. Six renewable gas injection stations (to inject around 100-200 TJ) are proposed for AA6.
 - **100% Hydrogen Community:** This initiative is the second stage of our Jandakot hydrogen blending initiative, aiming to deliver 100% hydrogen in two selected communities or estates. *(See Section 9.6.2 for further details)*

3.7 POLICY SUPPORT

In addition to Australia's commitments to emissions targets, clear policy direction by government is needed to ensure the right mix of resources is available to be utilised by energy networks to supply safe, reliable, affordable, and sustainable energy to consumers. Emissions reduction in gas networks needs the same priority and level of supportive policies as renewable electricity generation and storage technologies.



...the government's development of a Renewable Gas Target would magnify the transition in the gas sector and provide the signal to attract investment across supply chains for renewable gases from production, transport, and end-use.

Clear policy support will ensure the ongoing utilisation of existing network assets, which are already connected to the majority of properties, at lower overall costs to customers of the energy transition.

Nationally, the process to change the National Gas Law and Rules has commenced integrating renewable gases and emissions reduction into the decision-making of energy market bodies. We welcome these changes. The Western Australian regulatory framework must reflect the national amendments promptly for the upcoming AA6 process.

Furthermore, the government's development of a Renewable Gas Target would magnify the transition in the gas sector and provide the signal to attract investment across supply chains for renewable gases from production, transport, and end-use. Similar to the Renewable Energy Target in electricity, a Renewable Gas Target could impose an obligation on gas retailers and large gas users to meet gas requirements from a renewable source, creating demand for renewable gases and lowering emissions.

CONSIDERATIONS FOR OUR STAKEHOLDERS

1. We want our stakeholders to consider if the 'no regrets' actions apply to the uncertainty in the future of gas, considering the current legislative framework, investment criteria, and technology.
2. We want to consult with our stakeholders to understand their views on the appetite for price change now and the impact that might have on future customers.

4. CUSTOMER & STAKEHOLDER ENGAGEMENT

CHAPTER HIGHLIGHTS

1. The insights from our AA6 Engagement program underpin our Draft Plan.
2. Research was undertaken to investigate sentiments towards gas in Western Australia, how customers perceive it, their outlook on the future of gas distribution, and their understanding and support of ATCO's AA6 investment opportunities.
3. ATCO's planned program investment areas have strong support, with most residents indicating the programs are of high personal importance and over half of ATCO's customers rating "gas from renewable sources" as their top priority compared to the other areas.
4. Natural gas continues to be seen as a safe and reliable energy source, and household access remains a valued option for 97% of residents, with 53% considering it "extremely important."
5. Customers believe that natural gas has an important role in a low-carbon future and expect ATCO to drive the decarbonisation of the natural gas network in WA. However, government policy and greater education around sustainability initiatives could further bolster customer support.

4.1 INTRODUCTION

ATCO has proudly built a reputation as a customer-focused business providing safe, reliable, and affordable access to natural gas for Western Australian consumers. Our success hinges on the relationships we have built through genuine and meaningful engagement with our customers, and we are committed to maintaining critical ties with the communities in which we live and operate.

Furthermore, we deeply value the insights of our customers and the community and recognise the importance of actively listening to their feedback. These insights are fundamental in creating a genuinely community-driven and community-supported AA6 submission.

Through this lens, ATCO has designed a stakeholder engagement program that aims to capture the needs and expectations of a diverse range of stakeholders. This 2025-29 Draft Plan is part of this engagement program.

4.2 WHO HAVE WE ENGAGED?

To ensure a fair and accurate program, we engaged customers and stakeholders across various demographics, bill size, household composition, gas use, and sentiment towards gas. Participants included large commercial, industrial, and residential customers. Stakeholders included builders and developers, peak bodies, and gas retailers (1-on-1 interviews and workshops). Residential participants were screened and recruited by an accredited market research agency and were provided with a financial incentive, as is standard practice in the research industry.

ATCO AA6 PROGRAM CUSTOMER & STAKEHOLDER ENGAGEMENT PROGRAM

ATCO has proudly built a reputation as a customer-focused business and ongoing genuine and meaningful engagement with our customers is a core part of our business. Our Customer & Stakeholder Engagement Program is designed to ensure our 2025-29 plans and investments are aligned to our customers' needs and expectations. The highlights of our initial Engage Phase are summarised below.

76

Customers and stakeholders were engaged through a series of interviews and a community forum

- WA Residents
- Customer Reference Group
- Retailers
- Peak Bodies
- Commercial, Industrial, Builders & Developers

4-STAGE APPROACH

DESIGN
JUL-AUG 2022

1

Design an engagement approach aligned to our strategy

2

ENGAGE
SEP-OCT 2022

Capture qualitative insights from our customers & stakeholders

- 6 Resident Focus Groups
- Customer Reference Group forum
- 8 interviews with Retailers
- 13 interviews with CIBD customers
- 5 interviews with Peak Bodies

MEASURE
NOV-JAN 2023

3

Test insights and trade-offs through a quantitative survey and choice modelling with 1,000 customers

RE-ENGAGE
APR-JUN 2023

4

Collate feedback on Draft Plan (to be completed)

ENGAGEMENT INSIGHTS



IMPORTANCE OF OUR AA6 INVESTMENTS TO CUSTOMERS

95%

support for our Gas Mains Replacement Program

94%

support for gas from renewable sources

93%

support for our IT Infrastructure Program

89%

support for our Gas Meter Replacement Program

88%

support for our Network Expansion Program

TOPICS OF DISCUSSION



Awareness & Knowledge

- Residents prefer gas for cooking and heating due to speed and affordability
- Residents consider gas to be reliable and safe, almost never experiencing problems with their gas supply
- Residents displayed a very low awareness of the gas supply chain and how gas distribution operates, however, gas is seen as an important energy source



Future Network Challenges

- Reducing network emissions is key, however a lack of policy makes it difficult for retailers to fully support sustainability initiatives at this time
- The societal shift towards electrification and maintaining relevance for the gas network
- The WA labour shortage and its associated impact on completing future projects



Addressing Challenges

- ATCO should educate consumers on its plans to future-proof the network, while ensuring that the costs remain affordable
- ATCO should focus on building the demand for gas, and educating consumers and encouraging policy for H₂
- Gas consumption may increase if manufacturing demand increases. Maintenance and upgrades of infrastructure is of critical importance



Net-zero Emissions

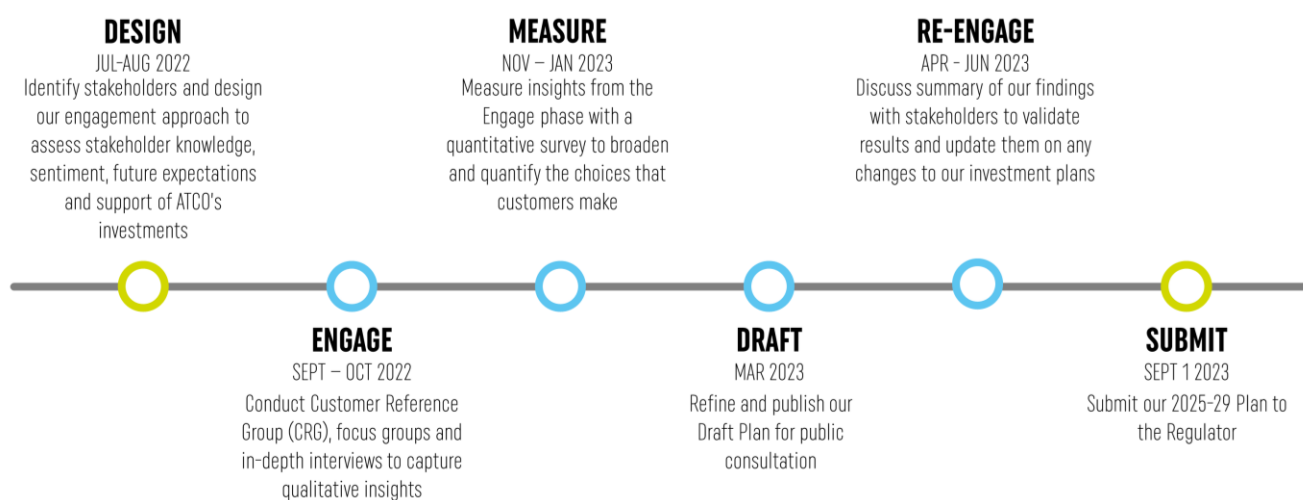
- ATCO should reduce emissions or offset them with 'green' initiatives, however Residents also want to know how these investments will affect prices
- For H₂ blending, it's important that it's at an affordable cost, that it's safe, and that it must be reliable to support retailers' net-zero ambitions
- ATCO should enact its own initiatives that align with net-zero government targets, and collaborate with industry to achieve the targets

4.3 OUR ENGAGEMENT PROCESS

The AA6 Engagement program builds on our previous and ongoing engagement and has been designed with the valuable learnings of previous access arrangement engagement programs in mind. For AA6, ATCO engaged leading global market research consultants Kantar Public, in partnership with Synergies Economic Consulting, to assist in designing and delivering a robust and customer-centric engagement program that accurately reflects the long-term interests of ATCO's end-user customers, retailers, and stakeholders. Kantar and Synergies assisted in ensuring the consultation approach was fair and transparent.

The engagement program has sought to facilitate open dialogue with stakeholders through four key stages. Following the release of this 2025-29 Draft Plan for public consultation, ATCO will conduct a further round of engagement to validate findings with key stakeholders before refining and incorporating these insights into our September 2023 submission.

Figure 4.1: AA6 Engagement Timeline



4.3.1 ENGAGEMENT ACTIVITIES: ENGAGE AND MEASURE STAGES

Our initial engagement activities were designed to be open and exploratory, to understand the needs and priorities of the WA community and stakeholders and the trade-offs they're willing to make (through choice modelling).

Engagement activities conducted in the initial Engage Phase included:

- **Customer Reference Group (CRG).** 21 September 2022, 3 Hours

The objective of this workshop was to consult and gather feedback from a representative cross-section of ATCO customers and the general WA population to understand their needs and wants of the gas network.

The session comprised an education component, delivered by the President of ATCO Gas Australia, which highlighted ATCO's business values, operations, Access Arrangement requirements, proposed future investments, and a summary of our engagement process.

Participants were then divided into four groups for a robust discussion facilitated by Kantar. The discussion included broad lines of enquiry, such as general awareness and knowledge of ATCO and the gas network, future expectations of gas as an energy source, and support for ATCO's key investment areas.

- **Retailer Workshop.** 4 October 2022, 1 Hour

This online workshop sought to provide retailers with an overview of the AA6 program and to encourage open discussion and questioning amongst the group around sustainability initiatives and industry needs and wants. A total of 16 participants attended the session on behalf of eight individual retailers, comprising a 30-minute presentation of ATCO's key investment priorities for AA6, followed by a question and answer session.

- **WA Residents Focus Groups.** 5 – 13 October 2022, 1.5 Hours

The Focus Groups aimed to collect and share views of the broader Western Australian community. Kantar Public facilitated these six 1.5-hour online workshops with ATCO and ERA employees watching from a virtual viewing room. The workshops followed a similar format and line of questioning as the CRG to capture the knowledge and sentiments of the group towards the future of gas in WA and ATCO's proposed investment program. A small amount of upfront education was provided on ATCO's role to ensure we obtained relevant information. A total of 30 residents shared their views on a range of topics and were paid \$80 for their time.

- **1-on-1 In-depth Interviews.** 10 October – 11 November 2022, 0.5 hours

Over four weeks in October and November, Kantar facilitated a series of in-depth interviews (via web conferencing or telephone) with a cross-section of stakeholders to gather detailed qualitative insights. These interviews explored the gas and energy needs and sentiments of a representative cross-section of ATCO's largest commercial and industrial customers, builders and developers, peak industry and community bodies, and retailers.

This exploratory stage was followed by a quantitative survey aimed at quantifying community priorities and acceptable trade-offs, and their willingness to accept a change in price to fund these projects or changes to service levels. Full quantitative results will be published as part of our September 2023 submission.

4.4 CUSTOMER INSIGHTS

A summary of the Engage Stage insights is outlined in Table 4.1.

Table 4.1: Engage Stage Insights

TOPIC	INSIGHTS	RESIDENTS	RETAILERS	CIBD	PEAK BODIES
Awareness & Knowledge	Natural gas viewed as an important, reliable, and affordable energy source	✓	✓	✓	✓
	Low awareness and understanding regarding topics of the gas supply chain, and ATCO's brand and role in gas distribution	✓			

TOPIC	INSIGHTS	RESIDENTS	RETAILERS	CIBD	PEAK BODIES
	Desire for more information about ATCO and our services	✓		✓	✓
Future Gas Distribution Challenges	Societal shift to electrification	✓	✓		✓
	Future-proofing the network and maintaining the relevance and affordability of gas	✓	✓	✓	✓
	Reducing emissions is also key, however, a lack of policy makes it difficult to fully support sustainability initiatives		✓		
How To Address The Challenges	ATCO expected to build demand for gas through greater education and advocacy efforts	✓	✓	✓	✓
	Opportunity for ongoing collaboration with stakeholders to better understand and achieve net zero together		✓	✓	✓
	Challenges must be met in a way that keeps costs affordable		✓	✓	✓
Net Zero	ATCO plays a role in decarbonisation of the gas network, although it is not solely ATCO's responsibility	✓	✓	✓	✓
	Opportunity and expectation for ATCO to help customers meet their own net zero goals			✓	
	It is expected that ATCO will enact initiatives that align with net zero government targets		✓		✓
INVESTMENT PROGRAMS					
Gas Mains Replacement	Broad support for investment, with 95% of residents considering it to be personally important	✓	✓	✓	✓
	Considered important for network safety and reliability	✓	✓	✓	✓
	The expectation that pipes can withstand future gas blends		✓		✓
Sustainability Projects	Strong support and keen interest in learning more about ATCO's plans in this area	✓		✓	✓
	Strong support among residents, with 94% indicating the investment is important to them personally	✓			
Network Expansion	The majority support the investment, but it is not considered a high priority in comparison to other investment areas	✓	✓	✓	✓
	99% of customers consider it "important" to have access (choice to connect and use) to gas in the household	✓			
Meter Replacement	Most respondents support investment and expect ATCO to replace meters as they reach their 'end of life'	✓	✓	✓	✓
	A growing interest in having the option of digital or 'smart' meters for greater accuracy	✓	✓		✓



4.4.1 AWARENESS AND KNOWLEDGE (RESIDENTS ONLY)

This line of unprompted questioning sought to capture residents' understanding of gas and the distribution network, current household gas usage, attitudes regarding the safety, reliability, and affordability of gas, and the perceived future role of gas as an energy source.

Residents displayed a very low awareness of the gas supply chain and how gas distribution operates, however, it was evident that gas as an energy source is important for household heating, heating water, and cooking, and is largely considered safe and reliable.



But also, for now, probably for a big chunk of the community, it's the cheapest, one of the cheapest. So, it's sustainable in the terms of it's actually affordable.

Metro Resident

4.4.2 FUTURE GAS DISTRIBUTION CHALLENGES

Stakeholders were asked to consider the biggest current and future challenges for WA gas distribution.

- **Residents:** While there was no clear consensus on the challenges specific to gas distribution (which is likely a result of low awareness and knowledge), the group cited a wide variety of challenges for energy distribution in WA, with economics, affordability, maintenance, availability of gas supply, and reducing emissions identified as key considerations for ATCO to address.



For us, the challenge is a continual supply of gas at a reasonable cost. We're contracted to the health department, and we can't afford to have any outages or stoppages.

Commercial & Industrial Customer

- **Retailers:** Retailers regard the societal shift towards electrification (and subsequent potential reduction in new gas connections), along with ATCO's investment in sustainability projects and alignment with net zero targets being the key challenge facing ATCO. In particular, the lack of policy support makes it difficult for retailers to visualise how ATCO can realistically reduce carbon emissions.
- **Commercial & Industrial Customers and Builders & Developers:** The group proposed two main challenges facing gas distribution: the WA labour shortage and its associated impact on completing future projects and reducing carbon emissions in the gas network.
- **Peak Bodies:** Conceptually, Peak Bodies consider the future role of gas in a rapidly evolving energy landscape to be the biggest challenge for ATCO. Future-proofing the network and maintaining the relevance of gas, and particularly the affordability of gas and the environmental benefit it has on customer preferences, is of greatest concern for Peak Bodies and the communities they represent.

4.4.3 ADDRESSING THE CHALLENGES AND A FOCUS ON THE FUTURE

Stakeholders were asked to share their views on ATCO's role in addressing the challenges above, including where ATCO should focus, and which investment areas were perceived as most important.

- **Retailers:** Retailers expect ATCO to be responsible for building the demand for gas, educating the public on the benefits of hydrogen and encouraging associated policy. This will assist in future-proofing against defection to electric-only households in new sub-divisions and mitigating any potential mass disconnection in current households with gas. The group recommended ATCO remain focused on developing its sustainability projects (noting that policy support is required to build confidence) and investing in IT to improve its systems while ensuring that costs remain affordable.

“ I'm sure they have investment requirements for SCADA, and cyber security is a big one and it's getting bigger very rapidly. ”

Retailer
- **Commercial & Industrial Customers and Builders & Developers:** These stakeholders expected ATCO to develop and drive the uptake of sustainable alternatives while ensuring the viability of gas by supplying it at a reasonable price. According to the group, gas will likely remain a relevant and necessary energy source. Some commercial and industrial customers suggested that their gas consumption may increase if manufacturing demand increases. As such, they consider active ongoing maintenance and upgrades of the current infrastructure to be critical for continued safe and reliable gas access.

“ ... we're all looking for a sustainable future and that's the huge focus of companies. So what can ATCO do to work with us, I guess, to help us realise that future of a more sustainable way of manufacturing, I would encourage them to get involved on that level. ”

C&I Customer
- **Peak Bodies:** Peak Bodies expressed a desire for ATCO to focus on working with and educating consumers on its plans to future-proof the network, while ensuring that the costs remain affordable, particularly for residential and vulnerable customers.

4.4.4 ATCO'S RESPONSIBILITY IN ACHIEVING NET ZERO

Stakeholders were prompted to share their thoughts on ATCO's decarbonisation responsibilities and whether they felt ATCO could do more to help the WA community achieve net zero.

- Residents:** Most residents feel there is a need for ATCO to reduce emissions and offset them with 'green' initiatives. There is an expectation that ATCO will help educate customers on their plans to achieve net zero, specifically regarding their planned investments in new technologies and how this will impact their bills.

“ I think it's important for ATCO to try to be at zero. But I think for a company that is based on hydrocarbons, and you know, it is going to be a long journey to achieve proper net zero for ATCO.

Regional Resident
- Retailers:** The perception of ATCO's responsibility in achieving net zero varied between each retailer and appears to depend on the retailers' own ambitions for net zero. However, it is largely considered appropriate for ATCO to set reasonable net zero business targets across their operations and enable retailers (and customers) to achieve their own goals. For hydrogen blends, it's important to retailers that it is at an affordable cost, that it is safe, and that it must be reliable to support retailers' net zero ambitions. Retailers expect a gradual transition to gauge the impact of the change on their processes.

“ The whole industry is working towards net zero and is not reliant on ATCO to drive.

Retailer
- Commercial & Industrial Customers and Builders & Developers:** To stay relevant and in business, it is expected amongst these participants that ATCO enact initiatives that align with net zero government targets and collaborate with industry to better understand and realise the targets.
- Peak Bodies:** While it is acknowledged that achieving net zero may be challenging for the industry, Peak Bodies believe that ATCO should still set milestones, explore offset programs, and consider alternative strategies to reduce their carbon footprint within their overall business and supply chain.

“ I think any company that is dragging its heels, that didn't take that sense of corporate social responsibility and the social licence to operate very seriously, is folly.

Peak Body

4.4.5 INVESTMENT AREAS

Participants were then presented with four major programs that ATCO plans to undertake over AA6 to address safety, reliability, sustainability, and growth. This activity sought views on the need and priority of these programs. The findings from this research were in line with those gathered in the quantitative survey, wherein ATCO customers were educated on the key investment programs (which also included IT Infrastructure) and then asked to rate how important each investment program is to them. Encouragingly, the results indicate that, at a base level, nearly 9 in 10 customers consider the suite of investment programs personally important.

MAINS REPLACEMENT

Most participants were highly supportive of ATCO's investment in the Mains Replacement program, which is seen as necessary to maintain the safe supply of gas and mitigate leaks. Generally, it was felt that investment in maintaining the gas distribution network was ATCO's 'business as usual' responsibility.

- **Residents:** Safety is seen as a particular priority for residents, with broad support for proactive investment to improve the safety of the network. There was a high degree of support for the project amongst CRG members, with all participants indicating that the program was of high personal importance and relevance.
- **Retailers:** Technical considerations such as the suitability of pipes for future gas blends and the type of pipe to be replaced were raised, with most seeking further detailed information.

“

I think it's important. Obviously, you don't want to have leaks and problems and issues that are going to cost more in the long run. So, it's better to sort of fix the problem before it becomes a big problem.

Regional Resident

SUSTAINABILITY PROJECTS

Overall, there are high levels of support and interest in ATCO's sustainability-related projects, with all stakeholder groups expressing a desire for further involvement and education around the economics, benefits, and impacts as the projects progress.

- **Residents:** Continuity and security of supply were seen as important by residents when it came to the gas delivered to their households, with many viewing the initiative as a logical step to secure future supply. 18 out of 20 CRG participants demonstrated support for the investment area.
- **Retailers:** Retailers are optimistic about ATCO's hydrogen blending initiative, believing it to be of relative interest to their customers. However, in the absence of Government policy to drive the project, there were some concerns about the recovery of costs. Retailers cited pre-requisite conditions that must be met before changing the whole network to suit hydrogen, including feasibility studies to understand the economic benefits, the future demand for gas and legislative support before recovering customers' costs. Retailers also desire more information about project progress to deliver a clear message to their customers.

“

I think sustainability is very relevant and very important. I think this is 100% something they should be investing in.

Metro Resident

NETWORK EXPANSION

- **Residents:** Residential feedback on Network Expansion was mostly positive (all want gas access to be equal for all Western Australians), with the issue of who should benefit first up for debate, i.e., metro or regional customers. Customers generally expect that the cost of gas will go down with more customers on the network and that having the choice to connect to gas is a driver of competition. Only one resident out of 20 CRG participants did not agree that the investment was personally important or relevant.

- **Retailers:** Retailers considered the investment ‘normal business practice’ and expect ATCO to allow new customers to access the network, suggesting an anticipated growth in sub-divisions where there is a high net benefit to costs (e.g., high demand and highly populated areas). Retailers also inferred a strong commitment to the investment if and where WA state policy supports it.
- **Commercial & Industrial Customers and Builders & Developers (CIBD) & Peak Bodies:** While support for network expansion was overall positive, there were mixed sentiments amongst CIBD and Peak Bodies, with some suggesting it is less of a priority when compared to Mains Replacement and Sustainability Projects, but important nonetheless.

METER REPLACEMENT

ATCO’s Meter Replacement Program is largely supported as a necessary investment for safety reasons at the end of the meters’ 25-year life. Retailers acknowledged the necessity of the investment for ATCO to meet its regulatory compliance and noted the program’s benefits, including accurate billing. The topic of ‘smart meters’ was raised several times in discussions with residents and retailers, who expressed an interest in their potential to enhance the network and increase efficiency. However, it was accepted that there is no current policy cause for this. All CRG participants expressed support for investment in the Meter Replacement Program.

4.4.6 QUANTITATIVE CHOICE MODEL SURVEY

The second stage of the Engage phase was a comprehensive Choice Model Survey designed to measure and quantify the qualitative insights gathered in the previous engagement activities. Over three weeks in December 2022 and January 2023, 1,000 quantitative online interviews were conducted with Western Australian residents aged 18+ living in metropolitan and regional areas. A series of telephone interviews conducted by professional interviewers were also completed to increase the number of respondents in the regional areas, with an average interview duration of around 15 minutes. This activity was facilitated by Q&A Market Research in Brisbane, who have a specialist consumer panel in Western Australia.

The full results of the choice modelling will be included in our September 2023 submission, but some early findings of the survey include the following:

- Of those surveyed, 50% of the customers find their electricity bills affordable, while a much higher proportion of 79% consider their gas bills affordable. This is in line with customer sentiments on affordability as reported by Energy Consumers Australia in December 2022, wherein 78% of participants positively rated the overall value for money of the products and services provided by their gas retailer in the past six months.⁷
- More than half of respondents (54%) consider access to gas as “extremely important” in their household, while only 3% do not consider access to gas in their household as “important”. The combined result is 97% of ATCO’s customers believe access to gas is important overall.
- On average, customers pay around \$78 more for their quarterly electricity bill, and only 50% believe electricity is affordable (gas is perceived as significantly more affordable).
- Nearly 9 in 10 customers consider the suite of investment programs personally important:

⁷ <https://ecss.energyconsumersaustralia.com.au/sentiment-survey-dec-2022/western-australia-sentiment-dec-2022/>

- Gas mains replacement (95% *consider personally important*)
- Gas from renewable sources (94%); of which 49% consider this investment “extremely important” and 54% of customers rank it as their “priority investment”
- IT infrastructure (93%)
- Gas meter replacement (89%)
- Network expansion (88%)
- Of the top two investment programs, gas from renewable sources and gas mains replacement, the key reasons driving the top rank are “better for the environment (43%)” and “reduce leakage and wastage” (28%).

