

Final decision

Australian Gas Networks (Victoria & Albury)
Gas distribution access arrangement
1 July 2023 to 30 June 2028

Attachment 5 – Capital expenditure

June 2023

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5 Capital expenditure

Capital expenditure (capex) refers to the capital costs and expenditure incurred in the provision of pipeline services.¹ This investment mostly relates to assets with long lives and these costs are recovered over several access arrangement periods.

In this attachment, we outline our assessment of AGN's capex proposal. Our final decision consists of two parts:

- whether capex spent in the six years before the 2023-28 access arrangement period should be added to the capital base² and
- whether AGN's forecast of capex for the 2023-28 access arrangement period meets the conforming capex criteria in the National Gas Rules (NGR).³

We accepted AGN's capex forecast in our draft decision and the revised proposal accepted our draft decision.

5.1 Final decision

5.1.1 Conforming capex for the 2017 and 2018–22 period, estimate January to June 2023

We approve the actual total net capex for AGN for the years 2017 and 2018–2022 as conforming capex, made up of the following:

- 2017 capex – at the time of our last decision, actual expenditure for 2017 was not known, and an estimate was included in the capital base. We now have actual expenditure for that year and have updated the capital base accordingly⁴
- 2018–22 capex – actual expenditure is available for these years, and we have assessed whether this can be included in the capital base⁵
- 2023 six-month extension period – actual capex is not available currently. We have included an estimate in the capital base. We will update this in the next access arrangement decision, when actual capex is available.⁶ We will assess whether AGN's actual capex for the six-month extension period is conforming capex under the NGR in the subsequent (2028–32) access arrangement review and adjust for any differences between actual and estimated capex.⁷

¹ NGR, r. 69.

² NGR, r. 77 sets out the process for determining the opening capital base.

³ These criteria are set out in NGR, r. 79.

⁴ These criteria are set out in NGR, r. 79.

⁵ We assess whether actual capital expenditure is conforming capital expenditure under the capital expenditure criteria in NGR, r. 79.

⁶ This is consistent with our obligations under NGR, rr. 77(2)(b), 79.

⁷ This is consistent with our obligations under NGR, rr. 77(2)(b), 79.

5.1.2 Reasons for final decision

5.1.2.1 Conforming capex for 2018–22

AGN's actual capex for the current access arrangement is \$630.3 million, compared with the AER's final decision for that period of \$655.1 million. The difference was driven by higher than forecast mains replacement volumes.

We reviewed AGN's submission and supporting material to assess its proposed capex for the 2018–22 access arrangement period. Where capex was higher than accepted in our 2018–22 final decision, we scrutinised AGN's reasons for the overspend. We also had regard to the presence of the CESS, and the incentive this provides to deliver efficient capex.⁸ We used this information to identify whether capex over the 2018–22 period was conforming capex.

While we do review specific projects and the underlying costs, we do not determine which programs or projects AGN should or should not undertake. This is consistent with our incentive-based regulatory framework, which includes the capital expenditure sharing scheme (CESS). Once the forecast is established, there is an incentive for AGN to provide services at the lowest possible cost, because the actual costs of providing services will determine its returns in the short term. If it reduces its costs, the savings are shared with consumers in future regulatory control periods. This incentive-based framework recognises that AGN should have the flexibility to prioritise its capex program given its circumstances in the access arrangement period and due to changes in information and technology over time.

The framework allows regulated businesses to reprioritise capex to achieve prudent and efficient outcomes, such as response to COVID and safety priorities. We accept AGN's acceleration of its mains replacement program. We note the overall overspend is modest.

5.1.3 Conforming capex for the 2023–28 period

We accept AGN's capex forecast of \$433.5 million (\$2022–23) total net capex for the 2023–28 access arrangement period as conforming capex under the NGR.⁹

⁸ The capital expenditure sharing scheme (CESS) provides an incentive for a service provider to realise savings on its capex program by rewarding those service providers that spend less capex than forecast and penalising those that spend more than forecast. Further information can be found in the CESS section at Attachment 13.

