FINAL DECISION
Australian Gas Networks (SA) Access Arrangement

2021 to 2026

Overview

April 2021

AUSTRALIAN ENERGY REGULATOR

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Note

This attachment forms part of the AER's final decision on the access arrangement that will apply to Australian Gas Networks (SA) ('AGN') for the 2021–26 access arrangement period. It should be read with all other parts of the final decision.

In addition to this Overview, our final decision includes the following documents:

Attachment 2 – Capital base

Attachment 3 – Rate of return

Attachment 4 – Regulatory depreciation

Attachment 5 – Capital expenditure

Attachment 6 – Operating expenditure

Attachment 7 – Corporate income tax

Attachment 8 – Efficiency carryover mechanism

Attachment 11 – Non-tariff components

Attachment 12 – Demand

Attachment 13 – Capital expenditure sharing scheme

As many issues were settled at the draft decision stage or required only minor updates, we have not prepared all attachments. For ease of reference, the above attachments have been numbered consistently with the attachments in our draft decision. For those attachments not listed above, our draft decision reasons form the respective part of this final decision.

Our revisions are reflected in the approved access arrangement, *AGN access arrangement 2021–26 – Approved Access Arrangement – April 2021*, which gives effect to this final decision.[1,2]

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1 Under rule 62 of the NGR: (1) after considering the submissions made in response to the access arrangement draft decision within the time allowed in the notice, and any other matters the AER considers relevant, the AER must make an access arrangement final decision; (2) an access arrangement final decision is a decision to approve, or to refuse to approve, an access arrangement proposal; and (3) if the access arrangement proposal has been revised since its original submission, the access arrangement final decision relates to the proposal as revised; and (4) an access arrangement final decision must include a statement of the reasons for the decision.

2 NGR, r. 64(2) provides that the AER's proposal for an access arrangement or revisions is to be formulated with regard to (a) the matters that the Law requires an access arrangement to include, (b) the service provider's access arrangement proposal, and (c) the AER's reasons for refusing to approve that proposal.

Contents

Executive summary

The Australian Energy Regulator (AER) regulates gas transmission and distribution networks in all Australian jurisdictions except Western Australia. As part of this process, regulated gas network businesses must periodically apply to us for a ruling on the network tariffs that in turn influence the expected amount of revenue they will recover from customers for using their network. The National Gas Law and Rules (NGL and NGR) provide the regulatory framework governing gas transmission and distribution networks. Our work under this framework is guided by the National Gas Objective (NGO).[3] We use our insights and expertise to determine how much money the network business can recover.

We have done this for Australian Gas Networks in South Australia (AGN) for the 2021–26 access arrangement period, which runs from 1 July 2021 to 30 June 2026 (2021–26 period).

AGN is part of the Australian Gas Infrastructure Group (AGIG), one of the largest gas infrastructure businesses in Australia. AGN provides natural gas to over 450,000 homes and businesses across South Australia.

AGN can recover $1122.2 million ($nominal, smoothed) from its consumers for the 2021–26 period. The revenue allowed in our final decision is $4.6 million (or 0.4 per cent) more than the $1117.5 million ($nominal) proposed by AGN in its revised proposal.

The revenue we allow forms the distribution network component of retail gas bills. AGN's share of the gas bill for a typical residential customer in its distribution network area is around 54 per cent.[4] Other key components of the gas bill include wholesale, transmission and retail costs.

While the AER does not set retail gas prices, we estimate that average annual bills for residential customers in AGN's distribution network would increase by $22 by the end of the 2021–26 period (as at 30 June 2026) as a result of higher distribution network charges.[5] Average annual bills for small business customers would increase by around $221 over the same period.

On an annual basis the average bills for AGN's consumers in the first year of the 2021–26 period (as at 30 June 2022) would decrease by $35 (3.7 per cent) for residential consumers and $348 (3.5 per cent) for small business consumers. Thereafter, bills would increase by an average of $14 (1.6 per cent) and $142 (1.4 per cent) per year over the remaining four years of the 2021–26 period (as at 30 June) for residential consumers and small business consumers, respectively.

3 NGL, s. 23.

4 AGN, *Final Plan 2021–26, RIN, Attachment 14 – Workbook 4, Indicative bill impact,* 1 July 2020.

5 Compared to the current level, as at 30 June 2021.

We have seen an increase in estimated bills for AGN consumers over the 2021–26 period compared to our draft decision. This is the result of an increase in accelerated depreciation for replaced mains and inlets[6] and our final decision on forecast inflation and rate of return. AGN's proposed forecast inflation and rate of return inputs were placeholders. We have updated these values in the final decision in accordance with the 2020 inflation review and the 2018 Rate of Return Instrument, respectively.[7]

We have had regard to a range of sources in making this final decision, including AGN's revised proposal, submissions received, as well as additional analysis undertaken and published by us.

We consider that AGN is performing well and continues to deliver a high level of safety and reliability for its South Australian gas network. Our final decision recognises AGN's continued role in connecting customers to its network, investing in mains replacement and seeking to innovate with customer engagement and support.

AGN has put forward a well-informed proposal, underpinned by extensive consumer engagement. In making our draft decision we found that there remained a few areas of contention. We are pleased to see AGN's January 2021 revised proposal responded to our draft decision, updating its position and reconciling a majority of our remaining concerns.

Our final decision approves $512.3 million ($2020–21) in total net capital expenditure (capex) for the 2021–26 period.

A key area of difference in our draft decision was the capex plan for AGN's mains replacement program. This also had an impact on AGN's accelerated depreciation for the replaced mains and inlets. While we accepted AGN's proposed approach to accelerate the depreciation of replaced assets that are no longer in service in our draft decision, this was reduced to reflect our assessment of the mains replacement capex. At the time of making our draft decision we did not have sufficient information on the mains replacement, nor the support of the South Australian Office of the Technical Regulator (OTR) to be satisfied that the full extent of the proposed mains replacement program was necessary.

Following the draft decision we were provided with additional information in support of the revised mains replacement capex. Having reviewed the additional information, including further assessment by our engineering consultants, and taking into account the views expressed by the OTR and reflected in a submission from the South Australian Minister for Energy and Mining, we have accepted AGN's revised mains replacement program for the 2021–26 period.

6 This is further discussed below in section 4.3.1 - Accelerated depreciation of replaced assets.

7 In applying the 2018 Rate of Return Instrument, the return on equity has increased by 0.80 percentage points from 4.57 per cent to 5.37 per cent and the rate of return is now 4.96 per cent compared 4.63 per cent in our draft decision. See section 4.2, table 6 below. Also refer to Attachment 3 of the final decision.

Our final decision also approves AGN's proposed $355.6 million ($2020–21) in total operating expenditure (opex) for the 2021–26 period. We consider that AGN's proposed opex is not materially different to our alternative forecast of opex for the 2021–26 period.[8] This opex forecast includes AGN's new initiatives to:

- undertake a Vulnerable Customer Assistance Program (VCAP) during the 2021–26 period. This initiative continued to receive strong customer support following our draft decision.[9] We consider that AGN's revised proposal has provided sufficient information which clearly demonstrates the VCAP provides no duplication of other existing programs. AGN has also further demonstrated that the VCAP initiatives would deliver a higher quality of service to its customers
- obtain 20 per cent of unaccounted for gas (UAFG) from biogas, a renewable source. Given the strong customer support for this initiative[10] and AGN having demonstrated that the forecast is reasonable, we consider the cost of biogas should be incorporated into the UAFG forecast for the 2021–26 period.

Overall, we are satisfied that our final decision on AGN's 2021–26 access arrangement proposal is likely to be in the long term interests of consumers.

The key themes of the final decision are:

- ensuring consumers pay no more than they need for safe and reliable gas services
- AGN's continued high-quality consumer engagement
- potential future investment uncertainty faced by AGN.

Ensuring consumers pay no more than they need for safe and reliable gas services

Ensuring consumers pay no more than they need for safe and reliable gas services that they want is a cornerstone of the access arrangement decision process. This involves us assessing whether a business' proposal is a reasonable and realistic forecast of how much money it needs for the safe and reliable operation of the network. To do this, we have used a range of materials, including AGN's revised proposal, stakeholders' submissions and our own analysis. Additionally, we have engaged directly with AGN representatives to discuss and seek further information on aspects of its revised proposal.

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8 Our alternative estimate of $351.4 million is $4.2 million ($2020–21) or 1.2 per cent lower than AGN's proposed total opex forecast.

9 AGN, *Revised Final Plan 2021–26, Attachment 7.10 - Response to Draft Decision on Opex,* 13 January 2021, p. 3; EWOSA, *Submission to AER on AGN's Revised Proposal and AER's Draft Decision 2021–26*, 21 January 2021, pp. 2–3; SAFRRA, *Submission to AER on AGN's Revised Proposal and AER's Draft Decision 2021–26*, 17 February 2021, p. 2; SAFCA, *Submission to AER on AGN's Revised Proposal and AER's Draft Decision 2021–26,* 3 March 2021, p. 2.

10 SACOSS, *Submission to AER on AGN's Revised Proposal and AER's Draft Decision 2021–26*, 16 February 2021; SAFRRA, *Submission to AER on AGN's Revised Proposal and AER's Draft Decision 2021–26*, 17 February 2021.

Energy affordability remains a key concern for AGN's customers,[11] as well as a safe and reliable gas service and a sustainable network through innovation and planning for the future.[12] In response to these concerns, AGN has submitted a proposal to us that continues to put downward pressure on gas network charges and customers' bills in the 2021–26 period. AGN will deliver a larger bill reduction for consumers in the first year of the 2021–26 period, followed by modest increases in the subsequent years.

AGN's continued high-quality consumer engagement

AGN's consumer engagement efforts have been excellent. In developing its 2021–26 revised proposal, AGN has demonstrated meaningful and genuine engagement with its customers. AGN's stakeholder engagement was facilitated through regular South Australian Reference Group (SARG) meetings and Retailer Reference Group Meetings (RRG), ongoing meetings with CCP24 and Energy Consumers Australia, a Vulnerable Customer Assistance Program Stakeholder Workshop, as well as stakeholder interviews and a stakeholder workshop.

AGN's consumer engagement efforts were recognised in the stakeholder submissions we received. CCP24 submitted:

> …we are satisfied that AGN has undertaken the engagement that was necessary and they maintain solid ongoing working relationships with the consumer groups, community organisations and other stakeholders with whom they work.[13]

Red Energy/Lumo Energy said:

> AGN's consumer engagement in the preparation of its 2021–26 proposal has been comprehensive, with strong retailer and consumer engagement generally delivering better outcomes for consumers.[14]

And Business SA commented:

> Business SA would like to acknowledge AGN's strong consultative approach throughout the determination process to date. We have consistently felt informed about the direction AGIG is going and while we maintain that business customers' ultimate drivers don't always align with those of regulated monopoly

11 AGN, *Final Plan 2021–26, Attachment 5.1 – Stage 1 Engagement Report*, 1 July 2020, p. 19; SAFRRA, *Submission to AER on AGN's Revised Proposal and AER's Draft Decision 2021–26*, 17 February 2021, p. 2.

12 AGN, *Final Plan, Attachment 5.3 – KPMG Final Report, AGN Customer Engagement Program*, 1 July 2020, p. 13; SACOSS, *Submission to AER on AGN's Revised Proposal and AER's Draft Decision 2021–26*, 16 February 2021, pp. 5–6.

13 CCP24, *Advice to Australian Energy Regulator on Australian Gas Networks Revised Final Plan for AGN Gas Networks (South Australia) Access Arrangement 2021–26*, 17 February 2021, p. 6.

14 Red Energy and Lumo Energy, *Submission to AER on AGN's Draft Decision Gas Access Arrangement*, 19 February 2021, p. 1.

> utilities, we have confidence that AGIG is striving to deliver a competitively priced service.[15]

Based on the submissions received and our interactions with, and observations of, AGN during this review, we are confident that AGN is committed to putting customers at the centre of its business.

AGN's consumer engagement program has been recognised by the wider industry. In October 2020, AGN was awarded the Energy Network Consumer Engagement Award[16] in recognition of its leadership and innovation in consumer engagement.

Section 1.4 details further consideration of AGN's consumer engagement program.

Potential future investment uncertainty faced by AGN

The future of natural gas is a live issue, particularly as renewable energy becomes cheaper and is increasingly becoming the choice of consumers. Whilst South Australian customers are still demanding gas and AGN continues to connect customers[17] and support its network operations, gas networks across Australia are facing an evolving landscape with the growing support for reducing carbon emissions by moving away from natural gas use for homes and businesses. This is occurring at varying speeds in different regions driven primarily by state government policy. This issue of uncertainty was considered by the CCP24,[18] acknowledging:

> AGN, along with other gas distribution network businesses, faces fundamental questions about the future of the gas network, driven by jurisdictional governments moving towards net zero emissions policies in a timeframe considerably less than the asset lives of a significant part of the businesses' asset base.[19]

AGN's proposal recognised the need to innovate and consider alternatives to natural gas to sustain investments over time. AGN is responding to uncertainties regarding the future of natural gas by conducting research into renewable gases. However, given the uncertainty surrounding natural gas and the future viability of alternative fuels, AGN is not making fundamental changes, such as a move to accelerated depreciation[20] in the

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15 Business SA, *Submission in response to the AER's draft decision*, 23 February 2021, p. 2.

