



**Australian
Gas Networks**

**Five Year Plan for the
South Australian Natural
Gas Distribution Network
(2016 – 2021)**

Customer Overview

**High service levels
Lower prices
Increased investment**



FOREWORD FROM THE CEO



I am delighted to present our plans for our South Australian natural gas distribution network (the Network) for the five-year period commencing 1 July 2016. We will deliver continuous improvement on our already high service levels, an 11% upfront cut in distribution prices (excluding inflation) and higher investment for the long-term health of the Network. Our plans have been informed by the stakeholder engagement program that we have undertaken.

Australian Gas Networks Limited (AGN) is one of Australia's largest natural gas distribution companies, serving around 1.2 million customers in South Australia, Victoria, Queensland, New South Wales and the Northern Territory.

AGN has delivered for South Australia over the 2011 to 2016 period. We will meet all key safety targets and have made improvements in network reliability. On average, our customers can expect an unplanned natural gas supply interruption of less than one hour every 40 years. We are on track to deliver 100% of our cast iron and steel mains replacement program. This important work has improved customer safety and reliability.

We intend, as a minimum, to maintain our strong safety and service levels over the next (2016 to 2021) period. We are proposing to complete the replacement of all cast iron and old steel gas mains in the Network by 2021 and to replace the oldest plastic mains on the Network. This program is the key driver for ensuring ongoing public safety and Network reliability.

We are very conscious that the cost of living, including utility bills, is a major concern for many people in South Australia. Distribution prices make up around half the average domestic retail gas bill, and so we have a role to play in the affordability challenge. I am therefore pleased that our proposal will deliver lower real (before inflation) distribution prices, on average, in the next period relative to current prices. We will deliver an 11% upfront price cut before inflation, with annual increases thereafter to match our growing asset base. Natural gas is a fuel of choice for our customers and I am pleased that it remains highly cost-effective as a domestic fuel compared to electricity.

Incentives on utility networks for good performance or penalties for poor performance are relatively weak in Australia. We are therefore proposing to strengthen the rewards for improvements in productivity and customer service over the next five years (and the penalties if performance worsens).

Our plans are based on the considerable experience of AGN and our primary contractor, APA Asset Management. They have been tested by qualified expert advisers and informed by our stakeholder engagement program. I would like to take this opportunity to thank the staff of AGN, APA Asset Management and the stakeholders that have informed our proposal.

Overall, we are proposing to continuously improve our strong safety, reliability and customer service levels, cut distribution prices on 1 July 2016 and increase investment. We are confident that our plan for 2016 to 2021 is in the long-term interests of South Australian customers.

A handwritten signature in blue ink that reads "Ben Wilson". The signature is written in a cursive, slightly stylized font.

Ben Wilson
Chief Executive Officer
Australian Gas Networks Limited

INTRODUCTION

Australian Gas Networks Limited (AGN) is one of the largest natural gas distribution businesses in Australia, servicing around 1.2 million domestic, small business and large industrial customers, with operations in South Australia, Victoria, Queensland, New South Wales and the Northern Territory.

FIGURE 1. THE NATURAL SUPPLY CHAIN - GETTING GAS TO CUSTOMERS

Production

The majority of the gas supplied to consumers is sourced from domestic conventional gas fields

Transmission

High pressure pipelines transporting natural gas from the production source to major metropolitan areas.

Distribution

AGN receives natural gas from the transmission pipelines and delivers it to the customer.

Retail

Retailers organise these services and manage your account.

Your Bill

Your gas bill, which is issued by your retailer, is a combination of a fixed and usage charge. It recovers the cost of production, transmission, distribution and retail.

This overview relates to our business plans for our South Australian natural gas distribution network (the Network). AGN owns all the natural gas distribution pipelines in South Australia, providing natural gas distribution services in Adelaide, Mount Gambier, Whyalla, Port Pirie, the Barossa Valley, Murray Bridge and Berri. The origins of the Network date back over 150 years when the South Australian Gas Company was formed in 1861.

Gas distribution plays an important role in ensuring homes and businesses have access to safe and reliable supplies of natural gas. As outlined in Figure 1, our distribution network receives natural gas from transmission pipelines and delivers that gas to the customer's home or business. Retailers are responsible for entering into contracts for the purchase of gas from the producer and for the transport of that gas on the transmission pipelines and the distribution network (owned by AGN).

Like most business, we recover the costs incurred for providing our service through charging customers who use them. The distribution charge (or tariff) is a key part of the natural gas supply chain, accounting for around half of the bill issued by the retailer to the customer.

The AGN team has been working with our stakeholders to develop plans for the South Australian network over the next five years (2016/17 to 2020/21). Over this period, we will:

- deliver an upfront 11% reduction in distribution prices (or tariffs) in real (excluding inflation) terms, with prices lower on average in real terms over the next period compared to current prices;
- at least maintain our current high levels of reliability and customer service, which is consistent with the feedback received during our stakeholder engagement program;
- increase investment in our Network, including to complete the cast iron and unprotected steel mains replacement program and continue with the targeted replacement of our high-density polyethylene network; and
- improve and strengthen the incentives for the business to pursue prudent and efficient expenditure and provide incentives to make ongoing improvements in customer service.

These plans are consistent with stakeholder feedback, which indicated AGN should aim to (at least) maintain safety and reliability, increase transparency, investigate ways we can improve service and promote efficient price outcomes – noting that price is a key concern.



