

Final decision

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

Attachment 6 – Operating expenditure

June 2023

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Inquiries about this publication should be addressed to:

Australian Energy Regulator
GPO Box 3131
Canberra ACT 2601
Tel: 1300 585 165

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6 Operating expenditure

Operating expenditure (opex) is the operating, maintenance and other non-capital expenses, incurred in the provision of pipeline services. Forecast opex is one of the building blocks we use to determine a service provider's total revenue requirement.

This attachment outlines our assessment of Australian Gas Networks' (AGN) proposed opex forecast for the 2023–28 access arrangement period.

6.1 Final decision

Our final decision is to include a total opex forecast of \$506.5 million (\$2022–23) for the 2023–28 access arrangement period, excluding ancillary reference services and including debt raising costs. Our final decision approves a higher total forecast opex than in AGN's revised proposal, because we have added \$29.1 million (\$2022–23) for forecast costs of small customer connection abolishments. We consider these costs meet the opex criteria¹ and forecasts and estimates criteria.² As in our draft decision, we remain satisfied that other elements of AGN's opex forecast also satisfy the opex criteria and the criteria for forecasts and estimates. These contribute the remaining \$477.5 million (\$2022–23) of the total opex forecast approved in this final decision.

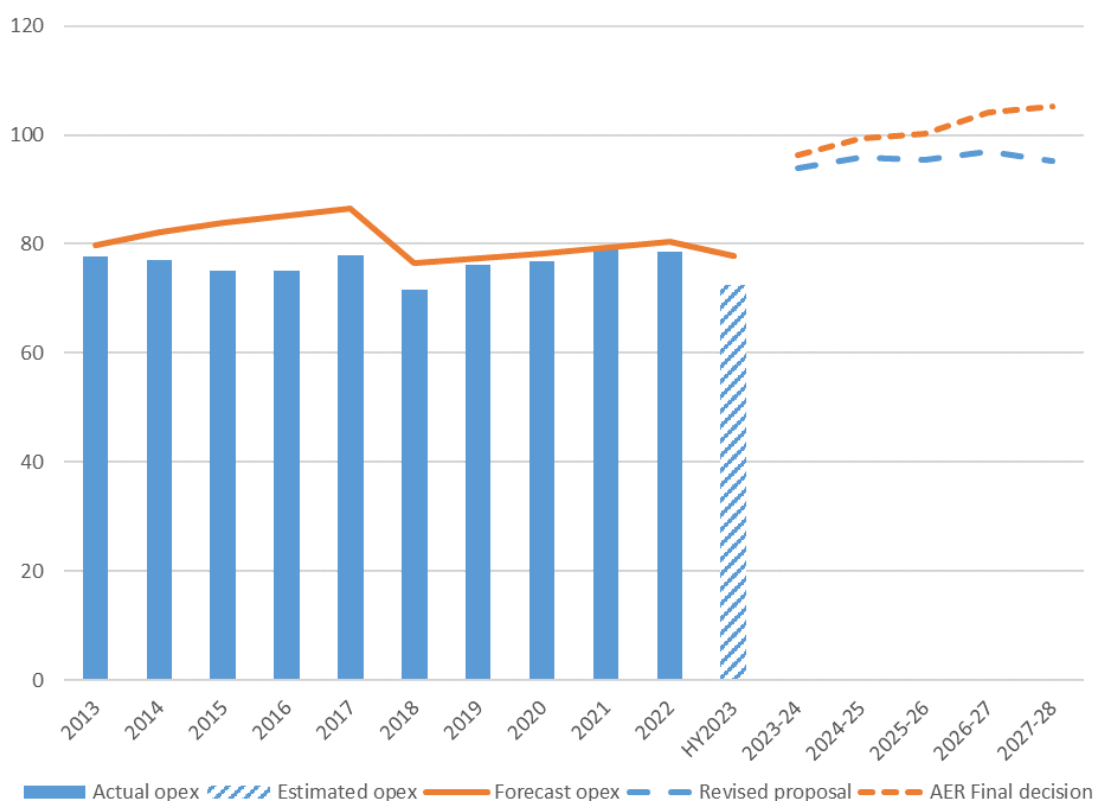
Our final decision is:

- \$114.4 million (\$2022–23) (or 29.2%) higher than the opex forecast we approved in our final decision for the 2018–22 period
- \$123.7 million (\$2022–23) (or 32.3%) higher than AGN's actual opex in the 2018–22 period.

In Figure 6.1 we compare our final decision opex forecast (the orange dashed line) to AGN's revised proposal for the next access arrangement period (the blue dashed line, which also reflects our draft decision). We also show the forecasts we approved for the last two access arrangement periods from 2013–2022 (the solid orange line) and AGN's actual opex across that period (the blue bars).

¹ Under rule 91 of the National Gas Rules (NGR), opex 'must be such as would be incurred by service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of delivering pipeline services.' Where opex satisfies the test in rule 91, in this decision we say it 'satisfies the opex criteria'.

² Under rule 74 of the NGR, information in the nature of the forecast or estimate must be supported by a statement of the basis of the forecast/estimate. Further, forecasts and estimates must be arrived at on a reasonable basis and must represent the best forecast or estimate possible in the circumstances. Where a forecast or estimate meets the requirements of this rule, in this decision we say it 'satisfies the forecasts and estimates criteria'.

Figure 6.1 Historical and forecast opex (\$million, 2022–23)

Source: AGN, *Regulatory accounts*, 2013 to 2021; AGN, *Revised proposal 2023–28, PTRM*; AGN, *Access arrangement, PTRM* (multiple periods: 2013–17, 2018–22, 2023–28); AER analysis.

Note: Includes debt raising costs and movements in provisions. The 6-month 2023 period (HY2023) has been annualised to make it comparable and consistent with other years.

The total opex forecast in AGN’s revised proposal, and our draft decision, was \$94.6 million (\$2022–23) higher than the actual opex for 2018–22 period most significantly as a result of the inclusion of previously capitalised overheads as opex, and the reclassification of certain capital expenditure activities (such as sampling or repair and maintenance type activities) as opex.