16 Energy Networks Australia (ENA) in partnership with Energy Consumers Australia (ECA) run the award, which recognises an Australian energy network business that demonstrates outstanding leadership in consumer engagement. https://energyconsumersaustralia.com.au/news/consumer-engagement-award-winner-announced

17 Despite the increase in customer numbers, the average total consumption over the 2021−26 period is forecast to continue the declining trend of the current period.

18 CCP24, *Advice to Australian Energy Regulator on Australian Gas Networks Final Plan for AGN Gas Networks (South Australia) Access Arrangement 2021–26,* 10 August 2020.

19 CCP24, *Advice to Australian Energy Regulator on Australian Gas Networks Final Plan for AGN Gas Networks (South Australia) Access Arrangement 2021–26*, 10 August 2020, p. 3.

20 Accelerated depreciation is one response to the challenge of gas supply in an emissions constrained environment. Accelerated depreciation seeks to recoup the cost of future investments from its customers over a shorter period of time. Accelerated depreciation is usually adopted when assets are not being utilised.

next period. AGN's customers are interested in the future of gas, future energy mixes and the potential for renewable gas and have shown support for AGN's approach.[21] This is in contrast to other gas networks, for example the ACT's Evoenergy gas network, where there is a stronger mandate to reduce reliance on natural gas and hence a more pressing need to consider changes in the next period.[22]

We consider AGN has taken a sound approach to the uncertainties on its network. This is consistent with what we have heard from stakeholders, including CCP24 and Origin Energy, who support AGN's decision not to seek accelerated depreciation for the 2021–26 period and would like to see further stakeholder engagement on the future use of gas networks.[23]

To this end, and in recognition of the importance of the gas market and our role in determining network access arrangements, we have elevated consideration of future gas market issues in our strategic priorities list and will advance this discussion with consumers, industry, market bodies and government stakeholders this year.

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21 AGN, *Final Plan, Attachment 5.1 – Stage 1 Engagement Report,* 1 July 2020, p. 5; SAFRRA, *Submission to AER on AGN's Revised Proposal and AER's Draft Decision 2021–26*, 17 February 2021, p. 3.

22 AER, *Draft decision, Evoenergy 2016–21 access arrangement*, Overview, November 2020, pp. 9–11.

23 CCP24*, Advice to Australian Energy Regulator on Australian Gas Networks Revised Final Plan for AGN Gas Networks (South Australia) Access Arrangement 2021–26*, 17 February 2021, p. 5 and CCP24, *Advice to Australian Energy Regulator on Australian Gas Networks Final Plan for AGN Gas Networks (South Australia) Access Arrangement 2021–26*, 10 August 2020, p. 11; Also see CCP24, *Advice to the Australian Energy Regulator on Australian Gas Networks South Australia Draft Plan for Access Arrangement 2021–26*, 5 June 2020, pp. 31–50; Origin Energy, *Response to AER draft decision and revised access arrangement proposal for AGN (SA) 2021–26*, 17 February 2021, p. 2.

1 Our final decision

Our final decision allows AGN to recover $1122.2 million ($nominal, smoothed) from its customers from 1 July 2021 to 30 June 2026.

AGN is regulated using a price cap.[24] Incentives are provided to it to reduce costs, improve service quality and undertake efficient investments.

Gas pipelines that are subject to full regulation, like AGN's, are regulated by us under an approved access arrangement.[25] An access arrangement specifies certain pipeline services (reference services) and the price and non-price terms and conditions on which those reference services will be offered over a five-year period.

To approve an access arrangement, we make regulatory decisions on the revenue that pipeline operators, such as AGN, can recover from users of its reference services.

For this final decision, our assessment is based on the access arrangement revised proposal that AGN submitted to us on 13 January 2021.[26] AGN's revised proposal responded to our draft decision[27] and set out its view of expected costs, demand and required revenues for the 2021–26 period.

1.1 How our final decision would affect gas bills

The gas distribution network tariffs set by reference to this final decision are one contributor to the total retail gas bills that customers pay. Key contributors to total retail gas bills are:

- the cost of purchasing gas (the wholesale energy cost)
- the cost of the pipelines used to transport the gas (the transmission and distribution networks), and other infrastructure such as metering costs
- the retailer's costs and profit margin.

Each of these costs contributes to the retail prices charged to gas customers by their chosen gas retailer.

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24 This is a weighted average price cap (WAPC) tariff basket form of price control. This approach is consistent with other gas distributors and AGN's current period access arrangement. See attachment 10 of our draft decision for more information.

25 The NGL provides for different types of regulation to apply to gas pipelines, based on competition and significance criteria. A 'full regulation' pipeline must periodically submit an access arrangement to the AER, setting out pricing for a reference service sought by a significant part of the market. 'Light regulation' pipelines are not subject to upfront price regulation. The light regulation model is a negotiate-arbitrate approach, placing greater emphasis on commercial negotiation and information disclosure. The AER plays a role only if dispute resolution mechanisms are triggered.

26 AGN, *Revised Final Plan*: *Five year plan for our South Australian network, 2021–26,* January 2021.

27 AER, *Draft decision, Australian Gas Networks access arrangement 2021–26, Overview*, November 2020.

Our final decision on AGN affects the component of the gas bill relating to gas distribution pipelines. For customers on AGN's network, distribution charges account for approximately:[28]

- 54 per cent of an average residential customer's annual gas bill
- 50 per cent of an average small business customer's annual gas bill.

We estimate the expected bill impact by varying the distribution charges in accordance with our final decision, while holding all other components constant. This approach isolates the effect of our final decision on distribution tariffs only. However, this does not imply that other components of the bill will remain unchanged across the access arrangement period.

Table 1 shows the estimated average annual impact of our final decision, for the 2021–26 period on gas bills for customers on AGN's network compared with AGN's revised proposal ($nominal).

In terms of average annual customer gas bills, we estimate that the impact of this final decision would be to:

- increase residential customer gas bills by $22 or 2.4 per cent from the current level, consistent with AGN's revised proposal.
- increase small business customer gas bills by $221 or 2.2 per cent from the current level, consistent with AGN's revised proposal.

[28] AGN, *Final Plan 2021–26, RIN, Attachment 14 – Workbook 4, Indicative bill impact,* 1 July 2020.

Table 1 AER's estimated impact of our final decision and AGN's revised proposal on average annual gas bills for the 2021–26 period ($nominal)

	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26
AER's final decision						
Residential annual bill[a]	944	909	922	937	951	966
Annual change[c]		–35 (–3.7%)	14 (1.5%)	14 (1.5%)	15 (1.6%)	15 (1.6%)
Small business annual bill[b]	10031	9683	9819	9960	10104	10252
Annual change[c]		–348 (–3.5%)	136 (1.4%)	140 (1.4%)	144 (1.4%)	148 (1.5%)
AGN's revised proposal						
Residential annual bill[a]	944	904	919	935	951	967
Annual change[c]		–40 (–4.3%)	15 (1.7%)	16 (1.7%)	16 (1.7%)	17 (1.8%)
Small business annual bill[b]	10031	9636	9785	9938	10097	10261
Annual change[c]		–395 (–3.9%)	149 (1.5%)	154 (1.6%)	159 (1.6%)	164 (1.6%)

Source: AER analysis; AGN, *Revised Final Plan 2021–26, Attachment 1.4A - PTRM,* 13 January 2021; AGN, *Final Plan 2021–26, RIN, Attachment 14 – Workbook 4, Indicative bill impact,* 1 July 2020.

(a) Annual bill for 2020–21 reflects the average consumption of 16 MJ for AGN's residential customers.

(b) Annual bill for 2020–21 reflects the average consumption of 296 MJ for AGN's small business customers.

(c) Annual change amounts and percentages are indicative. They are derived by varying the network tariff contribution to the 2020–21 bill amounts in proportion to the change in the tariff path. Actual bill impacts will vary depending on gas consumption and tariff class.

1.2 What is driving revenue?

The changing impact of inflation over time makes it difficult to compare revenue from one period to the next on a like-for-like basis. To do this, we use 'real' values based on a common year, which have been adjusted for the impact of inflation ($2020–21).[29]

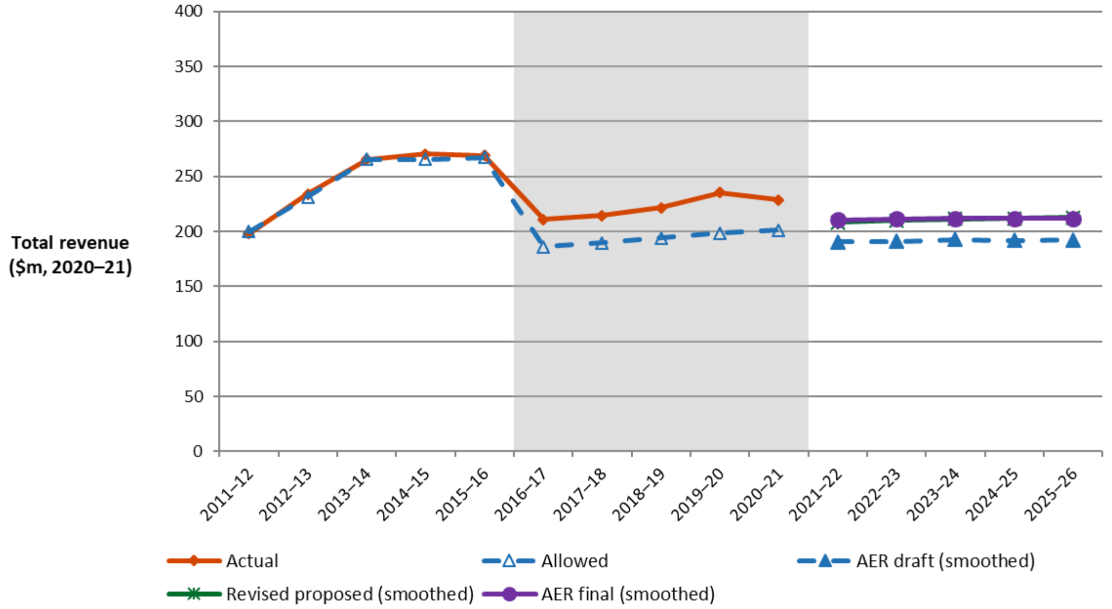
This final decision approves a total revenue for the 2021–26 period that is $87.5 million (9.0 per cent) higher than we approved in our 2016–21 decision.[30]

Figure 1 shows our final decision for AGN's smoothed revenue for the 2021–26 period, and its allowed revenues over the 2011–21 periods.

29 That is, 30 June 2021 dollar terms based on AGN's estimated actual revenue for 2020–21. We have used December quarter CPI published by the ABS for the period 2015–2020 for the purposes of this adjustment.

30 The comparison of total revenues between the 2021–26 and 2016–21 periods is based on smoothed revenues. In nominal dollar terms, our final decision total revenues for the 2021–26 period is $158.2 million, or 16.4 per cent, higher than the total revenues approved for the 2016–21 period.

Figure 1 Revenue over time ($million, 2020–21)



Source: AER analysis.

Figure 2 highlights the key drivers of the change in AGN's allowed revenue from the 2016–21 period compared to what we expect in the 2021–26 period. It shows that our 2021–26 final decision provides for reductions in the building blocks for:

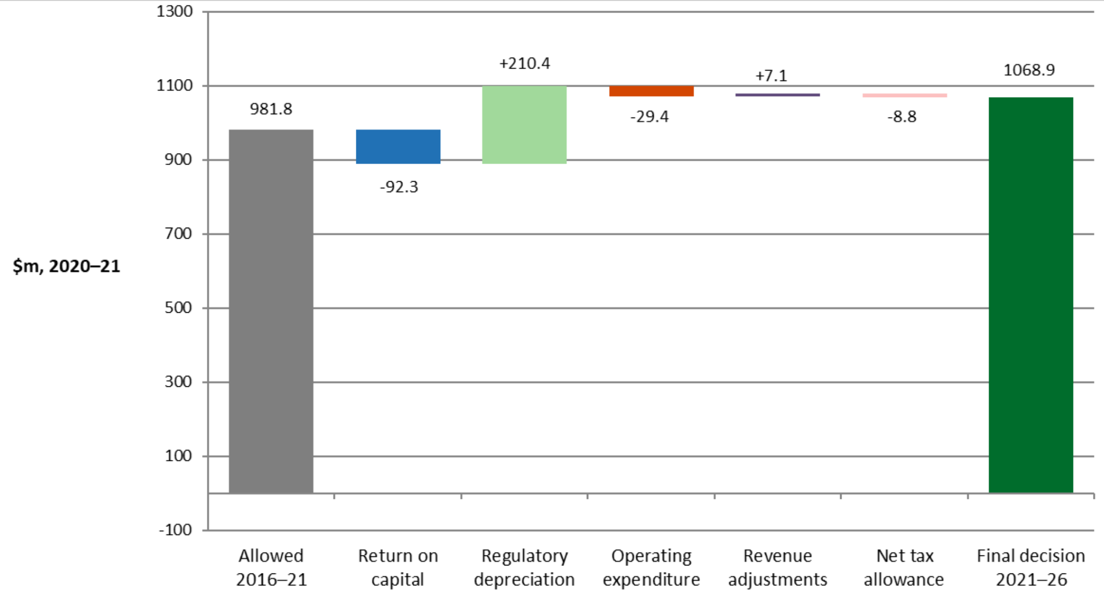
- return on capital, which is $92.3 million (19.1 per cent) lower than 2016–21, driven by decreases in the nominal weighted average cost of capital (WACC) from 6.14 per cent to 4.96 per cent in the first year of the 2016–21 and 2021–26 periods, respectively[31]
- opex, which is $29.4 million (7.4 per cent) lower than 2016–21, driven by opex efficiency gains in the 2016–21 period, reflected in AGN's opex base for 2021–26 and reductions in unaccounted for gas (UAFG) costs relative to the 2016–21 period
- cost of corporate income tax of zero, which is $8.8 million lower than 2016–21, driven by the lower return on equity and higher gamma as per the 2018 rate of return instrument, and the application of our 2018 tax review.