OUR VISION

The AGN Vision Statement sets out the following three key objectives that we consider are consistent with being the leading natural gas distributor in Australia:

- *delivering for customers* – which means ensuring public safety and the provision of high levels of network reliability and customer service;
- *a good employer* – which means ensuring the safety of our employees (including contractors), ensuring employees are motivated to achieve our vision and receive appropriate training; and
- *sustainably cost efficient* – which means undertaking the required scope/volume of work within the benchmarks set by the Australian Energy Regulator (AER) while growing the network in a prudent and efficient manner.

Each year we set targets for all of the key performance indicators outlined in our Vision Statement. We have committed to reporting to our stakeholders annually on our performance.

FIGURE 2. OUR VISION STATEMENT

“Our Vision is to be the leading natural gas distributor in Australia...”

Delivering for Customers

Public safety
Reliability
Customer Service

A Good Employer

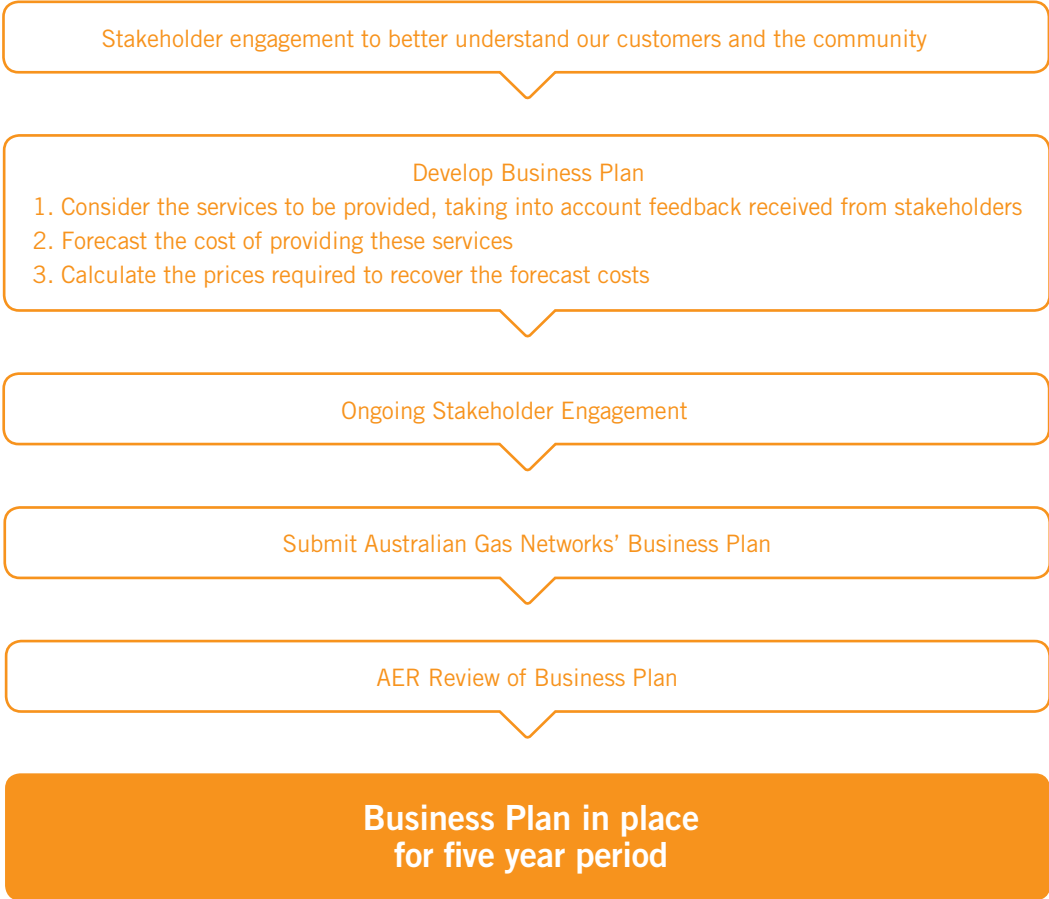
Safety
Employee Engagement
Skills development

Sustainably Cost Efficient

Doing the work within industry benchmarks
Delivering profitable growth

“...achieving top quartile performance on our targets”

AGN aims to be the leading natural gas distributor in Australia (see Figure 2). Our definition of leading is to achieve top-quartile performance compared with other Australian natural gas distributors across all of our key targets.



ACCESS ARRANGEMENT PROPOSAL

Every five years, AGN is required to develop and submit to the AER for its approval, our revised price and non-price terms of access to the Network. This is known as the AGN Access Arrangement Proposal.

The Access Arrangement Proposal consists of the Access Arrangement Information, associated attachments and Access Arrangement Document. The AER reviews our Proposal to make sure we are acting in line with the relevant legal framework and in a manner that promotes the long-term interests of our customers. The AER will either accept our Proposal or specify changes to it. The approved Proposal sets the maximum prices we can charge over the five-year period. AGN can adjust prices annually, consistent with the approved Proposal.

Our Access Arrangement Proposal has been developed having regard to the outcomes of a dedicated stakeholder engagement program and the need to promote the National Gas Objective, which states:

“The objective of this [National Gas] Law is to promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas.”

Our Access Arrangement Proposal has also been subject to a rigorous verification process to ensure it is robust and in the long-term interests of consumers. More specifically, to develop our AA Proposal we have:

- drawn upon our considerable expertise and that of our contractor, APA Asset Management, to ensure that our proposed initiatives comply with all relevant regulatory requirements, including to ensure the safe and reliable supply of natural gas;
- sought independent expert advice wherever possible, including for the technical aspects of our proposal; and
- consulted with relevant industry stakeholders to inform the initiatives set out in our proposal.