4.5 RE-ENGAGEMENT AND ONGOING ENGAGEMENT

The insights provided during the Engage phase have informed the development of our 2025-29 Draft Plan. The CRG and retailers will be invited back to share their views on our findings and plans as part of the Re-engage phase.

The purpose of the Re-engage phase is to present the findings gathered in the Engage phase and inform how these insights were considered in developing our Draft Plan. We will then workshop these findings with the groups to identify gaps, implications, and recommendations for ATCO to consider before the September 2023 submission.

We remain committed to listening and collaborating with our stakeholders to ensure that our plans continue to reflect the needs and expectations of the Western Australian community.

With this in mind, ATCO is committed to working with customers and stakeholders to ensure that our initiatives and investments meet their expectations and are in customers’ interests, particularly older Australians, vulnerable customers, and culturally and linguistically diverse customers. Publishing this plan is part of this commitment, and we welcome any feedback you may have.

CONSIDERATIONS FOR OUR STAKEHOLDERS

1. Did our AA6 Engagement program test the right topics?
2. Are we engaging with the right groups of customers and stakeholders?
3. Was our consultation approach open and transparent?
4. Does the release of this 2025-29 Draft Plan assist in the engagement process?
5. How could we improve future engagement programs?

PART B | Our Proposal



ATCO

5. PIPELINE SERVICES

CHAPTER HIGHLIGHTS

1. We conducted extensive stakeholder consultation to develop our Reference Services Proposal, which was submitted to the ERA on 1 September 2022.
2. The ERA has since approved our Reference Services Proposal.
3. Our Haulage reference services remain unchanged from AA5 and are proposed as reference services for AA6.
4. Our Ancillary reference services will remain mostly unchanged in the AA6 period, with the addition of the previous non-reference service '*Cut and cap service pipe at the main*'.

5.1 INTRODUCTION

On 1 September 2022, we submitted a Reference Services Proposal to the ERA for our gas distribution network in accordance with National Gas Rule 47A. The ERA's Final Decision, which was published on 14 November 2022, approved the reference services set out in our Reference Services Proposal. In accordance with Rule 48, our proposed reference services for this access arrangement are consistent with the ERA's decision.

5.1.1 PIPELINE SERVICES OVERVIEW

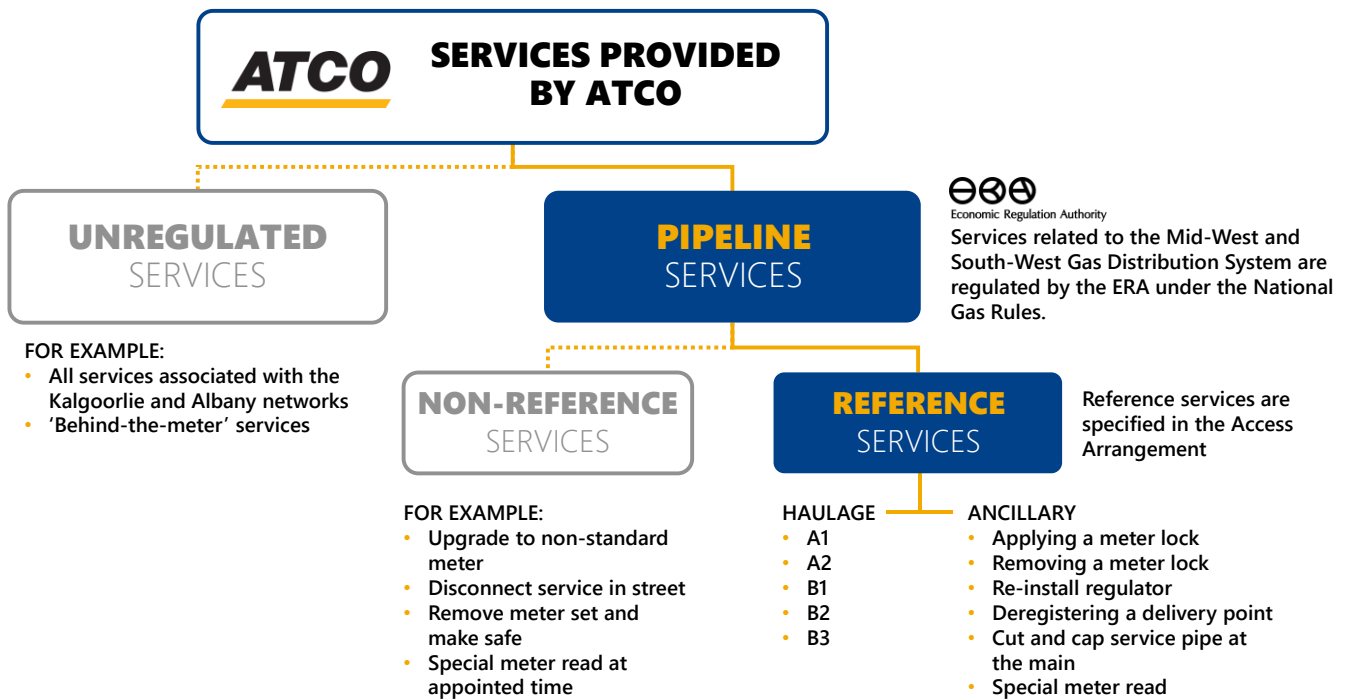
Reference and *non-reference* services are together called *pipeline services*, which are defined in the National Gas Law (NGL), see Figure 5.1. The classification of a service as either a reference or a non-reference service is considered at the beginning of the access arrangement review having regard to the *reference service factors* outlined in the National Gas Rules (NGR).

Reference services are pipeline services that form the basis of the prices and terms and conditions for the access arrangement period. The corresponding tariffs for our reference services are proposed in *Section 15*. We group reference services into two categories:

- **Haulage Reference Services:** For the transportation of gas to residential, commercial, and industrial customers. Haulage reference services are used by all users of the GDS, and all gas delivered through our network is delivered under these services. These services cover the full range of activities involved in receiving, transporting, and delivering gas to our customers.
- **Ancillary Reference Services:** Non-haulage pipeline services that are predominantly used by retailers in conjunction with providing a haulage service.

Non-reference services are those services with low or infrequent demand and are typically negotiated on a case-by-case basis with our customers. In the current access arrangement period, non-reference services make up approximately 2% of our revenue from pipeline services. Tariffs, terms, and conditions for these non-reference services are not determined by the ERA, and therefore the forecast costs and demand associated with providing non-reference services are not included within the forecasts presented in this document.

Figure 5.1: AA6 service classification



5.2 Haulage Reference Services for AA6

The haulage reference services that we will offer in AA6 are the services detailed in the ERA’s November 2022 Reference Service Proposal Decision. These services cover the full range of activities involved in receiving, transporting, and delivering gas to our customers.

Haulage reference services for AA6 are outlined in Table 5.1.

Table 5.1: AA6 Haulage Reference Services

REFERENCE SERVICE	DESCRIPTION
A1	<p>A1 is a pipeline service under which ATCO delivers gas to a user at a delivery point on the network, where the following preconditions were met at the time the user (then a prospective user), submitted an application for the service:</p> <ul style="list-style-type: none"> It was reasonably anticipated that the prospective user would take delivery of 35 TJ or more of gas during each year of the haulage contract; and The prospective user requested a contracted peak rate of 10 GJ or more per hour; and The prospective user requests user-specific delivery facilities.

REFERENCE SERVICE	DESCRIPTION
A2	<p>A2 is a pipeline service under which ATCO delivers gas to a user at a delivery point on the network, where the following preconditions were met at the time the user (then a prospective user), submitted an application for the service:</p> <ul style="list-style-type: none"> • Either (or both): <ul style="list-style-type: none"> ◦ it was reasonably anticipated that the prospective user would take delivery of 10 TJ or more of gas, but less than 35 TJ of gas, during each year of the haulage contract, or they requested a contracted peak rate of less than 10 GJ per hour; and ◦ an Above 10 TJ Determination was, or was likely to have been, made under the Retail Market Procedures (WA); and • The prospective user requests user-specific delivery facilities.
B1	<p>B1 is a pipeline service under which ATCO delivers gas to a user at a delivery point on the network, where the following preconditions were met at the time the user (then a prospective user), submitted an application for the service:</p> <ul style="list-style-type: none"> • Either: <ul style="list-style-type: none"> ◦ it was reasonably anticipated that the prospective user would take delivery of less than 10 TJ of gas during each year of the haulage contract; or ◦ requested a contracted peak rate of less than 10 GJ per hour; and • The prospective user requests user-specific delivery facilities or standard delivery facilities that include a standard meter with a badged capacity of 18 cubic meters per hour (m³/h) or more.
B2	<p>B2 is a pipeline service under which ATCO delivers gas to a user at a delivery point on the medium pressure/low pressure parts of the network using standard delivery facilities that include a standard meter with a badged capacity greater than or equal to 12 m³/h and of less than 18 m³/h.</p>
B3	<p>B3 is a pipeline service under which ATCO delivers gas to customers with a standard meter with a badged capacity of less than 12 m³/h, typically residential or small business customers, supplied at medium or low pressures.</p> <p>End use customers who receive B3 reference services and who consume less than 1 TJ of gas per year are small-use customers as defined in the National Gas Access (WA) (Local Provisions) Regulations 2009.</p>

5.3 Ancillary Reference Services for AA6

The ancillary reference services that we will offer in AA6 are the ancillary services detailed in the ERA's November 2022 Reference Service Proposal Decision.

In AA6, we will make the 'Cut and cap service pipe at main' service a reference service. The service is sought by a significant portion of the market (the service is delivered approximately 2,000 times per year), and the service is not substitutable with any other reference service.

Ancillary reference services for AA6 are outlined in Table 5.2.

Table 5.2: AA6 Ancillary Reference Services

REFERENCE SERVICE	DESCRIPTION
DISCONNECTIONS FOR RETAILER CREDIT CONTROL	
Applying a Meter Lock	Attaching a lock to the valve that comprises part of the standard delivery facilities to prevent gas from being received at the delivery point. This service is available at delivery points receiving the B2 or B3 haulage service.
Remove regulator	Physically disconnecting a delivery point to prevent gas from being delivered to the delivery point. This service is available at delivery points receiving the B2 or B3 haulage service.
RECONNECTIONS FOR RETAILER CREDIT CONTROL	
Removing a Meter Lock	Removing the lock that was applied to a valve comprising part of the standard delivery facilities to prevent gas from being received at the delivery point. This service is available at delivery points receiving the B2 or B3 haulage service.
Re-install regulator	Reconnecting a delivery point to allow gas to be delivered to the delivery point. This service is available at delivery points receiving the B2 or B3 haulage service.
DISCONNECTIONS	
Deregistering a delivery point	A delivery point is permanently deregistered by: i) removing the delivery point (as per the Retail Market Procedures), ii) removing the delivery point from the Delivery Point Register and iii) for delivery points receiving the B2 or B3 haulage service, removing the meter (where ATCO considers necessary). For delivery points receiving the A1, A2 or B1 haulage service, removal of the meter set is a separate non-reference service ("Remove meter set and make safe service").
Cut and cap service pipe at the main (Previously Demolition)	Following the successful deregistration and meter removal, this service is for the capping of the service pipe at the main to make safe under standard site conditions. This service is available only at delivery points that previously received the B2 or B3 haulage service and have also sought the "Deregistering a delivery point" service.
METER READING SERVICES	
Special read	Request to perform a special read on a basic meter. This service is available at delivery points receiving the B1, B2 or B3 haulage service.

6. DEMAND FORECAST

CHAPTER HIGHLIGHTS

1. The demand forecasts in this chapter are preliminary; they are based on historical consumption and connection information to 2022.
2. During AA6, the number of customers is forecast to grow at 1.5% pa. Consumption per customer during AA6 is forecast to decline, resulting in overall forecast consumption decreasing at 0.3% pa.

6.1 INTRODUCTION

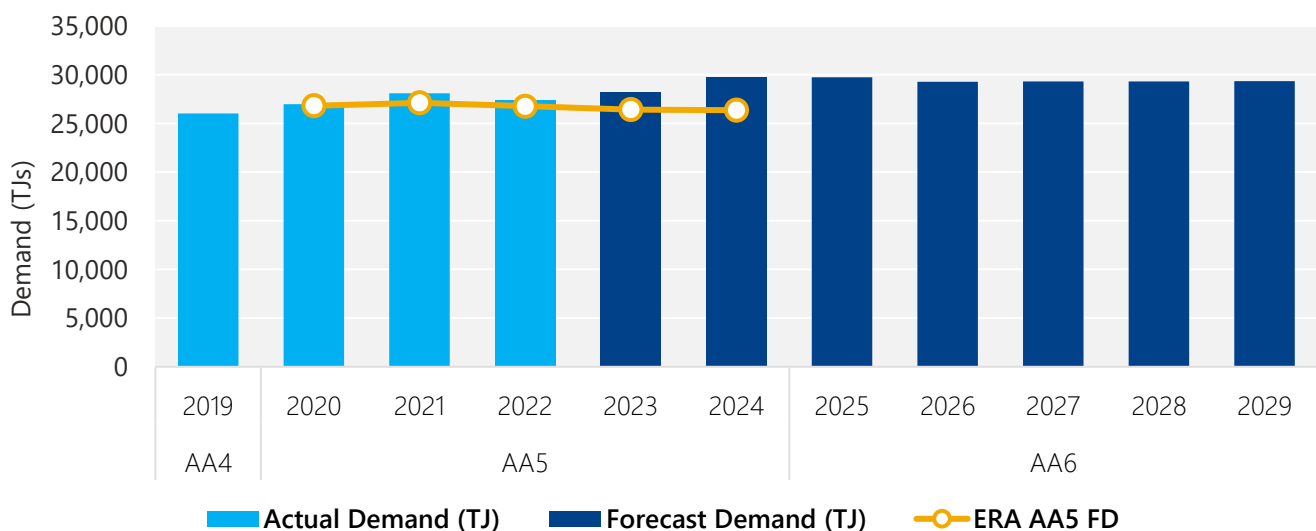
This chapter outlines our preliminary forecast of customer numbers and demand volumes for the AA6 period for reference services. The forecasts inform our capex, opex, and our reference tariffs for AA6. Our demand forecasts are based on historical consumption and connection information to 2022. Further demand modelling will continue, and we will update our forecast before the September 2023 submission.

We have continued to normalise the effect of weather on demand using an Effective Degree Day (**EDD**) method as adopted in AA5. The EDD method results in historical demand being 'normalised', making it comparable to forecast demand, which assumes no weather impact. The EDD method also incorporates several climatic variables affecting the consumption and behaviour of gas users to improve consumption forecasting accuracy.

6.2 HISTORICAL & FORECAST DEMAND

Total demand is forecast to decrease from 29,787 TJ in 2024 to 29,343 TJ by 2029. Figure 6.1 illustrates the AA6 forecast compared to AA5 and the ERA AA5 Final Decision.

Figure 6.1: Actual and forecast volumes for all customers



6.3 FORECAST METHOD AND FORECAST ACCURACY

ATCO engaged CORE Energy & Resources Pty Ltd (CORE) to provide an independent gas demand forecast. The preliminary gas demand forecast was developed using regression models that forecast the number of connections by tariff class (A1 to B3) and determine the expected average consumption per connection in each tariff class.

Our forecast is based on actual data up to and including 2022. In relation to gas demand forecasting, 2020 and 2021 were not typical years for demand, primarily due to the impacts of COVID-19 that affected commercial and residential consumption.

We will provide a more informed forecast once we have analysed additional data and considered qualitative factors that can affect future connections. Through this consultation, we seek feedback from customers and stakeholders on other factors that may influence future connections and demand.

Our forecast demand range for 2025-29 is preliminary. CORE will continue to refine the data and projections as their analysis continues. The forecast will be updated before the September 2023 submission.

The preliminary gas demand forecast by tariff class is discussed further in the sections below.

6.4 A1 AND A2 DEMAND FORECAST

↓ **0.9%**
DEMAND

A1 AND A2 DEMAND IS EXPECTED TO DECREASE FROM 16,173 TJ IN 2024 TO 15,439 TJ IN 2029.

Our demand forecast for A1 and A2 customers is shown in Figure 6.2 and Table 6.1.

Figure 6.2: Historical and forecast total A1 and A2 demand

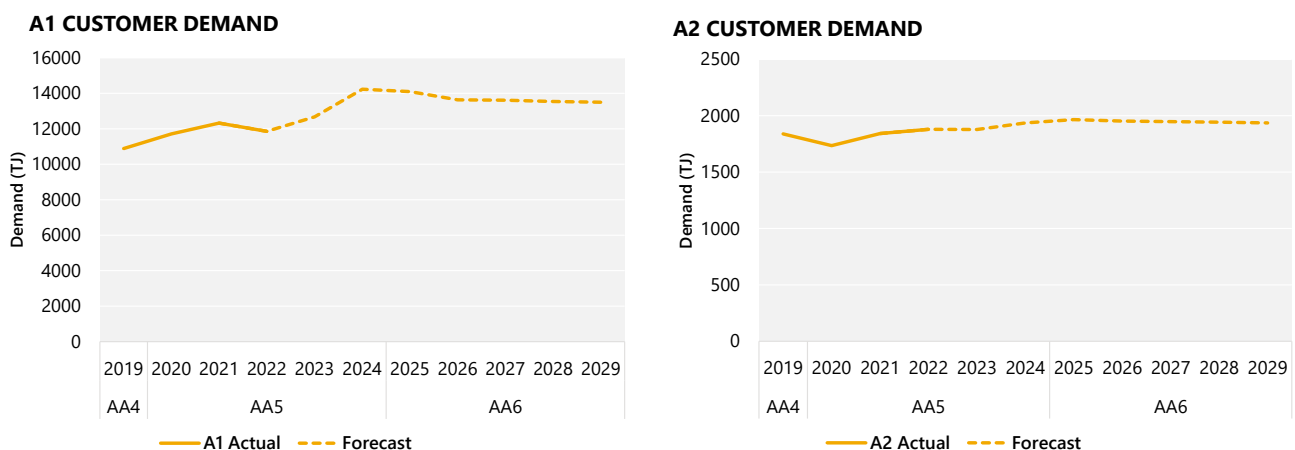


Table 6.1: Forecast connection numbers and demand for industrial customers

TARIFF CLASS	2024(F)	2025	2026	2027	2028	2029	CAGR*
A1 TARIFF							
Average Customer Base	75	75	75	75	75	75	0.0%
Demand (TJ)	14,236	14,098	13,638	13,614	13,547	13,502	-1.1%

A2 TARIFF

Average Customer Base	104	105	105	105	105	105	0.2%
Demand (TJ)	1,937	1,966	1,952	1,948	1,942	1,937	0.0%
TOTAL A1 & B2	16,173	16,064	15,590	15,562	15,489	15,439	-0.9%

* Compound Annual Growth Rate

6.5 B1 AND B2 DEMAND FORECAST

↑0.5%
DEMAND

B1 AND B2 DEMAND IS FORECAST TO INCREASE FROM 3,333 TJ IN 2024 TO 3,412 TJ IN 2029.

Our demand forecast for B1 and B2 customers is shown in Figure 6.3 and Table 6.2.

Figure 6.3: Historical and forecast total B1 and B2 demand

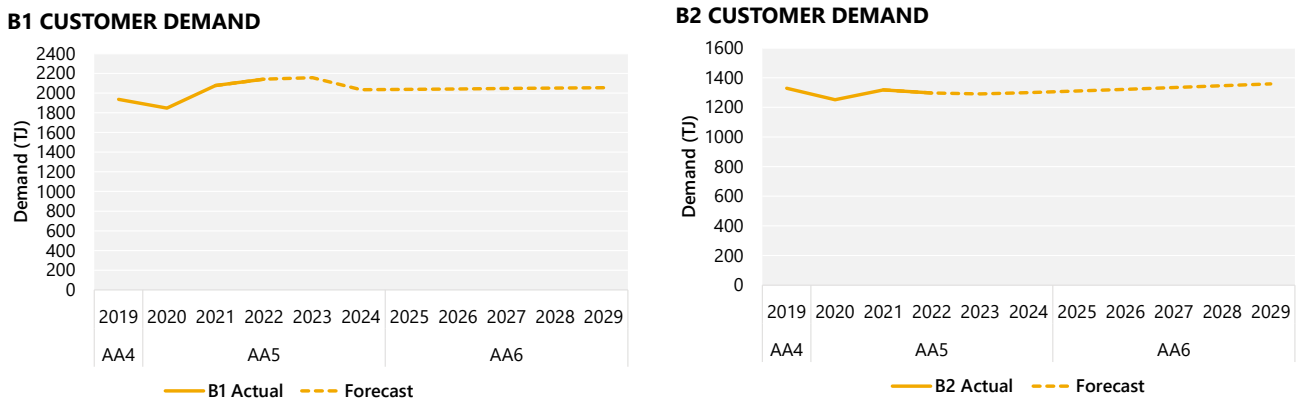


Table 6.2: Forecast connection numbers and demand for commercial customers

TARIFF CLASS	2024(F)	2025	2026	2027	2028	2029	CAGR*
B1 TARIFF							
Average Customer Base	2,073	2,140	2,204	2,270	2,338	2,409	3.0%
Demand (TJ)	2,034	2,037	2,041	2,046	2,051	2,053	0.2%
B2 TARIFF							
Average Customer Base	12,859	13,076	13,297	13,522	13,750	13,982	1.7%
Demand (TJ)	1,299	1,310	1,322	1,334	1,346	1,358	0.9%
TOTAL B1 & B2	3,333	3,347	3,363	3,380	3,397	3,412	0.5%

* Compound Annual Growth Rate

6.6 B3 DEMAND FORECAST

↑0.4%
DEMAND

B3 DEMAND IS FORECAST TO INCREASE FROM 10,281 TJ IN 2024 TO 10,492 TJ IN 2029.

Our demand forecast for B3 customers is shown in Figure 6.4 and Table 6.3. Projections on B3 demand are using HIA information on housing commencements and are assumed to include the impact of interest rate movements reflective at that point in time.

Figure 6.4: Historical and forecast total B3 demand

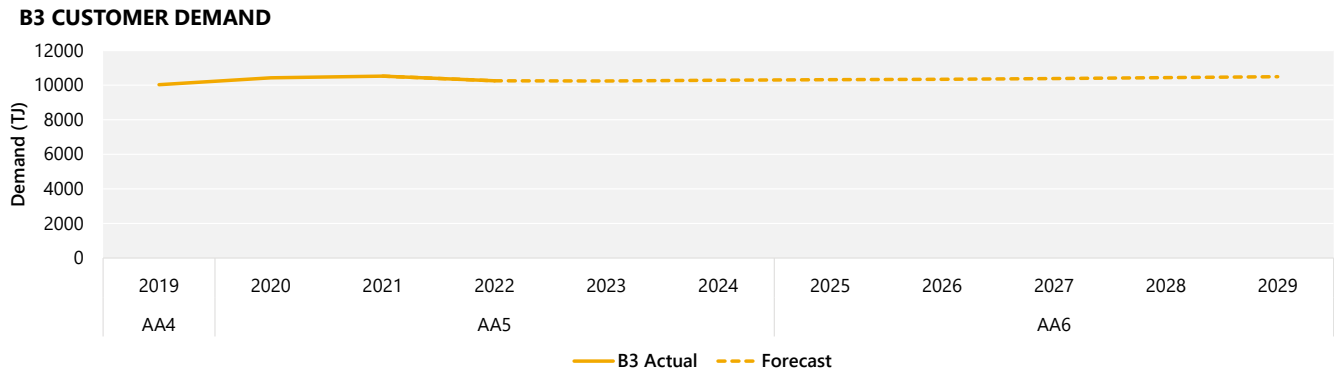


Table 6.3: Forecast connection numbers and demand for residential customers

TARIFF CLASS	2024(F)	2025	2026	2027	2028	2029	CAGR*
B3 TARIFF							
Average Customer Base	789,034	800,711	811,914	823,889	836,784	849,988	1.5%
Demand (TJ)	10,281	10,314	10,337	10,375	10,431	10,492	0.4%

* Compound Annual Growth Rate

6.7 OVERALL DEMAND FORECAST

TARIFF CLASS	2024(F)	2025	2026	2027	2028	2029	CAGR*
A1 TARIFF							
Average Customer Base	75	75	75	75	75	75	0.0%
Demand (TJ)	14,236	14,098	13,638	13,614	13,547	13,502	-1.1%
A2 TARIFF							
Average Customer Base	104	105	105	105	105	105	0.2%
Demand (TJ)	1,937	1,966	1,952	1,948	1,942	1,937	0.0%
B1 TARIFF							
Average Customer Base	2,073	2,140	2,204	2,270	2,338	2,409	3.0%
Demand (TJ)	2,034	2,037	2,041	2,046	2,051	2,053	0.2%
B2 TARIFF							
Average Customer Base	12,859	13,076	13,297	13,522	13,750	13,982	1.7%
Demand (TJ)	1,299	1,310	1,322	1,334	1,346	1,358	0.9%
B3 TARIFF							
Average Customer Base	789,034	800,711	811,914	823,889	836,784	849,988	1.5%
Demand (TJ)	10,281	10,314	10,337	10,375	10,431	10,492	0.4%
TOTAL							
Average Customer Base	804,145	816,107	827,595	839,861	853,052	866,559	1.5%
Demand (TJ)	29,787	29,726	29,290	29,316	29,317	29,343	-0.3%

6.8 FORECAST DEMAND FOR ANCILLARY SERVICES

Our preliminary volume forecast for ancillary services is shown in Table 6.4. During the COVID-19 period, there was a moratorium on disconnection by Retailers. Disconnections are assumed to slowly ramp up in AA6, with Retailers reverting to pre-COVID business practices for credit control by 2027.