Some stakeholders raised concerns around the total opex forecast approved in our draft decision. These concerns related particularly to increases in the total opex forecast at a time when demand is expected to fall, allowing opex in excess of our alternative estimate in the draft decision, and funding of the Priority Service Program. As discussed in section 6.5.1, in our draft decision, we tested AGN’s total opex forecast by developing an alternative estimate using our top-down ‘base–step–trend’ forecasting approach. While we arrived at our alternative estimate in a different way to AGN, we did not find a material difference to AGN’s proposed opex forecast, which we accepted. This included taking into account forecast changes in demand. We also encouraged AGN to continue to work with relevant stakeholders in preparing its revised proposal for the Priority Service Program. We are disappointed that AGN did not provide further detail about a refined scope of this program in its revised proposal. However, consistent with the outcomes our *Towards Energy Equity Strategy* is seeking to achieve, we expect AGN to be able to demonstrate tangible outcomes for vulnerable customers under this program at the start of its next access arrangement period.

Our final decision is \$29.1 million (\$2022–23) higher than AGN’s revised proposal, and our draft decision, as we have included additional opex for small customer abolishment costs. This reflects our final decision to socialise the bulk of small customer connection abolishment costs across haulage reference service tariffs, and establish a discounted standalone ancillary reference service tariff, to ensure the safe operation of the network (see Attachment 9). This means that a significant proportion of the small customer connection abolishment costs will be recovered via haulage reference opex and the associated charges. This results in higher forecast opex than included in AGN’s revised proposal.

AGN’s revised proposal re-stated its position that a standalone small customer connection abolishment cost reflective tariff was appropriate and did not include any small customer connection abolishment costs in its total opex forecast for haulage reference services.³ In light of our decision to socialise the bulk of small customer connection abolishment costs and recover them via haulage reference service charges, we developed an estimate of the associated forecast opex AGN will require to recover its costs of undertaking small customer abolishments using:

- The abolishment costs to be socialised of \$730 (\$2022–23), which was determined via AGN’s cost reflective tariff for small customer abolishments of \$950 (\$2022–23)⁴ less the \$220 (\$2022–23) ancillary reference service charge.
- Our forecast of the number of small customer abolishments that AGN will need to perform over the 2023–28 period, which is lower than AGN’s forecast,⁵ as we have:
 - lagged AGN’s abolishments forecast by two years, assuming a consistent gradual increase from AGN’s current abolishment volumes to its forecast abolishment volumes during this lag period, to better reflect the likely customer behaviour and response to current and any future government initiatives incentivising electrification.
 - reduced AGN’s abolishments forecast by 26% to account for customers who electrify their homes but wish to retain their gas connection for the ‘option value’ it provides.

AGN, however, did not agree with our approach to forecasting small customer connection abolishments. We have set out our forecast of abolishments, and our reasons, in greater detail in section 6.5.2.

Because of the significant uncertainty around these small customer abolishment costs, we have also decided to include a true-up mechanism to ensure costs are only recovered for the actual number of connections abolished, and that any cost savings achieved are returned to customers. This is discussed further in Attachment 10.

³ AGN, *Revised Final Plan, Access Arrangement 2023–28, Attachment 7.1 – Response on Services*, January 2023, pp. 10–11.

⁴ AGN, *Revised final plan, Access Arrangement 2023–28, Tracked version – Current AA with credit support*, January 2023, p. 52.

⁵ AGN, *Revised Final Plan, Access Arrangement 2023–28*, January 2023, pp.16,18–19 and AGN, *Response to IR#033 – Abolishments*, 24 March 2023.

6.2 AGN’s revised proposal

AGN included a total opex forecast, excluding ancillary reference services and including debt raising costs, of \$477.5 million (\$2022–23) in its revised proposal. This is the amount we included in our draft decision, which accepted AGN’s proposal as updated for the Gas Substitution Roadmap.

6.3 Submissions on our draft decision and AGN’s revised proposal

We received 11 submissions on both our draft decision and AGN’s revised proposal, with those on opex related issues from the Brotherhood of St Laurence (BSL) and the AER’s Consumer Challenge Panel, sub-panel 28 (CCP28). The Victorian Community Organisations also referred to opex in the context of discussion around accelerated depreciation not being increased and instead the AER reviewing opex and capital expenditure to identify cost reductions suitable with falling demand.⁶ We have taken these submissions into account in developing our final decision as set out in section 6.5.1.

BSL and CCP28’s submissions both raised concerns with our opex draft decisions. BSL was concerned about the forecast opex the networks are proposing, which was approved in our draft decisions, at a time when demand is expected to fall.⁷ It considered an appropriate assessment would have reviewed base year expenditure to consider declining demand forecasts, applied stringent standards to approving all step changes, disallowed non-compliant programs and responded to stakeholder and consumer feedback. It made the following specific recommendations:⁸

- opex should be re-evaluated for the final decision
- opex revenue in excess of the AER’s alternative estimate should not be approved
- current opex spending that is not in the interest of consumers should be assessed, with adjustments made
- the Priority Services Program should not be funded
- the AER should work closely with gas networks and stakeholders to clarify that activities that prolong gas usage for customers, especially vulnerable consumers, are not acceptable.

In the context of BSL’s recommendation that opex in excess of the AER’s alternative estimate should not be approved, it raised specific concerns around AGN’s cyber security and renewable gas communication step changes. It noted the AER found these to be ‘non-conforming’, and unsuitable for a revenue allowance, but it considered the draft decision still

⁶ Victorian Community Organisations, *Submission from Victorian community organisations to 2023–28 Victorian Distribution Access Arrangements*, February 2023, p. 2.

⁷ Brotherhood of St Laurence, *2023–2028 Victorian Gas Distributors’ Access Arrangement – Draft decision and Revised Proposals submission*, February 2023, p. 20.

⁸ Brotherhood of St Laurence, *2023–2028 Victorian Gas Distributors’ Access Arrangement – Draft decision and Revised Proposals submission*, February 2023, pp. 20–23.

funded these (as the initial proposals including them were accepted).⁹ It also considered this failed to respond to stakeholder feedback that the circumstances of this reset warrant conservative expenditure, that it rewards AGN and MGN's failure to respond to consumer feedback about the renewable gas communications step change, and that it punishes AusNet who did respond and did not propose this step change. Further, it noted that while distributors have no legal restrictions on how to spend their revenue, it is important the AER respond to inappropriate spending to ensure it is made in line with consumer interests. In this light it submitted that appliance subsidy programs should be removed from base year opex.