This Customer Overview document provides a concise summary of the key components of our Access Arrangement Proposal. The full Access Arrangement Proposal is available to download from the AGN website (www.australiangasnetworks.com.au) and from the AER website (www.aer.gov.au).

WHAT WE WILL DELIVER IN 2011 TO 2016

AGN will achieve the key safety targets set for the business and delivered the major outputs set by the AER for the current (2011/12 to 2015/16) Access Arrangement period. More specifically, AGN will:

- comply with the safety requirements set out in our Leakage Management Procedure, which sets out the process for managing natural gas leaks on the Network;
- provide high levels of supply reliability to consumers, averaging only 15 interruptions affecting five or more customers per annum;
- connect more than 38,000 new customers to the Network, including extending the Network to Tanunda and the McLaren Vale (the McLaren Vale extension is due to be completed in 2015/16);
- achieve industry best practice employee safety levels, with only 1.3 lost time injuries per million hours worked;¹
- deliver the full cast iron and unprotected steel mains replacement program approved by the AER for the current Access Arrangement period (1,072 kilometres);
- commence the targeted replacement of our oldest high density polyethylene network (100 kilometres);
- through mains replacement reduced the volume of natural gas losses on the Network by 34%, thereby improving cost efficiency and public safety; and
- design and implemented a stakeholder engagement program to ensure our business plans are informed by stakeholder values.

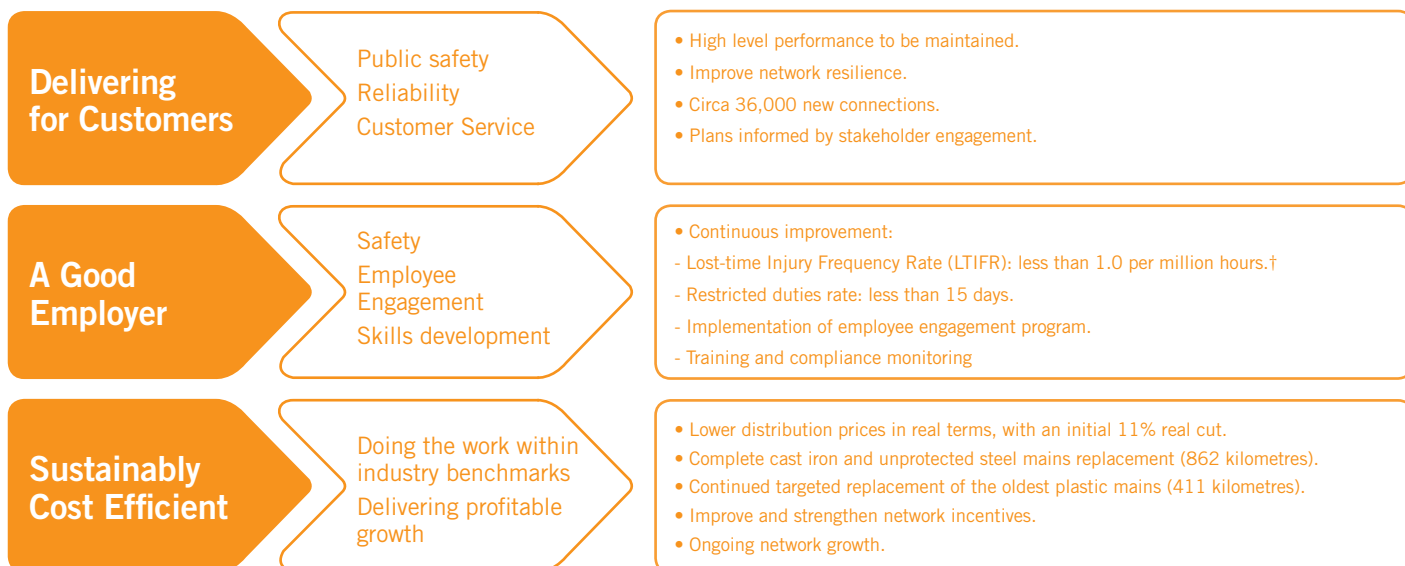
¹ The Lost-time injury Frequency Rate

WHAT WE WILL DELIVER IN 2016 TO 2021

Figure 3 sets out the key deliverables for the next five-year period, which include that AGN will:

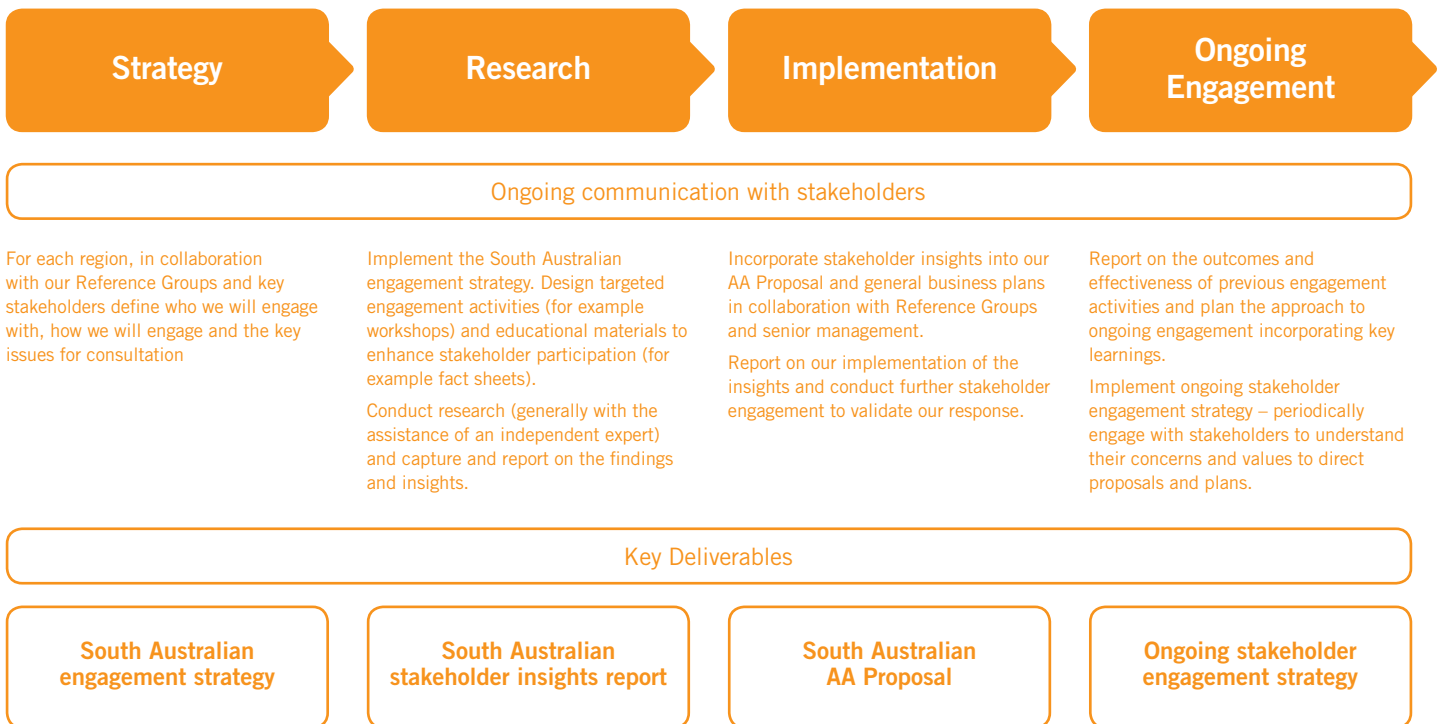
- deliver lower distribution tariffs, on average, in real terms (before inflation) compared to current (2015/16) tariffs;
- at least maintain our current high levels of public safety, customer service and network reliability;
- continue investing in the network, completing the cast iron and unprotected steel mains replacement program and continuing with the targeted replacement of our oldest plastic mains network;
- improve and strengthen the incentives for the business to incur prudent and efficient operating and capital expenditure and to make ongoing improvements in customer service; and
- explore ways that we can improve the security of supply to our customers, including those located in regional areas.

FIGURE 3. WHAT WILL WE DELIVER OVER THE NEXT ACCESS ARRANGEMENT PERIOD 2016/17 TO 2020/21



† LTIFR is the number of lost-time injuries (defined as an occurrence that resulted in a fatality, permanent disability or time lost from one day shift of more) over a year relative to the total number of hours worked (usually per million hours worked) in that year.

FIGURE 4. AGN'S APPROACH TO STAKEHOLDER ENGAGEMENT



ENGAGING WITH OUR STAKEHOLDERS

AGN has developed and implemented a stakeholder engagement program to inform the initiatives set out in our plans. An important aspect was not only ensuring that our approach to engagement was robust, but also ensuring it was fit-for-purpose, having regard to our role in the natural gas supply chain and our impact on customers.

Key to the design and implementation of our stakeholder engagement program was the establishment of the following two external Reference Groups:

- *The AGN Reference Group* – which comprises representatives from a broad cross section of key community stakeholder groups, including representatives from the local government, business, property and welfare sectors.
- *The Retailer Reference Group* – which comprises representatives from those retailers that retail natural gas in the South Australian market.

Our approach to stakeholder engagement comprises four phases (see Figure 4). The key features of each stage of our engagement program include:

- *Strategy Phase* – the development of an overarching Stakeholder Engagement Strategy, our more specific Stakeholder Engagement Strategy for South Australia and our dedicated stakeholder engagement website (which can be accessed at: <http://stakeholders.agnl.com.au>).
- *Research Phase* – holding five community workshops and numerous interviews with key stakeholders, with results distilled into 14 key stakeholder insights captured by Deloitte and published in the Deloitte Stakeholder Insights Report.

- *Implementation Phase* – internal review of the key feedback received during the research phase, culminating in the AGN Insights and Implementation report and this AA Proposal for South Australia.
- *Ongoing Engagement Phase* – a commitment by AGN to continually seek ways to improve our stakeholder engagement program and also to engage with our stakeholders on an ongoing basis.

During the Research Phase, stakeholders indicated that they value our high reliability and want us to keep providing the same (as a minimum) service levels. They were interested in ways that we could improve the network, particularly with respect to network safety, and also wanted us to include them more by increasing transparency and our communication channels. They also raised concern about rising costs in general and wanted AGN to continually strive to achieve efficient price outcomes.