Table 6.4: Forecast demand for ancillary services

ANCILLARY SERVICE	2024	2025	2026	2027	2028	2029	CAGR*
Applying a Meter Lock	1,500	3,135	6,024	9,970	10,137	10,309	47.0%
Removing a Meter Lock	1,200	2,508	3,906	8,501	8,644	8,791	48.9%
Deregistering a Delivery Point	2,215	2,450	2,490	2,530	2,570	2,610	3.3%
Disconnecting a Delivery Point	150	315	1,908	3,877	3,943	4,010	92.9%
Reconnecting a Delivery Point	120	252	1,526	2,787	2,834	2,882	88.8%
Special Meter Reads	116,573	117,754	118,947	120,152	121,369	122,598	1.0%
Cut and Cap	2,029	2,029	2,029	2,029	2,029	2,029	0.0%

* Compound Annual Growth Rate

CONSIDERATIONS FOR OUR STAKEHOLDERS

1. Do you believe our new customer connections and demand forecasts are reasonable?
2. Do you believe our method to forecast customer numbers and average consumption per customer is reasonable and likely to produce the best estimate?
3. Are there any factors you believe may influence future connections and demand over AA6?

7. KEY PERFORMANCE INDICATORS

CHAPTER HIGHLIGHTS

1. Although the requirement to state our key performance indicators (KPIs) within AA6 has been removed, we are including KPIs within our Draft Plan to enable stakeholders to understand the key metrics we use to judge our performance.
2. ATCO has selected 12 KPIs that align with our strategic pillars of safety, reliability, affordability, and sustainability.

7.1 INTRODUCTION

ATCO has selected 12 KPIs that align with our strategic pillars of safety, reliability, affordability, and sustainability. These KPIs reflect our performance in delivering haulage services and are important drivers for network investment into AA6 and beyond.

7.2 RECENT REGULATORY CHANGES

In 2018, the Australian Energy Market Commission (AEMC) recommended⁸ several changes regarding the scope of economic regulation for covered pipelines (this includes the ATCO Gas distribution network). One of these recommendations was to remove KPIs from the Access Arrangement Information requirements, reasoning that service level outcomes related to the determination of pricing were better managed through existing mechanisms.

Although the requirement to state our KPIs within AA6 has been removed⁹, we will continue to report KPIs to enable stakeholders to understand the metrics we use to judge our performance. We believe stakeholders should be clear on ATCO's priorities and how capex and opex are influenced and driven by our various service levels. Therefore, we have decided to present our KPIs as part of this Draft Plan. As we move through the Access Arrangement development process, we may refine our targets, measures, and expected outcomes to align with customer and stakeholder feedback and updated performance information.

Table 7.1 describes the AA6 KPIs and target performance level.

⁸ AEMC, Review into the scope of economic regulation applied to covered pipelines, Final Report, 3 July 2018.

⁹ Through the deletion of Rule 72(1)(f) in the NGR.

7.3 AA6 KPI AND TARGET SUMMARY

Table 7.1: AA6 Key Performance Indicators and Targets

KPI	DESCRIPTION	AA5	AA6 TARGET			
		TARGET	2025	2026	2027	2028
SAFETY						
Total public reported gas leaks per kilometre of main	Total number of confirmed gas leaks reported by the public (excluding third party damage) per kilometre of main per year.	<0.65		<0.62		
Attendance to broken mains and services within one hour	The % of attendance to broken mains and services within one hour of the service request being received.	>99.9%		>99.9%		
Attendance to loss of supply within three hours	The percentage of attendance to loss of gas supply within three hours of the service request being received. This indicator is included in our Safety Case ¹⁰ and is covered by the Guarantee Service Level scheme.	>99.9%		>99.9%		
Total Recordable Injury Frequency Rate (TRIFR) ¹¹	The number of incidents that result in an employee receiving medical treatment, restricted work or losing time.	<1.2		<1		
RELIABILITY						
Asset Health Index	Based on unplanned SAIDI & SAIFI, and mains, service, and meter leaks.	100		100		
SAIFI ¹¹	The number of supply interruptions experienced by the average customer as a result of sustained unplanned interruptions, calculated as (sum of the number of customers interrupted) / (number of customers served).	<0.0041		<0.0035		
SAIDI	The duration of supply interruptions experienced by the average customer as a result of sustained unplanned interruptions, calculated as (sum of the duration of customer outages) / (number of customers served).	<2.00		<1.60		

¹⁰ ATCO Gas Australia, *Gas Distribution System Safety Case*, November 2022

KPI	DESCRIPTION	AA5	AA6 TARGET				
		TARGET	2025	2026	2027	2028	2029
AFFORDABILITY							
Opex per km of main	The total opex per year divided by the total km of main.	\$5,239*	\$5,102	\$5,787	\$5,901	\$6,011	\$6,201
Opex per customer connection	The total opex per year divided by the total number of customer connections.	\$98*	\$93	\$105	\$106	\$107	\$110
Capex per customer connection ¹¹	The total capex per year divided by the total number of customer connections.	\$119*	\$125	\$121	\$113	\$119	\$115
SUSTAINABILITY							
UAFG Rate	UAFG is the difference between the measurement of the quantity of gas <i>delivered into</i> the gas distribution system in each period, and the measurement of the quantity of gas <i>delivered from</i> the gas distribution system during that period.	2.37%*	1.66%	1.65%	1.65%	1.64%	1.63%
Carbon Emissions ¹¹	The sum of carbon emissions due to ATCO operations measured in tonnes of CO ₂ e (carbon dioxide equivalent).	66,554*	63,293	60,191	57,242	54,437	51,770

*Targets are shown for 2024, the final year of the AA5 period

CONSIDERATIONS FOR OUR STAKEHOLDERS

1. Do you believe our KPIs align to the expectations of our stakeholders?
2. Have we set our targets correctly?
3. Do the targets ensure we are sufficiently maintaining our current performance?
4. Are there any performance or sustainability measures that you think we have missed?

¹¹ New KPIs for AA6. The target provided is our internal target for the AA5 period, representing our internal operational indicators.

8. FORECAST OPERATING EXPENDITURE

CHAPTER HIGHLIGHTS

1. Our opex forecast has been developed using both the base-step-trend method and specific forecasting methods.
2. We forecast opex of \$449 million during AA6, compared to the ERA’s Final Decision of \$379 million by the end of AA5.

8.1 INTRODUCTION

Our AA6 opex forecast will allow ATCO to operate and maintain the network for our customers, respond to publicly reported gas leaks, and read customer meters.

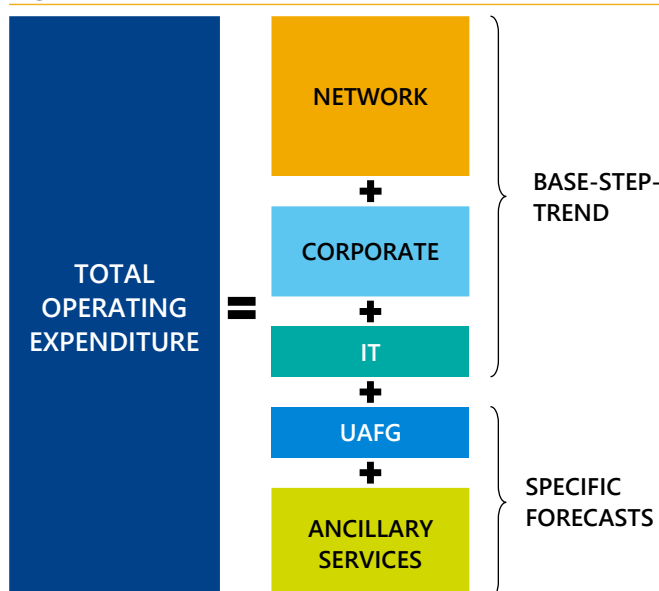
Our opex categories are outlined in Figure 8.1 and consist of expenditure relating to Network, Corporate, IT, UAFG, and Ancillary Services.

We have applied the base-step-trend (BST) approach to forecasting opex for the network, corporate, and IT categories. Regulators commonly apply the BST method. *Section 8.3* provides further details of this method.

We have included two ‘specific forecasts’ in our submission for opex relating to UAFG and our proposed Ancillary Services in AA6.

This chapter outlines our opex forecasts, our forecasting approach, and the primary drivers of AA6 opex. The forecasts in this Draft Plan are based on currently available information. We expect to further develop our forecasts over the coming months before our September 2023 submission in response to stakeholder feedback and other new information that becomes available.

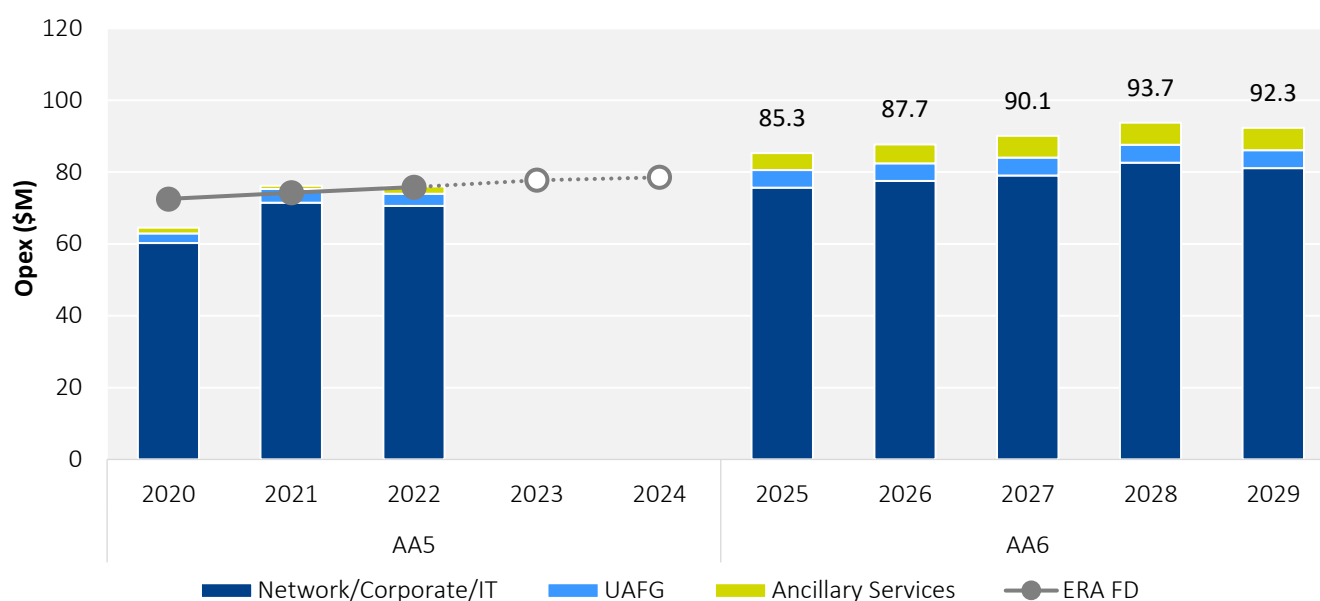
Figure 8.1: Opex categories



8.2 OVERVIEW

Consistent with the BST approach, our actual opex from the most recent complete calendar year (2022) is used as representative of our AA6 opex levels.

Figure 8.2 shows the comparison between historical and forecast opex. The AA6 forecast opex is \$70 million higher than the ERA AA5 Final Decision.

Figure 8.2: Opex per category – AA5 vs AA6 (\$million real as at 31 December 2023)

Our AA6 opex forecast is detailed in Table 8.1:

Table 8.1: AA6 opex summary (\$million real as at 31 December 2023)

OPEX CATEGORY	2025	2026	2027	2028	2029	TOTAL
Network/Corporate/IT	75.7	77.5	79.1	82.6	81.1	395.9
UAFG	4.9	4.9	4.9	5.0	5.0	24.6
Ancillary	4.7	5.3	6.1	6.2	6.2	28.5
TOTAL	85.3	87.7	90.1	93.7	92.3	449.1

8.3 FORECAST METHOD

Our AA6 opex forecasting used two methods:

1. The **base-step-trend method** (BST).
2. **Specific forecasts** using volume-based activities multiplied by a unit rate to calculate total annual expenditure.

We have developed these forecasts on a reasonable basis, based on the best available information.

8.3.1 BASE-STEP-TREND METHOD

Forecasting opex using the BST method takes the efficient costs incurred in the base year and uses the assumption that opex is mostly recurrent.¹² BST forecasting starts by establishing our base opex, then adjusting for:

¹² AER (2013) "Expenditure Forecast Assessment Guideline – Distribution – November 2013", pg. 9. Available at <https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/expenditure-forecast-assessment-guideline-2013>

- any expenditure not reflective of the recurrent cost base;
- categories of opex affected by discrete step changes; and
- changes in output and cost input trends over the period.

The BST method of forecasting opex is a commonly accepted method and is summarised in Figure 8.3.

Figure 8.3: BST Method



8.3.2 SPECIFIC FORECASTS

We have applied *specific forecasts* to UAFG and Ancillary Services as the forecast expenditure profile for these categories. We consider this method represents a better and more reasonable forecast than using the BST method.

For example, we forecast that the *percentage of UAFG to customer gas usage* should reduce over AA6, which is disproportionate to the method of growth as per the BST method. We explore these forecasts further in Sections 8.5 and 8.6.

8.4 FORECAST OPERATING EXPENDITURE

This section explains each component of our forecast and how we arrived at our final opex forecast. Table 8.2, Figure 8.4 and Figure 8.5 provide a summary of the AA6 forecast total opex.

We forecast opex of \$449 million during AA6, which is \$70 million higher than the ERA's Final Decision of \$379 million by the end of AA5. The increase from AA5 includes our new ancillary reference 'Cut and Cap' service, a greater focus on sustainability initiatives, and a shift in how IT expenditure is accounted for.

Table 8.2: Forecast AA6 opex (\$million real as at 31 December 2023)

FORECAST OPEX	2025	2026	2027	2028	2029	TOTAL
Base year	65.7	65.7	65.7	65.7	65.7	328.5
Step changes	9.2	10.3	11.2	13.9	11.6	56.2
Input cost	0.3	0.5	0.8	1.1	1.3	4.0
Output growth	0.5	0.9	1.4	1.9	2.4	7.2
UAFG	4.9	4.9	4.9	5.0	5.0	24.6
Ancillary services	4.7	5.3	6.1	6.2	6.2	28.5
TOTAL	85.3	87.7	90.1	93.7	92.3	449.1

Figure 8.4: Forecast AA6 opex (\$million real as at 31 December 2023)

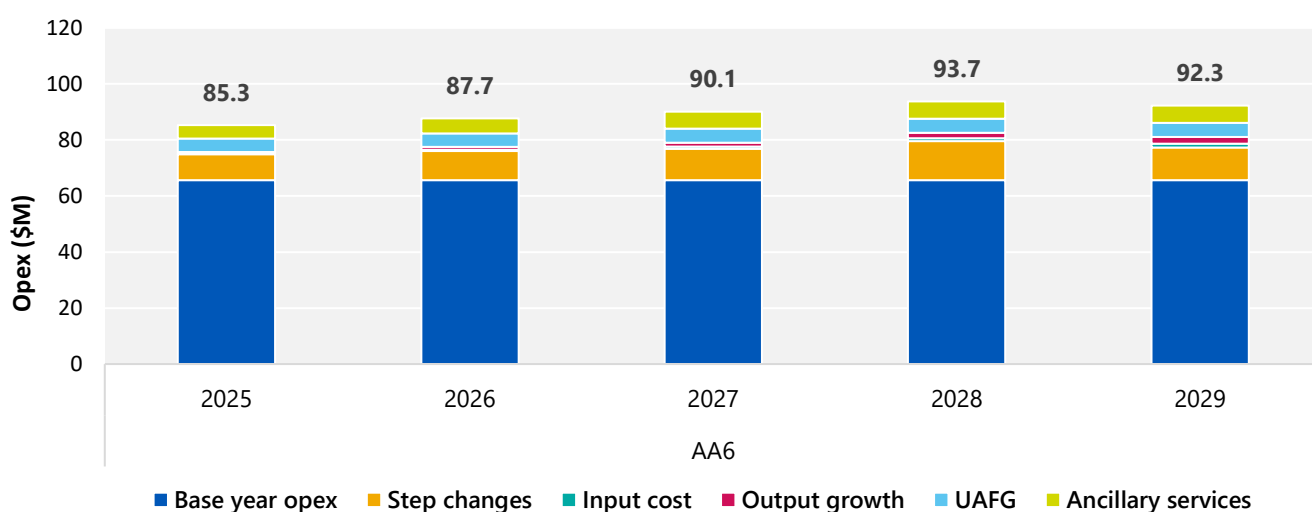
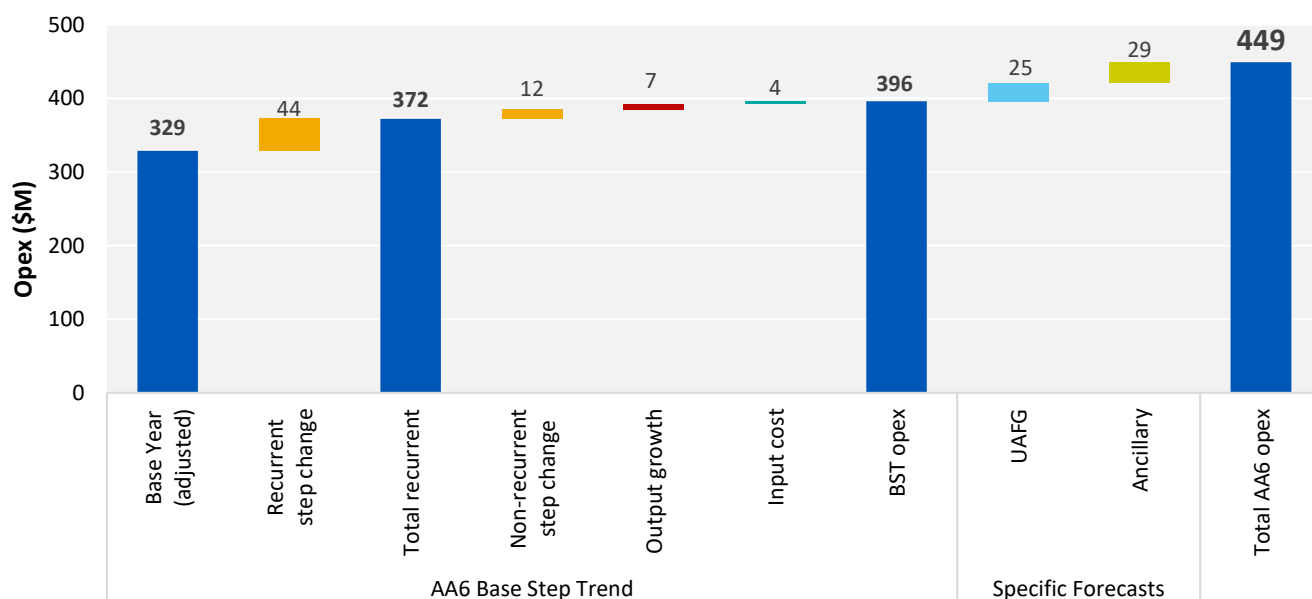


Figure 8.5: Forecast AA6 opex (using BST and Specific Forecasts) (\$million real as at 31 December 2023)



8.4.1 ESTABLISH THE EFFICIENT BASE YEAR

We have adopted our actual opex from the most recent complete calendar year (2022) as representative of our opex for AA6.

8.4.2 ADJUSTING FOR STEP CHANGES IN RECURRENT OPEX

Activities during AA6 not reflected in our base year are known as 'step changes'. Step changes include the additional costs of associated safety, compliance, and regulatory activities typically driven by a change in obligation. The step changes for AA6 are detailed in Table 8.3.

Table 8.3: Adjustments for step changes (\$million real as at 31 December 2023)

RECURRENT STEP CHANGES	AA6 TOTAL
'Software as a Service' (SaaS) arrangements	24.2
Sustainability reporting system	0.7
Enabling renewable gases	9.4
Superannuation Guarantee rate increase	3.2
Cyber security	6.3

The justification for each of these step changes is outlined below:

1. Software as a Service (SaaS) Arrangement (\$24.2M)

Prior to AA6, IT project funding was generally categorised as capex, however, due to the implementation of cloud-based solutions such as SaaS, new accounting rules were introduced that split project funding between capex and opex. The IT projects below are planned for AA6 that will incur opex for implementation.

The following programs incur \$24.2 million in opex over AA6, which would have previously been included in capex. These programs are explained further in Section 9.8.

- a) IT Continuous Improvements Program (\$0.9M)
- b) Sustainability Reporting System (\$0.8M)
- c) Digital Program (\$0.8M)
- d) Data and Analytics Program (\$0.4M)
- e) Mains Replacement Prioritisation (**MRP**) Tool Replacement (\$1.1M)
- f) Enterprise Resource Planning (**ERP**) Replacement Program (\$20.0M)

2. Sustainability Reporting System (\$0.7M)

This back-office system project will support ATCO's sustainability ambitions, providing fit-for-purpose systems and tools to monitor, measure, and report on sustainability performance. This program is explained further in Section 9.8. This portion of the opex is for new licencing fees and running costs of the reporting software.

3. Enabling Renewable Gases (\$9.4M)

This initiative aims to support the energy transition and help reduce GHG emissions. Below are the initiatives planned under this program.

a) Renewable gas injection points (\$2.3M)

To support the new infrastructure injection points for renewable gas (including biogas and hydrogen blending), \$2.3 million opex is associated with the operation and maintenance activities of the six renewable gas injection stations. Both hydrogen and biogas have similar opex cost per infrastructure build.

b) 100% Hydrogen Community (\$2.8M)

A 100% hydrogen network is designed to use hydrogen as the primary fuel source instead of natural gas. Further information on this initiative is provided in Section 9.6.2. \$2.8 million opex is associated with the operation and maintenance activities of the two hydrogen communities over AA6 and the development of the associated Safety Case. The operation and maintenance of 100% hydrogen will require higher opex levels (as opposed to normal natural gas projects) to ensure the safety of the injection point infrastructure and the safety and reliability of the network.

c) Industry and Community Consultation Program (\$4.3M)

This consultation program aims to work with our stakeholders to discuss and provide feedback on issues related to renewable gas development, production, and utilisation. The program will cover various topics, including the policy and regulatory framework, technology development, market trends, supply chain issues, and environmental considerations.

Increasing our focus in this area was raised during our AA6 Engagement program. This program will also create awareness about the decarbonisation pathway for gas networks and details of renewable gases and provide essential information to customers regarding their energy and sustainability choices.

4. Superannuation Guarantee Rate Increase (\$3.2M)

The Superannuation Guarantee (SG) is part of employee's remuneration. The amount is a percentage of an employee's gross salary or wages set by the Australian Government and changes over time.

The percentage rate for SG contribution payments is currently 10.5%. The SG increased from 10% to 10.5% on 1 July 2022 and is set to rise again to 11% on 1 July 2023 for the 2023–24 financial year. The SG percentage rate will continue increasing by 0.5% every year from 1 July 2025 until it reaches 12%.