Figure 2 also shows that our decision provides for an increase in the building block for:

- regulatory depreciation, which is $210.4 million (225.2 per cent) higher than 2016–21, driven by the accelerated depreciation of the replaced mains and inlets assets
- revenue adjustments of $7.1 million, which is higher than the revenue adjustments of –$0.5 million in 2016–21, due to the efficiency carryover mechanism (ECM).

31 We compare first year values because the nominal WACC is annually updated each year to reflect changes in the cost of debt.

Figure 2 AER's final decision for the 2021–26 period and AGN's 2016–21 allowed building block costs ($million, 2020–21)

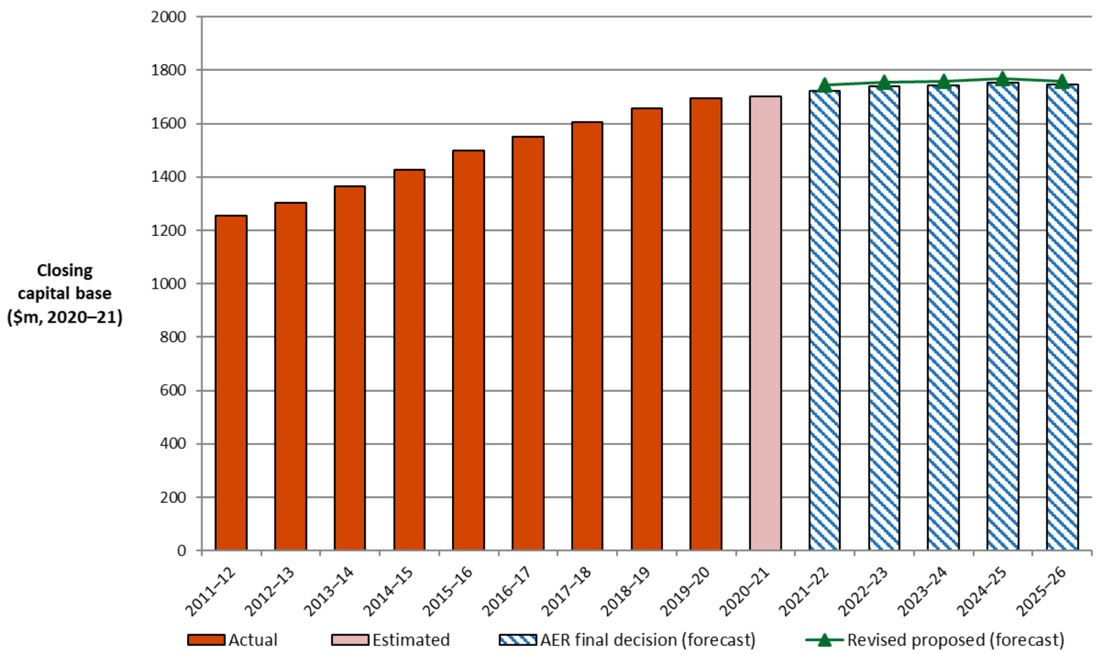


Source: AER analysis.

Note: Includes ancillary reference services revenue. Adjusted to real dollar terms based on December quarter CPI.

Figure 3 compares our final decision on AGN's forecast capital base, to AGN's actual and proposed forecast capital base. It shows that AGN's capital base is increasing slightly over the 2021–26 period, but is expected to stabilise towards the end of the period.

Figure 3 Value of AGN's capital base over time ($million, 2020–21)



Source: AER analysis.

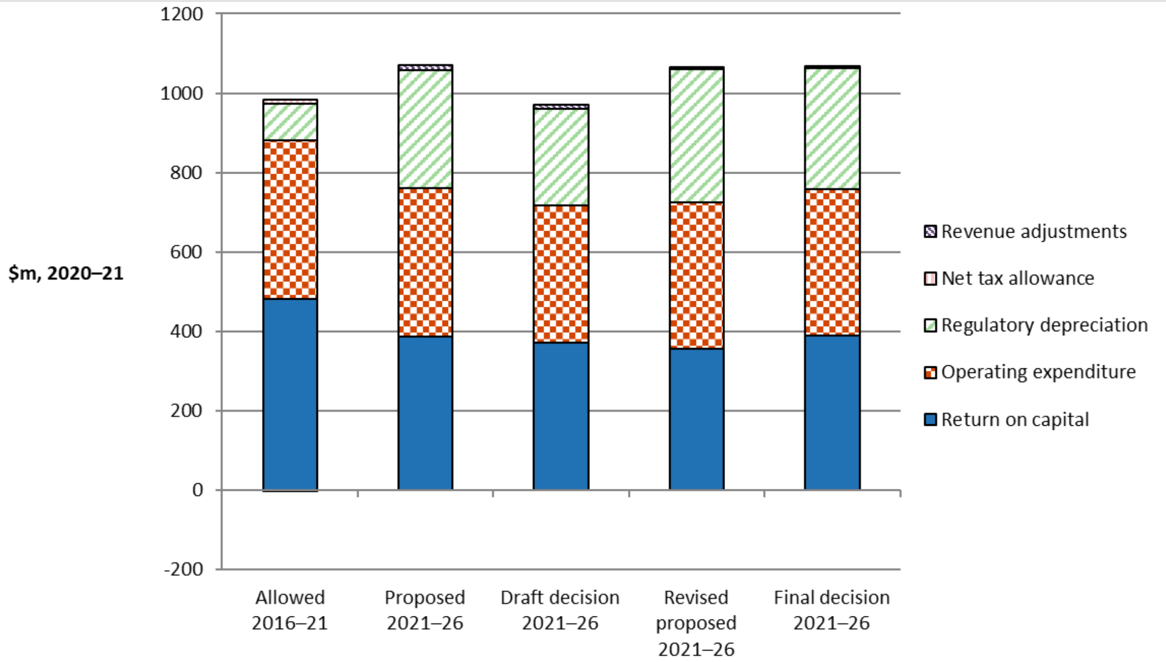
1.3 Key differences between our final decision and AGN's revised proposal

AGN proposed a total forecast revenue of $1117.5 million for the 2021–26 period in its revised proposal ($nominal, smoothed). Our final decision of $1122.2 million allows $4.6 million (0.4 per cent) more revenue than AGN seeks to recover through its revised 2021–26 proposal.

Figure 4 compares the building block revenue from our final decision to AGN's revised proposal for the 2021–26 period, and to approved revenue for the 2016–21 period.

The biggest contributor to the difference between our final decision revenue and AGN's revised proposal is the current rate of return (and therefore, the return on capital). AGN has applied the 2018 rate of return instrument and, based on the risk free rate and cost of debt at the time of the revised proposal, has included a 4.58 per cent rate of return. However, currently the risk free rate is higher than at the time of its revised proposal, leading to a rate of return of 4.96 per cent. Consequently, the allowance for the return on capital building block is $36.2 million (9.6 per cent) higher than AGN's revised proposal.

Figure 4 AER's final decision on components of total revenue ($million, 2020–21)



Source: AER analysis.

Note: Includes ancillary reference services revenue.

1.4 AGN's consumer engagement

Consumer engagement helps businesses determine how best to provide services that align with consumers' long-term interests. Consumer engagement in this context is about AGN working openly and collaboratively with consumers and providing opportunities for their views and preferences to be heard and to influence AGN's decisions.

In the regulatory process, stronger consumer engagement can help us test network service providers' expenditure proposals, and can raise alternative views on matters such as service priorities, capex and opex proposals, and tariff structures.

AGN's consumer engagement in the preparation of its 2021–26 proposal was well received by stakeholders. Stakeholders commented that AGN's consumer engagement was genuine, comprehensive and led from the CEO down. Many expressed their satisfaction in AGN's in depth approach to seeking customer input. For its efforts, in October 2020, AGN was awarded the Energy Networks Consumer Engagement Award in recognition of its leadership and innovation in consumer engagement.[32]

We used a range of considerations to demonstrate whether consumers had been genuinely engaged in the development of AGN's 2021–26 access arrangement proposal. The framework used for considering consumer engagement arose from our Victorian electricity decisions.[33] This framework includes the consideration of the nature, breadth and depth of the engagement, and clearly evidencing the impact that consumer engagement had on the proposal and assessment of proposed expenditure outcomes.

AGN undertook an extensive co-design[34] program with its consumers on the nature of its consumer engagement, including specific co-design activity on vulnerable customers.[35] As a result of this co-design process, AGN proposed a Vulnerable Customer Assistance Program (VCAP).[36]

Following feedback from stakeholders, including the AER, mainly concerning the scope of the program (which was underway but not fully developed at the time of the initial proposal) AGN held a VCAP stakeholder workshop on 4 December 2020 with its South Australian Reference Group (SARG) [37] and Retailer Reference Group (RRG),[38] social

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32 ENA, *ENA annual award winners announced – Media release,* October 2020. https://energyconsumersaustralia.com.au/news/consumer-engagement-award-winner-announced

33 See table 7; AER, *Draft decision, Jemena distribution determination 2021–26, Overview*, September 2020, p. 43.

34 Co-design is a process by which organisations collaborate with stakeholders and customers to inform their decision-making.

35 AGN, *Final Plan 2021–26, Attachment 5.4 – KPMG Co-design, Vulnerable customers,* 1 July 2020.

36 AGN, *Final Plan: Five year plan for our South Australian network, 2021–26*, 1 July 2020.

37 This group is made up of the following organisations – SA Council of Social Service (SACOSS), Business SA, UDIA (SA), SA Federation of Residents and Ratepayers Association (SAFRRA), Australian Industry Group (SA), COTA SA, Uniting Communities, Local Government Association (SA), Property Council of Australia (SA),

service experts from earlier co-design workshops, and CCP24 as observers.[39] At this workshop, AGN engaged with stakeholders on key areas of feedback received both directly to AGN and via the AER though our public submission process on AGN's proposal.

In submissions to the AER, many stakeholders were generally supportive of establishing a VCAP.[40] AGN further developed its VCAP proposal, to refine the scope and details of the program, with the support of stakeholders, prior to submitting its revised proposal on 13 January 2021.[41]

AGN's proposed mains replacement program also generated stakeholder interest with numerous stakeholders supporting the replacement in terms of safety and reliability of service but looking towards technical experts to advise them on whether the level of replacement and the cost of the program was prudent and efficient.

AGN engaged with its SARG and RRG on 9 December 2020 on its proposed approach for mains replacement. Members supported AGN's proposal to seek independent technical advice on the prudency of its mains replacement and to continue to engage with the Office of the Technical Regulator (OTR) to reach an agreed position for mains replacement over the next five years.

On 5 January 2021, AGN presented additional information to the OTR in response to its feedback to AGN on the mains replacement program.[42] AGN considered the further information provided in its revised proposal along with planned continued engagement with the OTR will enable a mutually agreed position on mains replacement for the next access arrangement period to be met with the OTR.

This culminated in the submission we received from the South Australian Minister of Mining and Energy, on 16 February 2021, welcoming the independent reviews of the mains replacement and acknowledging AGN's engagement with the OTR in preparing its revised proposal.[43]

Overall, we consider that AGN's consumer engagement was genuine, thoughtful and consumer focused. AGN tailored its consumer engagement approach to suit its stakeholders having regard to the complexity of issues being discussed and enabling

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Consumers SA, Multicultural Communities Council of SA and the South Australian Financial Counsellors Association.

38 This group is made up of the following retailers – AGL, Simply Energy, Lumo Energy, Red Energy, Alinta Energy, Origin Energy and EnergyAustralia.

39 AGN, *Revised Final Plan 2021–26, Attachment 7.2A - Addendum to Opex Business Case,* 13 January 2021, pp. 3–4.

40 EWOSA, *Submission to AER on AGN's Revised Proposal and AER's Draft Decision 2021–26*, 21 January 2021, pp. 2–3; SAFRRA, *Submission to AER on AGN's Revised Proposal and AER's Draft Decision 2021–26*, 17 February 2021, p. 2; SAFCA, *Submission to AER on AGN's Revised Proposal and AER's Draft Decision 2021–26,* 3 March 2021, p. 2.

41 AGN, *Revised Final Plan 2021–26, Attachment 7.2A - Addendum to Opex Business Case,* 13 January 2021, pp. 3–4.

42 AGN, *Revised Final Plan 2021–26, Attachment 8.3A - Response on Mains Replacement,* 13 January 2021, p. 17.

43 South Australian Minister for Energy and Mining, *Submission to AER on Draft Determination and AGN Revised Access Arrangement*, 16 February 2021, p. 2.

them to contribute to shaping the proposal. Engaging heavily at the beginning of the process worked well for AGN and delivered value for its stakeholders. Stakeholder support was received early for most aspects of AGN's proposal allowing AGN more time and resources to refine and enhance already supported programs. AGN received positive commentary from a wide range of stakeholders about its engagement process following the submissions of both its initial and revised proposals.