AGN used the themes and insights from our stakeholders to inform, direct and refine our business plans. Importantly, our stakeholder engagement program has not been used to underpin large increases in our proposed capital and/or operating expenditure. This reflects that there are sound asset management and/or commercial drivers underpinning the initiatives included in our AA Proposal. Rather, stakeholder engagement has been used to inform these initiatives, including the scope of a project.

AGN is confident that our business plan reflects the feedback that we received during our stakeholder engagement program



INCENTIVES

AGN is a strong supporter of effective, outcome-based incentive arrangements as a way of improving the price and service outcomes provided to natural gas customers.

Consistent with these incentive arrangements, AGN is proposing that a more comprehensive set of arrangements apply over the next five-year period, including:

- the retention of the AER's operating expenditure incentive scheme (referred to as the efficiency benefit sharing scheme), albeit strengthened to provide an equal sharing of efficiency gains/losses between AGN and consumers;
- the introduction of the AER's capital expenditure (capex) incentive scheme, also modified to allow for an equal sharing of efficiency gains/losses in capex;
- the introduction of an incentive to promote lower cost and/or improved service delivery outcomes through innovation; and
- the development and introduction of a customer service incentive scheme during the next AA period.

AGN considers that these incentive arrangements will increase the scope for the business to drive greater cost reductions while (at least) maintaining, if not improving, the quality, safety, reliability and security of supply for customers of natural gas, and therefore lead to outcomes that better promote the National Gas Objective.

SECURITY OF SUPPLY

AGN is undertaking an extensive review of actions that it can take to improve the security of supply across the Network. This follows a major outage on the non-AGN owned transmission pipeline to Port Pirie on 12 April 2015, which resulted in the loss of natural gas supply to around 10,000 customers in Port Pirie and Whyalla for around one week (Whyalla receives supply from the same transmission line that supplies Port Pirie). The most recent outage in Port Pirie and Whyalla follows a similar outage that occurred around three years earlier in Whyalla.

It is reasonably common across the Network for large numbers of customers to receive natural gas from a single supply point, particularly in regional areas and in the outer suburbs of Adelaide. AGN is currently undertaking a detailed review to assess ways that the security of gas supply can be improved on the Network over the next AA period. AGN will discuss these proposals with relevant stakeholders, including the AER, once they have been further developed.

AGN has included a Cost-Pass-Through mechanism in its South Australian AA Proposal that allows AGN to recover the costs of any security of supply initiative that meets the relevant criteria in the National Gas Rules for the approval of capex, as approved by the AER, during the next AA period.

DEMAND FORECASTS

Forecasts of natural gas consumption and customer numbers (collectively referred to as demand forecasts) are a key input into determining the prices charged to retailers (and hence customers). AGN has only achieved the benchmark residential demand forecasts once in 16 years. AGN estimates that this has led to a \$57 million shortfall in the revenue over the current AA period.

AGN is seeking to be provided with a reasonable opportunity to meet the forecast demand for the next AA period. The forecasts set out in our AA Proposal, which are based on advice from Core Energy Group, are largely based on past trends in gas connections and usage.

EXPENDITURE

AGN is proposing to invest \$353 million in operating expenditure (opex) and \$699 million in capital expenditure (capex) over the next AA period.

All values are expressed in current 2014/15 dollar terms.

In terms of opex, AGN incurred expenditure around 9% below that approved by the AER for the current AA period. This lower opex will be passed on to consumers over the next AA period. Our proposed opex, excluding the impact of rising wholesale gas prices on the cost of purchasing natural gas lost in the Network, is consistent (\$334 million) with that incurred in the current AA period (\$335 million), despite (for example) growing customer numbers and increased input costs.

The main driver of our increased capital investment relates to the delivery of our mains replacement program. Our plan provides for 862 kilometres of cast iron and unprotected steel mains to be replaced over the next five-year period, which would eliminate all cast iron and unprotected steel on our South Australian network. This program is necessary to ensure the ongoing safe and reliable supply of natural gas to our South Australian customers, including by:

- reducing the risks to both public and employee safety and property damage associated with natural gas leakage from the Network;
- increasing network capacity by replacing low-pressure with high-pressure mains (which

facilitates new customer connections and the ongoing shift towards instantaneous natural gas hot water appliances); and

- improving network reliability by reducing the incidence of unplanned outages on the network.

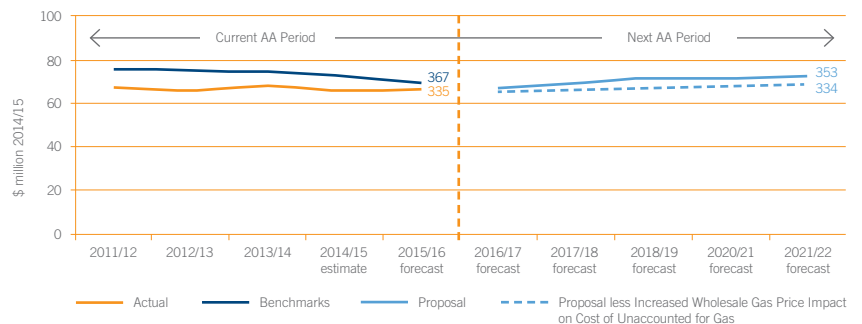
AGN has also commenced and will continue with the replacement of parts of the high-density polyethylene network over the next five-year period. These mains date back to the 1970s.