5. Cyber Security (\$6.3M)

As a critical community infrastructure provider, the potential impact of increasingly sophisticated cyber-attacks on ATCO's operation has come into sharp focus. In response to the increasing threat, ATCO has implemented enhanced cyber security controls and capability uplift programs in recent years. Furthermore, increasing compliance requirements, including through the Security of Critical Infrastructure Act 2018 and Security Legislation Amendment (Critical Infrastructure Protection) Act 2022, require additional activity to manage the resilience of critical digital assets. Our compliance obligations include aligning with industrial cyber security frameworks such as the Australian Energy

Sector Cybersecurity Framework (AESCSF) and the National Institute of Standards and Technology Cyber Security Framework (NISTCSF).

While ATCO has been implementing enhanced cyber security controls and capability uplift programs, more is needed in the AA6 period to mitigate the risk of increasingly sophisticated cyberattacks on ATCO's operations.

To assist in managing our cyber security risk and to meet all applicable cyber security compliance requirements, change in practices and implementation of new controls and capabilities is required, which have not been included in the proposed base year opex. This includes:

- Activities to comply with the enhanced cyber security obligations and industrial cyber security frameworks, including cybersecurity architecture review and data governance.
- Activities to prevent a cybersecurity incident, including cyber awareness training and specialised training to maintenance teams to ensure that critical field assets are maintained in accordance with the proposed revisions for enhanced cyber security obligations.
- Planning for a cybersecurity incident, including adversary simulations, cyber-attack tabletop exercises and incident response preparedness.

Additional opex is required to ensure delivery of this capability uplift and change of existing practices to meet the new regulatory requirements.

6. Other step changes not yet included

We are continuing to investigate whether there are any other step changes due to changes in our operating environment. For example, changes in regulatory obligations, such as the package of gas pipeline regulatory amendments, when implemented in Western Australia, may create additional obligations on ATCO.

We continue to investigate other operating environment changes that may impact our cost base.

8.4.3 ADJUSTING FOR STEP CHANGES IN NON-RECURRENT EXPENDITURE

There are two non-recurrent step change adjustments for AA6, detailed in Table 8.4.

Table 8.4: Adjustments for non-recurrent step changes (\$million real as at 31 December 2023)

NON-RECURRENT STEP CHANGES	YEAR	AA6 TOTAL
Pipeline Inline Inspections	2025 to 2029	6.3
Access Arrangement 7 Regulatory Preparation	2027 to 2029	6.2

The justification for each of the non-recurrent costs is detailed below:

1. Pipeline Inline Inspections

High-pressure (HP) steel pipelines require internal inline inspections as prescribed in the Australian Standards¹³ undertaken in line with the Gas Regulations¹⁴. Our formal safety assessment

¹³ AS/NZS 2885.3:2001 Pipelines - Gas and liquid petroleum - Operation and maintenance Section 3.4 Threat Mitigation & AS/NZS 2885.3:2012 Pipelines - Gas and liquid petroleum - Operation and maintenance Section 6.4.2 Corrosion Mitigation Strategy

¹⁴ As per Gas Standards (Gas Supply and System Safety) Regulations (GSSR) 2000 (Part 4 — Distribution system safety)

highlighted internal inspections as an important risk control, forming part of our pipeline integrity management plans.

2. Access Arrangement 7 Regulatory Preparation

We have previously agreed four access arrangement revisions (AA2, AA3, AA4 and AA5) with the ERA. The next access arrangement, AA6, covers 1 January 2025 to 31 December 2029.

A subsequent access arrangement revision (AA7) is required for the period commencing 1 January 2030.

AA7 regulatory preparation in 2027, 2028 and 2029 will require AA6 expenditure to ensure compliance with the NGR, compliance with the ERA's Access Arrangement Guidelines, and to ensure we present the best possible submission with costs that are supported by stakeholders and remain prudent and efficient for the duration. Expenditure has been based on the forecast costs for the AA6 preparation, including consultancy fees, project management fees and additional resources.

8.4.4 TREND TO ACCOUNT FOR FORECAST GROWTH

We incur additional expenditure as the number of customers connected and the size of our network increases. Our base year opex is therefore escalated by the forecast growth in customer numbers and the physical size of our distribution network (measured in km of mains).

We have adopted a weighted average of 1.2% per annum growth between customers and network length using a weighting of 45% and 55%, respectively^{15,16}. Our forecasts result in \$7.2 million in growth opex over AA6.

8.4.5 TREND TO ACCOUNT FOR FORECAST PRICE GROWTH (INPUT COST)

Forecast price growth typically accounts for price increases in labour and non-labour (e.g., materials). Our forecast price growth results in an additional \$4.0 million of opex in AA6.

Our approach to escalating input costs is based on:

- An opex resource mix of 62% labour and 38% non-labour costs based on benchmark weights. These weights are consistent with AA5, and similar to the AER's recent decisions for AGN's (SA) 2021-26 Access Arrangement, Evoenergy's 2021-26 Access Arrangement, and AusNet's 2022-26 Draft Decision.
- Labour cost escalation over AA6 is based on the forecast annual growth rate in the wage price index for Western Australian electricity, gas, water, and waste services. Our September 2023 submission will include a forecast determined by an independent expert.
- At this time, we have applied no real cost escalation for non-labour costs meaning we have forecast that materials do not incur any additional price rises over and above inflation. Given the current inflationary environment, we will include a forecast determined by an independent expert in our September 2023 submission.

¹⁵ Acil Allen, Opex Partial Productivity Study, Report prepared for AusNet Gas Services, 16 June 2022, pp. 24-25; AER analysis

¹⁶ AER - Draft decision – AusNet Gas Services access arrangement 2023-28 - Attachment 6 - Operating expenditure, 9 December 2022

8.5 UNACCOUNTED FOR GAS

Our UAFG forecast requires \$24.6 million in AA6 opex.

UAFG is the difference between the measurement of the quantity of gas delivered into the gas distribution system in a given period, and the quantity of gas delivered from the gas distribution system during that period. We incur costs from purchasing gas to replace calculated UAFG, which are then recovered from customers through tariffs.

UAFG represents almost all of our direct GHG emissions. Therefore, it is in the long-term interests of customers and the environment that we reduce the UAFG rate to as low as reasonably practicable while minimising the associated GHG emissions.

In AA6, we expect to incorporate renewable gas as part of our UAFG purchases to reduce our net Scope 1 emissions. For this Draft Plan, our UAFG forecast includes a provisional amount to account for the costs of renewable gas. We expect to undertake a competitive process to procure UAFG before our Draft Decision response.

We have consequently forecast the costs of UAFG as the product of:

- Forecast gas throughput for a year.
- Forecast price for purchasing gas for a year.
- Forecast UAFG rate (as a percentage of total throughput) for a year.

8.6 ANCILLARY REFERENCE SERVICES

Our ancillary reference services contribute \$28.5 million to AA6 opex. In AA6, we have included opex for the re-classified reference service of 'cut and cap service pipe at the main'. We forecast this new service will account for \$12.2M of the \$28.5M over AA6.

Ancillary service volumes have been forecasted based on historical growth and current retailer demands. Ancillary service costs have been forecasted based on the current costs of providing these services.

CONSIDERATIONS FOR OUR STAKEHOLDERS

1. Do you believe our opex forecasts are reasonable?
2. Is the base-step-trend method of forecasting opex appropriate?
3. Do you support the proposed step changes to our base opex?

9. FORECAST CAPITAL EXPENDITURE

CHAPTER HIGHLIGHTS

1. We are proposing to invest \$499 million of capex over AA6 as we return to a normal activity level following the COVID-19 pandemic. Our AA6 capex is \$16 million (3%) above the ERA's AA5 Final Decision of \$484 million.
2. Major programs include network expansion, mains replacement, meter replacement, and sustainability initiatives.
3. Customer support for our capex programs was overwhelmingly positive during our AA6 engagement program.
4. Our capex forecasts use a 'bottom-up' forecasting approach for each capex driver category (sustaining the network, growing the network, information technology, and structures and equipment).

9.1 INTRODUCTION

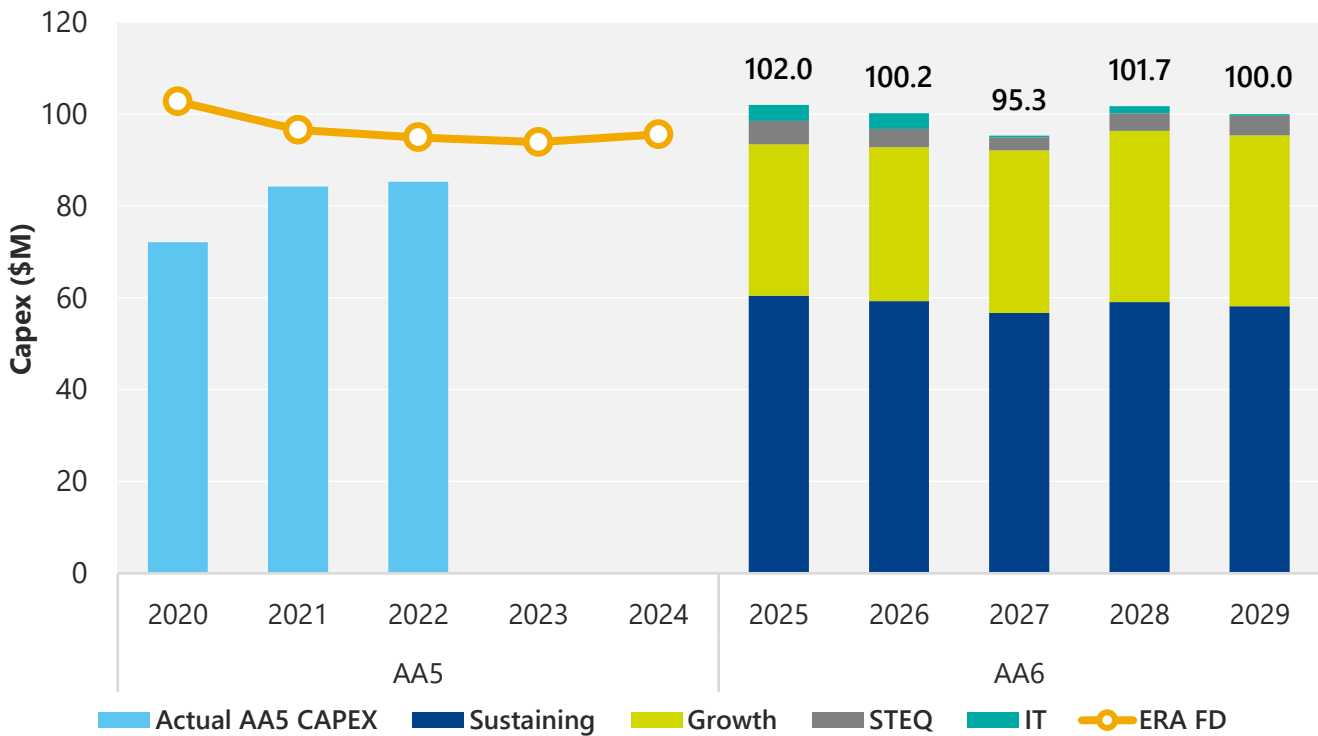
Capital expenditure (capex) is incurred to connect new customers to the network and to support the ongoing safe and reliable natural gas supply to our customers. This chapter outlines our forecast AA6 capex and the method we have used for our forecast.

The forecasts in our 2025-29 Draft Plan are based on currently available information. We expect to further develop our forecasts over the coming months for our September 2023 submission in response to stakeholder feedback and other new information that becomes available.

9.2 OVERVIEW

We are proposing to invest \$499 million of capex over AA6, which is \$16 million (3%) above the ERA's AA5 Final Decision of \$484 million. Major contributors to the increase are a return to a normal activity level following the COVID-19 pandemic, the addition of our sustainability initiatives, and the increase in the real cost of labour and materials due to global supply chains and competition with the mining sector and state infrastructure projects for resources. Figure 9.1 compares our actual and forecast capex across AA5, the ERA AA5 Final Decision, and AA6 forecast.

Figure 9.1: AA5 vs AA6 capex (\$million real as at 31 December 2023)



Our capex is driven by:

- Network sustaining:** This involves maintaining and improving the safety and integrity of services, complying with regulatory obligations, and ensuring we can meet current demand levels for services from our customers. In AA6, we are also delivering programs that support the sustainability goals of supporting the energy transition and reducing GHG emissions.
- Network growth:** This involves ensuring we can meet forecast growth in demand for service through expanding the gas distribution network and complying with regulatory obligations.
- Information technology (IT):** This involves IT systems at an operational and corporate level that enable us to provide services to customers and more strategic initiatives such as the digital transformation of our business.
- Structures and equipment (STEQ):** This involves maintaining and replacing fleet vehicles (e.g., heavy and light vehicles), equipment (e.g., trailers, excavators, compressors) and property and plant (e.g., facilities, depots).

Table 9.1 summarises our forecast AA6 capex, with a breakdown of expenditure by category.

Table 9.1: Forecast AA6 capex by investment driver (\$million real as at 31 December 2023)

CATEGORY	2025	2026	2027	2028	2029	TOTAL
NETWORK SUSTAINING	60.4	59.2	56.7	59.1	58.1	293.6
Asset Replacement	49.9	49.1	49.3	48.9	48.5	245.6
Asset Performance and Safety	10.5	10.1	7.5	10.2	9.6	47.9
NETWORK GROWTH	33.0	33.6	35.4	37.3	37.2	176.5
Customer Initiated	32.2	33.6	35.4	37.3	36.7	175.2
Demand Related	0.8	-	-	-	0.6	1.3
INFORMATION TECHNOLOGY	3.5	3.4	0.4	1.5	0.4	9.2
STRUCTURES AND EQUIPMENT	5.1	4.0	2.8	3.8	4.2	20.0
TOTAL	102.0	100.2	95.3	101.7	100.0	499.2

9.3 CUSTOMER AND STAKEHOLDER ENGAGEMENT

In preparing this 2025-29 Draft Plan, we have sought feedback through our AA6 Engagement program. Through these sessions, we have recognised the community sentiments towards natural gas, service requirements, and views on future initiatives, including the use of renewable gases, energy efficiency and carbon offsets. The engagement activities we have completed to date, as outlined in Chapter 4, show strong support for our capex proposal.

9.4 CAPEX FORECASTING METHOD

Our AA6 capex forecasts use a bottom-up approach for each capex driver category. Forecast capex is consistent with our overarching Asset Management Plan (**AMP**), Asset Lifecycle Strategies (**ALS**), Risk Management Framework, and Investment Governance Framework, which outline our planning, approval, and governance processes for forecasting capex.

9.4.1 CAPEX FORECASTING

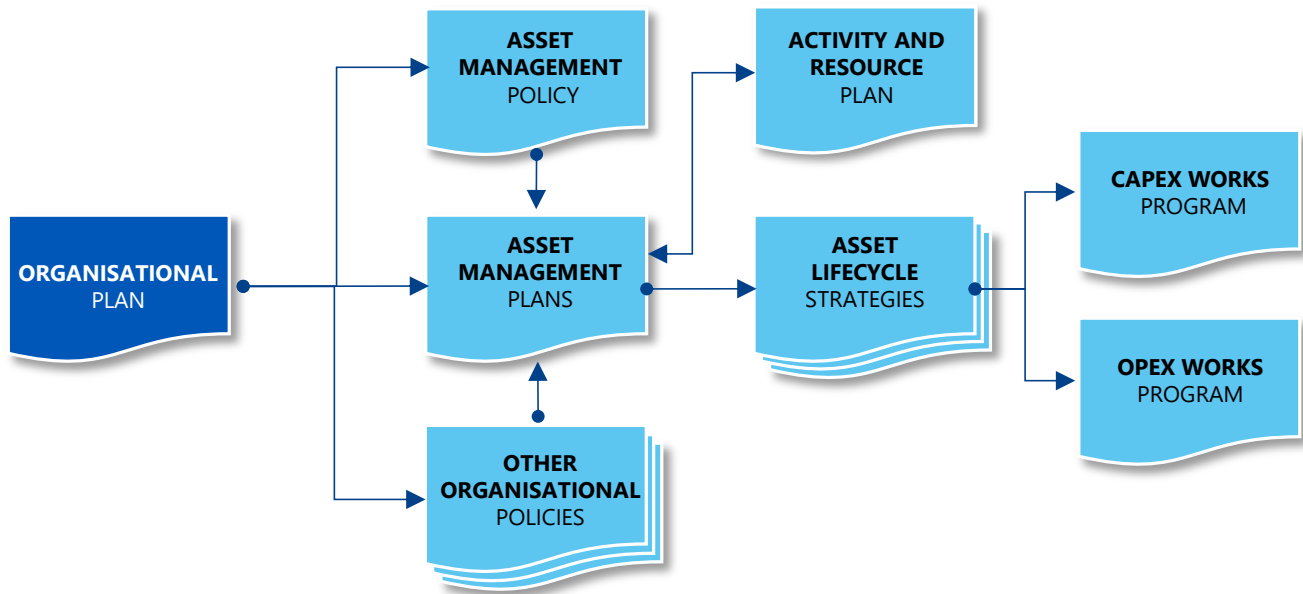
Our cost forecasting approach uses the following processes and principles:

- a unit rate multiplied by volume; or
- discrete projects detailed in business cases; or
- the most recent actual information available (that reflects revealed efficient expenditure); or
- the most recent tender/contract information available, reflecting the expected AA6 market costs.

9.4.2 ASSET MANAGEMENT SYSTEMS

Our AA6 capex proposal has been developed in line with our asset management systems. These systems govern the scope, timing, and approach to undertaking investment and upgrades to our assets. Our Asset Management System hierarchy is shown in Figure 9.2.

Figure 9.2: Asset Management System hierarchy



9.4.3 RISK MANAGEMENT FRAMEWORK

ATCO has adopted the international standard for Risk Management ISO 31000:2009 as a benchmark to establish, implement, and maintain our risk management framework. A 'top-down' and 'bottom-up' view is taken towards implementing the risk management framework and involves assessing risks from different stakeholder perspectives and risk types.

As part of our Safety Case and Asset Management Plan, we have conducted a formal safety assessment for all asset classes to inform the development of Asset Lifecycle Strategies. Through this process, we aim to reduce network risk to as low as reasonably practicable (**ALARP**).

9.4.4 INVESTMENT GOVERNANCE FRAMEWORK

Our investment governance framework is aligned with the long-term planning of our business including the approval of the annual business plan. Business cases, financial evaluation spreadsheets, and capital expenditure appropriation requests are produced to detail the justification of our capex investments and submitted to the Portfolio Governance Committee (**PGC**) for review and approval.

The PGC is a decision-making body that oversees the portfolio of current and future planned work by ATCO and the strategies underpinning this work. The PGC has been created as part of ATCO's good governance practice.

With visibility of the portfolio, the PGC can ensure early identification of organisational and investment risk where there are interdependencies between projects. The PGC also ensures that capex is in the long-term interest of both the customer and ATCO, aligns with corporate strategies and objectives, and (as appropriate) is consistent with our regulatory framework.

In addition to this expenditure approval and monitoring, the PGC also approves and assesses the compliance and performance of strategies, programs, policies, business plans (including the AMP), and improvement opportunities.

9.5 AA6 CAPEX FORECAST SUMMARY

This section provides an overview of the AA6 forecast capex for each capex driver category.

Table 9.2: AA6 forecast capex by capex driver (\$million real as at 31 December 2023)

CATEGORY	AA6 (\$M)	AA6 (%)	INVESTMENT DESCRIPTION
NETWORK SUSTAINING	293.6	58.8%	
Asset Replacement	245.6	49.2%	The Mains and Meter Replacement Programs comprise over 80% of our asset replacement capex. For the Mains Replacement Program, we propose to replace 320km of our PVC network to reduce risk to ALARP. Our Meter Replacement Program is an ongoing compliance requirement to maintain reliable and accurate metering for end-user customers. During AA6, this program is forecast to replace over 110,000 meters.
Asset Performance and Safety	47.9	9.6%	Asset performance and safety programs support the ongoing safe and reliable gas supply to our customers. We are installing 50 Pressure Monitoring Devices (PMD) in AA6 that will monitor the network flow for us to respond quickly in an emergency. This category also includes sustainability initiatives, enabling cleaner renewable fuels through our renewable gas programs.
NETWORK GROWTH	176.5	35.4%	
Customer Initiated	175.2	35.1%	Network expansion projects will install new services, mains extensions, and meter installation for more than 78,000 new domestic and commercial customers.
Demand Related	1.3	0.3%	To maintain the adequate capacity of gas and required network pressure, the Network Reinforcement Program will install new mains, high pressure regulators, or medium pressure regulators on the network in AA6. These new assets are to maintain security of supply to customers within our growing network.
INFORMATION TECHNOLOGY	9.2	1.8%	IT capex is driven by operational priorities, digital transformation strategy, vendor announcements, and compliance requirements.

CATEGORY	AA6 (\$M)	AA6 (%)	INVESTMENT DESCRIPTION
STRUCTURES AND EQUIPMENT	20.0	4.0%	In AA6, several minor facility improvement initiatives are planned for the seven facilities in the Perth metropolitan and regional areas. These initiatives are spread over the five years of AA6. Equipment is required to provide services to our customers and includes replacing tools and equipment used by our field staff.
TOTAL	499.2	100.0%	

9.6 FORECAST CAPEX: NETWORK SUSTAINING (\$293.6M)

9.6.1 ASSET REPLACEMENT PROGRAMS (\$246M)

Asset replacement programs replace network assets at the end of their useful operating life to ensure that they remain safe and reliable to the network and customers. Table 9.3 provides the AA6 forecast capex for asset replacement programs.

Table 9.3: Asset Replacement Programs, AA6 Forecast Capex (\$million real as at 31 December 2023)

PROGRAMS	2025	2026	2027	2028	2029	TOTAL
Mains Replacement Program	35.4	34.5	34.6	34.5	34.6	173.6
Meter Replacement Program	5.7	5.1	4.7	4.6	3.6	23.7
Other asset replacement programs	8.9	9.5	9.9	9.8	10.3	48.3
TOTAL	49.9	49.1	49.3	48.9	48.5	245.6

9.6.1.1 MAINS REPLACEMENT PROGRAM

BACKGROUND

In the early 1960s, PVC mains were introduced to the WA gas network. Since then, technological advancements have meant polyethylene (**PE**) plastic pipes have become the industry standard due to their greatly improved performance. As part of our maintenance program, we are replacing our ageing PVC pipes with PE, so we know they'll be safe and reliable for many more years.

In AA6, we will continue our PVC Mains Replacement Program to reduce the risks associated with these assets to ALARP.

INVESTMENT DRIVERS

The Mains Replacement Program is driven by asset condition and associated risk rating, identified through our Mains Replacement Prioritisation tool software. This software considers asset specification (such as age), historical leak data, remaining useful life, and risk from each pipeline segment to the public.

Our mains replacement expenditure forecast includes service renewals, network rationalisation, and network reinstatement. We replace and upgrade identified assets as we deliver our Mains Replacement Program due to the safety and cost benefits of doing so rather than as a stand-alone activity. This delivery approach is consistent with current accepted practice.

During AA5, we have conducted some PVC sampling and testing programs to gather additional asset condition data. This sampling program focused on condition assessment of the pipe material, and the findings are being considered in line with other drivers for this program (such as fittings condition and failure). As the scope of the activity is quite limited to sampling of the pipe materials, further sampling and testing may be required to gather more information that will help further refine our future PVC replacement prioritisation and investment decisions.

PLANNED ACTIVITY

The program has identified 320 km of mains to be replaced in AA6, with an average of 64 km of mains replaced per year. Table 9.4 outlines the total length of mains to be replaced over AA6.

Table 9.4: Mains length to be replaced in AA6 (km)

PROGRAMS	2025	2026	2027	2028	2029	TOTAL
Mains Replacement ¹⁷	66	64	64	63	63	320

FORECAST EXPENDITURE

The project cost is calculated using unit rates for each mains type and an assessment of the costs resulting from geographical characteristics of the mains' location. Our forecast unit rates are based on the outcomes of our competitive tender processes. We also considered bundled efficiency, new delivery methods, mobilisation, disruption, and third-party combined works opportunities. Our unit rate forecasts ensure our forecast capex is a best estimate. Table 9.5 outlines the mains replacement forecast capex for each year of AA6.

Table 9.5: Mains Replacement Program, AA6 Forecast Capex (\$million real as at 31 December 2023)

PROGRAMS	2025	2026	2027	2028	2029	TOTAL
Mains Replacement	35.4	34.5	34.6	34.5	34.6	173.6

¹⁷ This is subject to change due to continuous refining of the Mains Replacement Prioritisation model.