Both BSL and CCP28 raised objections to our inclusion of opex for the Priority Service Program in the draft decisions.¹⁰ They noted stakeholder submissions to the initial proposal were strongly opposed to additional funding being approved, considering while worthy activities, these should be a part of business as usual funding. BSL was concerned the allowance was granted before the AER was satisfied with the project's design, customer support and efficiency. It also considered the Priority Service Program must not subsidise continued gas usage. CCP28 observed that it is unlikely the Priority Service Program will be up and running in Victoria as at 1 July 2023 and that customers will be paying for services they are not receiving from the network businesses. CCP28 also advised the AER to consider a mechanism for quarantining Priority Service Program funding and releasing the funds only when agreed services are available to be delivered.

6.4 Assessment approach

Our role is to decide whether or not to accept a business's forecast opex. We approve the business's forecast opex if we are satisfied that it meets the opex criteria and the criteria for forecasts and estimates. We set out in detail the approach we use to determine whether a proposal meets the opex criteria in section 6.3 of our draft decision.¹¹

6.5 Reasons for final decision

Our final decision is to include a total opex forecast of \$506.5 million (\$2022–23) for the 2023–28 access arrangement period, excluding ancillary reference services and including debt raising costs. Our final decision approves higher total forecast opex than in AGN's revised proposal, because we have added \$29.1 million (\$2022–23) for forecast costs of small customer connection abolishments. We consider these costs meet the opex criteria¹² and forecasts and estimates criteria.¹³ As in our draft decision, we remain convinced that other elements of AGN's opex forecast satisfy the opex criteria and the criteria for forecasts and estimates. These contribute the remaining \$477.5 million (\$2022–23) of the total opex forecast approved in this final decision.

⁹ Brotherhood of St Laurence, *2023–2028 Victorian Gas Distributors' Access Arrangement – Draft decision and Revised Proposals submission*, February 2023, p. 21.

¹⁰ Brotherhood of St Laurence, *2023–2028 Victorian Gas Distributors' Access Arrangement – Draft decision and Revised Proposals submission*, February 2023, p. 22. CCP28, *Advice to the AER – Draft decision and revised access arrangement proposals*, February 2023, p. 12.

¹¹ AER, *AGN 2023–28, Draft Decision, Attachment 6, Operating expenditure*, December 2022, pp. 13–17.

¹² NGR, r. 91.

¹³ NGR, r. 74.

The total opex forecast in AGN’s revised proposal, and our draft decision, was \$94.6 million (\$2022–23) higher than actual opex for 2018–22 period (excluding ancillary reference services). This was primarily due to the inclusion of previously capitalised overheads as opex, and the reclassification of certain capital expenditure activities (such as sampling or repair and maintenance type activities) as opex. We have set out in section 6.5.1 our responses to the issues and concerns raised by stakeholders about our draft decision for the total opex forecast.

Our final decision is \$29.1 million (\$2022–23) higher than AGN’s revised proposal (and our draft decision) as we have included additional opex for small customer abolishment costs. This reflects our final decision to socialise the bulk of small customer connection abolishment costs across haulage reference service tariffs, and establish a discounted standalone ancillary reference service tariff for the abolishment service, to ensure the safe operation of the network (see Attachment 9). This means that a significant proportion of small customer connection abolishment costs will be recovered via haulage reference opex and associated charges, which results in higher forecast opex than included in AGN’s revised proposal. We have set out the basis for our decision regarding the additional opex for small customer abolishment costs in section 6.5.2.

6.5.1 Issues raised by stakeholder submissions in relation to the draft decision

We have considered the issues and concerns raised in stakeholder submissions as set out in section 6.3.

In determining our alternative estimate for all our opex decisions, we use a form of incentive based regulation to assess the business’s forecast opex over the access arrangement period at a total level. To do so, we develop an alternative estimate of total opex using a ‘top-down’ forecasting method, known as the ‘base–step–trend’ approach. Our alternative estimate of total opex must reasonably reflect the opex criteria¹⁴ which provides that our forecast must be that as would be incurred by a prudent service provider acting efficiently, in accordance with good industry practice, to achieve the lowest sustainable cost of delivering pipeline services. In assessing this, where there is a material difference between our alternative estimate and the business’ total opex forecast (generally by more than 2%) we substitute our alternative estimate for the business’ forecast in the decision we make.

Our draft decision alternative estimate of total opex for AGN was forecast using this top-down ‘base–step–trend’ method. In doing this we considered the efficiency of base opex, the various aspects of the trend (including growth of base opex related to demand changes, price growth and productivity gains) and then considered the opex step changes proposed by AGN (relating to capital to operating changes in costs, cyber security and renewable gas communication and education). We arrived at our alternative estimate in a different way to AGN, a key reason being because we did not include step changes for cyber security or renewable gas communication and education in our alternative estimate. However, as our alternative estimate was in our view not materially lower (1.6%) than AGN’s proposal, we accepted AGN’s proposed total opex forecast as a forecast that as would be incurred by a prudent operator

¹⁴ NGR, r. 91.

acting efficiently, in accordance with good industry practice, to achieve the lowest sustainable cost of delivering services.

In this regard, we consider we did undertake an appropriate assessment of AGN's total opex forecast, as in developing our alternative estimate we:

- Assessed its opex in the base year, which we considered was likely to be efficient and noted that this outcome is incentivised as it is also subject to the incentives of the Efficiency Carryover Mechanism. We noted its opex in the base year was 0.4% higher than allowed in our last determination, opex in the previous three years had been slightly lower than allowed in our last determination and that economic benchmarking it provided showed that AGN was one of the most efficient businesses in terms of opex multilateral partial factor productivity benchmarking over the 1999–2019 period. We did not identify any evidence of AGN's 2021 base year opex being materially inefficient and considered it an appropriate choice of base year. See section 6.4.1 of our draft decision.
- Assessed average annual output growth to be lower than that forecast by AGN (–0.5% versus 0.1%) based on the most recent econometric study available. We considered the older studies, which forecast similar or lower output growth net of productivity growth, were less relevant in the current circumstances. See section 6.4.2.2 of our draft decision. This took into account the impact negative output growth on opex, resulting in lower opex.
- Assessed and included a step change for capital expenditure / opex reclassification activities as these costs were driven by safety and compliance obligations, occur every access arrangement period and do not extend the life of the assets. Further, we were satisfied that no project costs were counted in both capital expenditure and opex, and that all costs moved to opex had been removed from forecast capital expenditure. However, we did not include step changes for cyber security or renewable gas communication and education program as we did not consider these to be prudent and efficient. See section 6.4.1 of our draft decision.

Furthermore we note, due to forecasting negative output growth, we expect productivity to decline somewhat (by –0.2% per year) due to losses of economies of scale. This reflects that AGN will need to operate a safe and reliable network in line with its current regulatory obligations.