Other key drivers of our proposed investment include:

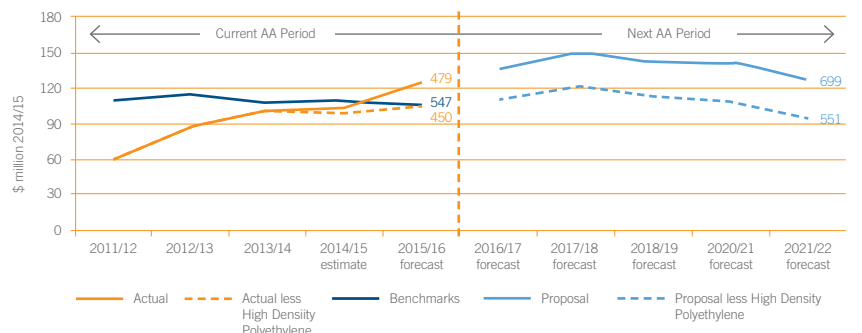
- *growth capex* – which relates to the capex required to connect new consumers to the Network; and
- *Information Technology (IT)* – which allows for the continuation of the national program of work that was initiated in the current AA period to replace outdated and in many cases obsolete state-based IT systems with their enterprise equivalents servicing all five Australian jurisdictions in which AGN operates.

AGN is confident that the expenditure proposed for the next AA period is prudent, efficient and consistent with good industry practice to achieve the lowest sustainable cost of providing natural gas services to the consumers.

GRAPH 1. CURRENT AND NEXT ACCESS ARRANGEMENT PERIOD OPERATING EXPENDITURE



GRAPH 2. CURRENT AND NEXT ACCESS ARRANGEMENT PERIOD CAPITAL EXPENDITURE



FINANCING COSTS

AGN is seeking to receive a fair and reasonable rate of return on the investment it has made on the Network. This is essential in order for AGN to attract the necessary funding from our shareholders and debt providers to continue to invest in the Network over the next AA period. The rate of return on capital is our single largest cost, accounting for around half of the revenue recovered by the business.

AGN is proposing a significant reduction in the rate of return, from 10.28% (nominal, post-tax) applying in the current AA period, to 7.23% proposed for the next AA period. This reduction reflects the easing of financial markets following the global financial crisis. The proposed rate of return has been arrived at having regard to all available and relevant data, estimation methods, financial models and evidence. AGN has also relied upon the advice of independent experts.

In formulating its rate of return, AGN has carefully considered the AER's Rate of Return Guideline and recent determinations for New South Wales, the Australian Capital Territory and Tasmania. However, in order to ensure that AGN can continue to attract the required funds from debt and equity investors and to comply with the National Gas Rules and National Gas Law, AGN's proposed rate of return departs from the Guideline in respect of both the return on equity and return on debt.

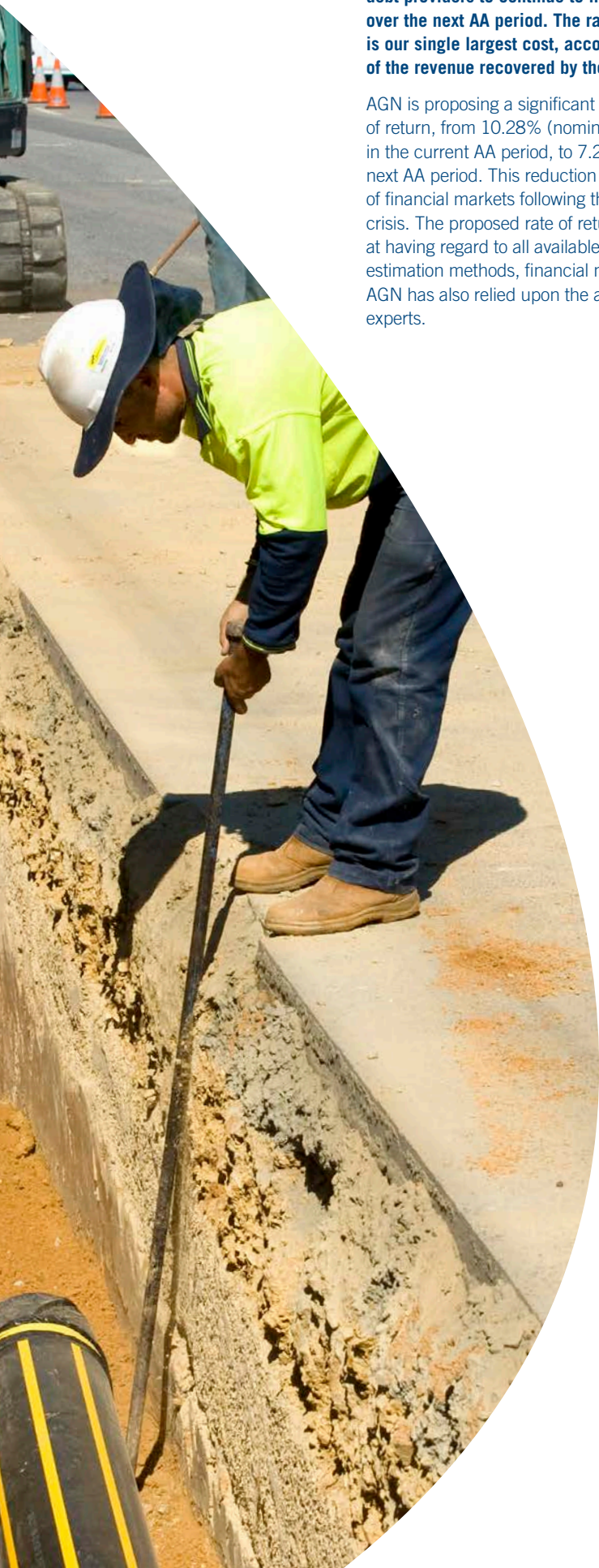
The key difference between the AER and AGN on the return on equity relates to the financial models that are used to inform the estimate. AGN considers that recent changes to the framework for estimating the return on equity were intended to broaden the inputs used to set this parameter. Despite this, the AER has continued to place primary reliance on one particular model to estimate the return on equity whereas AGN places reliance on several models.