Red Energy/Lumo Energy:

> AGN's consumer engagement in the preparation of its 2021–26 proposal has been comprehensive, with strong retailer and consumer engagement generally delivering better outcomes for consumers.[44]

South Australian Federation of Residents and Ratepayers Association (SAFRRA):

> We commend AGN for the better understanding of vulnerable customers.[45]

South Australian Financial Counsellors Association (SAFCA):

> We commend AGN on the Vulnerability Program and also on the stakeholder engagement around VCAP and the wider gas access arrangement proposal development. Furthermore, we consider the AGN revised proposal capable of acceptance by the AER.[46]

Energy and Water Ombudsman of South Australia (EWOSA):

> AGN has undertaken a very extensive engagement program and is to be commended for its efforts in this regard. EWOSA understands that AGN is keen to continue high level community engagement beyond the access arrangement process and we support this direction.[47]

Business SA:

> Business SA appreciates AGIG's willingness to adjust its plans based on customer feedback, for example dropping its community education centre proposal.[48]

SA Minister for Energy and Mining:

> The South Australian Government acknowledges the significant consumer consultation that AGN has undertaken to obtain consumer support for its proposal.[49]

CCP24:

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[44] Red Energy and Lumo Energy, *Submission to AER on AGN's Draft Decision Gas Access Arrangement,* 19 February 2021, p. 1.

[45] SAFRRA, *Submission to AER on AGN's Revised Proposal and AER's Draft Decision 2021–26*, 17 February 2021, p. 2.

[46] SAFCA, *Submission to AER on AGN's Revised Proposal and AER's Draft Decision 2021–26,* 3 March 2021, p. 2.

[47] Energy & Water Ombudsman SA, *Submission to AER on AGN Access Arrangement*, 6 August 2020, p. 2.

[48] Business SA, *Submission on AGN Access Arrangement,* 7 August 2020, p. 2.

[49] South Australian Minister for Energy and Mining, *Submission to AER on AGN's proposed Access Arrangement*, 3 August 2020, p. 1.

> We conclude that AGN has engaged with a diversity of their customers, has actively listened, and acted on the advice given and preferences expresses by customers. It was an extremely high quality, well implemented engagement strategy, and is continuing. AGN has effectively incorporated consumer and stakeholder input into their Final Plan and has documented their responses to consumer advice very clearly.[50]

We note AGN's proposed IT capital expenditure rose significantly between its initial and revised proposals. This was also noted by stakeholders, for example, the SA Minister for Energy and Mining commented; 'The government is concerned that this transfer [IT underspend in the current period] results in approximately 50 per cent underspend for IT capital expenditure and urges the AER to fully examine AGN's proposed spending in light of this period's significant underspend.'[51] The AER considers it would have been in the best interest of stakeholders to have this issue raised with them as soon as AGN become aware of the issue. To AGN's credit, however, on hearing AER and other stakeholder concerns, AGN reconsidered its IT capex expenditure for 2021–26 and revised its proposal downward, demonstrating its responsiveness to stakeholder feedback as recognised by its stakeholders in the statements above.

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50 CCP24, *Advice to Australian Energy Regulator on Australian Gas Networks Final Plan for AGN Gas Networks (South Australia) Access Arrangement 2021–26,* 10 August 2020, p. 4.

51 South Australian Minister for Energy and Mining, *Submission to AER on Draft Determination and AGN Revised Access Arrangement*, 16 February 2021, p. 1.

2 Reference services and tariffs

This section summarises our 2021–26 final decision on the services covered by AGN's access arrangement, the reference tariff and reference tariff variation mechanism, and forecast demand.

2.1 Services covered by the access arrangement

The access arrangement must specify the pipeline services AGN proposes to be reference services having regard to the reference service factors.[52] For each reference service, including services ancillary to the reference services, the access arrangement specifies the reference tariff and the other terms and conditions on which these services will be provided.[53]

AGN is to provide access to its reference services on the terms set out in its access arrangement, but may negotiate alternative terms and conditions at alternative prices with users. AGN may also offer other non-reference services (negotiated services) which are not subject to regulation under the access arrangement. We may be called upon to determine the tariff and other conditions of access to services if an access dispute arises.[54]

AGN's proposed reference service for the 2021–26 access arrangement is largely the same as its reference service for the 2016–21 access arrangement. It is also consistent with our November 2019 decision on AGN's June 2019 reference service proposal.[55] It includes:

- haulage:
  - receipt of and transportation of gas from an upstream pipeline or other gas facility through the AGN network to each customer's premises for use and consumption within the premises
  - providing gas metering equipment at customers' premises and associated services to read the quantity of gas flowing through the gas meters.
- ancillary services.

Our final decision approves the haulage component of the proposed reference service.

We also approve the ancillary services AGN proposes for the 2021–26 access arrangement as part of its reference service, which are:

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[52] NGR, modified rule 48(1)(c) and rule 47A(15).

[53] NGR, modified rule 48(1)(e).

[54] NGL, Chapter 6.

[55] AER, *Final Decision, Australian Gas Networks (South Australia) Gas Distribution Determination 2021–26 Reference Service*, November 2019.

- special meter reads
- disconnection
- reconnection
- meter and gas installation test
- meter removal / reinstallation.

2.2 Reference tariff setting and reference tariff variation mechanism

Our final decision includes decisions on the structure and levels of AGN's reference tariffs (reference tariff setting) and the mechanism by which those tariffs can vary over the access arrangement period (reference tariff variation mechanism).

Reference tariff setting requires AGN to explain how it allocates revenues and costs between reference services and other services, and how it determines different tariffs. This involves setting and applying the formula by which AGN can recover its costs. Our final decision is to approve AGN's proposed structure of reference tariffs for the 2021–26 period.

Our final decision is to accept AGN's proposed tariff variation mechanism and cost pass through events that will apply to AGN in the 2021–26 period.

2.3 Forecast demand

Demand is an important input into AGN's reference tariffs. Under a weighted average price cap, tariffs are determined by dividing cost (as reflected in forecast revenue) by total demand (TJ/day). This means that a decrease in forecast demand has the effect of increasing tariffs, and vice versa. Forecast demand also affects the forecasts of opex and capex that form part of our decision on the total revenue requirement.

In its revised proposal, AGN has updated its demand forecast for the following:

- 2019–20 actual demand and customer data
- the removal of Mount Barker connections as AGN have decided not to proceed with this network extension
- the latest Housing Industry Association (HIA) forecast, which increased growth in estate dwellings and decreased medium density high rise compared with the previous forecast
- a COVID–19 demand adjustment which assumes a return to normality in 2021–22.

Overall, AGN has incorporated the revisions required by our draft decision and the resulting demand forecast is marginally higher than its initial proposal. Our final decision accepts AGN's demand forecast, which has been arrived at on a reasonable basis and represents the best estimate possible in the circumstances. We have set out the reasons for our final decision on demand in more detail in attachment 12.

3 Total revenue requirement

The total revenue requirement is a forecast of the efficient cost of providing gas distribution services over the access arrangement period. We determine annual revenue, and the total revenue requirement, in nominal terms. To do this, we take into account expected future inflation to determine nominal price levels in future periods. Our decision uses 5-year inflation expectations to convert revenues to nominal values.

Tariffs are derived from the total revenue requirement after consideration of demand for each tariff category. Our final decision is that AGN will continue to operate under a weighted average price cap. This means the tariffs we determine (including the means of varying the tariffs from year-to-year) are the binding constraint across the 2021–26 period, rather than the total revenue requirement set in our decision.[56] Tariffs are adjusted each year using 'X factors' — the percentage changes in real weighted average tariffs from year-to-year — as explained further in section 3.3.

3.1 The building block approach

We employ a building block approach to determine AGN's total revenue requirement. That is, we base the total revenue requirement on our estimate of the efficient costs that AGN is likely to incur in providing its reference services. The building block costs, as shown in Figure 5, include:[57]

- return on the projected capital base (or return on capital) — to compensate investors for the opportunity cost of funds invested in the business[58]
- depreciation of the projected capital base (or return of capital) — to return the initial investment to investors over time[59]
- forecast opex — the operating, maintenance and other non-capital expenses incurred in the provision of network services
- revenue adjustments — including revenue increments/decrements resulting from the application of incentive schemes
- estimated cost of corporate income tax.

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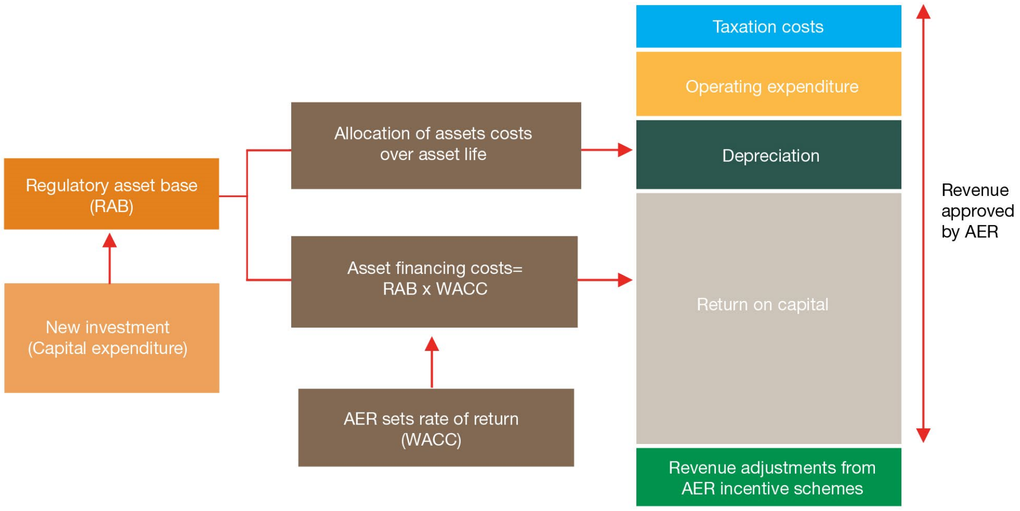
[56] Where actual demand across the 2021–26 access arrangement period varies from the demand forecast in the access arrangement, AGN's actual revenue will vary from the revenue allowance determined in our decision. In general, if actual demand is above forecast demand, AGN's actual revenue will be above forecast revenue, and vice versa.

[57] NGR, r. 76.

[58] Note that the forecast capex approved in our decisions affects the projected size of the capital base and, therefore, the revenue generated from the return on capital and depreciation building blocks.

[59] Ibid.

Figure 5 The building block approach to determining total revenue



We use an incentive approach where, once regulated revenues are set for a five-year period, networks who keep actual costs below the regulatory forecast of costs retain part of the benefit. This incentive framework is a foundation of our regulatory approach and promotes the delivery of the National Gas Objective (NGO). Service providers have an incentive to become more efficient over time, as they retain part of the financial benefit from improved efficiency. Consumers also benefit when efficient costs are revealed and a lower cost benchmark is set in subsequent regulatory periods.

The following section summarises our final decision, by building block, and provides our high level reasons and analysis.

3.2 Final decision on total revenue

Our final decision sets out a number of amendments to the building block inputs making up AGN's revised proposal for a total revenue requirement (smoothed) of $1117.5 million ($nominal). We expand on these in section 4.

Based on our assessment of the building block costs,[60] our final decision determines a slightly higher smoothed total revenue requirement of $1122.2 million ($nominal).[61] It follows that our final decision requires amendments to the 2021–22 tariffs set out in AGN's revised proposal, which is for a reduction in real tariffs of 8.8 per cent. We also require consequential amendments to AGN's revised proposed 2022–26 tariff path, which is for an increase in real tariffs of 0.9 per cent per year throughout 2022–26.

60 Using the building block approach set out in NGR, r. 76.

61 This is calculated by smoothing the unsmoothed building block revenue for the 2021–26 period, as set in this decision.

Section 3.3 of the draft decision overview discusses our approach to revenue smoothing and tariffs.[62]

Table 2 sets out our final decision on AGN's total revenue requirement, by building block, for each year of the 2021–26 period, the total revenue after equalisation (smoothing) and the X factors for use in the tariff variation mechanism.

Table 2 AER's final decision on AGN's smoothed total revenue and X factors for the 2021–26 period ($million, nominal)

Building block	2021–22	2022–23	2023–24	2024–25	2025–26	Total
Return on capital	84.4	83.9	83.3	81.8	80.5	414.0
Regulatory depreciation	57.7	61.6	67.7	65.3	70.5	322.9
Operating expenditure	73.9	76.0	78.0	80.2	82.6	390.8
Revenue adjustments	4.7	0.9	4.7	–3.5	0.0	6.8
Cost of corporate tax	0.0	0.0	0.0	0.0	0.0	0.0
Building block revenue – unsmoothed (including ARS)	220.7	222.4	233.6	223.9	233.7	1134.4
Less ancillary reference services revenue	2.5	2.5	2.6	2.7	2.8	13.1
Building block revenue – unsmoothed (excluding ARS)	218.2	219.9	231.0	221.2	230.9	1121.2
Building block revenue – smoothed	**214.7**	**219.7**	**224.7**	**229.1**	**234.0**	**1122.2**
X factors[a]	8.76%	–0.90%	–0.90%	–0.90%	–0.90%	n/a
Inflation forecast	2.00%	2.00%	2.00%	2.00%	2.00%	n/a
Nominal price change[b]	–6.93%	2.92%	2.92%	2.92%	2.92%	n/a

Source: AER analysis.

n/a: not applicable.