While we arrived at our alternative estimate in a different way to AGN, as outlined above, there was not in our view a material difference between AGN's proposed opex forecast and our alternative estimate. This same approach is used in section 6.5.2.5.1. There we conclude that our alternative estimate of total opex being 0.6% higher than AGN's revised proposal, as a result of slightly higher customer number forecasts, is not materially different.

We also note that incentive based regulation is designed to leave the day-to-day decisions to the network businesses. It allows the network businesses the flexibility to manage their assets and labour as they see fit to comply with the opex criteria and achieve the NGO.

Both BSL and CCP28 raised concerns about the inclusion of opex for the Priority Service Program in the draft decisions.¹⁵ BSL and CCP28 considered stakeholders strongly opposed the additional funding, the AER had questions regarding the project's design, customer support and efficiency and whether it would be up and running by 1 July 2023. Our draft decision to include the Priority Service Program costs in our alternative estimate as a category specific forecast was an on-balance decision that reflected:

- The Priority Service Program was similar to the Vulnerable Customer Assistance Program we approved for AGN (SA) and as we considered the activities proposed resulted in a material increase in services.
- We recognised the genuine effort and processes undertaken to engage with customers to test their support of the Priority Service Program, noting the differing customer / stakeholder views on the program in that:
 - the modest number of diverse, but not representative customers directly consulted were of the view that it was important or very important to support vulnerable customers in the context of a \$1.50 annual cost per customer
 - the relevant stakeholders consulted via the Priority Service Program Advisory Panel, which, while not supportive of additional costs, appreciated the initiative.
- AGN's efforts to research and minimise duplication of services and align with other networks for consistency.
- The alignment of the goals of the Priority Service Program with the *Towards Energy Equity Strategy*, in which we recognised the need to deliver better outcomes for customers experiencing vulnerability and avoid exacerbating harm, which is a core objective of the Priority Service Program.

We also encouraged AGN, in preparing its revised proposal, to continue to work with customers and relevant stakeholders to potentially refine and revise the scope of the program, test customer support and demonstrate an efficient use of resources, as reasonable for the scale of the program.

We consider that our draft decision took into account all feedback from customers and stakeholders that AGN received in preparing its Priority Service Program proposal. This included feedback opposing the program, but also feedback that was supportive, and was part of the reason for our on-balance decision. We are disappointed that further detail was not provided in AGN's revised proposal about refining the scope of the program. However, we expect AGN to be able to demonstrate tangible outcomes for vulnerable customers under this program at the start of its next access arrangement period, consistent with the outcomes our *Towards Energy Equity Strategy* is seeking to achieve. We encourage AGN to report on progress in implementing the Priority Service Program, and the outcomes achieved, to relevant customer and stakeholders within and at the end of the next access arrangement period.

¹⁵ Brotherhood of St Laurence, *2023–2028 Victorian Gas Distributors' Access Arrangement – Draft decision and Revised Proposals submission*, February 2023, p. 22. CCP28, *Advice to the AER – Draft decision and revised access arrangement proposals*, February 2023, p. 12.

In this regard, and consistent with our final decision for AGN(SA) 2021–26 access arrangement, we have included the Priority Service Program as a category specific forecast in the total opex forecast. This ensures the program can be reviewed and/or discontinued in the next access arrangement period determination. Inclusion as a category specific forecast also excludes the business from receiving any efficiency carry-over amounts, as a result of underspends on the programs allowance, through the Efficiency Carryover Mechanism. This is the extent to which we have quarantined the funding for the Priority Service Program. In response to CCP28’s quarantining funding proposal, our standard AER base-step-trend opex assessment methodology does not contain any mechanisms to release the funds only when agreed services are available to be delivered. Further, as noted above, we do not consider this would be consistent with the operation of incentive based regulation, which is designed to leave the day-to-day decisions to the network businesses.

6.5.2 Abolishments forecasts and the associated opex forecast

As set out in Attachment 9, our final decision is to socialise the bulk of small customer abolishment costs across haulage reference service tariffs, and establish a discounted stand-alone ancillary reference service tariff, to ensure the safe operation of the network. Specifically, we decided to cap the small customer connection abolishment ancillary reference service at \$220 and socialise the balance across haulage reference service tariffs via an ex-ante opex allowance which is subject to an annual true-up via the control mechanism.

This contrasts with the approach proposed by AGN in its revised proposal where the cost of the abolishment service was to be recovered from the requesting small customer and any unrecovered costs managed via a new pass through event (‘Unrecovered Abolishment Event’).¹⁶ The Unrecovered Abolishment Event is discussed further in Attachment 10.

In coming to our final decision about the ex-ante opex allowance, we investigated the forecast haulage reference service customer and abolishment numbers provided by AGN in its revised proposal.¹⁷ Forecast customer numbers provide information about customers who are forecast to remain on the network and those who are forecast to leave the network (the latter represents the basis of AGN’s abolishment forecast). Following our investigation, we have adjusted AGN’s forecast abolishment volumes to account for:

- the impact of short-term partial electrification arising from government electrification initiatives, likely small customer behaviour patterns and their relationship to the profile of forecast abolishments and our judgement regarding the time it may take for these initiatives and behaviours to impact electrification of homes
- the preference of some small customers to electrify their homes but retain their gas connection for the ‘option value’ it provides.

We consider that accounting for these factors and applying the associated adjustments to AGN’s abolishment forecast results in the best estimate of the abolishment volumes over the

¹⁶ AGN, *Revised Final Plan, Access Arrangement 2023–28, Attachment 7.1 – Response on Services*, January 2023, pp. 10–12.

¹⁷ This is further to our assessment of customer numbers used to forecast output growth.

next access arrangement period. This estimate is lower than the abolishment forecast AGN proposed.

We have used these forecasts, and the abolishment costs to be recovered via the haulage reference service tariffs, to determine the additional opex required to be included in our final decision to enable AGN to recover its costs for performing abolishment services. On this basis we have included an opex allowance of \$29.1 million (\$2022–23) for abolishment service costs in our final decision opex, as a category specific forecast.

Below we set out AGN’s abolishments forecast, along with the further information we have considered in our review of these forecasts. We then explain our view on the appropriate abolishments forecast, which as noted above is lower than AGN’s forecast, the reasons for this, and the associated opex forecast that we have included in this final decision.