In terms of debt, both the AER and AGN agree that a change in the approach to estimating the return on debt is appropriate. This approach seeks to estimate a 10-year average of the return on debt incurred by a benchmark efficient business. The key area of difference is how to transition to this new approach from the previous 'on-the-day' approach, which estimated the cost of debt based on a short-term averaging period. While there are a number of options, the most common are:

- *the AER transition approach* – which implements a 10-year transition to implementing the 10-year trailing average approach;
- *no transition approach* - which implements a 10-year trailing average approach at the start of the regulatory period; and
- *a hybrid transition approach* – which implements the 10-year transition to the base interest rate component but not to the debt risk premium component of the cost of debt.

AGN is proposing the hybrid transition approach on the basis that this is most consistent with our actual debt financing practices. Indeed, better replicating the financing practices of a benchmark efficient business was the key driver in moving to a 10-year trailing average cost of debt. Consistent with this, no transition is required for the debt risk premium given businesses such as AGN currently incur these costs now (reflecting that it is not possible to 'hedge' the debt risk premium).

Our proposed 7.23% rate of return comprises a return on equity of 9.91% and a return on debt of 5.44%.



DISTRIBUTION PRICES

Despite our growing investment and proposal to maintain service and reliability levels, AGN is proposing that the total revenue to be recovered from the Network over the next AA period decreases by around 9% (to \$1,050 million) relative to the benchmark set for the current AA period. This reduction in revenue is primarily driven by the above-mentioned fall in the rate return.

Our revenue is recovered from the distribution prices (or tariffs) charged to retailers for transporting natural gas on the Network. AGN has developed its proposed price path in order to:

- provide for revenue growth that, to the extent possible, matches the growth in the regulatory asset base over the next AA period, which we consider is both sustainable and consistent with maintaining stable credit metrics; and
- to equate revenue with our underlying costs in 2020/21 (the last year of the next AA period) to ensure that there is no one-off adjustment to tariffs (either positive or negative) required from 1 July 2021 to equate tariff revenue with underlying costs.

This approach leads to an upfront price cut on 1 July 2016, followed by price growth (in line with the growth in our regulatory asset base). More specifically, AGN is proposing to reduce tariffs by 11% in real (excluding inflation) terms on 1 July 2016, followed by tariff increases of 5% in real terms in each remaining year of the next AA period. This price path will apply to both residential and business customers.

Overall, our distribution prices will be lower, on average, in real (excluding inflation) terms over the next five-year period, relative to current prices.

FIGURE 5. TYPICAL RETAIL BILL BREAKDOWN

\$1,030

ESTIMATED RETAIL GAS BILL FOR A RESIDENTIAL CUSTOMER USING 17 GIGAJOULES OF GAS PER ANNUM IN 2015/16*

WHOLESALE AND TRANSMISSION COSTS

15%

DISTRIBUTION COSTS

55%

RETAIL AND OTHER COSTS

30%

* Based on Core Energy Group analysis of retail gas prices.

GRAPH 3. ANNUAL REVENUE \$ MILLION 2014/15

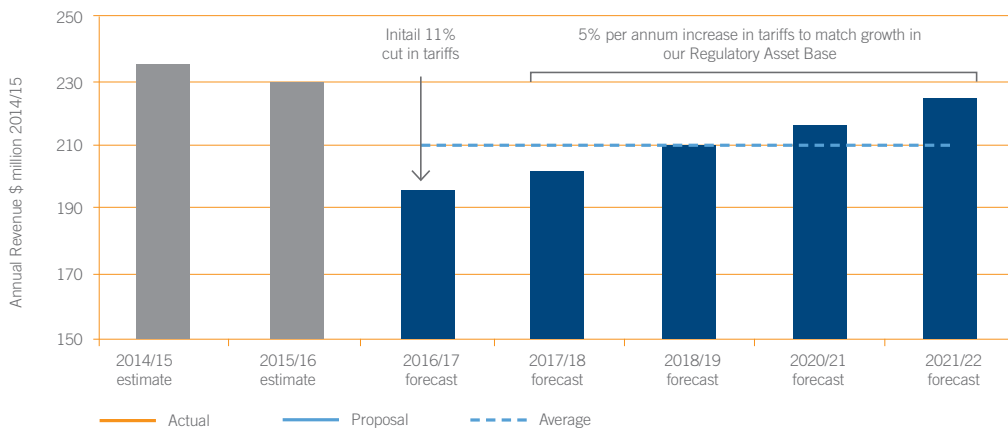
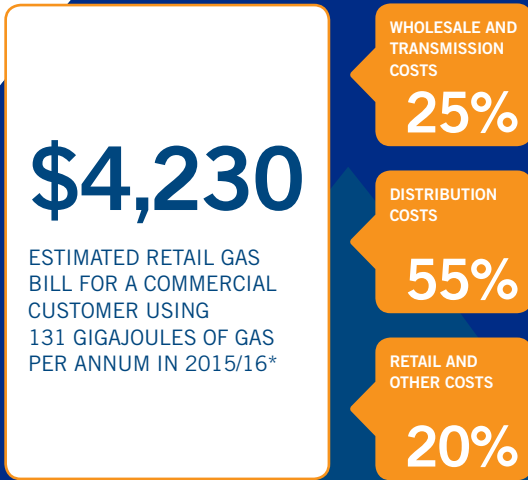


FIGURE 6. TYPICAL COMMERCIAL CUSTOMER BILL BREAKDOWN



* Based on Core Energy Group analysis of retail gas prices.