(a) Under the CPI–X form of control, a positive X factor is a decrease in price (and, therefore, in revenue).
The X factor for 2021–22 is indicative only. The final decision establishes 2021–22 tariffs directly, rather than referencing a change from 2020–21 tariffs.

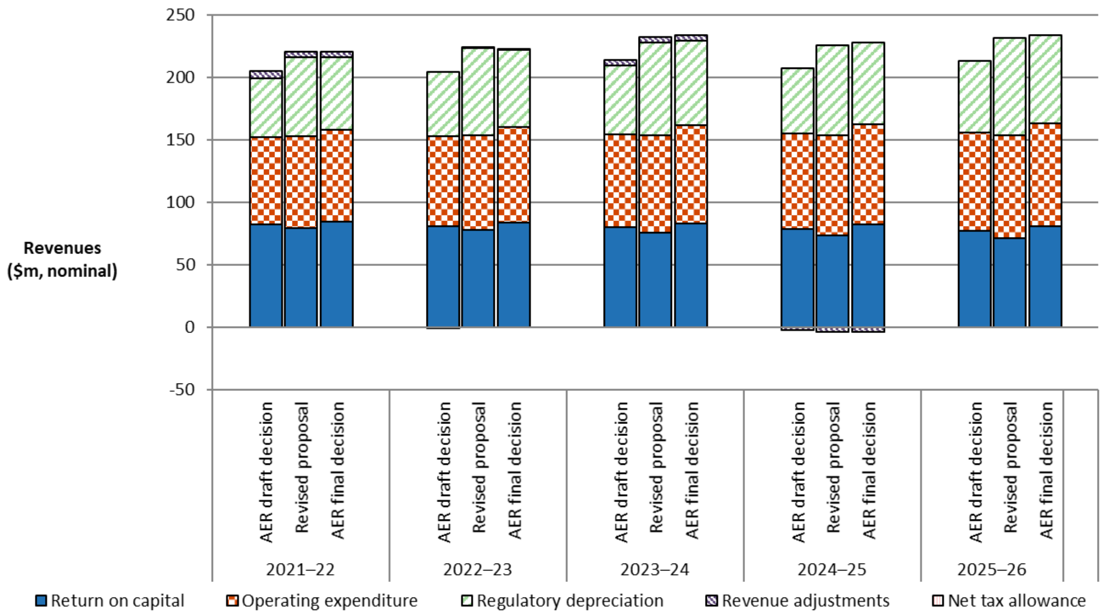
(b) The mathematical formula for a nominal price change under the CPI–X form of control is [(1+CPI)*(1–X factor)] – 1.

Figure 6 shows the effect of our final decision adjustments to AGN's revised proposed building blocks for the 2021–26 period. It shows increases to the revised proposed

62 AER, *Draft decision, Australian Gas Networks access arrangement 2021–26, Overview*, November 2020, pp. 31–34.

building blocks for the return on capital, operating expenditure and revenue adjustments, and decrease to the regulatory depreciation building block.

Figure 6 AER's final decision and AGN's revised proposed building block revenue (unsmoothed) ($million, nominal)



Source: AER analysis.

Note: Revenue adjustments includes the opex efficiency carryover mechanism carryover amount.

3.3 Revenue smoothing and tariffs

After our assessment of AGN's total building block revenue (unsmoothed), we need to determine the forecast revenue (smoothed) profile across the 2021–26 period.[63]

AGN operates under a weighted average price cap as its tariff variation mechanism. This means we must determine the weighted average tariff change each year such that the net present value (NPV) of unsmoothed and smoothed revenue is equal across the 2021–26 period.[64] This weighted average tariff change is known as the 'X factor'.

As part of the annual reference tariff variation process, we combine the X factors we have determined in our decision with actual inflation to create reference tariffs for the coming year. This means that the average prices paid by consumers, and therefore the

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63 This process of smoothing revenues is described in the NGR as 'revenue equalisation'. See NGR, r. 92.

64 See attachment 10 of the draft decision for information on the mechanics of the tariff variation mechanism.

revenues received by the network business, change with the X factor plus actual inflation.[65]

Table 3 presents our final decision X factors compared to AGN's revised proposal.

Table 3 Weighted average tariff change (X factors) across the 2021–26 period — AER's final decision and AGN's revised proposal

	2021–22	2022–23	2023–24	2024–25	2025–26
AER's final decision					
X factor[a]	8.76%	–0.90%	–0.90%	–0.90%	–0.90%
Nominal price change	–6.93%	2.92%	2.92%	2.92%	2.92%
AGN's revised proposal					
X factor[a]	9.64%	–1.25%	–1.25%	–1.25%	–1.25%
Nominal price change	–7.88%	3.22%	3.22%	3.22%	3.22%

Source: AGN, *Revised Final Plan 2021–26, Attachment 1.4A - PTRM*, 13 January 2021; AER analysis.

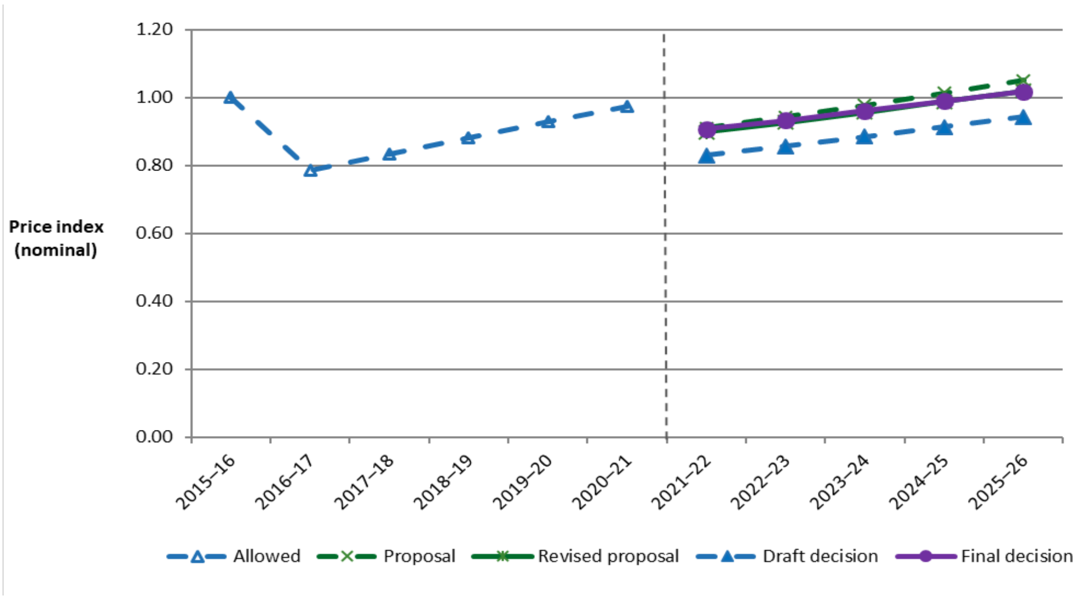
(a) Under the CPI–X form of control, a positive X factor is a decrease in price (and, therefore, in revenue). For example, a negative X factor of 1.25 per cent in 2022–23, as proposed by AGN, means a real price increase of 1.25 per cent that year. After consideration of inflation, this becomes a nominal price increase of 3.22 per cent.

Figure 7 shows indicative tariff paths for AGN's reference services across the 2021–26 period. It compares AGN's revised proposed tariff path with that approved previously for the 2016–21 period, and with this final decision.[66] This provides a broad, overall indication of the average movement in tariffs across the 2021–26 period.

[65] Under the CPI–X form of control, a positive X factor represents a decrease in price (and, therefore, in revenue). Conversely, a negative X factor represents an increase in price (and, therefore, in revenue).

[66] The tariff path for 2016–26 uses actual inflation outcomes for 2016–21, and expected inflation for 2021–26.

Figure 7 Indicative reference tariff paths for AGN's reference services from 2016 to 2026 (nominal index)



Source: AER analysis.

In the draft decision, we took into account AGN's preference to align the forecast revenue growth with its forecast capital base growth. AGN stated that this approach would be more likely to allow it to sustain the credit metrics at the levels assumed in setting the return on debt because its revenue will more closely match its underlying costs over time, including its contractual obligations.[67]

While Energy Consumers Australia noted in its submission to the revised proposal that the revised proposed price path is largely capable of acceptance, it questioned AGN's claim to address any financeablility issue through its revenue path smoothing.[68] Red Energy and Lumo Energy submitted that the large tariff cut in the beginning of the new access arrangement period should be better applied more evenly across the period. They stated that ratings agencies should be indifferent to either price paths. However, customers would be more receptive to a smooth price path, rather than a substantial decrease followed by increases in other years.[69] On the other hand, we note that submissions from CCP24, Origin and SAFRRA generally supported the revised proposed smoothing profile.[70]

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67 AGN, *Final Plan: Five year plan for our South Australian network, 2021–26*, 1 July 2020, p. 139.

68 Energy Consumers Australia*, Submission, Response to Evoenergy and Australian Gas Network (SA) Revised proposals 2021–26*, February 2021, pp. 7 and 17.

69 Red Energy and Lumo Energy, *Submission to AER on AGN's Draft Decision Gas Access Arrangement,* 19 February 2021.

70 CCP24*, Advice to Australian Energy Regulator on Australian Gas Networks Revised Final Plan for AGN Gas Networks (South Australia) Access Arrangement 2021–26*, 17 February 2021, p. 5; Origin Energy, *Response to AER draft decision and revised access arrangement proposal for AGN (SA) 2021–26*, 17 February 2021; SAFRRA, *Submission to AER on AGN's Revised Proposal and AER's Draft Decision 2021–26,* 17 February 2021, p. 2.

For this final decision, we have adopted the draft decision approach that gives weight to AGN's preference for aligning the revenue path with its capital base growth, but also minimised real tariff increases as much as possible in choosing the smoothing profile.[71] We are satisfied that the final decision tariff path reflects a balanced consideration of the competing objectives as outlined in our draft decision.[72]

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71 The average growth in the forecast capital base set in this final decision is about 2.4 per cent per year over the 2021–26 period, whereas the average revenue growth resulted from the final decision tariff path is about 2.2 per cent per year.

72 AER, *Draft decision, Australian Gas Networks access arrangement 2021–26, Overview*, November 2020, pp. 31–34.

4 Key elements of our final decision on revenue

The components of our final decision include the building blocks we use to determine the revenue that AGN may recover from its users. The following sections summarise our revenue decision by building block. The attachments to this final decision and the sections below provide a more detailed explanation of our analysis and findings.

4.1 Capital base

The capital base roll forward accounts for the value of AGN's regulated assets over the access arrangement period. The opening value of the capital base is used to determine the return on capital and return of capital (depreciation) building block allowances. To calculate the capital base for a regulatory year within an access arrangement period, the opening value of the capital base is rolled forward by indexing it for inflation, adding any conforming capex, and subtracting depreciation and other possible factors (such as disposals or customer contributions). Following this process, we also arrive at a closing value of the capital base at the end of each regulatory year of an access arrangement period.

Our final decision approves an opening capital base value of $1702.0 million ($nominal) as at 1 July 2021 for AGN. This amount is $25.4 million (or 1.5 per cent) lower than AGN's revised proposed opening capital base value of $1727.4 million ($nominal) as at 1 July 2021.[73] This reduction is due to:

- updating the roll forward model (RFM) for 2020–21 actual consumer price index (CPI) that is now available
- a lower estimated IT capex for 2020–21.

To determine the opening capital base as at 1 July 2021, we have rolled forward the capital base over the 2016–21 period to determine a closing capital base value at 30 June 2021, in accordance with the RFM. This roll forward includes an adjustment at the end of the 2016–21 period to account for the difference between actual 2015–16 capex and the estimate approved in our 2016–21 decision.[74] Table 4 summarises our final decision on the roll forward of AGN's capital base during the 2016–21 period.

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[73] AGN, *Revised Final Plan 2021–26, Attachment 1.2A - Roll Forward Model*, 13 January 2021.

[74] The end of period adjustment will be positive (negative) if actual capex is higher (lower) than the estimate approved at the 2016–21 decision; NGR, r. 77(2)(a).

Table 4 AER's final decision on AGN's capital base roll forward for the 2016–21 period ($million, nominal)

	2016–17	2017–18	2018–19	2019–20	2020–21[a]
Opening capital base	1385.6	1454.1	1534.7	1614.0	1682.1
Net capex[b]	91.9	101.9	108.2	101.5	115.8
Indexation of capital base	20.5	27.8	27.4	29.7	14.5
Less: straight-line depreciation[c]	43.8	49.0	56.3	63.2	64.8
Interim closing capital base	1454.1	1534.7	1614.0	1682.1	1747.5
Difference between estimated and actual capex in 2015–16					–35.4
Return on difference for 2015–16 capex					–10.2
Closing capital base as at 30 June 2021					**1702.0**

Source: AER analysis.