⁹ Conforming capital expenditure is defined in NGR, r. 79.

Table 5.1 sets out AGN’s proposed capex by category over the forecast period.

Table 5.1 AGN’s proposed capex by category over the 2023–28 access arrangement period (\$million, 2022–23)

Category	2023-24	2024-25	2025-26	2026-27	2027-28	Total
Mains replacement	6.1	6.2	6.2	5.6	5.5	29.5
Meter replacement	6.9	8.7	8.7	7.7	7.8	39.8
Augmentation	23.1	18.5	0.8	0.5	14.8	57.8
Telemetry	1.1	0.9	0.8	0.9	0.8	4.5
IT	14.7	11.2	11.2	18.1	19.6	74.9
Connection assets	44.1	39.4	33.8	28.0	20.7	165.9
Other distribution assets	7.7	6.1	13.7	6.6	3.0	37.0
Escalation	0.2	0.5	0.8	1.1	1.4	4.0
Capitalised network	4.3	4.1	4.0	3.8	3.9	20.1
TOTAL	108.1	95.6	80.1	72.2	77.5	433.5
Customer contributions	4.3	4.2	4.1	3.9	3.3	19.7
GROSS TOTAL	112.5	99.7	84.1	76.1	80.8	453.2

Source: AER, [AER - AGN 2023-28 - Draft Decision - Capex model - December 2022](#), 9 December 2022¹⁰; AER analysis.

Note: Totals may not sum due to rounding.

5.1.4 Reasons for final decision on 2023–28 period capex

AGN’s revised proposal did not present any changes to our draft decision approved capex for the 2023-28 regulatory period.

In this final decision, we have approved AGN’s total capex of \$433.5 million (\$2023-28) for the reasons set out in our draft decision and having given consideration to the issues raised in submissions to the revised proposal.

We assessed AGN’s forecast capex against our alternative estimate of efficient capex, considering the available evidence, engineering advice from our consultants and submissions from stakeholders.

Overall, we found that most aspects of capex included in AGN’s proposal were likely to be conforming capex. We determined an alternative forecast of \$418.2 million (\$15.3 million or 3.5% less than AGN’s proposal) because we did not accept proposed expenditure on

¹⁰ AGN did not submit a capex model with their revised proposal. In their revised proposal, however, they state they accept our draft decision on capex (AGN, *AGN - Revised final plan - Access Arrangement 2023–28 - January 2023*, January 2023).

hydrogen readiness (\$10 million) and non-conforming elements of information technology (\$5.3 million).¹¹ On balance, our alternative estimate is not materially different from AGN's forecast capex and we accepted AGN's total capex proposal of \$433.5 million as prudent and efficient.¹²

We received only one submission which responded directly to our draft decision on capex and our consideration of those issues in reaching our final decision is discussed in section 5.2.3.

In considering the issues raised in this submission, we note that many capex drivers, including investment to maintain the safety, security and reliability of the network for remaining customers, will be less impacted by demand in the short term. While AGN remains obligated to provide gas services to customers, it must continue to do so to regulated safety and reliability standards. This means that ongoing investment in capex categories such as the completion of AGN's mains replacement program, IT and meter replacement are still required over the 2023–28 access arrangement period. Forecasts of lower customer numbers and reduced throughput on the network will have minimal impact on the scope and costs of these programs in the immediate term.

5.2 AGN's revised proposal

5.2.1 Actual capex in the 2018–22 period

AGN's actual capex for the current access arrangement is \$630.3 million (\$2022-23), compared with the AER's final decision estimate of \$655.1 million (\$2022-23). AGN's mains replacement capex was higher than forecast during the period,¹³ leading to the overspend.

5.2.2 Forecast capex in the 2023–28 period

AGN proposed forecast net capex of \$433.5 million (\$2022–23) for the 2023–28 access arrangement period is \$196.8 million (31%) lower than its actual net capex for the 2018–22 period.