6.5.2.1 AGN’s abolishments forecast

In its revised proposal, AGN proposed a ‘user-pays’ approach to the recovery of costs associated with its gas connection abolishment service.¹⁸ This would mean abolishment costs would be fully recovered via ancillary reference service charges. It also proposed a new pass through event (the ‘Unrecovered Abolishment Event’) to recover any associated costs not able to be recovered from the customer requesting the abolishment, under this approach.¹⁹ As AGN proposed a ‘user-pays’ approach to recovery of abolishment costs in its revised proposal, it did not include any abolishment costs within its haulage reference service opex forecast.

In AGN’s revised proposal, it provided updated demand (throughput) and residential connection number forecasts for its Victorian network for the next access arrangement period.²⁰ In developing its demand and connection forecasts, AGN stated that it had accounted for the following factors: the impact caused by the release of the Gas Substitution Roadmap; the changes to the National Construction Code; global changes impacting national and Victorian energy markets; the increasing focus of the Federal Government on ensuring Net Zero Emissions by 2050;²¹ and that it sourced the latest consumption and connections data from the 2022 fiscal year.²² AGN used its forecast residential connections to forecast the number of abolishments it expected to undertake over the 2023–28 access arrangement period. AGN’s abolishment forecast was provided in its initial proposal addendum for the Gas Substitution Roadmap,²³ repropoed alongside connections in its

¹⁸ AGN, *Revised Final Plan, Access Arrangement 2023–28, Attachment 7.1 – Response on Services*, January 2023, p. 11.

¹⁹ AGN, *Revised Final Plan, Access Arrangement 2023–28, Attachment 7.1 – Response on Services*, January 2023, p. 12.

²⁰ AGN, *Revised Final Plan, Access Arrangement 2023–28, Attachment 13.1B – Updated Core Energy Demand Forecasting Report*, January 2023, p. 5.

²¹ AGN Victoria-Albury, *Attachment 13.1A Demand Forecasting Report*, September 2022, p. 4.

²² AGN, *Revised Final Plan, Access Arrangement 2023–28, Attachment 13.1B – Updated Core Energy Demand Forecasting Report*, January 2023, p. 4.

²³ AGN Victoria-Albury, *Revisions to Final Plan 2023–28, Attachment 9.3A – GSR Response, Capex Forecast Model – Growth Capex Volumes*, September 2022.

revised proposal²⁴ and confirmed in a response to our request for additional information.²⁵ This abolishment forecast can be seen in Table 6.1 .

Table 6.1 AGN's abolishment service volume forecast

	2023–24	2024–25	2025–26	2026–27	2027–28	Total
AGN's abolishment service forecast	8,991	14,201	19,386	22,279	25,153	90,010

Source: AGN Victoria-Albury, *Revisions to Final Plan 2023–28, Attachment 9.3A – GSR Response, Capex Forecast Model – Growth Capex Volumes*, September 2022; AGN, *Revised Final Plan, Access Arrangement 2023–28*, January 2023, pp.16,18–19; AGN, *Response to IR#033 – Abolishments*, 24 March 2023.

Note: Numbers in the table may not sum to total due to rounding.

6.5.2.2 Information we have taken into account to assess AGN's abolishment forecast

Review of Victorian gas distribution network historical and forecast abolishment data

We reviewed the data available on historical abolishment service volumes (2018–2021) for the Victorian gas distribution networks, to assess their abolishment forecasts. We had historical abolishment data available for AusNet, but for AGN and MGN, we relied on their meter removals service data, as it was the closest available reference service. AGN and MGN's historical meter removal service volumes were similar to the abolishment service volumes reported by AusNet in terms of the percentage of total customers. The historical data showed that annual abolishment service volumes, as a percentage of total customers, have remained relatively stable (between 0.3% and 0.6% per annum) for all Victorian gas distribution businesses over this period.²⁶ This indicated that customers have not been choosing to leave the gas network in significant numbers.

We found that AGN's proposed forecast of abolishment volumes (in Table 6.1) represented a significant step up compared to its historic levels (1.2% of total customer numbers forecast in the first year of the next access arrangement period).²⁷

The Gas Substitution Roadmap and the 2023 Victorian Gas Planning Report

We understand the Gas Substitution Roadmap encourages gas users to reduce gas usage via partial electrification rather than abolishment in the short term. This reflects the focus of the Gas Substitution Roadmap on providing greater choice to users wanting to transition off gas, rather than requiring or putting in place penalties for those continuing to use gas.²⁸ Further, as the Roadmap indicates, the Victorian Government operates the Victorian Energy

²⁴ AGN, *Revised Final Plan, Access Arrangement 2023–28*, January 2023, pp.16,18–19.

²⁵ AGN, *Response to IR#033 – Abolishments*, 24 March 2023.

²⁶ AER analysis; AusNet, *Annual RIN responses*, 2018–2021; AGN, *Annual RIN responses*, 2018–2021; MGN, *Annual RIN responses*, 2018–2021.

²⁷ AER analysis; AGN, *Annual RIN responses*, 2018–2021; AGN, *Response to IR#033 – Abolishments*, 24 March 2023.

²⁸ Victorian Government, *Gas Substitution Roadmap*, July 2022, p. 3.

Upgrades program to support households and businesses to reduce their energy costs by installing energy efficient equipment. The Government has stated that it will develop new incentives through the Victorian Energy Upgrades program to help customers replace their gas water heating and space heating with efficient low-emissions electric equipment.²⁹ Importantly, the Victorian Government has no stated plans to incentivise switching to electric stoves, unlike the plans it has for space and water heating. We note that gas stoves account for only a small proportion, about 2%, of household gas use in Victoria.³⁰ Incentivising switching away from gas stoves would have only a small impact on energy costs and gas emissions. However, we see the lack of an incentive to transition to electric stoves is likely to be a barrier for customers to fully move off gas. In turn, this is likely to limit the increases in abolishments. Consequently, we consider the forecast abolishment numbers are likely to take longer to occur than forecast by the Victorian gas distribution businesses.