(a) Based on estimated capex provided by AGN.

(b) Net of disposals and capital contributions, and adjusted for actual CPI.

(c) Adjusted for actual CPI. Based on forecast capex.

We approve a forecast closing capital base value of $1929.1 million ($nominal) at 30 June 2026 for AGN.[75] This is $8.0 million (or 0.4 per cent) lower than the $1937.1 million ($nominal) in AGN's revised proposal. Our final decision on the projected closing capital base reflects our changes to the opening capital base as at 1 July 2021, and our final decisions on forecast capex (section 4.4), expected inflation (section 4.2.3) and forecast depreciation (section 4.3). Table 5 sets out the projected roll forward of the capital base for the 2021–26 period.

Table 5 AER's final decision on AGN's projected capital base roll forward for the 2021–26 period ($million, nominal)

	2021–22	2022–23	2023–24	2024–25	2025–26
Opening capital base	1702.0	1756.0	1810.0	1849.7	1896.0
Net capex[a]	111.7	115.6	107.3	111.7	103.6
Indexation of opening capital base	34.0	35.1	36.2	37.0	37.9
Less: straight-line depreciation	91.8	96.7	103.9	102.3	108.5
Closing capital base	**1756.0**	**1810.0**	**1849.7**	**1896.0**	**1929.1**

Source: AER analysis.

(a) Net of forecast disposals and capital contributions. In accordance with the timing assumptions of the PTRM, the capex includes a half-year WACC allowance to compensate for the six-month period before capex is added to the capital base for revenue modelling.

[75] NGR, r. 78.

Attachment 2 of our final decision sets out the detailed reasons for our final decision on AGN's capital base.

4.2 Rate of return and value of imputation credits

The return each business is to receive on its capital base (the 'return on capital') is a key driver of proposed revenues. We calculate the regulated return on capital by applying a rate of return to the value of the capital base.

We estimate the rate of return by combining the returns of two sources of funds for investment: equity and debt. The allowed rate of return provides the business with a return on capital to service the interest rate on its loans and give a return on equity to investors.

An accurate estimate of the rate of return is necessary to promote efficient prices in the long-term interests of consumers. If the rate of return is set too low, the network business may not be able to attract sufficient funds to be able to make the required investments in the network and reliability may decline. Conversely, if the rate of return is set too high, the network business may seek to spend too much and consumers will pay inefficiently high tariffs.

As required under the National Gas Law (NGL), we apply the 2018 Rate of Return Instrument (2018 Instrument) to estimate the rate of return for AGN.[76]

This leads to a rate of return of 4.96 per cent (nominal vanilla) for this final decision. This is 0.33 percentage points higher than our draft decision placeholder estimate of 4.63 per cent (nominal vanilla).[77]

This rate of return, in Table 6, will apply to the first year of the 2021–26 period. A different rate of return would apply for the remaining regulatory years of the period. This is because we will update the return on debt component of the rate of return each year, in accordance with the 2018 Instrument, to use a 10-year trailing average portfolio return on debt that is rolled-forward each year. Hence, only 10 per cent of the return on debt is calculated from the most recent averaging period, with 90 per cent from prior periods.

We also note that AGN's proposed risk free rate[78] and debt averaging periods have been (and will be) used to estimate its rate of return because they complied with the conditions set out in the 2018 Instrument.[79] These were submitted with its initial regulatory proposal and we specify the debt averaging period in confidential appendix A.

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76 AER, *Rate of return instrument*, December 2018. See https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/rate-of-return-instrument-2018/final-decision.

77 AER, *Draft decision, Australian Gas Networks access arrangement 2021–26, Overview*, November 2020, p. 8.

78 This is also known as the return on equity averaging period.

79 AER, *Rate of Return Instrument*, December 2018, cll. 7-8, 23-25, 36.

Table 6 AER's final decision on AGN's rate of return (% nominal)

	AER's draft decision (2021–26)	AGN's revised proposal (2021–26)	AER's final decision (2021–26)	Allowed return over the access arrangement period
Nominal risk free rate	0.91%[a]	0.86%	1.71%[b]	
Market risk premium	6.1%	6.1%	6.1%	
Equity beta	0.6	0.6	0.6	
Return on equity (nominal post–tax)	4.57%	4.52%	5.37%	Constant (%)
Return on debt (nominal pre–tax)	4.67%[a]	4.62%	4.68%[c]	Updated annually
Gearing	60%	60%	60%	Constant (60%)
Nominal vanilla WACC	4.63%	4.58%	4.96%	Updated annually for return on debt
Expected inflation	2.37%	1.95%	2.00%	Constant (%)

Source: AER analysis; AER, *Draft Decision, Australian Gas Networks access arrangement 2021–26*, *Overview,* November 2020, p. 38; AGN, *Revised Final Plan 2021–26, Attachment 1.5A - Rate of Return Model*, 13 January 2021.

(a) Calculated using a placeholder averaging period of 20 business days ending 31 August 2020.

(b) Calculated using an averaging period of 21 business days ending 29 March 2021.

(c) We use the proposed debt averaging period. The return on debt has been updated for this averaging period.

4.2.1 Debt and equity raising costs

In addition to providing for the required rate of return on debt and equity, we provide an allowance for the transaction costs associated with raising debt and equity. We include debt raising costs in the opex forecast because these are regular and ongoing costs. We include equity raising costs in the capex forecast because these costs are only incurred once and would be associated with funding the particular capital investments.

AGN's revised proposal forecast zero equity raising cost in the post-tax revenue model (PTRM).[80] We have updated our estimates for this access arrangement period based on the benchmark approach using updated inputs. This results in zero equity raising costs.

Our final decision is to accept the method used in AGN's revised proposal which uses an annual rate of 8.2 basis points per annum (bppa).[81] We have considered this annual

[80] AGN, *Revised Final Plan 2021–26, Attachment 1.4A - PTRM*, 13 January 2021.

[81] See attachment 6, section 4.5 for our final decision on opex (which encompass debt raising cost); AGN, *Revised Final Plan 2021–26, Attachment 1.4A - PTRM*, 13 January 2021; AGN, *Revised Final Plan 2021–26, Attachment 7.1A - Revised Opex Forecast Model,* 13 January 2021; AGN, *Revised Final Plan 2021–26, Attachment 7.10 - Response to Draft Decision on Opex*, 13 January 2021, p. 8.

rate and found our alternative benchmark estimate (8.3 basis points) is not materially different from AGN's revised proposal.

4.2.2 Imputation credits

Our final decision applies a value of imputation credits (gamma) of 0.585, as set out in the binding 2018 Instrument.[82] This was the result of extensive analysis and consultation conducted as part of the 2018 rate of return review.[83] AGN's revised proposal has adopted the value of gamma set out in the 2018 Instrument.[84]

4.2.3 Expected inflation

We estimate an expected inflation of 2.00 per cent (see Attachment 3 for calculations) based on the approach adopted in our final position paper from our 2020 inflation review.[85] AGN supported the new approach to estimating expected inflation, and advocated that the AER adopt the new approach in its final decision.[86]

Our previous approach to estimate expected inflation used a 10 year average of the RBA's headline rate forecasts for 1 and 2 years ahead, and the mid-point of the RBA's target band—2.5 per cent—for years 3 to 10. The period of 10 years matches the term of the rate of return.

Our inflation review considered that this should be augmented by:[87]

- shortening the target inflation horizon from ten years to a term that matches the regulatory period (typically five years)
- applying a linear glide-path from the RBA's forecasts of inflation for year 2 to the mid-point of the inflation target band (2.5 per cent) in year 5.

Further detail on our final decision in regard to AGN's allowed rate of return, expected inflation, debt and equity raising costs is set out in attachment 3.

4.3 Regulatory depreciation

When determining the total revenue for AGN, we include an amount for the depreciation of the projected capital base (otherwise referred to as 'return of capital').[88]

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82 AER, *Rate of return instrument*, December 2018, cl. 27.

83 AER, *Rate of return instrument explanatory statement*, December 2018, pp. 307–382.

84 AGN, *Revised Final Plan 2021–26, Attachment 1.5A - Rate of Return Model*, 13 January 2021; AGN, *Revised Final Plan 2021–26, Attachment 1.4A - PTRM*, 13 January 2021; AGN, *Revised Final Plan 2021–26, Attachment 10.2 - Response to Draft Decision on Financing Costs,* 13 January 2021, p. 3.

85 AER, *Final position, Regulatory treatment of inflation*, December 2020.

86 AGN, *Revised Final Plan 2021–26, Attachment 9.3 - Response to Draft Decision on Capital Base,* 13 January 2021, p. 3.

87 AER, *Final position, Regulatory treatment of inflation*, December 2020, p. 6.

88 NGR, r. 76(b).

Regulatory depreciation is used to model the nominal asset values over the 2021–26 access arrangement period and the depreciation amount in the total revenue requirement.[89]

Our final decision determines a regulatory depreciation amount of $322.9 million ($nominal) for AGN for the 2021–26 access arrangement period. This represents a decrease of $33.2 million (or 9.3 per cent) from AGN's revised proposed regulatory depreciation amount of $356.1 million ($nominal). The key reasons for the decrease compared to the revised proposal are:

- we corrected an input error in AGN's revised proposed depreciation module, which reduced the regulatory depreciation amount by about $20 million from the revised proposed amount, all else being equal
- we made revisions to the opening RAB as at 1 July 2021, which reduced the regulatory depreciation amount by $7.3 million
- a higher expected inflation rate for the 2021–26 period determined for the final decision when compared to the revised proposal value. In the draft decision, we applied a placeholder expected inflation rate of 2.37 per cent per annum as the 2020 inflation review was still underway. AGN's revised proposal adopted a placeholder expected inflation rate of 1.95 per cent per annum, based on the approach set out in the inflation review's final position paper. This resulted in an increase of $34.1 million to the regulatory depreciation amount from the draft decision. For this final decision, we apply an expected inflation rate of 2.0 per cent that has been determined by implementing the inflation review's final position. This reduced the forecast regulatory depreciation amount by $3.9 million from the revised proposed amount, all else being equal.

In coming to our final decision on AGN's straight-line depreciation:

- we accept AGN's existing asset classes, the straight-line method and the standard asset lives used to calculate regulatory depreciation amount, which is consistent with our draft decision
- we accept AGN's revised proposal to use the year-by-year tracking method to calculate real straight-line depreciation for its existing assets, consistent with our draft decision. However, we have corrected an input error in AGN's revised proposed depreciation module. We have also updated the inflation input for 2020–21 with actual CPI, and updated the 2019–20 and 2020–21 capex and capital contributions inputs in the depreciation module for a number of asset classes
- we accept AGN's revised proposed accelerated depreciation amount of $245.1 million for the residual value of the mains and inlets assets that have been replaced or are forecast to be replaced by 30 June 2026, discussed further below

89 The regulatory depreciation amount is the net total of the straight-line depreciation less the inflation indexation of the capital base.

- we made determinations on other components of AGN's revised proposal which also affect the forecast regulatory depreciation amount. Specifically, they relate to:
    - the opening capital base as at 1 July 2021 (section 4.1)
    - expected inflation rate (section 4.2)
    - forecast capex (section 4.4) including its effect on the projected capital base over the 2021–26 period.[90]

4.3.1 Accelerated depreciation of replaced assets

In the draft decision we accepted, in principle, that once assets are replaced and removed from service, accelerated depreciation of the residual value of these assets is appropriate to reflect their reduced economic life. However, we reduced the proposed accelerated depreciation amount of $251.5 million by $49 million (or 17.8 per cent).

We questioned whether the High-density polyethylene mains and inlets that had been replaced by the insertion method (i.e. new but smaller High-density polyethylene mains are inserted inside of the old mains) are more akin to asset modification such that they may still be providing some residual service for the purpose of ongoing gas transportation. Therefore, in the draft decision, we excluded these assets for the purpose of accelerated depreciation

AGN's revised proposed accelerated depreciation amount is $245.1 million, which is $42.6 million higher than our draft decision, but $6.4 million lower than its initial proposal. AGN engaged GHD to provide an expert report on the ongoing role of the replaced High-density polyethylene mains and inlets.[91]

We have considered the new information submitted by AGN in its revised proposal regarding the insertion method. We have also sought advice from our expert consultant (Zincara) for the capex assessment on this matter. Zincara's report has confirmed the old pipes are no longer continuous and therefore cannot operate to support the supply of gas. Accordingly, we consider it reasonable to include the High-density polyethylene mains and inlets replaced by the insertion method in the accelerated depreciation amount of replaced assets.

Table 7 sets out our final decision on AGN's regulatory depreciation amount over the 2021–26 period.

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90 Capex enters the capital base net of forecast disposals and capital contributions. It includes equity raising costs (where relevant) and the half-year WACC to account for the timing assumptions in our PTRM. Our final decision on the capital base (attachment 2) also reflects our updates to the WACC for the 2021–26 period.

91 AGN, *Attachment 9.4 – Ongoing role of replaced High-density polyethylene pipelines*, January 2021.

Table 7 AER's final decision on AGN's regulatory depreciation amount for the 2021–26 period ($million, nominal)

	2021–22	2022–23	2023–24	2024–25	2025–26	Total
Straight-line depreciation	91.8	96.7	103.9	102.3	108.5	503.1
Less: indexation on opening capital base	34.0	35.1	36.2	37.0	37.9	180.2
Regulatory depreciation	**57.7**	**61.6**	**67.7**	**65.3**	**70.5**	**322.9**

Source: AER analysis.