We have assessed AGN's forecast capex against our alternative estimate of efficient capex, considering the available evidence, engineering advice from our consultants and submissions from stakeholders. Our assessment approach and detailed reasoning is set out in our draft decision at attachment 5.¹⁴

The major components of the forecast gross total capex over the 2023–28 period are connection assets (38%) and information technology (17%).

Figure 5.1 compares AGN's past and proposed forecast capex, and the forecasts accepted by us in our 2017–22 decision and this final decision. We received only one submission

¹¹ AER, *AER - AGN 2023-28 - Draft Decision - Attachment 5 - Capital expenditure - December 2022*, December 2022. pp10-17

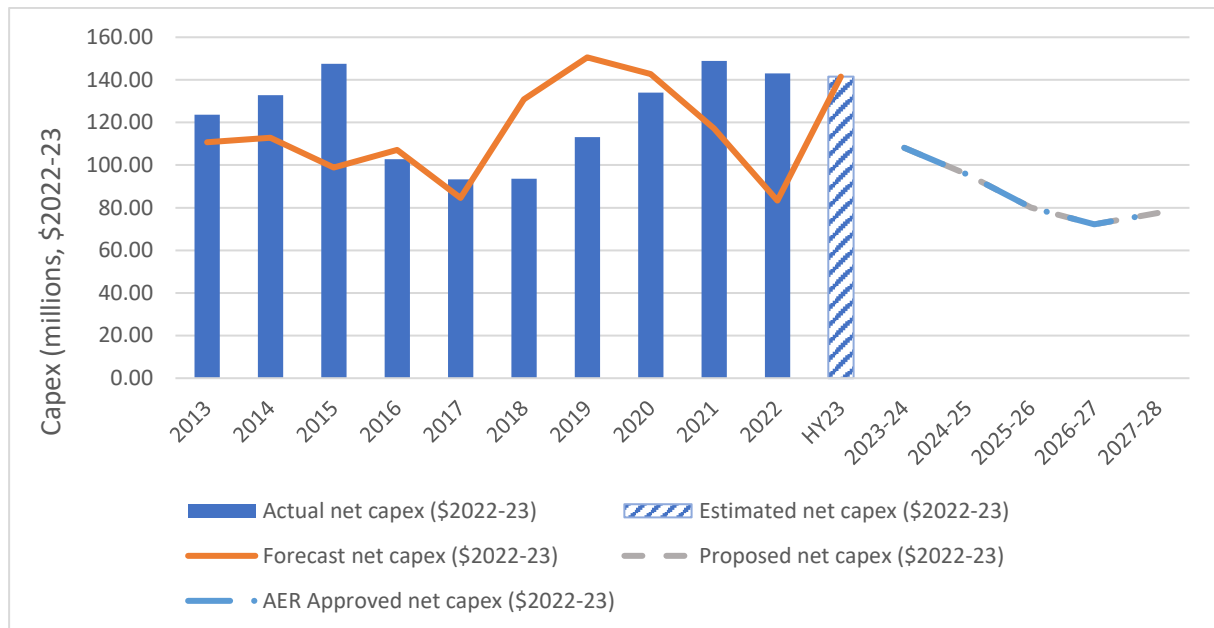
¹² AER, *AER - AGN 2023-28 - Draft Decision - Attachment 5 - Capital expenditure - December 2022*, December 2022.

¹³ AER, *Final Decision AGN Gas access arrangement 2018-22- Overview*, November 2017, p. 91.

¹⁴ AER - *AGN 2023-28 - Draft Decision - Attachment 5 - Capital expenditure - December 2022*, December 2022

which responded directly to our draft decision on capex and our consideration of those issues in reaching our final decision is discussed in section 5.2.3.