We also examined the 2023 Victorian Gas Planning Report to understand any implications it might have via its customer number forecasts for abolishment forecasts.³¹ We contacted AEMO to investigate the data underlying the 2023 Victorian Gas Planning Report customer number forecasts (which covers most of the next access arrangement period). This is because as outlined above, customer number forecasts will generally take into account abolishment forecasts. AEMO said that the customer number forecast in the 2023 Victorian Gas Planning Report was done to illustrate the number of connections required to electrify, assuming average gas usage per connection was held constant based on historical observations. AEMO confirmed that the customer number forecast was not intended to predict the number of connections, disconnections or abolishments but rather a decline in the effective gas usage. AEMO also commented that it expects that some (perhaps most in the short term) connections will partially electrify instead of completely leaving the network.³²

6.5.2.3 Further review of the abolishment forecast and additional related information

We have examined the Victorian gas distribution networks' abolishment forecasts by considering the following:

- Any relationship with the Gas Statement of Opportunities and 2023 Victorian Gas Planning Report
- The impact of socialising the recovery of part of the abolishment costs
- Likely small customer behaviour and the impact on the profile of abolishment forecasts
- The need to reprofile the abolishment forecasts with a two-year lag
- Some customers' preference to disconnect but not abolish due to 'option value'.

Our consideration of these issues and the views of the Victorian gas distribution networks, including AGN, are set out below.

²⁹ Victorian Government, *Gas Substitution Roadmap*, July 2022, p. 24.

³⁰ Grattan Institute, *Flame out: The future of natural gas*, November 2020, p. 43.

³¹ AEMO, *Victorian Gas Planning Reporting*, March 2023.

³² AEMO, *Email RE: 2023 VGPR data*, 27 April 2023.

Relationship with the 2023 Gas Statement of Opportunities and Victorian Gas Planning Report

The Victorian Gas Planning Report provides information about the supply demand balance in Victoria over the next five years and complements the Gas Statement of Opportunities which assesses wider gas supply adequacy in central and eastern Australia.³³ While the Victorian gas distribution networks, including AGN, did not directly link their abolishment and customer number forecasts to the 2023 Victorian Gas Planning Report data, they compared their abolishment forecasts to it, particularly in terms of customer numbers.³⁴

The networks' forecasts of customer numbers are higher in total, leading to lower abolishments forecasts, than the customer number forecast indicated by the 2023 Victorian Gas Planning Report, under the *Orchestrated Step Change* scenario set out by the 2023 Gas Statement of Opportunities. The networks' forecasts also represented a more significant change from actual customer numbers in the last year of the current period to the first year of the next access arrangement period than the 2023 Victorian Gas Planning Report data. However, as discussed above, we now understand that AEMO's customer number forecasts (presented in the 2023 Victorian Gas Planning Report) are not fit to be used for forecasting purposes as they are illustrative only.

The impact of socialising part of the recovery of the abolishment costs

We also questioned the Victorian gas distribution networks on whether their forecast abolishment volumes would change under a socialised approach to the recovery of abolishment costs. This approach significantly reduces the cost to small customers of obtaining abolishment services. We asked the networks whether this would increase demand for those services. AGN and MGN's forecasts had assumed all customers permanently leaving the network would do so via an abolishment and did not need to update their forecasts to reflect a socialised abolishment recovery approach.³⁵

Likely small customer behaviour and the impact on the profile of abolishment forecasts

We engaged with the Victorian gas distribution networks to discuss the difference in the profile of their abolishment forecasts, including with our expectations. We expect the number of annual abolishments to increase steadily over time from current levels as customers swap more of their gas appliances for electric alternatives over the next access arrangement period in response to Victorian Government incentives (such as the Victorian Energy Upgrades program) and market conditions. AGN and MGN's abolishment forecast displayed an initial step up from current abolishment volumes and then increasing abolishment volumes over the next access arrangement period. We were concerned about the initial step up from the current abolishment levels (see the discussion below on reprofiling forecast with a two-year lag) but we consider the steadier profile of AGN and MGN's abolishment forecasts are broadly consistent with expected customer behaviour.

³³ AEMO, *Victorian Gas Planning Report*, March 2023, p. 5.

³⁴ AGN, *Victorian Gas Access Arrangement, Review of AEMO 2023 Gas Demand Forecast*, 30 March 2023; AusNet, *Response to IR#030 – Abolishments – Updated response for GSOO 2023*, 28 March 2023.

³⁵ AGN, *Response to IR#033 – Abolishments*, 24 March 2023; MGN, *Response to IR#030 – Abolishments*, 24 March 2023.

Reprofiling the abolishments forecasts with a two-year lag

We consulted the Victorian gas distribution networks regarding a lag of two years of their abolishment volume forecasts for the 2023–28 access arrangement period. We consider this two-year lag provides a more gradual increase in forecast abolishments in the initial years of the next access arrangement period, relative to current levels, rather than the step changes being proposed by the Victorian gas distribution networks. This two-year lag reflects our judgement around the time it may take for current initiatives to have an impact, any further Government initiatives to be implemented and for customers to fully consider these initiatives in their decision to electrify their homes. We also believe that this lag period adjustment accounts for customers who choose initially to partially electrify their homes before choosing to proceed with an abolishment.

To adjust the networks' forecast for this two-year lag, we have taken the networks' forecasts for 2023–24 and set it as the forecast for 2025–26 and done likewise for the subsequent years of their forecasts. The new forecasts for 2023–24 and 2024–25 were developed by interpolating between the last historical value (2021) and the first year of the network's abolishment forecasts (now in 2025–26). As set out in section 6.5.2.4, we have used this assumption as an input to our revised abolishment forecast for AGN (and MGN and AusNet).

AusNet did not consider the inclusion of a two-year lag period was required but accepted our position on it.³⁶ AGN and MGN also did not consider that the inclusion of a two-year lag was appropriate citing the introduction of new Victorian Government incentives for space and water heating and cooling, as well as new incentives for electric appliances scheduled to come into effect in 2023–24.³⁷

In relation to AGN and MGN's views, while we agree that the introduction of these new incentives will increase the rate at which customers choose to start electrifying their homes, we do not consider that these incentives will cause the immediate step change in abolishments forecast by AGN and MGN (and AusNet). We understand that the transition to electric stoves represents the main barrier to customers fully moving off gas and as there are no current or planned incentives for customers to switch over their gas cooking appliances consider this will limit the number of abolishments in the short term.

Some customers' preference to disconnect but not abolish due to 'option value'

We also engaged with the Victorian gas distribution networks to investigate customers who leave the network via disconnection instead of an abolishment, not because of the abolishment cost but because the customers see 'option value' in retaining a gas connection. This reflected AusNet's view that a dormant gas connection provides 'option value' for some customers.³⁸ This 'option value' may be perceived to protect future resale value, as some new purchasers may place a premium on having a gas connection (even if the current owner does not). Similarly for commercial or rented residential premises, where the usage could change considerably with a change in tenants, maintaining a gas option may be seen as

³⁶ AusNet, *Response to IR#037 – Demand*, 8 May 2023.