Attachment 4 of our final decision sets out the detailed reasons for our final decision on AGN's regulatory depreciation.

4.4 Capital expenditure

Capital expenditure (capex) refers to the capital costs and expenditure incurred in the provision of pipeline services.[92] This investment mostly relates to assets with long lives. AGN recovers the costs of these assets through the return on capital and depreciation building blocks. In this way, AGN recovers the financing cost and depreciation associated with these assets over the expected life of these assets.

Our final decision includes an assessment of AGN's actual capex in the 2016–21 period (which forms part of its opening capital base)[93] and its forecast capex for the 2021–26 period (which forms part of its projected capital base).[94]

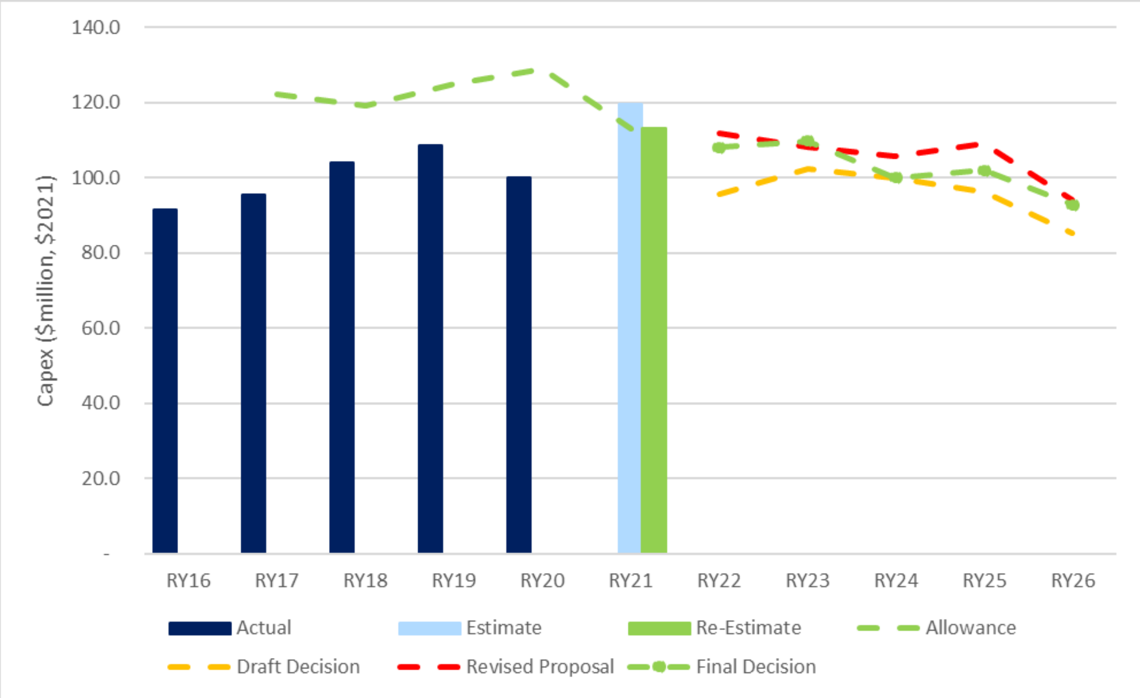
Figure 8 compares AGN's past and proposed forecast capex, and the forecasts approved by us in our previous 2016–21 decision and this 2021–26 final decision.

92 NGR, r. 69.

93 NGR, r. 77.

94 NGR, r. 78(b)

Figure 8 AER's final decision compared to AGN's past and proposed capex ($million, 2020–21)



Source: AER analysis.

4.4.1 Conforming capex for the 2016–21 period

AGN expects to spend less than our 2016–21 period capex forecast.

In our draft decision, we approved $402.0 million ($2020–21) of total net capex for AGN as conforming capex under the NGR.[95]

In this final decision, we approve $499.4 million ($2020–21) of total net capex for AGN as conforming capex under the NGR.[96] AGN has revised down its 2020–21 revised proposal estimate based on its latest delivery review. We will review actual capex for 2020–21 in AGN's 2026–31 access arrangement review.

4.4.2 Conforming capex for the 2021–26 period

In our draft decision, we approved an alternative forecast of $478.8 million ($2020–21) for the 2021–26 period. AGN's initial proposal included $576.6 million of forecast

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[95] NGR, r. 79(1). We have assessed conforming capex for 2015–16, 2016–17, 2017–18 and 2018–19. We have not assessed 2019–20 and 2020–21 as they are estimated capex in our draft decision.

[96] NGR, r. 79(1). We have assessed conforming capex for 2015–16, 2016–17, 2017–18, 2018–19 and 2019–20. We have not assessed 2020–21 as they are estimated capex in our final decision.

capex. We sought further information from AGN on mains replacement and other distribution system capex.

AGN forecast net capex of $528.7 million ($2020–21) in its revised proposal. It revised its mains replacement, other distribution system, connections and information technology, and connections capex forecasts.

Our final decision approves forecast net capex of $512.3 million ($2020–21) for the 2021–26 period. This is $16.4 million (3.1 per cent) lower than AGN's revised proposal of $528.7 million and $8.8 million (1.7 per cent) lower than its actual net capex for the 2016–20 period.[97]

While our final decision approves the majority of AGN's revised capex proposal, including its mains replacement program, there are some parts of the proposal that we do not consider to be efficient. Table 8 presents our final capex decision by category. The key differences from our draft decision are:

- mains replacement – Our final decision accepts AGN's revised mains replacement program based on our consultant's review and findings. However, as a result of our 2019–20 actual inflation update, we have approved a lower dollar amount of mains replacement capex than that proposed by AGN
- other distribution capex – Our final decision accepts AGN's revised other distribution capex based on our consultant's review and our findings
- connections – Our final decision accepts AGN's higher connections capex, which reflects our decision to accept AGN's higher volume of connections in the demand forecast (see section 2.3 – Demand)
- information technology (IT) – Our final decision does not accept AGN's revised information technology capex of $46.7 million. We approve an alternative forecast of $39.8 million based on AGN's re-estimation of its IT program delivery.

In our final decision, we also updated AGN's proposed capex for 2019–20 actual inflation and the appropriate labour price growth from Deloitte, in line with our opex alternative forecast. This has resulted in a capex reduction of $10.0 million for the 2021–26 period spread across each capex category.

Table 8 sets out our final decision on forecast capex compared to AGN's revised proposal.

97 AGN's capex for 2020–21 is based on an estimate only.

Table 8 AER's final decision and AGN's revised proposal for forecast capex for the 2021–26 period ($million, 2020–21)

Category	AGN's Revised Proposal	AER's Final Decision	Variance
Mains replacement	235.9	230.3	5.7
Meter replacement	19.0	18.6	0.4
Augmentation	10.6	10.5	0.1
Growth	117.3	114.5	2.8
Information technology	46.7	39.8	6.9
Other distribution system assets	47.4	46.7	0.6
Other non-distribution system assets	4.7	4.6	0.1
Capitalised network overheads	47.6	47.8	-0.2
Gross total capex	529.2	512.8	16.4
Contribution	0.5	0.5	-
Net total capex	**528.7**	**512.3**	**16.4**

Source: AER analysis. Totals may not sum due to rounding.

We have set out the reasons for our final decision on capex in more detail in attachment 5.

4.5 Operating expenditure

Operating expenditure (opex) is the operating, maintenance and other non-capital expenses, incurred in the provision of pipeline services.

Our final decision is to accept AGN's total opex forecast of $355.6 million ($2020–21),[98] including debt raising costs, for the 2021–26 period. This is because our alternative estimate of $351.4 million is not materially different ($4.3 million ($2020–21), or 1.2 per cent lower) from AGN's total opex forecast proposal. Therefore we consider that AGN's total opex forecast satisfies the opex criteria,[99] and that the forecasts and estimates have been arrived at on a reasonable basis or are the best possible in the circumstance.[100]

98 AGN, *Revised Final Plan 2021–26, Attachment 1.4A - PTRM*, 13 January 2021.

99 NGR, r. 91.

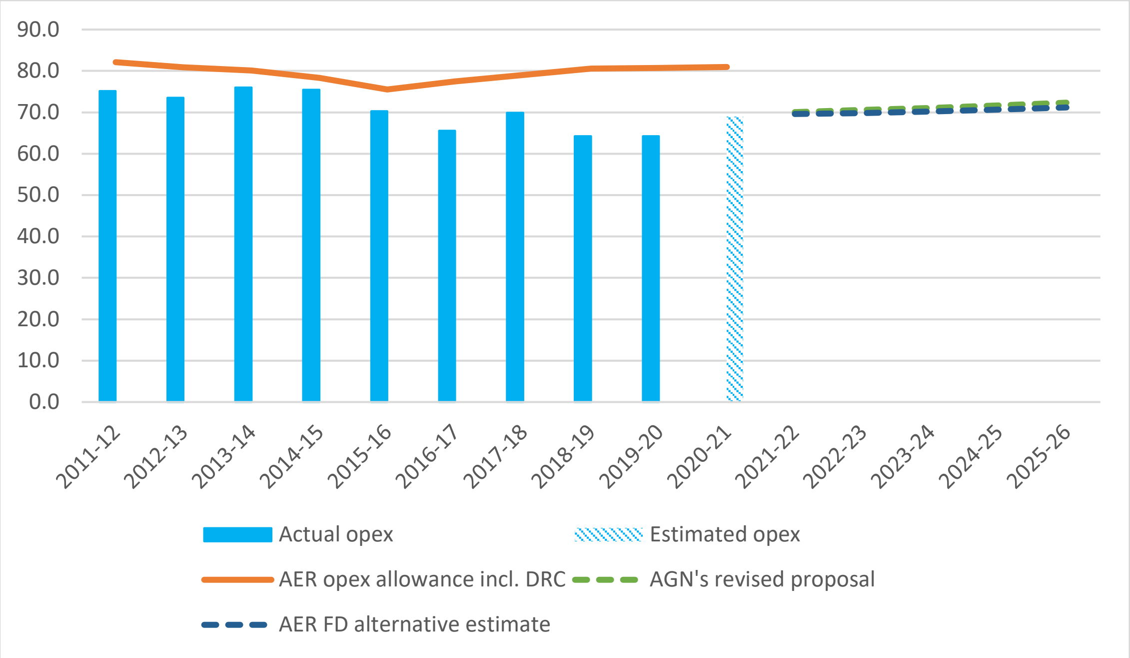
100 NGR, r. 74.

Our final decision opex forecast is:[101]

- $43.2 million (or 10.8 per cent) lower than the opex forecast we approved in our final decision for the 2016–21 access arrangement period
- $22.9 million (or 6.9 per cent) higher than AGN's actual (and estimated) opex in the 2016–21 access arrangement period
- $6.1 million (or 1.7 per cent) lower than AGN's initial proposal.

Figure 9 compares AGN's actual opex, our previous approved forecasts, AGN's revised proposal and our alternative estimate for this final decision.

Figure 9 AER's final decision compared to AGN's past and proposed opex for the 2021–26 period ($million, 2020–21)



Source: AGN, *Revised Final Plan: Five year plan for our South Australian network, 2021–26,* January 2021; AGN, *Annual reset RIN*, 30 November 2020; AER, *Final Decision, Australian Gas Networks access arrangement 2016–21, Post Tax Revenue Model*, May 2016; AER, *Envestra SA, PTRM – final decision – amended – tribunal varied,* January 2012; AER analysis.

Note: Includes debt raising costs and unaccounted for gas.

Table 9 sets out AGN's revised proposal, our alternative estimate for the final decision and the differences between them.

[101] Adjusted to real dollar terms based on June quarter CPI.

Table 9 AER's alternative estimate compared to AGN's opex for the 2021–26 period ($million, 2020–21)

	AGN(SA)'s Revised Proposal	AER alternative estimate Final Decision	Difference
Based on reported opex in 2019	321.2	319.4	-1.8
2019 to 2020-21 increment	3.1	1.1	-2.0
Remove category specific forecasts	-27.0	-24.1	2.9
Output growth	7.2	7.2	-0.1
Price growth	1.8	2.8	0.9
Productivity growth	-3.7	-3.5	0.1
Step changes	4.3	–	-4.3
Category specific forecasts	44.3	44.3	-0.0
Debt raising costs	4.3	4.3	0.0
Total opex	**355.6**	**351.4**	**-4.3**

Source: AGN, *Revised Final Plan 2021–26, Attachment 7.10 - Response to Draft Decision on Opex,* 13 January 2021*;* AER, *Final Decision, Australian Gas Networks access arrangement 2021–26, Opex Model*, April 2021; AGN, *Revised Final Plan 2021–26, Attachment 1.4A - PTRM*, 13 January 2021; AER analysis.

Note: Includes debt raising costs. Numbers may not add up to total due to rounding. Differences of '0.0' and '–0.0' represent small variances and '–' represents no variance.

The key factor which contributed to our different alternative estimate total opex forecast is we did not include AGN's proposed step changes for the customer relationship management system and incremental insurance costs totalling $4.3 million ($2020–21).[102] For both step changes we are not satisfied, taking into account base opex and the forecast rate of change, that additional opex is required. In particular, for insurance we were not persuaded non-labour price growth, including for insurance costs, does not adequately compensate the forecast incremental costs.