NEXT STEPS

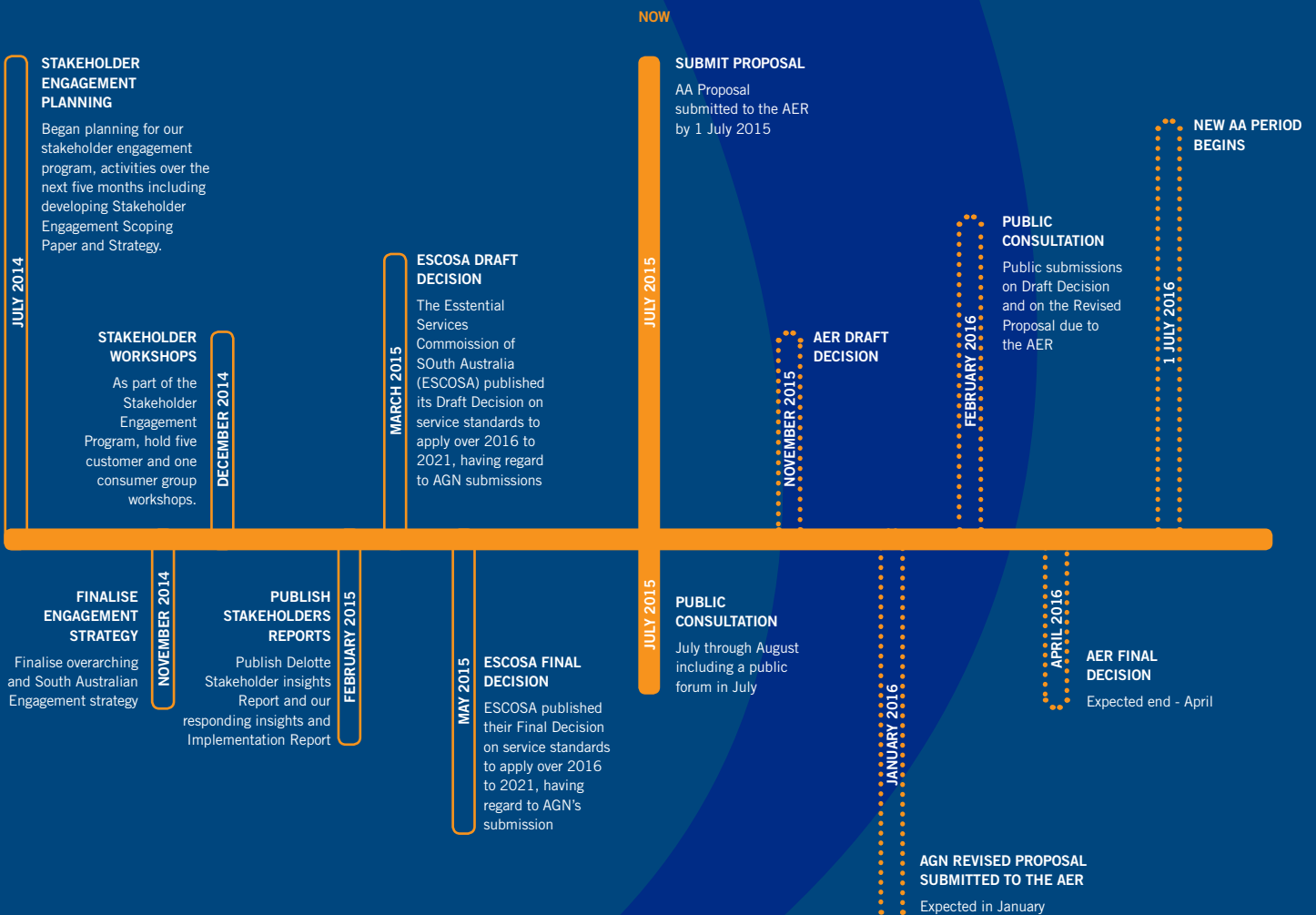
This AA Proposal has been submitted to the AER for its consideration. Stakeholders will have the opportunity to engage with both AGN and the AER leading into the release of the AER's Final Decision, which is expected to be made available to the public in April 2016.

The key dates for the review of our AA Proposal are set out in Figure 4 and include:

- July 2015 – AGN to submit its AA Proposal to the AER;
- November 2015 – AER to release its Draft Decision on our AA Proposal;
- January 2016 – AGN to respond to the AER Draft Decision;
- February 2016 – Stakeholder feedback to the AER Draft Decision and AGN responding submission; and
- April 2016 – AER to release its Final Decision.

AGN is seeking to engage with stakeholder groups on an ongoing basis. Feedback from our stakeholders can also be provided at any point in the future via our dedicated stakeholder website (www.stakeholders.agnl.com.au).

FIGURE 7. HISTORIC AND FUTURE KEY MILESTONES



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**Australian
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