³⁷ AGN, *Response to IR#040 – Abolishment and customer number changes*, 9 May 2023; MGN, *Response to IR#036 – Abolishment and customer number changes*, 9 May 2023.

³⁸ AusNet, *Response to IR#033 – Abolishment*, 18 April 2023.

valuable for future tenants. ‘Option value’ customers are likely to behave differently than customers who choose not to abolish their gas connection because of the relative difference between the cost of a disconnection service and the cost of an abolishment service. ‘Option value’ customers are likely to choose not to abolish their connection under a socialised approach and will only request an abolishment if they no longer perceive sufficient option value in retaining a dormant gas connection.

We consulted Victorian gas distributors on the ‘option value’ consideration. When questioned, AusNet noted its prediction of the impact of option value customers was based on the available anecdotal evidence. It estimated the equivalent of roughly 26% of its abolishment forecast under our ‘socialised’ approach would electrify but wish to retain their gas connection for the ‘option value’ it provides.³⁹ As set out in section 6.5.2.4, we have used this assumption as an input to our revised abolishment forecast for AGN (and AusNet and MGN) as we consider it reflects observed behaviour and represents the best estimate possible in the current circumstances.

AGN and MGN considered that all permanent disconnections will be abolishments noting that due to safety risks a disconnection should not be an option for a customer looking to leave the gas network.⁴⁰

The approach we are adopting of socialising part of the abolishment cost is being driven by the objective of mitigating safety risks. However, we also consider some customers will still prefer not to abolish their gas connection when leaving the network for the perceived ‘option value’ the dormant gas connection provides. We also consider that the impact of this ‘option value’ incentive is likely to be consistent across customers of the three Victorian gas distributors. Therefore, we believe it is appropriate to assume that the networks would have a similar proportion of ‘option value’ customers

6.5.2.4 Our abolishment forecast and the associated opex forecast

Taking into account the information and our review of the abolishment forecasts above, in this final decision we have lagged AGN’s 2023–28 abolishment volume forecasts by two years and have assumed a consistent gradual increase from AGN’s current abolishment volumes to its forecast abolishment volumes during this lag period. As above, we consider it is likely to take time for current initiatives to have an impact, any further electrification initiatives to be implemented, and for customers to fully consider these initiatives in their decision to electrify their homes. We also believe that this accounts for customers who choose initially to partially electrify their homes before choosing to proceed with an abolishment. It is our judgement that a two-year lag to AGN’s forecast abolishments appropriately accounts for these considerations.

Additionally, we have also adjusted AGN’s forecast abolishment volumes to account for customers who electrify their homes but wish to retain their gas connection for the ‘option value’ it provides. We believe that accounting for the option value some customers perceive from their dormant gas connection provides a more accurate reflection of customer

³⁹ AER analysis; AusNet, *Response to IR#035 – Abolishments*, 26 April 2023.

⁴⁰ AGN, *Response to IR#038 – Abolishments*, 28 April 2023; MGN, *Response to IR#035 – Abolishments*, 28 April 2023.

behaviour over the upcoming period. We also believe that AusNet’s estimate for the number of option value customers (roughly 26% of its total forecast abolishments under our socialised approach) represents the best estimate possible in the current circumstances and have adjusted AGN’s abolishment forecast accordingly.

We consider that applying these adjustments to AGN’s abolishment forecast allows for the best estimate of the abolishment volumes over the 2023–28 access arrangement period. As a result, in this final decision our forecast of abolishment volumes for AGN (seen in Table 6.2) includes 50,209 fewer abolishments than forecast by AGN over the 2023–28 period.

Table 6.2 Final decision forecast abolishment volumes for AGN over the 2023–28 period

	2023–24	2024–25	2025–26	2026–27	2027–28	Total
AGN’s forecast abolishment volumes	8,991	14,201	19,386	22,279	25,153	90,010
AER’s final decision forecast abolishment volumes for AGN	3,360	5,000	6,640	10,487	14,315	39,801
Difference in forecast abolishment volumes	–5,632	–9,201	–12,746	–11,792	–10,838	–50,209

Source: AER Analysis; AGN Victoria-Albury, *Revisions to Final Plan 2023–28, Attachment 9.3A – GSR Response, Capex Forecast Model – Growth Capex Volumes*, September 2022; AGN, *Revised Final Plan – Access Arrangement 2023–28*, January 2023, pp.16,18–19; AGN, *Response to IR#033 – Abolishments*, 24 March 2023.

Note: Numbers in the table may not sum to total due to rounding.

We have used our forecast of abolishment volumes, along with the abolishment costs to be socialised via haulage reference service opex (\$730 (\$2022–23)) to determine the opex forecast for the next access arrangement period. The abolishment costs to be socialised are determined via AGN’s cost reflective tariff for small customer abolishments of \$950 (\$2022–23)⁴¹ less the \$220 (\$2022–23) ancillary reference service charge.

Our final decision forecast opex allowance for abolishments is shown in Table 6.3. It results in a \$29.1 million (\$2022–23) opex allowance for abolishment service costs (included as a category specific cost). We consider that this amount represents the best estimate of the abolishment service costs AGN is likely to incur over the 2023–28 period.

⁴¹ AGN, *Revised final plan, Access Arrangement 2023–28, Tracked version – Current AA with credit support*, January 2023, p. 53.

Table 6.3 Final decision forecast abolishments opex allowance for AGN over the 2023–28 period (\$million, 2022–23)

	2023–24	2024–25	2025–26	2026–27	2027–28	Total
AER's forecast abolishment allowance	2.5	3.6	4.8	7.7	10.5	29.1

Source: AER Analysis.

Note: Numbers in the table may not sum to total due to rounding.

We have included this abolishment opex allowance as a category specific forecast because it does not rely on actual costs in the base year to be forecast. It also enables these costs to be separated from the other more business-as-usual costs in the opex forecasts, which is required for the operation of a true-up mechanism. In this regard, we note there is some uncertainty associated with this forecast and as a result, we have included a true-up in the tariff control mechanism for abolishment costs. This will true-up abolishment costs where the annual number of abolishments undertaken by AGN is higher or lower than our abolishment forecast and where the cost of an abolishment incurred by AGN is lower than approved in our final decision. This true-up is set out in more detail in Attachment 10.