Figure 5.1 AER’s final decision compared to AGN’s past and proposed capex (\$million, 2022-23)



Source: AER analysis. AER, *AER Final decision - Envestra (Albury) Post tax revenue model - March 2013*, March 2013;¹⁵ AER, *AER Final decision - Envestra (Victoria) Post tax revenue model - March 2013*, March 2013; AER, *AER - Final Decision Roll Forward Model - Victoria - November 2017*, November 2017; AER, *AER - Final Decision Post Tax Revenue Model - November 2017*, November 2017; AGN, *AGN - Revised final plan - Access Arrangement 2023–28 - Attachment 1.6B - Roll forward model*, January 2023; AGN, *AGN - Revised final plan - Access Arrangement 2023–28 - Attachment 1.5B - Post tax revenue model*, January 2023.

Note: Significant step down in forecast due to AGN mains replacement program nearing completion and revised new connections following Victorian Gas Substitution Roadmap. Further, The 6-month 2023 period (HY2023) has been annualised to make it comparable and consistent with other years.

5.2.3 Submissions on AGN’s revised proposal

Of the eleven submissions to the revised proposal, we received only one submission which responded directly to our draft decision on capex. The submission from Brotherhood of St Laurence (BSL) presented significant treatment of the proposed capital expenditure.¹⁶

5.2.3.1 Brotherhood of St. Laurence submission¹⁷

BSL raised several issues with the capex proposals, including that:

- a) asset replacement programs should be re-evaluated in line with the expected decline in demand

¹⁵ Before the 2018-22 regulatory period, AGN (VIC) was known as Envestra. Envestra served Victoria and Albury as two separate entities.

¹⁶ Brotherhood of St. Laurence, *2023-2028 Victorian Gas Distributors’ Access Arrangement, Draft decision and Revised Proposals*, February 2023.

¹⁷ Brotherhood of St. Laurence, *2023-2028 Victorian Gas Distributors’ Access Arrangement, Draft decision and Revised Proposals*, February 2023.

- b) before new capex is accepted, there should be an evaluation of the stranding risk of that capex and where this will fall in the network, inefficient spending may increase stranding risk
- c) growth and augmentation capex must be fully funded by new customers
- d) alternatives to network capex should be considered such as: non-network solutions; modification of reliability standards; and voluntary community disconnection
- e) the AER did not consider parts of the IT forecast and hydrogen readiness were consistent with the NGR and therefore excluded them from the alternative estimate in its draft decision; any excluded capex should not be included in our forecast of efficient capex and should not be funded

5.2.3.2 AER views on the issues raised by Brotherhood of St. Laurence

Gas networks have traditionally been run as growth assets. The networks feature high fixed costs and low variable costs. Growing the customer base spreads the fixed costs, leading to lower prices for end users. Because of this, the gas framework has been accommodating of, and to a large part, designed around, growth.

However, several factors have changed the outlook of gas, leading to uncertainty around the suitability of a growth-focussed regime in a period of declining demand. In particular:

- Natural gas is predominantly a hydrocarbon, and the consumption of natural gas is at odds with a net-zero carbon target, increasing the likelihood of policies targeted at reducing consumption
- The price of natural gas fuel has increased over time, reducing its attractiveness compared to electric alternatives
- The supply of natural gas from the Gippsland basin, which has underpinned Victoria's gas networks with relatively abundant, cheap gas, is rapidly falling. Victorian gas users are now more dependent on gas from Queensland LNG fields, which are sensitive to changes in the international price and contract volumes, along with gas from the Otway basin and the Iona and Dandenong storage facilities.

We have taken these and other factors into account in assessing the demand and customer number forecasts. These are presented in detail in the demand attachment 12 to our draft decision.¹⁸

We understand that BSL is concerned that the access arrangements put forward do not address the declining demand for gas or a pathway towards decommissioning that involves lower capex over time. We also appreciate BSL's concerns around stranding risk when investing in new assets and the challenges that will arise in how we regulate gas networks in the context of declining demand and increasing uncertainty.

While the factors outlined above are projected to slow demand growth and reduce the number of new gas customers, there is no policy in place in the legislation governing our decision aimed at the decommissioning of the gas network in the short to medium term.