9.6.1.2 METER REPLACEMENT PROGRAM

BACKGROUND

The Meter Replacement Program addresses our regulatory obligation under the Gas Standards (Gas Supply and System Safety) Regulation 2000 to manage the integrity of meters and ensure they operate within a prescribed tolerance band for metering accuracy. This obligation is carried out through our routine replacement of domestic and commercial meters that have reached their prescribed life or when the accuracy of their measurements falls outside the prescribed tolerance band. While there are various types and sizes of meters on the network, each meter falls into one of two categories based on the type of meter being replaced: domestic meters and commercial meters. Commercial meters include those installed in the network for billing or network monitoring purposes (e.g., capacity modelling, UAFG calculations).

INVESTMENT DRIVERS

The Meter Replacement Program is driven by the meter's lifecycle stage. Both domestic and commercial meters have an end-of-life stipulated by regulatory requirements within the Gas Standards to ensure their accuracy:

- For **domestic meters**, we replace meters at their prescribed 'end of life', which is 18 years. Our sample batch in-service compliance testing (as per AS4944) to justify the extension of a domestic meter's life was approved by our technical regulator *Building and Energy* (formally EnergySafety). Building and Energy approved an alternative requirement to the regulation, extending newer models of the domestic meter's in-service life to 25 years and replacing the expired domestic meter with a new meter.
- For **commercial meters**, we first subject them to a refurbishment program rather than replacing them immediately. However, if remediation work is not considered an effective long-term solution, for example, with severe grades of corrosion, then a complete replacement occurs.

PLANNED ACTIVITY

The replacement year is calculated based on installation dates. In AA6, we forecast approximately 110,116 domestic meters and 17 commercial meter replacements. Table 9.6 shows the replacement volumes for each year of AA6.

Table 9.6: Meter Replacement Program, AA6 volume

PROGRAMS	2025	2026	2027	2028	2029	TOTAL
Meter Replacement - Domestic	24,865	23,120	22,013	21,824	18,294	110,116
Meter Replacement - Commercial	5	2	2	3	5	17
TOTAL	24,870	23,122	22,015	21,827	18,299	110,133

FORECAST EXPENDITURE

Table 9.7 shows the meter replacement forecast capex for each year of AA6.

Table 9.7: Meter Replacement Program, AA6 Forecast Capex (\$million real as at 31 December 2023)

PROJECTS	2025	2026	2027	2028	2029	TOTAL
Meter Replacement Program	5.7	5.1	4.7	4.6	3.6	23.7

9.6.1.3 OTHER ASSET REPLACEMENT PROGRAMS (END-OF-LIFE)

- Risers and services (\$14.0M):** Ageing risers connected to PVC services are susceptible to leakage. Historically, we have identified approximately 1,500 leaks per year on risers and services via 'smell of gas' calls from the public or during routine maintenance. The replacement of PVC with PE will improve integrity by eliminating the likelihood of leaks and extending the system's service life. The AA6 capex program will replace identified assets based on actual volumes and actual unit rates in AA5.
- Regulator sets and metering facilities (\$12.0M):** Where the condition of regulator sets and metering facilities is deemed poor, we undertake additional engineering design and condition assessments to ascertain the need for replacement or whether alternative refurbishment or repair options are available. However, when they can no longer meet operational requirements, they are replaced under the capex program. The total capex forecast for AA6 will replace selected assets based on replacement criteria set out in the ALS.
- Perth Central Business District (CBD) mains replacement (\$11.6M):** Introduces an assessment and rectification program for segments of metallic mains within the Perth CBD that may have inadequate corrosion protection.
- Mechanical compression fittings (\$4.4M):** Network mechanical compression fittings are susceptible to leakage if the deflection of the fittings occurs due to local ground movements or surrounding earthworks. We regularly assessed the risk of a gas incident due to the leak of mechanical compression fittings in residential areas through the GDS Formal Safety Assessment. The assessment result required that to reduce risk to ALARP, these fittings must be replaced when identified. The AA6 capex program will replace 800 mechanical compression fittings based on historical average data (volume and unit rates) from AA5.
- Telemetry equipment (\$3.4M):** Telemetry equipment is used on the network to allow monitoring of pressures and respond to developing circumstances before they result in outages. Network performance data is integral to the day-to-day operation of the network and for modelling that informs network projects to meet current and future demand. Telemetry is also used to meet regulatory obligations of providing hourly flow rate data for specific industrial customers. Telemetry replacement occurs when equipment reaches the manufacturer's prescribed end-of-life. The AA6 capex program includes the replacement of 3,211 items of equipment, such as data loggers, transducers, and flow computers.

- **Cathodic protection assets (\$1.0M):** Our high-pressure (HP) steel pipelines are protected from corrosion that could lead to pipeline failure and loss of containment events. This project's scope includes replacing depleted anodes, the upgrade of cathodic protection enclosures to minimise third-party damage, resistance probes to identify active corrosion, and insulation joints and surge diverters to prevent damage in the event of an electrical surge. The investment driver is to provide adequate protection and condition data on steel assets and improve safety.
- **Warning signs (\$0.4M):** The main driver for this project is to maintain compliance with the AS2885.1 Section 4.4 Pipeline Markings, which requires warning signs to be located on the pipeline route that allows the pipeline route to be properly identified and to reduce the likelihood of a third-party impact on our HP assets. HP warning signs are visually inspected as part of a pipeline patrol (weekly or monthly) and are replaced at 'end-of-life' due to physical damage (e.g., weather, vehicular impact, or vandalism), or structural degradation (e.g., corrosion). We estimate approximately 130 signs per year (650 for AA6) based on historical data.
- **Metallic Mains (\$1.5M):** This program was introduced in AA4 to replace unprotected metallic mains under railway crossings that were identified to have deteriorated and reaching end-of-life. The program was scheduled to be completed in AA5, however, the project was delayed mainly due to the COVID-19 pandemic, causing longer planning phases, getting approvals from third parties (i.e., PTA, ARC, railways closure), access restrictions at site locations, and increased work around railways from government-driven projects. Program completion has now been extended to the end of 2025.

9.6.2 ASSET PERFORMANCE & SAFETY (\$47.9M)

This capex category ensures the efficient and safe operation of our network assets. Table 9.8 provides the AA6 forecast capex for Asset Performance and Safety programs.

Table 9.8: Asset Performance & Safety, AA6 Forecast Capex (\$million real as at 31 December 2023)

PROGRAMS	2025	2026	2027	2028	2029	TOTAL
ASSET PERFORMANCE AND SAFETY						
Gas Station Meter	0.6	1.0	1.0	0.4	-	3.0
Step Touch Mitigation	1.5	1.5	1.5	1.5	1.5	7.3
Pressure Monitoring Devices	0.2	0.2	0.2	0.2	0.2	0.8
Vehicle Protection	0.1	0.1	0.1	0.1	0.1	0.7
Inline Inspection Infrastructure	1.1	2.2	-	-	-	3.4
SCADA Systems	0.7	1.2	0.7	0.7	0.5	3.8
Enabling Renewable Gases	5.6	3.3	3.4	6.7	6.7	25.8
Other Asset Performance Programs	0.7	0.6	0.6	0.6	0.6	3.1
TOTAL	10.5	10.1	7.5	10.2	9.6	47.9

9.6.2.1 ASSET PERFORMANCE AND SAFETY PROGRAMS

- **Gate Station Meter:** Measuring gas flow at the gate station outlet is essential for hydraulic modelling verification, UAFG calculation, and network analysis. In AA6, we propose installing a non-billing meter at the gate station outlet to accurately verify the volume of gas flow from Transmission Operators, while maintaining constant monitoring and reliable flow data for network analysis. Three meters are planned to be installed at the outlet of gate stations with the highest inconsistencies in UAFG data.
- **Facility Upgrade - 'Step Touch' Mitigation Systems:** This initiative aims to ensure the safety of field personnel and individuals near to high pressure steel pipelines. The program entails a thorough evaluation of 40 pipelines with intermediate fatality risk, as classified by AS 4853, with respect to step and touch voltage hazards. The assessment will identify the necessary remediation measures to reduce the risk to ALARP.
- **Pressure Monitoring Devices (PMD):** The installation of 50 PMD within the network will significantly enhance the quality of network data and information, leading to improved operational response and more efficient planning. These PMD are crucial for verifying modelling results under peak conditions against actual monitored data, supporting long-term planning for capital expenditure reinforcement projects, and mitigating unexpected gas supply interruptions due to low pressure. Hydraulic modelling of the gas network is employed to identify locations where PMD are required, such as areas with weak pressure during peak usage, with priority given to unmonitored sites and sites approaching minimum network pressure.
- **Vehicle Protection:** Assets installed above ground of our network can be easily damaged by vehicular impact with the potential to result in gas supply and containment loss. We are installing bollards and barriers within the area to secure these facilities to prevent the impact where the asset is not fully protected. The sites are identified by field personnel during routine maintenance and assessed against risk-based criteria.
- **Inline Inspection Pipeline Infrastructure:** This program was initiated in AA5 to upgrade the Pipeline Inspection Gauge (PIG) infrastructure of five HP pipelines, enabling the inline inspection of pipelines with potential steel defects. In AA5, two PIG infrastructure modifications will be completed, with the remaining three to be finished in AA6. The project was delayed due to the impact of COVID-19 on execution and contractor resourcing in 2020, as well as longer planning phases for remote and complex pipelines.
- **SCADA Systems (Infrastructure and Enhanced Data Acquisition):** This program commenced in AA5 to control and monitor our gas pipeline network proactively and will continue to deliver the remaining scope in AA6. The program will introduce network automation, enabling remote monitoring of cathodic protection and automated control of gas flows and pressures. Constant network data feed will monitor the gas quality (including heating values, odorant levels, and other characteristics), and enable early identification of faults through dynamic modelling.

- **Enabling Renewable Gases (\$25.8M).** This program aims to prepare the gas network to accept renewable gases, including hydrogen, and renewable substitutes such as biogas (see Section 3.4). These initiatives provide a wider product offering for retailers, a lower carbon alternative for customers, and a pathway for a lower emissions gas network.

To prepare the network, in AA6 we will build and maintain several infrastructure projects including biogas injection points (metering stations), hydrogen gas blending stations, and other infrastructure to support these initiatives. The timing of these projects is spread over AA6 to ensure we can deliver and maintain the safety of the infrastructure and network. In AA6, we propose the following projects.
- **Infrastructure to enable renewable gases (\$15.4M).** ATCO plans to build infrastructure at key locations within the network to enable the injection of renewable gas. ATCO proposes building six injection stations to inject around 100 - 200 TJ of renewable gas into the network (per site per year). Preliminary proposed sites include Neerabup, Wangara, Forrestfield, and Busselton. This initiative builds on ATCO's capability and experience from the blending project in Jandakot, where we are already blending hydrogen into 2,700 homes in the local Jandakot and Treeby residential areas. This program will extend this capability to larger-scale projects to help reduce GHG emissions.

100% Hydrogen Community (\$6.8M). This initiative is the second stage of our Jandakot hydrogen blending initiative, aiming to deliver 100% hydrogen in two selected communities or estates. This project will utilise existing network infrastructure designs with components that use hydrogen as the primary fuel source instead of natural gas. The use of hydrogen gas as an alternative energy source is gaining momentum worldwide, and several countries have already initiated projects to develop 100% hydrogen gas networks.

The project will require investment in infrastructure and technology, including installing a gate station (input facility) to facilitate hydrogen injection into the network. This infrastructure includes a metering facility, pressure reduction facility, telemetry, and control mechanisms to measure the Higher Heating Value (HHV) and blend odorant into the hydrogen to help detect network leaks. The program excludes hydrogen production costs, appliance changeover, and incentives. This project is expected to commence in mid-AA6.
- **Other ancillary infrastructure to enable renewable gases (\$3.6M).** This will include investment in interconnection management controls, spares management, and odorant control.
- **Other Asset Performance Programs** – mid to small projects such as corrosion probes, insulation joints, and surge protectors upgrade to ensure the efficient and safe operation of our network assets.

9.7 FORECAST CAPEX: NETWORK GROWTH (\$176.5M)

9.7.1 CUSTOMER INITIATED: NEW CUSTOMER CONNECTIONS (\$175.2M)

BACKGROUND

Network Growth capex is incurred for connecting new customers to our network. Most of our growth capex forecast is focused on the cost of connecting customers in new subdivisions bordering existing areas of our network. We are working closely with developers, home builders, and other utilities to expand the use of common trenching to install new residential service lines, leading to lower installation costs.

INVESTMENT DRIVERS

Our growth capex is driven by the number of new customers we expect to connect to the network in AA6. Growth in customer numbers helps to maintain lower prices for existing customers by sharing the primarily fixed costs of operating the network across a larger customer base.

PLANNED ACTIVITY

Based on the demand forecast, we are expecting to deliver approximately 78,000 customer connections with the associated new services, mains extensions, and new domestic meters.

FORECAST EXPENDITURE

We have based our forecast capex on a unit cost approach, the customer growth forecast multiplied by the relevant unit rates outlined in the Unit Rates Forecast and Strategy. The costs associated with a new connection include the following:

- **Mains extension:** the average cost of extending our network to connect the new customer.
- **New service and meter installation:** the average cost of installing a service and new meter equipment.

Table 9.9 shows the AA6 forecast new customer connections growth capex.

Table 9.9: New Customer Connections, AA6 Forecast Capex (\$million real as at 31 December 2023)

PROGRAMS	2025	2026	2027	2028	2029	TOTAL
Growth Domestic Forecast	28.1	29.6	31.4	33.3	32.7	155.1
Growth Commercial Forecast	4.2	4.2	4.2	4.2	4.2	21.1
Growth Development	1.9	1.5	1.5	1.5	1.5	7.9
SUB-TOTAL	34.2	35.3	37.1	39.0	38.4	184.1
Less Capital Contribution	- 2.0	- 1.7	- 1.7	- 1.7	- 1.7	- 8.9
TOTAL	32.2	33.6	35.4	37.3	36.7	175.2

9.7.2 DEMAND RELATED: NETWORK REINFORCEMENT (\$1.3M)

BACKGROUND

The distribution network must maintain adequate capacity to deliver gas safely to customers. In areas of the network experiencing high growth and increasing new customer connections, the ability of the network to maintain capacity may become diminished. Minimum network pressures are required for service regulators to function and allow the safe supply of gas to appliances.

INVESTMENT DRIVERS

The main investment driver is to maintain the network pressure above its system minimum required pressure. Using the CORE data forecast for new connections, and hydraulic modelling of network information, we have identified several expansion projects that will be required to maintain capacity during AA6. These include capacity upgrades to regulating facilities, and mains extensions that maintain gas supply.

Capacity-driven projects are typically planned for the *year prior* to any predicted problems with network capacity. This allows us to stay ahead of potential supply problems for customers. Investment in the SCADA program will assist in optimising the timing for network reinforcement projects.

In addition, we use an industry-standard software package known as 'SynerGi' to model network capacity and optimise network utilisation as it grows. This software identifies when network expansion projects are required to maintain security of supply and sufficient capacity.

PLANNED ACTIVITY

The major network reinforcement projects for AA6 include the installation of medium-pressure regulator sets, and mains extensions. Each project is planned for the year prior to the network reaching minimum system pressure to maintain continuous gas supply to customers.

FORECAST EXPENDITURE

Table 9.10 shows the AA6 forecast Network Reinforcement capex of **\$1.3 million**.

Table 9.10: Network Reinforcement, AA6 Forecast Capex (\$million real as at 31 December 2023)

PROGRAMS	2025	2026	2027	2028	2029	TOTAL
Mains extensions	-	-	-	-	0.6	0.6
New regulating facilities	0.8	-	-	-	-	0.8
TOTAL	0.8	-	-	-	0.6	1.3

9.8 INFORMATION TECHNOLOGY (IT) (\$9.2M)

BACKGROUND

IT systems underpin and support almost all of ATCO's operations. These systems and platforms range from employee communications, such as email, digital channels for our customers, data management and record keeping, and larger systems that monitor network reliability.

INVESTMENT DRIVERS

Capex drivers of the IT program include nine specific areas of support:

- **Reduce operational costs and improve efficiency:** Eliminating unnecessary, time consuming paperwork and manual processes through digitalisation and improved analytical capabilities.
- **Optimise work and field services management:** Enhancing technology solutions to improve the efficiency and safety of field workers while capturing data to support operational activities and sustainability reporting.
- **Regulatory compliance:** Ensure compliance with various regulations and standards related to data privacy, cyber security, security of critical infrastructure, and other areas.
- **Modernise IT services and solutions:** Implement contemporary IT services and solutions to support business operations, the competitive retail environment, and customer expectations. Leveraging technology-driven business opportunities facilitates digital transformation through application modernisation and seamless cloud integration.
- **Improve employee engagement:** Delivering technology solutions that improve employee productivity and support modern work styles, and support digitalisation strategies that enhance employee experience. This will help ATCO to reduce employee turnover and drive performance, thus reducing costs that would otherwise be incurred.
- **Decarbonise our business:** Introducing solutions to meet ATCO's decarbonisation goals. This can be through technology to understand our carbon footprint and deliver capability to meet net zero targets.
- **Enable sustainability reporting:** A robust set of sustainability-related reporting standards and solutions is required to help ATCO meet its environmental, social, and governance obligations as well as its performance target of net zero by 2050.
- **Better connection with customers and retailers:** Providing more timely and easy access to information about available services and service status, thereby improving the customer experience and supporting retail contestability.
- **Support new business models:** Employing a more agile approach delivering technology solutions to respond to new products and services requirements quickly.

PLANNED ACTIVITY

IT capex in AA6 will enable ATCO to efficiently manage gas network assets through their lifecycles, enhance valuable information access opportunities for customers, and enable the workforce to retrieve the information they need when they need it. In AA6, we plan to deliver several programs that

will support and enhance our business operations. Note, each of these programs has a corresponding opex component (see Section 8.4.2).

- **IT Continuous Improvement Program**

This program ensures that ATCO can deliver new digital and business improvement opportunities for our workforce, retailers, and end users to meet contemporary expectations of our systems. These projects may be delivered using an Agile project management framework to ensure they are implemented in a timely and least cost way.

- **Business Improvement Program**

This program ensures that ATCO can deliver new digital and business improvement opportunities to its customers and implement them with the least cost and time. These projects will be delivered using an Agile project management framework.

- **webMethods Upgrade**

ATCO currently uses Software AG's webMethods 10.5 platform as its integration platform, a centralised integration transport layer to exchange data between systems. The webMethods Upgrade will maintain vendor support and make available any new features as they become available to maintain the availability of ATCO's core business systems and assist with mitigating cyber security risks.

- **Sustainability Reporting System**

ATCO has an existing regulatory obligation to report its emissions to the Clean Energy Regulator. We expect that obligations for climate-related financial disclosures reporting will apply to ATCO. To manage its current and future reporting obligations, ATCO will implement a new reporting system to help measure, manage, and communicate our sustainability performance and impact. This tool will collect and analyse metrics such as carbon emissions, waste reduction, employee diversity and inclusion, human rights, and governance practices.

The analysed data will be presented in a comprehensive sustainability report, offering stakeholders a clear understanding of ATCO's performance and allowing us to make informed decisions on where to allocate resources effectively and efficiently. Additionally, reporting will provide ATCO with a means to compare its performance against industry benchmarks, identify areas for improvement, and monitor its progress towards sustainability objectives.

- **Data and Analytics Program**

This program commenced in AA5 and will continue in AA6 to ensure that ATCO can continually identify new analytical models, reporting, and dashboard opportunities. The benefits of investing in this program have resulted in increased data accuracy, increased data security, and access to a richer data history.

- **Geographic Information System (GIS) Upgrade Program**

The GIS is one of the core systems ATCO uses to locate and create spatial pictures of data in the forms of maps, globes, reports, and charts. This data is needed when locating assets for maintenance and emergency response. Post 2025, the GIS will receive limited support from the vendor due to the age of the current version. ATCO plans to upgrade the GIS in 2025 to ensure it is up to date and fully supported by the vendor and assist with mitigating cyber security risks.

- **Mains Replacement Prioritisation (MRP) Tool Replacement**

Our MRP tool uses inputs from the GIS system. With the version upgrade of the GIS system, active support of the MRP tool will cease in 2024. This has resulted in the MRP tool needing to be upgraded or replaced in AA6.

- **Enterprise Resource Planning (ERP) Replacement**

ATCO's current ERP system (SAP ECC6) will reach 'end of support' during AA6. In addition, the system no longer provides all the capabilities ATCO requires to support its evolving business, particularly to support digital transformation activities and new business operations such as renewable gas. ATCO is planning to replace the ERP system in AA6.

FORECAST EXPENDITURE:

Table 9.11 shows the AA6 forecast IT capex of **\$9.2M**. The opex portion related to each investment is discussed in Chapter 8.

Table 9.11: Information Technology, AA6 Forecast Capex (\$million real as at 31 December 2023)

CATEGORY AND PROGRAMS	2025	2026	2027	2028	2029	TOTAL
IT CAPEX						
Continuous Improvement Program	0.2	0.2	0.2	0.2	0.2	0.8
Business Improvement Program	0.2	0.2	0.2	0.2	0.2	0.8
webMethods Upgrade	-	-	-	1.1	-	1.1
Sustainability Reporting System	0.0	0.0	-	-	-	0.1
Data and Analytics Program	0.1	0.1	0.1	0.1	0.1	0.4
Geographic Information System Upgrade Program	1.0	1.0	-	-	-	2.0
MRP Tool Replacement	0.1	-	-	-	-	0.1
ERP Replacement	1.9	1.9	-	-	-	3.8
TOTAL	3.5	3.4	0.4	1.5	0.4	9.2

9.9 STRUCTURES AND EQUIPMENT (\$20M)

9.9.1 FLEET (\$12.3M)

BACKGROUND

ATCO's fleet assets play a vital role in enabling the work crews to undertake network maintenance activities, respond to network incidents promptly, connect new customers to the network, extend gas mains to support network growth and provide a broad range of services to customers. Our current fleet assets include motor vehicles such as motorcycles, passenger vehicles, light commercial vehicles, and trucks.

INVESTMENT DRIVERS

Our replacement strategy for fleet assets is based on demand. This enables us to plan and identify the best way to meet that demand. The fleet size and composition are driven by the forecasted network activities set out in the AMP and detailed work programs. These set out details of the network activities over a 10-year horizon, enabling a workforce plan to be developed. An increase in the workforce would directly affect the demand for fleet assets. Additionally, we are monitoring and assessing the use of electric and hydrogen vehicles and will look to incorporate these into the fleet when appropriate.

PLANNED ACTIVITY

We forecast the long-term replacement of fleet assets using age-based requirements, and then each year, we refine the annual replacement schedule based on:

- utilisation data (e.g., kilometres travelled or engine hours metered);
- the vehicle's condition (e.g., through visual inspection and the vehicle's maintenance history); and
- the vehicle's ongoing operational suitability.

We have developed our fleet replacement criteria in line with industry practice. The criteria are based on the recommended replacement timing for trucks (as published by the Institute of Public Works Engineering Australia in its Plant and Vehicle Management Manual) and the replacement criteria from other network operators. The fleet replacement criteria are documented in the ALS for fleet.

FORECAST EXPENDITURE:

Table 9.12 shows the AA6 forecast Fleet capex of **\$12.3M**.

Table 9.12: Fleet, AA6 Forecast Capex (\$million real as at 31 December 2023)

CATEGORY	2025	2026	2027	2028	2029	TOTAL
Fleet	3.4	2.3	1.4	2.4	2.8	12.3

9.9.2 PROPERTY, PLANT, AND EQUIPMENT (\$7.7M)

BACKGROUND

Property, plant, and equipment (**PP&E**) are non-network assets used to support ATCO's daily operations, including customer service and network maintenance. Below are the categories of assets within PP&E:

- **Property and Plant:** These are the real estate properties owned or leased by ATCO as depots and offices, workshops, warehouses, and associated assets such as air conditioning units, furniture, and fittings. ATCO has nine operations facilities, with the head operations centre at Jandakot, three depots in the Perth metro region, and another five regional depots. The three metro depots are located in Mandurah, Malaga, and Joondalup. Our regional depots are located in Geraldton, Bunbury, and Busselton, and there are two depots in Kalgoorlie and Albany to support the unregulated gas network (not included in the AA6 submission).

- **Equipment:** These are tangible assets used by the business for network construction, operation, and maintenance, such as flow-stopping equipment, equipment that requires servicing, and calibration and hand tools.

INVESTMENT DRIVERS

Demand for new facilities is driven by forecast network activities, staff and accommodation requirements and future network expansions. Facilities like depots are refurbished based on their condition and operational suitability. Most of our equipment that are non-critical assets is run to failure.

PLANNED ACTIVITY

How assets are operated and maintained is a key factor in how they perform and how long they remain serviceable. This AA6 capex program includes several minor Property (Facilities and Plant) improvement initiatives for the facilities in the Perth metropolitan area, and the acquisition of equipment aligned with the Strategic Delivery and Resource Plan.

FORECAST EXPENDITURE:

Table 9.13 outlines our AA6 forecast PP&E capex of **\$7.7M**.