6.5.2.5 Impact of abolishment forecasts on customer numbers and opex

In this final decision, we have assumed every abolishment removed from the AGN's forecast due to the inclusion of a two-year lag is an existing customer remaining on the network (and therefore results in higher customer numbers). However, we did not increase customer numbers for any abolishment avoided (relative to AGN's forecasts) due to a customer leaving the network but not requesting an abolishment due to the perceived 'option value' of the dormant gas connection. This is because such customers are indefinitely disconnected from the network and thus cannot be considered network customers unless a reconnection is requested.

Reflecting this, the customer numbers adjusted for the two-year lag that we used in this final decision are shown in are shown in Table 6.4. These are 5.0% higher than those proposed by AGN by the end of the next access arrangement period.

Table 6.4 Final decision change in customer numbers for AGN due to the change in forecast abolishment volumes

	2023–24	2024–25	2025–26	2026–27	2027–28
AGN's forecast customer numbers	752,884	753,502	749,414	738,614	722,791
AER's forecast customer numbers	757,325	765,374	771,680	768,958	758,903
Difference in forecast customer numbers	4,441	11,872	22,266	30,344	36,112

Source: AER Analysis; AGN, *Revised final plan, Access Arrangement 2023–28, Attachment 1.5B – Post tax revenue model*, January 2023.

Note: Numbers in the table may not sum to total due to rounding.

6.5.2.5.1 Impact on opex rate of change and inclusion of abolishment allowance in our final decision opex

We have considered the impact of these slightly higher customer number forecasts on the total opex forecast AGN included in its revised proposal. In particular on the rate of change component of the opex forecasts. This is because customer numbers are one of the outputs used to forecast output growth.

We accepted AGN's proposed opex forecasts in our draft decision⁴² which it repropose in its revised proposal.⁴³ Revising our alternative estimate of opex for the updated customer numbers would result in our alternative estimate being 0.6% higher than AGN's revised proposal. As such, we do not consider our alternative estimate to be materially different from AGN's revised proposal and have not amended AGN's revised proposal forecast opex for the changes to the customer number forecasts.

6.6 Revisions

We do not require any amendments be made to the drafting of AGN's 2023–28 Access Arrangement for opex. However, as set out in our final decision overview for AGN, we have approved AGN's proposal that the Efficiency Carryover Mechanism continue to apply to its opex, during the 2023–28 period. For this to occur, we require the following revisions to make the Access Arrangement proposal acceptable as set out in Table 6.5.

⁴² AER, *AGN 2023–28 Draft Decision, Attachment 6 – Operating expenditure*, December 2022, p. 1.

⁴³ AGN, *Revised final plan – Access Arrangement 2023–28*, January 2023, p. 16.

Table 6.5 AGN's efficiency carryover mechanism revisions

Revision	Amendment																											
Revision 6.1	<p>In clause 5.1 – Incentive mechanism:</p> <p>Amend the existing clause 5.1(i)(ii) of AGN's Access Arrangement, to read:</p> <p>ii. any cost category that is not forecast using a single year revealed cost approach in the access arrangement period following this Access Arrangement Period (intended to commence 1 July 2028). These costs may include, debt raising costs, unaccounted for gas expenses, and priority service program expenses, and any abolishment service costs included as haulage reference service opex;</p>																											
Revision 6.2	<p>In clause 5.1 – Incentive mechanism:</p> <p>Replace clause 5.1(l) of AGN's Access Arrangement, with:</p> <p>l) For the avoidance of doubt, the forecast expenditure amounts that are used as the basis for measuring efficiencies are equal to the approved forecast operating expenditure for that year (as shown in the table below). Noting that, for the purposes of calculating the carryover amount at the next revenue determination, these values will be superseded by the operating expenditure values found in the most recent post-tax revenue model published by the Regulator (plus any other operating expenditure approved by the Regulator), subject to the exclusions in clauses 5.1(i)(i)-(iv).</p>																											
Revision 6.3	<p>In clause 5.1 – Incentive mechanism:</p> <p>Replace the table captioned 'Approved forecast operating expenditure for the efficiency carryover mechanism', in clause 5.1(l) of AGN's Access Arrangement, with:</p> <table border="1"> <thead> <tr> <th></th> <th>2021</th> <th>2022</th> <th>Jan-Jun 2023</th> <th>2023-24</th> <th>2024-25</th> <th>2025-26</th> <th>2026-27</th> <th>2027-28</th> </tr> </thead> <tbody> <tr> <td>Approved forecast operating expenditure</td> <td>65.5</td> <td>66.4</td> <td>39.1</td> <td>91.8</td> <td>94.0</td> <td>93.6</td> <td>95.0</td> <td>93.2</td> </tr> <tr> <td>\$ Basis</td> <td>2018-2022 GAAR (\$2017)</td> <td>2018-2022 GAAR (\$2017)</td> <td>Half-Year Extension GAAR (\$2022)</td> <td colspan="5">July 2023-June 2028 GAAR (\$2022-23)</td> </tr> </tbody> </table>		2021	2022	Jan-Jun 2023	2023-24	2024-25	2025-26	2026-27	2027-28	Approved forecast operating expenditure	65.5	66.4	39.1	91.8	94.0	93.6	95.0	93.2	\$ Basis	2018-2022 GAAR (\$2017)	2018-2022 GAAR (\$2017)	Half-Year Extension GAAR (\$2022)	July 2023-June 2028 GAAR (\$2022-23)				
	2021	2022	Jan-Jun 2023	2023-24	2024-25	2025-26	2026-27	2027-28																				
Approved forecast operating expenditure	65.5	66.4	39.1	91.8	94.0	93.6	95.0	93.2																				
\$ Basis	2018-2022 GAAR (\$2017)	2018-2022 GAAR (\$2017)	Half-Year Extension GAAR (\$2022)	July 2023-June 2028 GAAR (\$2022-23)																								

Glossary

Term	Definition
ABS	Australian Bureau of Statistics
AER	Australian Energy Regulator
AGN (SA)	Australian Gas Networks (South Australia)
AusNet	AusNet Gas Services
Capex	Capital expenditure
CCP28	Consumer Challenge Panel 28
CPI	Cost price index
ECM	Efficiency carryover mechanism
MGN	Multinet Gas Networks
NER	National Energy Rules
NGO	National Gas Rules
Opex	Operating expenditure
PSP	Priority service program
RBA	Reserve Bank of Australia
WPI	Wage price index