We have set out the reasons for our final decision on opex in more detail in attachment 6. Our opex model, which calculates our alternative estimate of opex, is available on our website.

4.6 Revenue adjustments

We have applied a revenue adjustment to AGN's revenue for the 2021–26 period as a result of the efficiency carryover mechanism (ECM).

[102] For avoidance of doubt, while we have not included these step changes in our alternative estimate these costs are included in AGN's revised opex proposal which we have accepted for this final decision because we are satisfied that the forecast is reasonable at the total opex level.

The ECM is intended to provide a continuous incentive for service providers to pursue efficiency improvements in opex, and provide for a fair sharing of these between service providers and network users.

Our final decision is to approve ECM carryover amounts totalling $6.6 million ($2020–21) from the application of the ECM in the 2016–21 access arrangement period. This is $1.3 million higher than AGN's $5.3 million ($2020–21) submitted in its revised proposal.[103] The differences between our final decision and AGN's revised proposal is due to the use of the latest actual inflation and forecast inflation[104] and aligning the 2016–21 UAFG allowances with the final decision allowances in the 2016–21 access arrangement.

Table 10 sets out our final decision on AGN's carryover amounts.

Table 10 AER's final decision on carryover amounts compared to AGN's proposal for the 2021–26 period ($million, 2020–21)

	2021–22	2022–23	2023–24	2024–25	2025–26	Total
AGN's proposed carryover	4.4	0.1	4.0	-3.2	0.0	**5.3**
AER's final decision	4.6	0.8	4.4	-3.2	0.0	**6.6**
Difference	**0.2**	**0.7**	**0.4**	**0.0**	**0.0**	**1.3**

Source: AGN, *Revised Final Plan 2021–26, Attachment 11.3 - Revised ECM Model,* 13 January 2021.

Note: Numbers may not add up due to rounding. Differences of '0.0' and '–0.0' represent small variances and '–' represents no variance.

4.7 Corporate income tax

Our determination of the total revenue for AGN includes the estimated cost of corporate income tax for AGN's 2021–26 access arrangement period.[105] Under the post-tax framework, a corporate income tax amount is calculated as part of the building blocks assessment using our post-tax revenue model (PTRM).

Our final decision on AGN's estimated cost of corporate income tax is zero over the 2021–26 access arrangement period. This is consistent with AGN's revised proposal and our draft decision.

We expect AGN to incur a forecast tax loss over the 2021–26 access arrangement period.[106] We have determined that $126.2 million in tax losses as at 30 June 2026 will

103 AGN, *Revised Final Plan 2021–26, Attachment 11.3 - Revised ECM Model,* 13 January 2021.

104 Reserve Bank of Australia, *Statement on Monetary Policy*, February 2021.

105 NGR, r. 76(c).

106 A forecast tax loss occurs when the forecast assessable income is lower than the forecast tax expense. In this event no tax is payable. Any residual amount of tax loss will be carried forward over to future access arrangement periods to offset future taxable income until the tax loss is fully exhausted.

be carried forward to the 2026–31 access arrangement period where it can be used to offset future tax liabilities. The forecast tax losses arise because AGN's forecast tax expenses will exceed its revenue for tax assessment purposes over the 2021–26 access arrangement period. This is mostly due to the implementation of our findings from the 2018 *Review of the regulatory tax approach*, where the introduction of immediate expensing of capex and diminishing value method of tax depreciation have resulted in a significant increase to forecast tax depreciation.[107]

For this final decision, we determine an opening TAB value as at 1 July 2021 of $868.2 million ($nominal). This value is $5.9 million (or 0.7 per cent) lower than AGN's revised proposal of $874.1 million ($nominal). This difference is mainly due to a revision to AGN's estimated IT capex for 2020–21.

Our final decision confirms our acceptance of AGN's approach to forecasting its cost of corporate income tax for the 2021–26 access arrangement as set out in the PTRM. We accept AGN's revised proposal on the standard tax asset lives for all of its asset classes and use of the year-by-year tracking method to estimate forecast tax depreciation over the 2021–26 access arrangement period for the purpose of calculating tax expenses, consistent with our draft decision.

We also accept the revised proposed amount of forecast immediate expensing of capex, consistent with our final decision on the revised proposed capex amounts associated with the mains replacement program (section 4.4). We will collect actual data relating to this expenditure in our annual reporting regulatory information notice (RIN) to further inform our decision on the amount of forecast immediate expensing of capex in the next review for AGN.

Attachment 7 of our final decision sets out the detailed reasons for our final decision on AGN's corporate income tax.

[107] The third key finding from the 2018 tax review relates to capping tax lives for certain new gas assets to 20 years. However, AGN has historically assigned tax asset lives of 20 years or less to its asset classes, hence this change does not affect AGN.

5 Incentive schemes to apply for 2021–26

Our incentives schemes encourage network businesses to make efficient decisions. They give network businesses an incentive to pursue efficiency improvements in opex and capex, and to share them with consumers. If network businesses reduce their costs to below our forecast of efficient costs, the savings are shared with their customers in future access arrangement periods through the ECM and capital expenditure sharing scheme (CESS).

This final decision determines that two incentive schemes will apply to AGN for the 2021–26 period, as presented below.

5.1 Efficiency carryover mechanism

As noted in section 4.6, the ECM is intended to provide a continuous incentive for service providers to pursue efficiency improvements in opex, and provide for a fair sharing of these between service providers and network users.

Our final decision is to approve the application of an ECM to AGN in the 2021–26 period. We made minor amendments to AGN's proposed ECM in our draft decision[108] to be consistent with version 2 of the efficiency benefit sharing scheme (EBSS) for electricity service providers and other gas distribution businesses.[109]

AGN accepted our revisions to the ECM in its revised proposal.[110] Our final decision is to approve the application of an ECM for AGN in the 2021–26 access arrangement period.

Attachment 8 provides further information on our ECM final decision for AGN.

5.2 Capital expenditure sharing scheme

The CESS rewards efficiency gains and penalises efficiency losses, each measured by reference to the difference between forecast and actual capex.

AGN accepted our draft decision revisions to the CESS in its revised proposal and we do not require any further amendment in AGN's access arrangement for the CESS.[111]

Attachment 13 of our final decision provides further information on the CESS for AGN.

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[108] AER, *Draft decision, Australian Gas Networks access arrangement 2021–26, Attachment 8 – Efficiency carryover mechanism*, November 2020, p. 4.

[109] AER, *Efficiency benefit sharing scheme for electricity network service providers*, November 2013.

[110] AGN, *Revised Final Plan: Five year plan for our South Australian network, 2021–26*, January 2021, p. 7.

[111] AGN, *Revised Final Plan: Five year plan for our South Australian network, 2021–26*, January 2021, p. 7.

6 Non-tariff components

The non-tariff components of an access arrangement include:

- the terms and conditions for the supply of reference services
- queuing requirements
- extension and expansion requirements
- capacity trading requirements
- change of receipt or delivery point by the user
- a review submission date and a revision commencement date – in this case, those dates being 30 June 2025 and 1 July 2026 respectively.

Together, we refer to these as the non-tariff components of the access arrangement.[112]

Our draft decision approved the amendments that AGN proposed to its terms and conditions for the supply of gas.[113] We also approved AGN's other proposed non-tariff components.[114] AGN's revised proposal adopted our draft decision without further amendment.[115]

We received three submissions on AGN's terms and conditions, from Origin Energy,[116] Red/Lumo Energy[117] and AGL.[118]

Origin Energy consider that its liability under indemnities should be capped at a mutually agreed level. Our draft decision accepted AGN's indemnity clause and did not make changes suggested by Origin Energy, to preserve the existing risk balance between the parties. Origin Energy's submission to the revised proposal is identical to Origin's submission on AGN's initial proposal.[119] The clause in question was approved by us and included in the 2016–21 access arrangement terms and conditions, and is also included in AGN's Victoria and Albury gas distribution networks for 2018–22.[120] As

112 Attachment 11 of our draft decision sets out our findings on the non-tariff components in further detail.

113 AER, *Draft decision, Australian Gas Networks access arrangement 2021–26, Overview*, November 2020, p. 50 and AER, *Draft decision, Australian Gas Networks access arrangement 2021–26, Attachment 11 – Non-tariff components,* November 2020, p. 4.

114 AER, *Draft decision, Australian Gas Networks access arrangement 2021–26, Attachment 11 – Non-tariff components,* November 2020, pp. 10–14.

115 AGN, *Revised Final Plan 2021–26, Attachment 14.4 - Response to Draft Decision on Network Access,* 13 January 2021, p. 1.

116 Origin Energy, *Response to AER draft decision and revised access arrangement proposal for AGN (SA) 2021–26*, 17 February 2021.

117 Red Energy and Lumo Energy, *Submission to AER on AGN's Draft Decision Gas Access Arrangement,* 19 February 2021.

118 AGL, *Submission on Australian Gas Networks (SA) 2021–26 Gas Access Arrangement*, 24 February 2021.

119 Origin Energy, *Response to AER draft decision and revised access arrangement proposal for AGN (SA) 2021–26*, 17 February 2021, p. 2.

120 AER, *Draft decision, Australian Gas Networks access arrangement 2021–26, Attachment 11 – Non-tariff components,* November 2020, p. 9.

highlighted in our draft decision, there does not appear to be persuasive evidence that the risk is unmanageable or that there is a fundamental problem or failure. Origin Energy's submission provides no new information to the contrary and as shippers have been operating under the existing arrangements for a number of years, we are not proposing to make any changes and accept AGN's service and curtailment indemnity provisions.

Red/Lumo Energy's submission submitted comments on the following clauses; scheduled meter readings (cl. 11.1), adjustment of charges – time limit (cl. 22.3(c)), credit support (cl.27.2), network user to assist – customer details (cl. 32.2) and disclosure to associated companies (cl. 36.7). We consider that these provisions either reflect those set out in various legislative instruments, including the NGL, NGR and Retail Market Procedures,[121] are not new and have been approved by us in other access arrangement revisions for AGN in South Australia and Victoria,[122] or are reasonable and appropriate in the circumstances.[123]

AGL submitted that clause 20.2(a), deems that the gas retailer is liable for any network charges at the delivery point, despite there being no customer and is contrary to the NGR.[124] This provision dealing with the user's liability for distribution charges at the delivery point is not new. The provision was approved by us in AGN's 2016–21 Access Arrangement for South Australia[125] and 2018–22 Access Arrangement for Victoria/Albury,[126] following a submission from AGL and revisions made by us during the South Australian Access Arrangement review process.[127] As this issue was dealt with in previous Access Arrangement reviews and AGL has not provided anything further in support of its submission, we accept AGN's terms and conditions for distribution service charges.

Our final decision is to approve AGN's non-tariff components, including the terms and conditions for the supply of gas.

Attachment 11 sets out our final decision on the non-tariff components in further detail.

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121 Scheduled meter readings (cl. 11.1), credit support (cl.27.2).

122 Adjustment of charges – time limit (cl. 22.3(c)).

123 Network user to assist – customer details (cl. 32.2) and disclosure to associated companies (cl. 36.7).

124 AGL, *Submission on Australian Gas Networks (SA) 2021–26 Gas Access Arrangement*, 24 February 2021, p. 2.

125 AER, *Final decision, Australian Gas Networks access arrangement 2016–21, Attachment 12 – Non-tariff components*, May 2016, pp. 7 and 10–12.

126 AER, *Draft decision, AGN Victoria and Albury access arrangement 2018–22, Attachment 12 – Non-tariff components*, July 2017, p. 7; AER, *Final decision, AGN Victoria and Albury access arrangement 2018–22, Overview*, November 2017, p. 36.

127 AER, *Draft decision, AGN (SA) access arrangement 2016–21, Attachment 12 – Non-tariff components*, November 2015, pp. 11–12.

A List of submissions

We received 11 submissions in response to AGN's proposal. These are listed below.

Stakeholder	Date
AGL	24 February 2021
BusinessSA	23 February 2021
Consumer Challenge Panel, Sub-panel 24	17 February 2021
Energy Consumers Australia	22 February 2021
Energy & Water Ombudsman SA	21 January 2021
Origin Energy	17 February 2021
Red/Lumo Energy	19 February 2021
South Australian Council of Social Service	16 February 2021
South Australian Federation of Resident and Ratepayers Association Inc.	17 February 2021
South Australian Financial Counsellors Association	3 March 2021
South Australian Minister for Energy and Mining	16 February 2021

Shortened forms

Shortened form	Extended form
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
AGN	Australian Gas Networks
capex	Capital expenditure
CESS	Capital expenditure sharing scheme
CCP24	Consumer Challenge Panel, sub-panel 24
CPI	Consumer price index
EBSS	Efficiency benefit sharing scheme
ECM	Efficiency carryover mechanism
NGL	National Gas Law
NGO	National Gas Objective
NGR	National Gas Rules
opex	Operating expenditure
PTRM	Post-tax revenue model
RBA	Reserve Bank of Australia
RFM	Roll forward model
RIN	Regulatory information notice
RPP	Revenue and pricing principles
TAB	Tax asset base
UAFG	Unaccounted for gas
WACC	Weighted average cost of capital