Table 9.13: Property, Plant, and Equipment, AA6 Forecast Capex (\$million real as at 31 December 2023)

CATEGORY	2025	2026	2027	2028	2029	TOTAL
Property and Plant	0.6	0.6	0.3	0.3	0.3	2.2
Equipment	1.1	1.1	1.1	1.1	1.1	5.5
TOTAL	1.7	1.7	1.4	1.4	1.4	7.7

9.10 OVERHEAD COSTS

Overhead costs are applied to forecast capex to recover business costs *not included* in the direct capex forecasts. These overhead costs include the indirect costs associated with operations and maintenance, network engineering and asset management, property and fleet, customer and corporate services, and IT.

Our forecasts include an allowance for overhead costs, which will be further refined prior to our September 2023 submission, reflecting our updated forecasts.

CONSIDERATIONS FOR OUR STAKEHOLDERS

1. Do you believe our capex forecasts are fair and reasonable?
2. Do you believe the 'bottom-up' forecasting method is appropriate?
3. Do you support the findings from our engagement program on capex program priorities?
4. Do you disagree with any areas of focus for our capex program?

10. CAPITAL BASE

CHAPTER HIGHLIGHTS

1. The capital base has been rolled forward using forecast depreciation and actual capex.
2. Our opening capital base has increased from \$1,522.5 million at 31 December 2019 to \$1,612.8 million as at 1 January 2025.
3. Our projected capital base at the end of AA6 is \$1,761.0 million.
4. ATCO is investigating options to change the depreciation profiles of its gas distribution assets to reflect likely changing economic lives due to the energy transition. However, for this Draft Plan, no adjustment has been made.

10.1 INTRODUCTION

The forecast value of our capital base at 1 January 2025 is \$1,612.8 million. The value of our capital base is a primary input into our total revenue calculation; it forms the basis of our return on assets and depreciation building blocks.

As part of the access arrangement process, we are required to adjust our capital base in relation to capex, depreciation, and inflation using actual information from AA5 and forecast information from AA6. This Chapter discusses how we have made those adjustments for AA5 and AA6.

This Chapter focuses on the method used to calculate the capital base, including the treatment of inflation, disposals, capital contributions, and depreciation.

10.2 OPENING CAPITAL BASE

The opening capital base is calculated using the roll forward method, as set out in Rule 77 of the NGR. The asset base is rolled forward using forecast depreciation in the ERA's AA5 Final Decision.

Figure 10.1: Opening capital base calculation



The opening capital base for AA6 (1 January 2025) incorporates an adjustment for any difference between estimated and actual capital expenditure included in the 2020 opening capital base. This adjustment must also remove any benefit or penalty associated with any difference between the estimated and actual capital expenditure.

The opening capital base for AA6 (1 January 2025) is \$1612.8 million, as shown in Table 10.1.

Table 10.1: Opening capital base (\$ millions real as at 31 December 2023)

	2019	2020	2021	2022	2023	2024
Opening capital base 2019 before adjustment	1,502.8					
Benefit from the difference between the estimated and actual 2019 capital expenditure	-1.4					
Opening capital base	1,501.4	1,522.5	1,539.5	1,557.9	1,576.2	1,594.5
Capex (net)	84.9	72.1	84.2	85.3	86.7	89.5
Depreciation	-62.7	-54.4	-65.2	-67.0	-68.4	-71.2
Asset disposals	-1.0	-0.7	-0.6	0.0	0.0	0.0
CLOSING CAPITAL BASE	1,522.5	1,539.5	1,557.9	1,576.2	1,594.5	1,612.8

10.3 PROJECTED CAPITAL BASE

The projected capital base is calculated using the roll forward method, as set out in NGR, Rule 78.

Figure 10.2: Projected capital base calculation

The forecast capital base over AA6 is provided in Table 10.2, considering forecast (straight-line) depreciation and capex. This shows a projected capital base of \$1,761.0 million as at 31 December 2029.

Table 10.2: Projected capital base (\$million real as at 31 December 2023)

	2025	2026	2027	2028	2029
Opening capital base	1,612.8	1,652.5	1,680.6	1,703.3	1,732.6
Capex (net)	102.0	100.2	95.3	101.7	100.0
Depreciation	-62.3	-72.1	-72.7	-72.4	-71.6
Asset disposals	0.0	0.0	0.0	0.0	0.0
CLOSING CAPITAL BASE	1,652.5	1,680.6	1,703.3	1,732.6	1,761.0

10.4 SUPPORTING INFORMATION AND ASSUMPTIONS

10.4.1 CAPITAL CONTRIBUTIONS (RULE 82)

Capital contributions received have been netted off against conforming capex so that only the net amount is included in the capital base and the tax asset base.

We recover the tax costs that we incur when we receive a capital contribution from the customer paying the capital contribution. The amount of the capital contribution netted against conforming

capex does not include this additional tax cost recovery. We determine the tax cost as the net present value effect of the timing difference between the capital contribution being assessed as taxable income and the related depreciation being assessed as a tax expense.

10.4.2 DEPRECIATION (RULES 88, 89 AND 90)

The depreciation schedule (Rules 88 and 89) for establishing the opening asset base is based on the asset classes and the forecast depreciation in the ERA's AA5 Final Decision tariff model. Assets are depreciated using the straight-line method consistent with the ERA's Final Decision tariff model.

We will use the findings from the Future of Gas work (*see Chapter 3*) to inform our depreciation approach in our September 2023 submission. For this Draft Plan, the economic lives for asset categories are shown in Table 10.3. The asset life of 'equity raising costs' for AA6 has been amended to align with the average life of assets at 31 December 2024, rather than 31 December 2019. Other asset lives are unchanged from AA5.

Table 10.3: Economic lives of asset categories (years)

ASSET CATEGORIES	ECONOMIC LIVES	
	AA5	AA6
CURRENT AND NEW ASSET CATEGORIES		
HP Mains - Steel	80	80
HP Mains - PE	60	60
Medium and Low Pressure Mains	60	60
Regulators	40	40
Secondary Gate Stations	40	40
Buildings	40	40
Meter and Services Pipes	25	25
Equipment and Vehicles	10	10
IT	5	5
Telemetry	10	10
Equity Raising Cost	65.8	53.7
HISTORICAL ASSET CATEGORIES – NO LONGER USED FOR NEW CAPEX		
Medium and Low Pressure Mains	60	60

The asset lives for assets included in the initial capital base at 1 January 2000 remain unchanged and are as stated in the ERA's AA5 Final Decision tariff model.

Rule 89(1)(c) allows asset lives to be adjusted to reflect changes in the expected economic lives of assets. Gas distribution networks are now operating in a period of change, which will likely affect the



ATCO is investigating options to change the depreciation profiles of its gas distribution assets to reflect likely changing economic lives. However, for this Draft Plan, no adjustment has been made.

economic lives of gas distribution assets. The Western Australian Government has recently announced its target of net zero emissions by 2050, while the Federal Government has set a legislated target of 43% below 2005 emission levels by 2030.

The AER, in its November 2021 Information paper, recognised the uncertainty in the economic lives of gas distribution assets, with its preferred response being to adjust depreciation. ATCO is investigating options to change the depreciation profiles of its gas distribution assets to reflect likely changing economic lives. However, for this Draft Plan, no adjustment has been made.

While acknowledging potential changes to asset economic lives, ATCO is also actively investigating ways to prolong the lives of those assets, such as by preparing the network for the use of renewable gas. Extending the lives of assets benefits customers by spreading the cost of those assets over a longer period.

Rule 90 requires that an access arrangement contain a provision stating whether depreciation used in calculating the opening capital base for the next access arrangement is based on actual or forecast depreciation. As set out in the AA5 access arrangement, the opening capital base in AA6 has been calculated using the forecast depreciation in the ERA's AA5 Final Decision tariff model. Forecast depreciation will also be used to calculate the opening capital base in AA7.

10.4.3 RULES 84, 85, 86

No events have occurred in AA5 or are forecast to occur during AA6 that would require adjustment under Rules 84, 85, or 86.

10.4.4 INFLATION

ATCO has applied an inflation adjustment to the opening capital base, consistent with the current cost accounting method. The inflation percentages applied in each period are shown in Table 10.4.

Table 10.4: Inflation on opening capital base

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Annual inflation	1.84%	0.86%	3.50%	7.83%	4.75%	3.25%	2.51%	2.51%	2.51%	2.51%	2.51%

Inflation assumptions:

- January 2019 to December 2022 is actual inflation; the weighted average of eight capital cities as published by the Australian Bureau of Statistics.
- January 2023 to December 2024 is a forecast based on the RBA's February 2023 Statement on Monetary Policy.
- 2025 to 2029 is ATCO's forecast based on the ERA's 2022 Rate of Return Instrument (RORI) Explanatory Statement to be consistent with the WACC parameters used in the Draft Plan (which are also based on the 2022 RORI Explanatory Statement)¹⁸.

¹⁸ ERA, Explanatory statement for the 2022 final gas rate of return instrument, December 2022, page 6

10.4.5 CAPEX

ATCO's application of the roll forward method adopts an end-of-year timing assumption for capex, consistent with inflation and net present value cash flow assumptions. Capex is included in the asset base on an 'as incurred' basis rather than a commissioned basis because the expenditure must be funded as it is incurred. Regarding the revenue building blocks, capex starts to depreciate from 1 January in the year following the year of acquisition.

10.4.6 DISPOSALS

ATCO has deducted actual asset disposals, valued based on sale proceeds from the capital base. While no disposals have been forecast for AA6, if there are asset disposals during AA6, these will be deducted from the opening capital base at the start of AA7.

10.4.7 UNREGULATED AND NON-REFERENCE ASSETS

Assets used to provide unregulated services, i.e., those not related to the covered pipeline, have been excluded from the asset base. In addition, the cost of assets allocated to the provision of non-reference services has also been excluded from the asset base so that the costs related to those assets are excluded from the costs of providing reference services.

CONSIDERATIONS FOR OUR STAKEHOLDERS

1. Do you consider our opening and projected capital base calculations fair and reasonable?

11. RATE OF RETURN

CHAPTER HIGHLIGHTS

1. The ERA's 2022 Rate of Return Instrument will be adopted throughout the AA6 submission and approval process.
2. Our preliminary estimate of the rate of return is 7.20% (vanilla nominal after-tax), based on Table 2 of the 2022 'Rate of Return Instrument Explanatory Statement' parameters¹⁹.
3. We have used 2024 market data to determine the rate of return that will be applied for AA6.

11.1 INTRODUCTION

The NGR provide a framework for calculating the rate of return. The ERA's 2022 Rate of Return Instrument (**RORI**) details the approach we must follow for calculating the rate of return under the NGR.

Under the 2022 RORI, the average return on debt of 6.50% and the return on equity of 8.05% result in an overall average rate of return of 7.20% in AA6. This estimated rate of return will be updated when the ERA makes its Final Decision in the fourth quarter of 2024.

11.2 RATE OF RETURN

ATCO has calculated the rate of return in accordance with the 2022 RORI. Table 11.1 summarises the rate of return adopted for this Draft Plan.

Table 11.1: Rate of return estimate

PARAMETER	VALUE
Inflation rate	2.51%
Cost of debt	
Debt risk-free rate - 5-year interest rate swap (effective yield)	4.07%
Debt issuing cost (0.165%) + hedging (0.123%)	0.29%
Debt Risk Premium (DRP) (10-year average)	2.14%
Cost of debt	6.50%
Cost of equity	
Risk-free rate	3.78%
Market Risk Premium	6.10%
Beta	0.7

¹⁹ ERA, Explanatory statement for the 2022 final gas rate of return instrument, December 2022, page 6

PARAMETER	VALUE
Nominal after tax cost of equity	8.05%
Debt proportion	55%
Equity proportion	45%
Nominal after tax rate of return	7.20%
Real after tax rate of return	4.57%

ATCO will update the rate of return market parameters before lodging our September 2023 submission. The market parameters will be finalised before the ERA makes its Final Decision.

12. GAMMA AND COST OF TAX

CHAPTER HIGHLIGHTS

1. We estimate that our cost of tax over AA6 is \$18.3 million (\$real 2023).
2. We have adopted the value of franking credits (gamma) from the 2022 Rate of Return Instrument.

12.1 INTRODUCTION

ATCO calculates the estimated cost of corporate income tax to determine its building block revenue requirement for AA6. We have estimated our corporate income tax expense by considering forecast revenue, opex, interest on debt and tax depreciation.

Table 12.1 presents the statutory income tax rate and the value of franking credits that have informed our application of Rule 87A to calculate the cost of tax.

Table 12.1: Taxation parameters

PARAMETER	PROPOSED VALUE
Corporate Tax Rate	30%
Franking Credit (gamma)	0.5

This Chapter explains our approach to estimating the cost of tax, including how we applied the rate of return guideline to derive the value for gamma.

12.2 GAMMA

We have adopted the value of gamma of 0.5, detailed in the 2022 RORI. The 2022 RORI is binding on the ERA and ATCO, and so the value of gamma will be 0.5 in the AA6 Final Decision.

12.3 TAX LIVES

We have used the guidance provided by the Australian Taxation Office to apply tax asset lives to our tax asset base. The AA6 tax asset lives and asset categories in Table 12.2 are unchanged from AA5.

Table 12.2: Tax asset lives (years)

ASSET CATEGORIES	ASSET LIVES (YEARS)
CURRENT AND NEW ASSET CATEGORIES	
HP Mains - Steel	20
HP Mains - PE	20
Medium and Low Pressure Mains	20
Regulators	20
Secondary Gate Stations	20
Buildings	40
Meter and Services Pipes	15
Equipment and Vehicles	10
Information Technology	5
Equity Raising Cost	5
Telemetry	10
HISTORICAL ASSET CATEGORIES (NO LONGER USED FOR NEW EXPENDITURE)	
Medium Pressure Mains	20
Low Pressure Mains	20

12.4 ESTABLISHING THE OPENING AA6 TAX ASSET BASE

The tax asset base (**TAB**) is a primary input into calculating the cost of tax. We have calculated the opening value of the AA6 TAB using the roll forward method, using the value of the TAB from the opening value at the start of AA5. Similar to rolling forward the Regulatory Asset Base (**RAB**), the forecast AA6 TAB calculation considers the following:

- The opening value at 1 January 2019 so that the difference between the forecast and actual 2019 capex net of capital contributions is accounted for in the TAB roll forward.
- Actual capex (net of capital contributions) incurred over AA5 and the forecast capex (net of capital contributions) over AA6 will be rolled into the TAB.
- Depreciation based on the 2019 and AA5 actual capex and the AA6 forecast capex will be deducted from the TAB.

We note that the Federal Government introduced taxation system measures to allow full write-off for new investment in response to the COVID-19 pandemic. ATCO did not take advantage of any of these

measures, and therefore no adjustments were made to our method to forecast our taxation costs for AA5. Table 12.3 details the roll-forward of the TAB over AA5.

Table 12.3: Roll forward of tax asset base over AA5 (\$million nominal)

	2020	2021	2022	2023	2024
Opening value per AA5 Final Decision	614.5				
Difference between forecast and actual 2019 capex	-7.8				
Opening value	606.7	609.4	623.6	644.5	668.3
<i>Plus, capex (net)</i>	61.6	74.6	81.4	86.7	92.4
<i>Less, tax depreciation</i>	-58.4	-59.8	-60.5	-63.0	-66.7
<i>Less, asset disposals</i>	-0.6	-0.5	0.0	0.0	0.0
Closing value	609.4	623.6	644.5	668.3	694.0

12.5 AA6 TAX ASSET BASE

Table 12.4 details the rolling forward of the TAB over AA6 and the resultant tax depreciation values adopted in the calculation of our corporate income tax estimate. We have continued to apply tax asset lives that are consistent with the Australian Taxation Office guidance.

Table 12.4: Roll forward of tax asset base over AA6 (\$million nominal)

	2025	2026	2027	2028	2029
Opening value	694.0	731.6	765.6	793.9	830.4
<i>Plus, capex (net)</i>	108.0	108.7	106.0	116.0	116.9
<i>Less, tax depreciation</i>	-70.3	-74.7	-77.7	-79.5	-80.8
<i>Less, asset disposals</i>	0	0	0	0	0
Closing value	731.6	765.6	793.9	830.4	866.5

12.6 ESTIMATE OF CORPORATE INCOME TAX

We have calculated our estimate of corporate income tax using the method applied in the ERA's AA5 Final Decision as follows:

Unsmoothed building block revenue

minus Approved forecast opex.

minus Straight-line depreciation of the tax asset base.

minus Debt servicing costs, calculated by multiplying the opening regulatory asset base by the debt-to-equity ratio (assumed at 55%) and the nominal cost of debt.

equals Estimated taxable income.

We then apply the statutory tax rate and the value of imputation credits to the estimated taxable income to determine our estimate of corporate income tax, as shown in Table 12.5.

Table 12.5: Estimate of corporate income tax (\$million nominal)

	2025	2026	2027	2028	2029
Estimated taxable income	17.7	28.4	29.1	30.0	31.0
Tax payable	5.3	8.5	8.7	9.0	9.3
Less value of imputation credits	-2.6	-4.3	-4.4	-4.5	-4.6
Estimate of corporate income tax	2.6	4.3	4.4	4.5	4.6

CONSIDERATIONS FOR OUR STAKEHOLDERS

1. Do you consider our calculations of the cost of tax to be reasonable?
2. Do you have any comments on the methods we have used in our calculations? Do you believe they are reasonable?

13. WORKING CAPITAL

CHAPTER HIGHLIGHTS

1. Working capital has been calculated in accordance with the method in the ERA's AA5 Final Decision tariff model.
2. Parameters used in the calculation have been updated from the ERA's AA5 Final Decision tariff model to reflect current working capital requirements.

13.1 INTRODUCTION

Working capital refers to a stock of funds that ATCO must maintain to pay costs as they fall due, and inventory held to meet service requirements within mandated or reasonable service delivery times. The cost of this working capital (the required return on the capital investment) is incurred during everyday business operations, including the provision of reference services.

The requirement to maintain a stock of funds arises from the timing misalignment (on average) between incurring the costs of providing services and recovering the revenues associated with those services. In addition, a stock of materials is held to allow the efficient and timely provision of services. Therefore, the cost of working capital represents the efficient costs of a business that receives revenue at a different time to when it incurs costs.

13.2 FORECAST WORKING CAPITAL

ATCO has estimated the cost of capital using the '*working capital cycle model*' as previously accepted by the ERA. This cost is calculated as the difference between the implicit cost incurred by providing credit to users of the service and the implicit benefit of receiving credit from suppliers. The working capital cycle comprises three core components: inventory, creditors, and receivables.

Although the method used is the same as AA5, the parameters applied to each component of working capital have been reviewed and amended where necessary.

- **Inventory:** Based on data available for 2022, inventory as a percentage of capex was 2.26%. Inventory requirements have increased relative to AA5 (0.89%) due to the need to ensure security of supply of materials necessary to operate, maintain and expand the network. This is particularly critical for long lead time items sourced overseas.
- **Creditors:** There has been no overall change to creditor days from AA5 to AA6. Creditor days have been reviewed, considering the payment terms relating to labour costs, general creditors, and UAFG payment. The weighted average creditor days is 19; the calculation is shown in Table 13.1.
- **Receivables:** Receivables days consider the days of unbilled haulage. Unbilled haulage reflects the incurred costs to provide reference services for which revenue has not yet been received. Delays in the receipt of revenue are due to several reasons, the primary reason being the 3-monthly billing of B3 services. Receivable days are summarised in Table 13.2.

Table 13.1: Calculation of creditor days

CREDITOR ELEMENT	WEIGHTING	DAYS
Labour	34%	2
Non-labour	63%	27
UAFG	3%	44
AVERAGE CREDITOR DAYS		19

Table 13.2 Calculation of receivables days

RECEIVABLES ELEMENT	DAYS	
Average unbilled revenue days	40	
Average days from meter read to invoice (based on billing twice a month)	7	
Days to issue invoice	1	
Days from invoice to payment (payment terms are 10 business days)	14	
TOTAL RECEIVABLES DAYS		62

13.2.1 WORKING CAPITAL CONTRIBUTIONS

Table 13.3 summarises the working capital parameters.

Table 13.3: Working capital parameters

PARAMETER	AA5	AA6	BASIS OF CALCULATION
Inventory as a % of capex	0.89%	2.26%	Determined from the average inventory level as a percentage of the forecast capex program. This measure does not include work in progress or completed assets not yet added to the RAB.
Creditors	19 days	19 days	Determined from the standard terms of payment to suppliers, labour, and suppliers of unaccounted for gas. The amount relates to total expenditure, including capex.
Receivables	62 days	62 days	Determined from the payment terms of our contracts with retailers.

The opening 2025 working capital value is the closing working capital value in the ERA's AA5 Final Decision tariff model as varied in annual tariff variations.

A return on opening working capital is included in total revenue for each year of the access arrangement period (based on the parameters above) and is shown in Table 13.4.

Table 13.4: Return on working capital

RETURN ON WORKING CAPITAL	2025	2026	2027	2028	2029
Opening working capital (\$million nominal)	23.0	32.6	36.3	38.1	39.5
WACC (% nominal)	7.20%	7.20%	7.20%	7.20%	7.20%
Return on working capital (\$million nominal)	1.7	2.3	2.6	2.7	2.8
Deflator to \$real 2023	1.058	1.085	1.112	1.140	1.169
Return on working capital (\$million real 2023)	1.6	2.2	2.4	2.4	2.4

CONSIDERATIONS FOR OUR STAKEHOLDERS

1. Do you consider our calculations for working capital to be reasonable?
2. Do you have any comments on the methods we have used in our calculations? Do you believe they are fair and reasonable?

14. TOTAL REVENUE

CHAPTER HIGHLIGHTS

1. We applied the building block method on a post-tax basis to determine AA6 total revenue.
2. The building block revenue requirement for AA6 is calculated to be \$1,351 million, which compares to \$840 million for AA5. This increase is largely due to rising inflation and the increased regulated rate of return.

14.1 INTRODUCTION

ATCO has applied the building block method on a post-tax basis to determine AA6 total revenue for the provision of reference services. The building block method is commonly used in regulatory determinations and is required by Rule 76.

'Total revenue' consists of 'building blocks' that are summed to determine the total revenue in each year of AA6. These building blocks include the return on capital, depreciation, opex, and other components such as taxes and incentive mechanisms. This total revenue is recovered through the tariff revenue received for providing reference services on a net present value equivalent basis.

Table 14.1 provides cross-references to the sections of this document that discuss and justify our proposal for each building block.

Table 14.1: Cross-references to building block information in this document

REVENUE BUILDING BLOCK	SECTION OF THIS DOCUMENT
Return <u>on</u> the projected capital base	Sections 10.3 and 11
Return <u>of</u> the projected capital base	Section 10.4.2
Return on working capital	Chapters 11 and 13
Estimated cost of corporate income tax	Chapter 12
Forecast opex	Chapter 8

This Chapter sets out the total revenue for AA6.

14.2 FORECAST BUILDING BLOCK TOTAL REVENUE

The forecast building block total revenue for the provision of reference services over AA6 is \$1,351 million, comprising the building blocks shown annually in Table 14.2. The increase in comparison to AA5 (\$840 million) is largely due to rising inflation and the increased regulated rate of return.

Table 14.2: Total AA6 revenue (\$million nominal)

BUILDING BLOCK	2025	2026	2027	2028	2029	TOTAL
Forecast opex	90.3	95.2	100.2	106.8	107.9	500.3
Return of the projected capital base	24.1	34.3	35.1	35.0	34.1	162.6
<i>Less inflationary gain in return on assets</i>	0.0	0.0	0.0	0.0	0.0	0.0
Return on the projected capital base	119.8	125.9	131.2	136.3	142.2	655.4
Return on working capital	1.7	2.3	2.6	2.7	2.8	12.2
Tax payable	5.3	8.5	8.7	9.0	9.3	40.8
<i>Less value of imputation credits</i>	-2.6	-4.3	-4.4	-4.5	-4.6	-20.4
TOTAL REVENUE (unsmoothed)	238.6	261.9	273.5	285.4	291.6	1,351.0

The total revenue requirement is collected on a net present value equivalent basis through the reference tariffs, per the requirements of Rule 92. Our approach to revenue equalisation through the reference tariffs is described in Chapters 15 and 16.

CONSIDERATIONS FOR OUR STAKEHOLDERS

1. Do you consider our calculations for revenue to be reasonable?
2. Do you have any comments on the methods we have used in our calculations? Do you believe they are fair and reasonable?