¹⁸ AER – AGN 2023-28 – Draft decision – Attachment 12 – Demand – December 2022,

In deciding whether to approve an access arrangement, we must consider whether the revenue and pricing proposals afford the service provider the opportunity to recover its efficient cost. The access arrangement proposals in this case contain very little growth capex, in line with new energy efficiency policies which disincentivise the installation of gas appliances in new dwellings. The Victorian gas distributors put in revised growth driven capex proposals post the Victorian Gas Substitution Roadmap to reflect the potential impacts on demand.¹⁹ However, a substantial portion of the investment proposed relates to stay-in-business capex, the purpose of which is to allow the service provider to safely operate the network and meet its licence obligations. This means that ongoing investment in capex categories such as the completion of AGN’s mains replacement program, IT and meter replacement are still required over the 2023–28 access arrangement period.

Reliability and safety of supply are paramount factors under the NGR. Transportation of natural gas is subject to stringent safety requirements. Gas is a potentially dangerous fuel if it is released in an uncontrolled manner. Leaking gas pipelines pose an explosive risk and releasing natural gas into the atmosphere is a greater pollution concern than releasing carbon dioxide. The service providers all have agreed safety programs with the jurisdictional safety body, aimed at reducing the risk associated with aging and leaking infrastructure. We have accepted that it is prudent for the service providers to carry out this investment, largely relating to replacing old pipes, to manage risk and safely operate the network. We note that, unless safety standards are loosened, expenditure such as this will be prudent, even in the context of falling demand. In our draft decision we reviewed the cost of these programs and found them to be efficient.²⁰

We and our consultants have assessed the robustness of capex forecasts to make sure consumers are paying no more than necessary. On balance, we consider that growth-related capex has been reduced to the extent the policy framework allows, and that the remaining parts of AGN’s capex relate to stay-in-business capex, which it is reasonably required to spend to meet its licence and other legal obligations.

5.2.3.3 Non-conforming capex for hydrogen and excluded ICT capex

As noted above, we have determined an alternative forecast of \$418.2 million (\$2022–23) (\$15.3 million less than AGN’s proposal) because we do not accept hydrogen readiness and elements of AGN’s information and communication technology (ICT) proposal as being conforming capex for the reasons explained in our draft decision.²¹ In this case, we found that our estimate of forecast capex is not materially different compared to AGN’s proposed forecast.

In response to the concern raised by BSL, we note that under the incentive-based framework, our task is to set an overall capex forecast and it is up to the business how it spends this within the period to provide safe reliable services to its customers.

¹⁹ Victorian Government DELWP – *Gas Substitution Roadmap*, July 2022

²⁰ AER, *AER - AGN 2023-28 - Draft Decision - Attachment 5 - Capital expenditure - December 2022*, December 2022.

²¹ AER - AGN 2023-28 - *Draft Decision - Attachment 5 - Capital expenditure - December 2022*, pp. 13-17

At AGN's next (2028-33) access arrangement review, the actual 2022-27 capex (and estimated 2027-28 capex) will be rolled into the 1 July 2028 capital base if it is assessed as conforming capex (as defined by the criteria in NGR, r. 79). Therefore, any actual/estimated capex incurred by AGN for the 2023-28 period (including any expenditure for non-conforming hydrogen readiness or elements of information technology) would be added to the 1 July 2028 capital base if it meets these criteria.

In undertaking an ex-post review of conforming capex to consider what gets rolled into the capital base at the end of the period we would consider whether there has been a significant overspend overall and what are the drivers for this.

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Glossary

Term	Definition
AA	Access arrangement
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
AGIG	Australian Gas Infrastructure Group
AGN	Australian Gas Networks (Victoria and Albury)
AusNet	AusNet Gas Services
Capex	Capital expenditure
I&C	Industrial and commercial
ICT	Information and communication technology
IT	Information technology
MGN	Multinet Gas Networks
NGL	National Gas Law
NGO	National Gas Objective
NGR	National Gas Rules
opex	Operating expenditure
RFM	Roll forward model
RIN	Regulatory Information Notice
Roadmap	Gas Substitution Roadmap
SCADA	Supervisory Control And Data Acquisition
Zincara	Zincara Pty Ltd