PART C | Derivation of Reference Tariffs



ATCO

15. REFERENCE TARIFFS

CHAPTER HIGHLIGHTS

1. Our existing tariff classes will be retained for AA6.
2. Our existing tariff structures (consisting of a fixed charge and a usage charge component) will be retained for AA6 with an adjustment to the B3 tariff class structure. We are proposing to remove the first tariff band for the B3 tariff class that provides for the first 1.825 GJ to be provided at no charge.
3. For the 2025-29 Draft Plan, we propose an initial increase in tariffs for 1 January 2025, followed by a flat price path in real terms over AA6.
4. The distribution charges in AA6 are higher than AA5, mainly because of factors beyond ATCO's control, such as increased funding costs (determined in accordance with the ERA's 2022 Rate of Return Instrument) and higher inflation.

15.1 INTRODUCTION

This Chapter sets out:

- The regulatory framework for tariff setting.
- The objectives ATCO uses, and the reasons for those objectives, when setting tariff structures.
- The process ATCO uses when setting tariff classes, tariff structures, and tariffs.
- The final tariff structure and tariffs proposed by ATCO.

15.2 TARIFF OBJECTIVES

When setting tariff structures and tariffs, our primary objectives are to ensure that market price signals are as economically efficient as possible, to maintain legislative compliance with our regulatory framework, and to reflect the desire of our customers and retailers for stability.

15.3 TARIFF CLASSES & STRUCTURES

15.3.1 TARIFF CLASSES

The reference tariff classes in AA6 will be the same as in AA5, as there are no material changes in the:

- types of haulage services required by customers in each tariff class; or
- types of customers requiring reference services.

Our existing tariff classes are defined by the type of delivery facilities that are provided to certain customer groups. By grouping customers according to the delivery facilities, required tariffs can be constructed to reflect the costs of serving that tariff class and provide suitable price signals. Maintaining the same tariff classes also contributes to the stability required by customers.

15.3.2 TARIFF STRUCTURE: HAULAGE REFERENCE SERVICES

ATCO will maintain the reference tariff structures for AA6 with some amendments to the B3 tariff structure. Maintaining the existing tariff structures avoids potential costly changes to systems (including retailer systems) and processes that may be required should tariff structures change.

15.3.2.1 PROPOSED AMENDMENTS IN AA6

In AA6, we are proposing to remove the first tariff band for the B3 tariff class that provides for the first 1.825 GJ to be provided at no charge. The reasons for this proposed change are:

- To make the gas distribution charge more consistent with retail gas tariff structures.
- To simplify the tariff structure and reduce the likelihood of forecasting error.
- There is no evidence this tariff band has improved the efficient use of the network.
- Removing this tariff band makes no difference to the revenue recovered by B3 tariff charges and therefore reduces the level of other B3 tariff class usage charges required.



In AA6, we are proposing to remove the first tariff band for the B3 tariff class that provides for the first 1.825 GJ to be provided at no charge.

15.3.2.2 AA6 TARIFF STRUCTURE

The current tariff structures include a fixed charge and a usage charge component. This tariff structure design provides efficient price signals to customers regarding their network usage.

- Usage charges reflect costs placed on the network by additional usage. Usage charges decline as usage increases to encourage greater network utilisation. We will continue to have a two-band usage tariff structure that is understood by customers and supported by regulatory precedent in gas distribution networks.
- Fixed charges are set to recover the cost of service not recovered via the usage charges. Using fixed charges recovers this 'residual revenue' and minimises the distortion to price signals.

The A1 tariff structure (typically industrial customers) also includes demand charges. These demand charges reflect the direct effects that these customers can have on network requirements. The A1 tariffs are based on the 'maximum usage of that customer at any point in time', measured as gigajoules per hour (GJ/h) (capacity-based prices). Demand-based prices encourage a smoother usage profile rather than a 'peaky' profile. Smoother profiles lead to lower network costs and higher network utilisation, as network capacity does not have to meet short-term usage peaks.

Table 15.1 shows the proposed tariff structures for each tariff class (noting that we have adopted a single tariff class for each reference service).

Table 15.1: Haulage Services Tariff Structure

TARIFF CLASS	SERVICE ELEMENT	CHARGING PARAMETER
A1	Fixed charge for using the distribution system	Standing Charge (\$/year)
	Fixed charge for the capacity of network utilised (reflecting maximum hourly quantity (MHQ))	Demand Charge (\$/MHQ GJ/km)
	Variable charge based on throughput	Usage Charge (\$/GJ/km)
	Charge to reflect the specific costs associated with the customer for service pipe, regulators, metering, and telemetry	User-specific Charge (\$)
A2	Fixed charge for using the distribution system	Standing Charge (\$/year)
	Variable charge based on throughput	Usage Charge (\$/GJ)
	Charge to reflect the specific costs associated with the customer for service pipe, regulators, metering, and telemetry	User-specific Charge (\$)
B1	Fixed charge for using the distribution system	Standing Charge (\$/year)
	Variable charge based on throughput	Usage Charge (\$/GJ) with two blocks
	Charge to reflect the specific costs associated with the customer for service pipe, regulators, metering, and telemetry	User-specific Charge (\$)
B2	Fixed charge for using the distribution system	Standing Charge (\$/year)
	Variable charge based on throughput	Usage Charge (\$/GJ) with two blocks
B3	Fixed charge for using the distribution system	Standing Charge (\$/year)
	Variable charge based on throughput	Usage Charge (\$/GJ) with two blocks

15.3.3 TARIFF STRUCTURE: ANCILLARY SERVICES

In addition to haulage services, ancillary services are charged at the same rate to all customers within the relevant tariff classes. Rates charged reflect the costs of providing the service.

Table 15.2 shows the proposed tariff structures for ancillary services.

Table 15.2: Ancillary Services Tariff Structure

ANCILLARY SERVICE	CHARGING PARAMETER
Apply meter lock	Published tariff per activity
Remove meter lock	Published tariff per activity
Deregistering a delivery point	Published tariff per activity plus the reasonable cost to ATCO to deregister the delivery point
Disconnect service	Published tariff per activity

ANCILLARY SERVICE	CHARGING PARAMETER
Reconnect service	Published tariff per activity
Special meter read	Published tariff per activity
Cut and cap service pipe at the main (previously 'Demolition')	Published tariff per activity

15.3.4 SETTING REFERENCE TARIFFS

Reference tariffs have been set considering the objectives set out in *Section 15.2*. The tariff-setting process can be summarised as follows:

- Allocate costs to reference services so that tariffs can be set to recover those costs.
- Estimate the long-run marginal cost of providing the reference services so that tariffs can be set to promote efficient network utilisation.
- Set tariff components so the usage charge accounts for the long-run marginal cost and the costs of providing the reference service are recovered.
- Confirm that for each tariff class, the revenue expected to be recovered by the tariff charges lies between an upper bound of the stand-alone cost of providing the reference service and a lower bound of the avoidable cost of providing the reference service.

15.4 AA6 TARIFFS

We understand that affordability is a top priority for our customers, so we strive to keep our distribution charges as low as reasonably possible. This issue was raised throughout our customer engagement. In the current high inflation and interest rate environment, we understand that affordability is more important than ever. We are constantly looking for ways to reduce costs and improve efficiencies in our operations, and we are proud of our performance as one of the most efficient gas distribution businesses in Australia.



... inflation and the regulatory rate of return represent around 95% of the forecast increase. For an average residential (B3) customer, the average distribution charge will increase by \$48 between 2024 and 2025. If this increase is fully passed on by retailers, this represents an increase of 8% on an annual retail gas bill at the gazetted retail price.

Due to the uncertainty with current economic conditions, we have adopted the rate of return published in the ERA's 2022 Rate of Return Instrument (*see Chapter 11 for further details*), rather than predict the risk-free rate for the second half of 2024 (when we expect the ERA to make their Final Decision for AA6). The resulting rate of return has a material impact on our cost of service and distribution charges for AA6, but this may change following future movements in the risk-free rate.

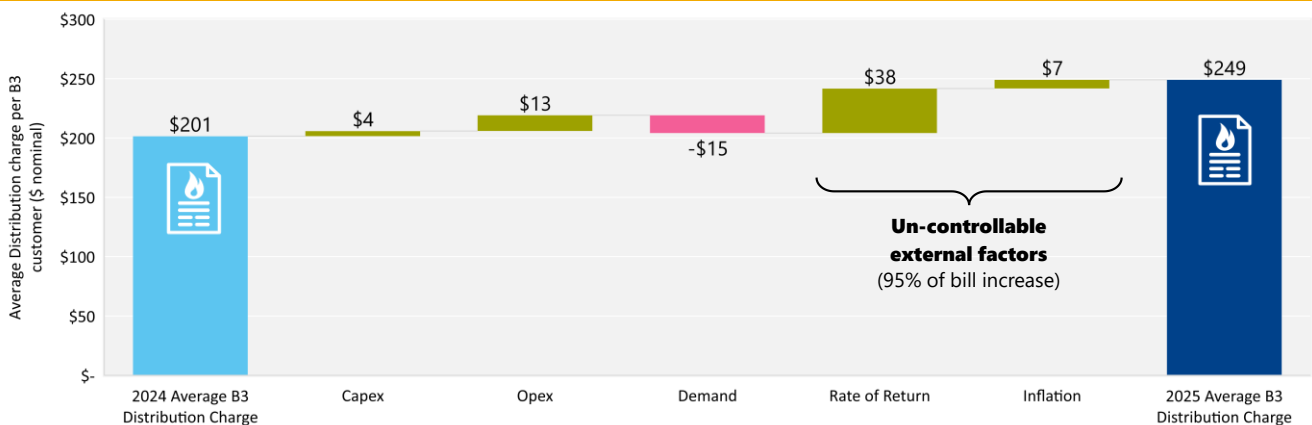
In addition, a high inflationary environment is being experienced, likely driven by strong economic growth and supply chain disruptions caused by the COVID-19 pandemic. This also has had a material impact on our proposed charges for AA6.

For the 2025-29 Draft Plan, we propose an initial increase in tariffs for 1 January 2025, followed by a flat price path in real terms over AA6. We have adopted this approach to minimise the following:

- Tariff variability within the access arrangement period.
- Tariff variability between future access arrangement periods.

The effect of these external factors is that our distribution charges may increase in AA6 by more than we have experienced in previous access arrangements. The low returns environment in the last access arrangement has meant that customers have benefited from lower prices, but now we are potentially seeing network distribution charges returning to historically more typical levels. As illustrated in Figure 15.1, the price effects of inflation and the regulatory rate of return represent 95% of the proposed increase.

Figure 15.1: Effects of inflation and rate of return on the 2025 Average B3 Distribution Charge

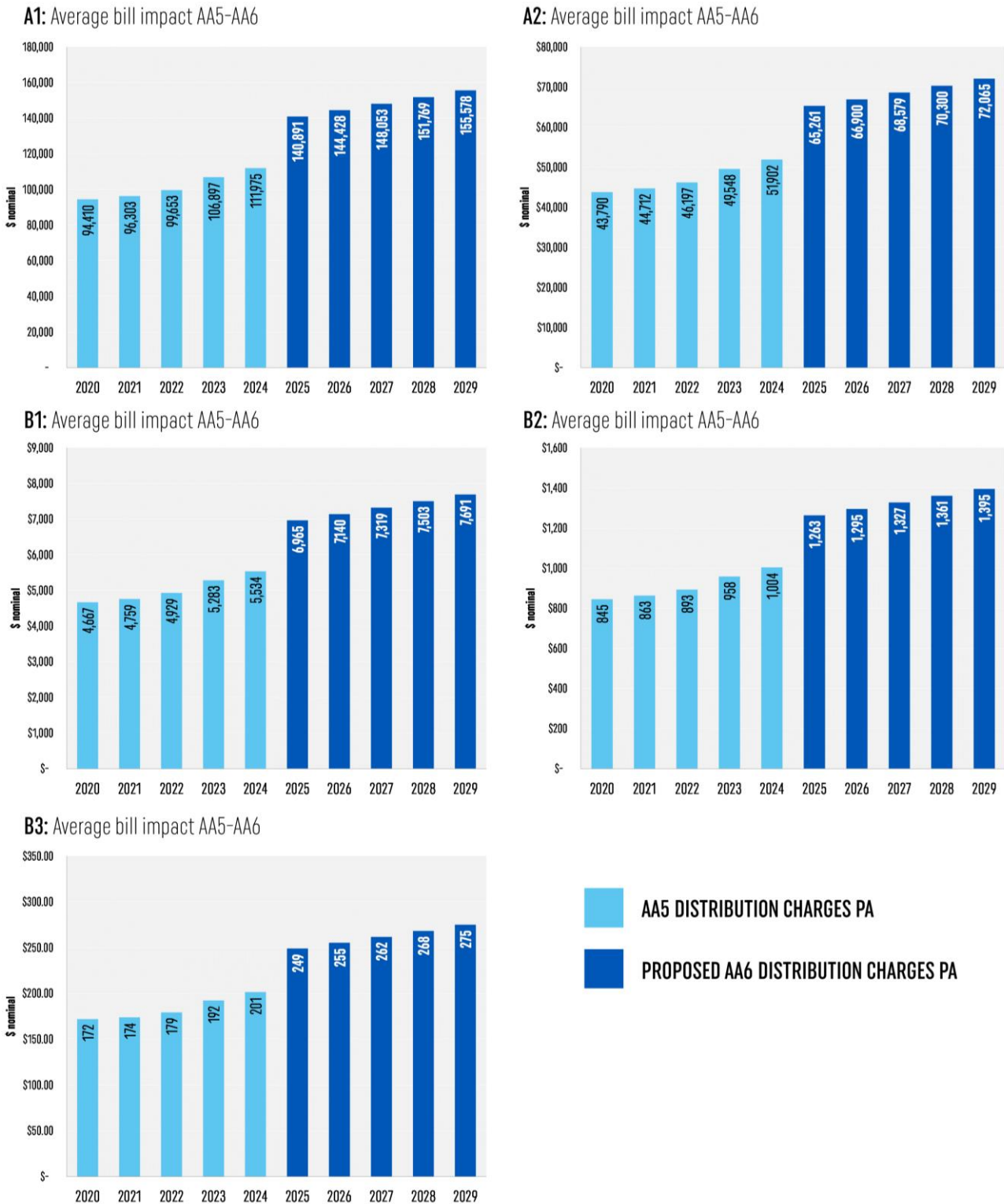


For an average residential (B3) customer, the average distribution charge will increase by \$48 (less than \$1 per week) between 2024 and 2025. If retailers fully pass on this increase, this represents an increase of 8% on an annual retail gas bill at the gazetted retail price.

We are doing what we can, including our ongoing focus on efficiency to manage our costs in AA6. In real terms (i.e., adjusting for inflation), we are proud to say that our AA6 distribution charge for an average residential customer is still below those in AA4 (2014-2019).

Figure 15.2 illustrates the average bill outcomes for each reference tariff class arising from our 2025-29 Draft Plan. On average, the increase in distribution charges over AA6 compared to the AA5 period is largely driven by inflation (over 20% for AA5 alone) and the regulated rate of return.

Figure 15.2: Average customer bill outcomes summary



15.4.1 PRICE PATH

We have adopted a price path that increases tariffs on 1 January 2025 with no further real tariff increase in AA6. This price path provides stability for our customers and aligns our cost with our revenue to provide efficient incentives regarding the use of and investment in the gas distribution network.

As a result, we have given primary weight to smoothing tariffs within AA6 while keeping the final year divergence of smoothed revenue and unsmoothed revenues as low as possible.

In setting this price path, we have balanced the longer-term interests of consumers with the short-term price changes. This has been achieved through the following principles:

- Unsmoothed and smoothed revenue should be equalised in net present value terms.
- Proposed tariffs should reflect their underlying efficient costs.
- Proposed tariffs should minimise tariff variability between each year of AA6.
- Minimise the likelihood of tariff variability at the start of AA7.

A contributor to the initial increase in tariffs is inflation over the AA5 period. Adjusting tariff revenue to the approximate cost of service ensures that efficient price signals are sent to customers and efficient use of and investment in the gas network is made.

CONSIDERATIONS FOR OUR STAKEHOLDERS

1. Do you support the proposed price path, i.e., an initial price step-up followed by price stability?
2. If not, what price path would you advocate consistent with the NGO to support the efficient operation of and investment in the gas distribution network?
3. Do you support deleting the B3 tariff class first tariff band for the first 1.825 GJ at zero charge, such that the first tariff band becomes the first 9.855 GJ at the recalculated usage charge?

16. TARIFF VARIATION MECHANISM

CHAPTER HIGHLIGHTS

1. We propose a weighted average price cap tariff variation mechanism similar to AA5:
 - a) annual adjustment for CPI (weighted average across eight capital cities); and
 - b) an 'X-factor' based on the approved price path and amendments to the ERA's Final Decision tariff model. This will incorporate cost pass through items and annual updates to the debt risk premium.
 - c) The X-factor is applied to all tariff charge elements, including the B3 fixed charge.
2. Cost pass through items are unchanged from AA5.
3. The method of updating the debt risk premium is unchanged from AA5.

16.1 INTRODUCTION

The tariff variation mechanism is the procedure that allows our prices to be changed each year over an access arrangement. Our annual price changes are subject to approval by the ERA.

This Chapter sets out the rationale for our selected tariff variation mechanism. It is important to keep the tariff variation process as simple and transparent as possible to ensure market participants can understand and forecast future tariff changes.

16.2 RATIONALE FOR PROPOSED TARIFF VARIATION MECHANISM

16.2.1 TARIFF VARIATION BY FORMULA

We propose implementing a tariff variation mechanism that constrains the overall average movement in haulage reference service prices from one year to the next (referred to as a *weighted average price cap* or '*tariff basket*').

This form of tariff variation was used during AA5 for all tariff classes excluding the B3 standing charge. Therefore, it is a familiar method of tariff variation for our customers and the ERA. The 'tariff basket' is a common mechanism known for its administrative simplicity and positive incentive effects and is supported by regulators in all Australian jurisdictions.

The tariff variation allows average prices to increase by the annual change in CPI, plus or minus the X-factor varied for debt risk premium updates and cost pass through items. The X-factor will be updated annually as part of the tariff variation process, by amending the approved AA6 Final Decision tariff model for the debt risk premium and any cost pass through items (described in Section 16.2.2). The approved tariff model is then re-run to calculate the updated X-factor for the tariff variation year.

Using a price cap incentivises the business to increase customer connections and usage, generating additional revenue. In future access arrangement periods, customers benefit from costs being spread over more customers and volume.

In comparison, a revenue cap does not provide any incentive to grow the network for the benefit of customers; revenue remains constant regardless of the growth of the network. Therefore, a price cap form of control is preferable to provide the incentive to grow the network in the long-term interests of consumers.

Ancillary reference services described in Table 15.2 will be varied annually by the movement in CPI in the same manner as during AA5.

16.2.2 COST PASS THROUGH

We are not proposing any significant changes to the cost pass through events.

The tariff variation mechanism allows for the cost of 'cost pass through' events to be recovered. Cost pass through events are defined events that:

- incur costs that cannot be, and have not been, reasonably forecast;
- are beyond the control of ATCO; and
- relate to the provision of reference services.

The recovery of costs related to cost pass through events is made by varying the X-factor as described in the previous section. It is proposed that the cost pass through items defined in AA5 are maintained for AA6 except for limited specific security of supply expenditure detailed at Annexure B clause 2.2(b)(ii) of the AA5 Access Arrangement.

In summary, the cost pass through events are:

- HHV and gate point costs related to new gas inflows to the network
- any costs relating to a change in law or tax change
- any costs associated with a tax, fee, law, or emissions trading scheme related to GHG emissions.

CONSIDERATIONS FOR OUR STAKEHOLDERS

1. Do you support the weighted average price cap method of tariff variation to be applied over AA6?
2. Do you agree with the proposed cost pass through events?

PART D | Other



ATCO

17. INCENTIVE MECHANISMS

CHAPTER HIGHLIGHTS

1. We do not have any incentive mechanisms in our current (AA5) access arrangement.
2. ATCO is seeking stakeholder feedback on the form of a Network Innovation Scheme (NIS) and if such a mechanism should be implemented in AA6.
3. ATCO does not believe an efficiency incentive mechanism, such as an opex Efficiency Benefit Sharing Scheme or Capital Expenditure Efficiency Benefit Sharing Scheme, is necessary due to ATCO's top quartile performance.

17.1 INTRODUCTION

Over AA6, we expect the Western Australian energy market will continue to change rapidly. There are currently proposed changes to legislation that will allow hydrogen and other renewable gases to be transported through ATCO's gas distribution network.

The Western Australian Government has also

supported the use of renewable gases through the blending of hydrogen into the gas network in the City of Cockburn.

Through innovation, the gas network has an important role in supporting decarbonisation by offering a lower emissions solution that balances environmental issues, affordability, and energy security. To incentivise investment in innovative technologies, we are seeking feedback on a proposed Network Innovation Scheme (**NIS**) for AA6.

The proposed NIS focuses on both long-term consumer benefits, and short-term benefits through improving operations and the way capital expenditure is deployed. Recent incentive mechanisms through the AER provide increased incentives to pursue these shorter-term benefits by allowing service providers to share in the benefits beyond the access arrangement period in which the efficiencies are implemented.

ATCO does not currently have any incentive mechanisms in AA5.



To incentivise investment in innovative technologies, we are seeking feedback on a proposed Network Innovation Scheme for AA6.

17.1.1 REGULATORY FRAMEWORK

The NGR's Rule 98 details the requirements for incentive mechanisms.

98 Incentive mechanism

(1) A full access arrangement may include (and the AER may require it to include) one or more incentive mechanisms to encourage efficiency in the provision of services by the service provider.

(2) An incentive mechanism may provide for carrying over increments for efficiency gains and decrements for losses of efficiency from one access arrangement period to the next.

(3) An incentive mechanism must be consistent with the revenue and pricing principles.

The aim of Rule 98 is to allow service providers to benefit from taking actions, such as innovation, to improve efficiency for the benefit of consumers via lower gas distribution charges.

17.2 NETWORK INNOVATION SCHEME (NIS)

17.2.1 BACKGROUND AND CONTEXT

ATCO operates in an increasingly diverse, contestable, and competitive energy services market. The competitiveness of this market means that, at a minimum, we need to focus on efficient service delivery and facilitating upstream and downstream competition. Since we are already operating efficiently (*see Section 2.6*), for consumers to benefit further, a scheme beyond the form currently in use in Australia to encourage efficiency is required. This scheme would focus on innovation with longer-term benefits rather than short-term operational efficiency measures.

The NGR allows for an access arrangement to include one or more incentive mechanisms to encourage efficiency in providing services. However, the currently used mechanisms in Australia do not provide adequate incentive to invest in innovative technologies as there is no compensation for research and development risk. In addition, the incentives for a regulated energy business to invest in innovation differ from that of an unregulated business. An unregulated business retains the benefits from innovation regardless of whether those benefits occur now or in the future. A regulated business, in comparison, only retains the benefits until the next access arrangement review and may not receive any benefit at all if benefits occur in future access arrangement periods.

The lack of incentive to invest in innovation is a limitation of the current regulatory framework. It means that either necessary innovations are not pursued, or only lower cost innovations are introduced. With the speed and intensity of our shifting energy environment, this is not in the long-term interests of consumers.

ATCO acknowledges support from the Western Australian Government and ARENA in supporting innovation for the use of hydrogen in the gas distribution network. However, ATCO still funds a proportion of the investment, which under current legislation cannot be recouped from customers, and is re-invested for consumer benefit.

17.2.2 NIS OBJECTIVE

The objective of an NIS is to encourage innovation that would benefit the operation of the network and consumers beyond the current access arrangement period.

The NIS is intended to overcome the lack of incentive to invest in innovation through the standard application of incentive-based regulation. The NIS reflects the NGR Rule 98 requirements and is consistent with the National Gas Objective and the Revenue and Pricing Principles. An NIS should lead

to lower costs and improved services by encouraging long-term research and development activities for the benefit of consumers that might not otherwise occur.

The NIS removes the barriers to innovation so that:

- more cost-effective investments can be made that ultimately deliver price benefits to consumers; and
- innovative solutions to improving the safety, reliability and security of supply can be tested and implemented where benefits are identified.

The need to encourage innovation with benefits for the long term is particularly important given the changes in the energy sector and the emergence of new technologies. Recent gas customer consultation in the eastern states regarding innovation highlighted²⁰:

- Customers view innovation as an enabler to transition to cleaner energy and a more affordable and safe gas supply.
- Larger gas users (commercial and industrial customers) stressed the importance of gas for industrial processes and were keen to understand plans to safeguard this supply.

ATCO's engagement with customers revealed that customers are looking to gas distribution businesses to research and develop innovative energy solutions. Network innovation is consistent with the above customer insights.

While smaller end users in Australia have been shown to support innovation, retailers and regulators have not been supportive of specific innovation funding for gas networks within the regulatory environment²¹. Due to these differing views regarding innovation schemes, we seek feedback from stakeholders regarding the form an NIS might take and if such a scheme should be implemented in AA6 (see 'Considerations for our Stakeholders' at the end of this Chapter).

17.2.3 NIS DESIGN FEATURES AND PRINCIPLES

ATCO has not fully defined the NIS at this time, but any scheme specified would likely incorporate all or many of the elements found in similar schemes. These features typically include:

- **Projects must meet eligibility criteria** to be considered for funding, which at a minimum are:
 - The project must be innovative, however that is defined (see below).
 - The project has the potential to deliver a net benefit to consumers.
 - The project must not lead to unnecessary duplication.
- **A funding model** that is usually based on pre-approval or indicative approval of project funding:
 - Ex-ante funding. An allowance is included in allowed revenue for a regulatory period based on forecast innovation activity, or a pre-set fixed amount with a 'wash up' in the next AA period; or
 - Ex-post funding. Once costs are known, funding is included in allowed revenue, e.g., via a tariff variation mechanism. There may be a cap on annual or AA period expenditure.
- **Proportion of project costs funded.** Effectively risk sharing between end users and service providers or possibly external parties supporting the research.

²⁰ Australian Gas Networks, Five year plan for our Victoria and Albury distribution networks July 2023-June2028, Draft Plan January 2022, pages 52-53

²¹ For example see: Multinet Gas Networks, Five year plan for our Victorian distribution network, Final Plan, July 2022, page 117.

- **A definition of innovation**, for example:
 - Involves research, development, or demonstration.
 - Is based on new or original concepts.
 - Involves technology or techniques that differ from those previously implemented or are focused on customers in a market segment that significantly differs from those previously targeted by the implementation of the relevant technology.
- **Reporting requirements**, including results, activities, and expenditures, for planned, in progress, and completed projects.
- **Knowledge transfer requirements**. Typically, all knowledge gained from a project is public given it is funded by consumers.
- **Intellectual property rights**. The scheme will specify the ownership of intellectual property rights resulting from projects.
- **A governance or guideline document** specifying the above requirements and how the scheme will be implemented.

17.2.4 REGULATORY EXPERIENCE

Generally, regulators rely on their performance monitoring functions and the incentive provided by an incentive-based regime where the service provider can 'outperform' the revenue allowances in regulators' decisions through investment in innovation. However, there are examples of innovation incentive schemes both nationally and internationally.

Ofgem (energy regulator in the UK) provides an innovation funding mechanism. As part of the RII0-2²² network price control for electricity transmission, gas transmission, gas distribution, and the electricity system operator, service providers are awarded a Network Innovation Allowance to fund up to 90% of innovation projects.²³

The AER has also implemented a demand management innovation allowance mechanism for electricity networks. The mechanism's objective is to provide funding for research and development in demand management projects that have the potential to reduce long-term network costs.²⁴

ATCO and AGN have previously proposed innovation incentive schemes, and in both cases have been rejected by the Regulator. The reasons for rejecting the schemes were broadly related to the trade-off of benefits to consumers versus administrative costs being insufficient or unclear.

ATCO believes the objections raised by the ERA can be overcome, as evidenced by other regulators' successful implementation of schemes. For example:

- **Difficulty in assessing efficiency of expenditure as it relates to new technology**. Assessing if the NIS expenditure is efficient is a different matter from understanding if the expenditure will produce benefits. The assessment of efficiency is the same task performed regularly by the regulator. The assessment of benefits is however the responsibility of the innovation project.

²² RII0 stands for 'Revenue = Incentives + Innovation + Outputs; The regulatory framework administered by Ofgem.

²³ Governance document specifying the scheme available at https://www.ofgem.gov.uk/sites/default/files/docs/2021/03/rriio-2_nia_governance_document_final_clean_copy.pdf

²⁴ The AER's Mechanism Guideline and Explanatory Statement are available at <https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/demand-management-incentive-scheme-and-innovation-allowance-mechanism>

- **Benefit sharing is unclear.** Benefit sharing would be specified in a Governance or Guideline document and would normally be limited to a return of investment and return on investment.
- **Risk Sharing.** While it is true that consumers also bear the risk of the innovation expenditure, they also reap the benefits. Additionally, even though individual projects may not produce benefits every time, the overall innovation portfolio will likely produce benefits. Introducing an NIS avoids the need to try to 'pick winners' through the regulatory process.

The regulatory environment has changed since the previous innovation scheme decisions by Australian regulators, particularly regarding legislated emission reduction requirements and the inclusion of zero-emission gases as covered gases. Along with this change, consumer expectations have increased for service providers to maintain or increase the long-term value of networks in their interests, as explained in the following section.

17.2.5 CHANGING OPERATING AND LEGISLATIVE ENVIRONMENT

The regulatory landscape has changed due to new legislation and increased Government action:

- It is anticipated that in 2023, legislation will be introduced to make hydrogen and biogas both 'covered gases' for the NGL in Western Australia. Therefore, expenditure related to hydrogen or biogas supply for example, can now be considered recoverable under the NGL, including via an NIS.
- The Climate Change Act 2022 and corresponding consequential amendments legislation came into effect on 14 September 2022. The Act operates as an 'umbrella' legislation to implement Australia's net zero commitments and codifies Australia's 2030 and 2050 GHG emissions reduction targets under the Paris Agreement. Australia has legislated economy-wide emissions reduction targets of reducing net GHG emissions to 43% below 2005 levels by 2030 and reducing net GHG emissions to zero by 2050.
- The Western Australian Government has initiated several programs to support future hydrogen production and distribution and investigate the future production of electrolyzers to support the conversion of hydrogen to electricity. This includes supporting hydrogen blending trials.
- Additionally, consumer research by eastern states gas distribution service providers has shown support for innovation funding, although retailers are generally opposed. AGN, Multinet, Jemena, and Ausnet conducted extensive consultation before issuing their draft plans for feedback. The results are summarised in AGN's Final Plan.²⁵

17.2.6 POTENTIAL PROJECTS

To clarify the type of expenditure that may be allowed under an NIS, ATCO has evaluated the projects in Table 17.1 for consistency with the broad requirements of an NIS as outlined in Section 17.2.

²⁵ AGN, **AGN FINAL PLAN 2023/24-2027/28, July 2022, page 111.**

Table 17.1: Possible innovation projects – eligibility assessment

INNOVATION GOAL AND PROJECT	DESCRIPTION	✓/✗	PRELIMINARY HIGH-LEVEL ASSESSMENT
Zero-emission readiness: distribution equipment specification and operation	Ensure the suitability of distribution equipment for a system conveying varying proportions of hydrogen.	✓	Project incorporates new, novel, or original concepts and involves technology or techniques that differ from those previously implemented or used in the WA Energy Market.
Zero-emission readiness: measurement of energy delivery	Determine a system for accurately measuring delivered energy in a system with a disparate and dynamic hydrogen-methane blend.	✓	Project incorporates new, novel, or original concepts and involves technology or techniques that differ from those previously implemented or used in the WA Energy Market.
Zero-emission readiness: customer acceptance	Test the workability of introducing zero-emission fuels into the network by testing customers' receptiveness, including identifying technical or social prerequisites for acceptance.	✓	Supports the broader zero-emission readiness goal, which incorporates new, novel, or original concepts and involves technology or techniques that differ from those previously implemented or used in the WA Energy Market.
Long-term efficiency reforms: asset management and maintenance	Reduce costs through speculative investigations into alternative asset management and maintenance approaches.	✓	Project incorporates novel or original concepts and involves technology or techniques that differ from those previously implemented or used in the WA Energy Market.
Long-term efficiency reforms: metering innovation	Reduce costs and improve services with yet-to-be demonstrated metering technologies and service models.	✗	The scale of currently known opportunities is insufficient to justify funding innovation projects.
Long-term efficiency reforms: virtual gas pipeline	Reduce costs by substituting virtual gas pipelines instead of possible network extensions.	✗	These services are supplied using unregulated assets and hence are beyond the scope of the NIS.
Electricity complementarity: promote gas solutions to electricity problems	Increase demand by promoting customer understanding and acceptance of new appliances and solutions at the interface between the gas and electricity markets.	✗	Extends to potentially contestable services supplied using unregulated assets and hence are beyond the scope of the NIS.
Transformative IT opportunities: artificial intelligence	Investigate and trial AI applications to reduce costs and improve productivity.	✓	Project incorporates new, novel, or original concepts and involves technology or techniques that differ from those previously implemented or used in the WA Energy Market.

17.3 OTHER INCENTIVE SCHEMES

ATCO does not have an efficiency incentive scheme for either opex or capex. Despite this, ATCO has consistently ranked among the most efficient gas distribution networks (see Section 2.6).

ATCO has initiated efficiency measures on an ongoing basis as they become available through new technology or through encouraging operations staff to bring forward efficiency ideas. For example:

- Ongoing digitisation of forms and use of mobile applications.
- Transfer of reinstatement activity to ATCO staff at a lower cost than using contractors.
- Combining leak surveys required for different purposes to minimise the length of survey travel.

Based on ATCO's current efficient performance, we propose no further incentive schemes to encourage ATCO to be more efficient. The current price cap and incentive-based regulatory regime, along with commercial imperatives to lower costs and make efficient use of capital, provide sufficient incentive for the efficient operation of the network and investment by ATCO.

CONSIDERATIONS FOR OUR STAKEHOLDERS

1. Do you believe an increase in gas network innovation activity is important to address the future challenges of our energy environment?
2. Do you believe the current regulatory framework has sufficient incentives for innovation? If not, how should the framework be modified? For example, should the NGR be modified to allow for innovation schemes?
3. Should there be a Network Innovation Scheme (NIS) for ATCO in the AA6 period?
4. What would the various design elements include if you believe an NIS is required? For information, some different ways to implement the design elements of an NIS are shown below.

DESIGN ELEMENTS	IMPLEMENTATION OPTIONS
Percentage of expenditure funded	Ofgem in the UK fund up to 90% of innovation expenditure. The AER's Demand Management Innovation Scheme (DMIS) funds 100% of eligible expenditure. The proportion and amount of expenditure funded should be consistent with risk sharing between end users and service providers. Benefits received should be consistent with the risk taken.
Funding amount	Ofgem sets no minimum or maximum amount. Alternatively, an annual or AA period amount can be set based on a fixed dollar amount or on a variable basis, such as a proportion of total allowed revenue or an amount per customer.

Funding method	<p>Funding can be either ex-ante based on a forecast or ex-post when costs are known.</p> <ul style="list-style-type: none"> • Ex-ante funding, where an allowance is included in allowed revenue for a regulatory period based on forecast innovation activity or a pre-set fixed amount with a 'wash up' in the next AA period. • Ex-post funding, where once costs are known, funding is included in allowed revenue, for example, via a tariff variation mechanism.
Eligibility criteria	<p>Common eligibility criteria are:</p> <ol style="list-style-type: none"> 1. facilitate energy system transition or benefit consumers in vulnerable situations 2. potential to deliver a net benefit to consumers 3. involve research, development, or demonstration 4. develop new learning 5. be innovative 6. project payback period 7. do not lead to unnecessary duplication.
Intellectual property (IP) rights	<p>IP rights arrangements allow for the dissemination of knowledge gained. This knowledge includes the knowledge necessary to reproduce or simulate the outcome of a project. It also includes the knowledge necessary to avoid a negative outcome. Where the deployment of IP rights materially reduce the cost, difficulty or time associated with reproducing the outcome of a project, this would also constitute IP rights, which are material to the dissemination of knowledge.</p> <p>The degree to which IP rights are proprietary to the service provider should relate to the risk taken in developing the IP. If customers fund the development, then they should benefit from the IP. IP rights should be made clear in the NIS governance document. For example, it may make a provision for the service provider to licence the technology to Australian service providers free of charge but charge overseas service providers. It could show how those licence fees are shared with end users if they funded the IP.</p>

Reporting obligations

An annual (or alternative period) summary of NIS activity might include the following:

- The progress of NIS activities over the past regulatory year.
- How the NIS activities relate to the Gas Network Innovation Strategy, as those strategies pertain to the energy system transition.
- Collaboration with external project partners over the past regulatory year.
- Demonstrate how the technology, if implemented, will improve services and benefit consumers.
- Successful innovation implementation plans.
- Track record to allow judgement of innovation performance.
- Highlight areas of significant new learning.
- All ongoing or planned projects for future regulatory years.
- Report approval by the senior network manager responsible for innovation projects.

18. FIXED PRINCIPLES

CHAPTER HIGHLIGHTS

1. Two of our fixed principles expire during the AA6 period.
2. We are still considering our position regarding the fixed principles to include in AA6.

18.1 INTRODUCTION

The purpose of fixed principles is to provide certainty that specific principles will not be subject to review in the following access arrangement (or for a period agreed). This gives certainty and reassurance to both customers and ATCO that a particular principle will go unchanged for a pre-determined period.

We are still considering our position regarding the fixed principles to include in AA6. However, it is likely we will extend the fixed principles that support the operation of the cost pass through mechanism into AA6. We are inviting feedback from stakeholders to inform changes ahead of our September 2023 submission.

18.2 EXISTING FIXED PRINCIPLES

The current Access Arrangement includes several fixed principles. The purpose of these fixed principles is to provide for:

1. The inclusion of specific costs in the next access arrangement period for cost pass through events related to:
 - a) Physical Gate Point Costs
 - b) HHV Costs.
2. The carrying forward into the next access arrangement period of cost pass through events incurred after the initial access arrangement proposal is submitted.
3. The specification of the straight-line method of depreciation for each group of assets referred to in part 9 of the Access Arrangement.

18.3 AA6 FIXED PRINCIPLES

We are still considering our position regarding the fixed principles to include in AA6. However, it is likely we will extend the fixed principles that support the operation of the cost pass through mechanism into AA6. For example, where a fixed principle that supports the operation of the cost pass through mechanism expires before the end of the AA6 period, a replacement fixed principle will be included in the access arrangement, such that the operation of the fixed principle will be extended into AA7.

CONSIDERATIONS FOR OUR STAKEHOLDERS

1. Do you support ATCO extending the fixed principles that support the operation of the cost pass through mechanism to beyond 31 December 2029?
2. Are there any fixed principles in ATCO's access arrangement that should be removed?
3. What other new fixed principles or changes should be made to the existing fixed principles to support AA6?

19. TEMPLATE SERVICE AGREEMENT

CHAPTER HIGHLIGHTS

1. We are still considering our position regarding changes to the template service agreement and the introduction of a new standard agreement for our cut and cap service for AA6.

19.1 INTRODUCTION

A template service agreement aims to set the terms and conditions for ATCO to provide reference services. Separately, the reference tariffs are detailed in a schedule to the access arrangement.

To date, ATCO's template service agreement has typically been adopted by retailers seeking access to the GDS. It is a major part of our relationship as it governs the conditions (or terms) of access to our network. ATCO will retain the template service agreement for all reference services other than its new reference service – the cut and cap service pipe at the main. ATCO will introduce a new template agreement for this – the 'cut and cap agreement'.

We are still considering our position regarding the changes to the template service agreement and the new cut and cap agreement. We are inviting feedback from stakeholders to inform changes ahead of our September 2023 submission.

19.2 NEW CUT AND CAP AGREEMENT

Given the re-classification of ATCO's 'cut and cap service pipe at the main' as a reference service, ATCO will introduce a new 'cut and cap agreement' for proposed users of this service. As this new cut and cap service relates to *end-use customers* (i.e., consumers), the template service agreement is not appropriate, as this relates to ATCO's haulage services and is entered into by *retailers*.

While we have not yet finalised the terms necessary for the cut and cap agreement, it is expected to be relatively short form and will somewhat reflect the agreement ATCO currently provides for this service (available online at <https://www.atco.com/en-au/self-service/gas/disconnection-request.html>) with any required amendments to reflect new and revised legislation and regulations.

19.3 CHANGES TO THE TEMPLATE SERVICE AGREEMENT

While we have yet to form a view on the changes necessary to the template service agreement, we do not consider there will be wholesale changes required. We expect some changes will be appropriate to reflect learning from the previous negotiations from AA5 and any required amendments to reflect new and revised legislation and regulations, including proposed amendments to extend the natural gas frameworks to include renewable gases.

CONSIDERATIONS FOR OUR STAKEHOLDERS

1. What other factors should ATCO consider to identify proposed changes to the template service agreement for haulage services?
2. What factors should ATCO consider when drafting the new 'cut and cap agreement'?
3. What practical issues or difficulties have been experienced in engagement with market participants and stakeholders and the operation of the template service agreement during AA5?
4. Are there any specific changes that should be made to the template service agreement to support AA6 objectives?

20. POLICIES & NON-TARIFF COMPONENTS

CHAPTER HIGHLIGHTS

1. We are still considering our position regarding changes to the non-tariff components for AA6 but have proposed some changes.

20.1 INTRODUCTION

This Chapter outlines matters not directly related to the reference tariffs but must form part of our Access Arrangement. These include:

- The application procedure.
- Capacity trading requirements.
- Extension and expansion requirements.
- Changing receipt and delivery points.
- Distribution licence.
- Review submission and revision commencement dates.

We are still considering our position regarding changes to the non-tariff components, and we invite feedback from stakeholders to inform changes ahead of our September 2023 submission.

20.2 APPLICATION PROCEDURE

The application procedure set out in the access arrangement details the process that will be followed when a prospective user wishing to obtain access to a Pipeline Service, submits an application to ATCO. The application procedure is specified in our access arrangement and provides additional clarity on our application of NGR 112.

We have yet to identify any changes to the application procedure for AA6.

20.3 CAPACITY TRADING REQUIREMENTS

The capacity trading requirements provide for the transfer of capacity to a third party. The capacity trading requirements are specified in our access arrangement and the template service agreement.

We have yet to identify any changes to the capacity trading requirements for AA6.

20.4 EXTENSION AND EXPANSION REQUIREMENTS

The extension and expansion requirements aim to specify whether the access arrangement will apply to incremental services to be provided as a result of a particular extension to, or expansion of the capacity of, the pipeline and deal with the effect of the extension or expansion on tariffs. These requirements are specified in the access arrangement.

Our current extension and expansion requirements provide for the following:

- ATCO to apply to the ERA if a HP pipeline extension is to be undertaken to determine how it will be treated under the access arrangement.
- All pipeline extensions designed to operate at 1,900kPa or less to be treated as covered under the access arrangement.
- All expansions to the capacity of the GDS to be treated as covered under the access arrangement.

The current extensions and expansions requirements in the access arrangement include annual reporting of extensions and expansions. This reporting is now included in the annual Regulatory Information Notice provided to the ERA and so it is intended that this reporting requirement be deleted from the access arrangement.

We have yet to identify any other changes to the extension and expansion requirements for AA6.

20.5 CHANGING RECEIPT AND DELIVERY POINTS

The changing receipt and delivery point provisions allow a user to change a receipt or delivery point subject to certain conditions. These provisions are specified in our access arrangement and the template service agreement.

At this time, we have not identified any changes to the changing receipt and delivery points provisions for AA6.

20.6 DISTRIBUTION LICENCE

The current access arrangement contains a provision that where ATCO is obliged to offer to connect a premise to the gas network under a Distribution Licence, ATCO will not impose surcharges or seek capital contributions in respect of Standard Delivery Facilities for those costs that ATCO is obliged to bear under the Distribution Licence.

We propose to delete this provision as the distribution licence states the conditions under which ATCO is obliged to make an offer to connect, including the costs it should bear. Removing this clause should have no practical effect while ensuring no conflict between the Distribution Licence held by ATCO and the Access Arrangement.

20.7 REVIEW SUBMISSION AND REVISION COMMENCEMENT DATES

We propose that the duration of AA6 will be five years.

The review submission date for AA7 will be 1 September 2028. This is consistent with the timing of revisions provided for under our current access arrangement. Our experience is that this review submission date allows sufficient time to consider the proposed revisions.

The revision commencement date for AA7 will be 1 January 2030.

CONSIDERATIONS FOR OUR STAKEHOLDERS

1. What other factors should ATCO consider to identify necessary or desired changes to the non-tariff components detailed above?
2. What practical issues or difficulties have been experienced with the non-tariff components (detailed above) during AA5?
3. Are there any specific changes that should be made to the non-tariff components (detailed above) to support AA6?

APPENDIX A

APPENDIX A



ATCO

A1. CONSIDERATIONS SUMMARY

CHAPTER 3: THE FUTURE ROLE OF GAS

1. We want our stakeholders to consider if the 'no regrets' actions apply to the uncertainty in the future of gas, considering the current legislative framework, investment criteria and technology.
2. We want to consult with our stakeholders to understand their views on the appetite for price change now and the impact that might have on future customers.

CHAPTER 4: CUSTOMER & STAKEHOLDER ENGAGEMENT

1. Did our AA6 Engagement program test the right topics?
2. Are we engaging with the right groups of customers and stakeholders?
3. Was our consultation approach open and transparent?
4. Does the release of this 2025-29 Draft Plan assist in the engagement process?
5. How could we improve future engagement programs?

CHAPTER 6: DEMAND FORECAST

1. Do you believe our new customer connections and demand forecasts are reasonable?
2. Do you believe ATCO's method to forecast customer numbers and average consumption per customer is reasonable and likely to produce the best estimate?
3. Are there any factors you believe may influence future connections and demand over AA6?

CHAPTER 7: KEY PERFORMANCE INDICATORS

1. Do you believe our KPIs align to the expectations of our stakeholders?
2. Have we set our targets correctly?
3. Do the targets ensure we are sufficiently maintaining our current performance?
4. Are there any performance or sustainability measures that you think we have missed?

CHAPTER 8: FORECAST OPERATING EXPENDITURE

1. Do you believe our opex forecasts are reasonable?
2. Is the base-step-trend method of forecasting opex appropriate?
3. Do you support the proposed step changes to our base opex?

CHAPTER 9: FORECAST CAPITAL EXPENDITURE

1. Do you believe our capex forecasts are fair and reasonable?
2. Do you believe the 'bottom-up' forecasting method is appropriate?
3. Do you support the findings from our engagement program on capex program priorities?
4. Do you disagree with any areas of focus for our capex program?

CHAPTER 10: CAPITAL BASE

1. Do you consider our Opening and Projected Capital base calculations fair and reasonable?

CHAPTER 12: GAMMA AND COST OF TAX

1. Do you consider our calculations of the cost of tax to be reasonable?
2. Do you have any comments on the methods we have used in our calculations? Do you believe they are reasonable?

CHAPTER 13: WORKING CAPITAL

1. Do you consider our calculations for working capital to be reasonable?
2. Do you have any comments on the methods we have used in our calculations? Do you believe they are fair and reasonable?

CHAPTER 14: INCENTIVE MECHANISMS

1. Do you believe an increase in gas network innovation activity is important to address the future challenges of our energy environment?
2. Do you believe the current regulatory framework has sufficient incentives for innovation? If not, how should the framework be modified? For example, should the NGR be modified to allow for innovation schemes?
3. Should there be a Network Innovation Scheme (NIS) for ATCO in the AA6 period?
4. What would the various design elements include if you believe an NIS is required? For information, some different ways to implement the design elements of an NIS are shown below.

CHAPTER 15: TOTAL REVENUE

1. Do you consider our calculations for revenue to be reasonable?
2. Do you have any comments on the methods we have used in our calculations? Do you believe they are fair and reasonable?

CHAPTER 16: REFERENCE TARIFFS

1. Do you support the proposed price path, i.e., an initial price step-up followed by price stability?
2. If not, what price path would you advocate consistent with the NGO to support the efficient operation of and investment in the gas distribution network?
3. Do you support deleting the B3 tariff class first tariff band for the first 1.825 GJ at zero charge, such that the first tariff band becomes the first 9.855 GJ at the recalculated usage charge?

CHAPTER 17: TARIFF VARIATION MECHANISM

1. Do you support the weighted average price cap method of tariff variation to be applied over AA6?
2. Do you agree with the proposed cost pass through events?

CHAPTER 18: FIXED PRINCIPLES

1. Do you support ATCO extending the fixed principles that support the operation of the cost pass through mechanism to beyond 31 December 2029?
2. Are there any fixed principles in ATCO's access arrangement that should be removed?
3. What other new fixed principles or changes should be made to the existing fixed principles to support AA6?

CHAPTER 19: TEMPLATE SERVICE AGREEMENT

1. What other factors should ATCO consider to identify proposed changes to the template service agreement for haulage services?
2. What factors should ATCO consider when drafting the new 'cut and cap agreement'?
3. What practical issues or difficulties have been experienced in engagement with market participants and stakeholders and the operation of the template service agreement during the current access arrangement period?
4. Are there any specific changes that should be made to the template service agreement to support AA6 objectives?

CHAPTER 20: POLICIES AND NON-TARIFF COMPONENTS

1. What other factors should ATCO consider to identify necessary or desired changes to the non-tariff components detailed above?
2. What practical issues or difficulties have been experienced with the non-tariff components (detailed above) during the current access arrangement period?
3. Are there any specific changes that should be made to the non-tariff components (detailed above) to support AA6?