

Proposed Revisions to the Mid-West and South-West Gas Distribution Systems Access Arrangement for 2020 to 2024

Issues Paper

11 October 2018

Economic Regulation Authority

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Summary

On 31 August 2018, ATCO Gas Australia (ATCO) submitted proposed revisions to the access arrangement for the Mid-West and South-West Gas Distribution Systems (GDS) to the Economic Regulation Authority (ERA). ATCO's proposal covers the five year period from 1 January 2020 to 31 December 2024 (otherwise referred to as the fifth access arrangement period, or AA5).

The role of the ERA is to approve or not approve ATCO's proposal, in light of the requirements of the *National Gas Law* (NGL) and *National Gas Rules* (NGR).

ATCO has proposed to increase haulage reference tariffs by inflation plus about 22 per cent in 2020 and then a further 2.3 per cent for each of the remaining years of AA5 for all industrial and commercial customers. ATCO has proposed different tariff increases for B3 (residential) customers. The average B3 customer would incur a 24.1 per cent real increase in its annual network bill in 2020 and about a one per cent real annual increase for the remaining years of AA5.^{1 2} ATCO has explained that some of this increase is a result of 2019 tariffs that were set below the expected cost of service for that year.³ Other contributing factors to the real increase in haulage reference tariffs include increased proposed capital expenditure for AA5 and lower demand forecasts.

ATCO proposes to spend \$357.4 million in operating expenditure during AA5. ATCO utilises the base-step-trend method to estimate its operating costs, excluding unaccounted for gas and ancillary services, which are separately estimated.

ATCO proposes to spend \$509.3 million in capital expenditure during AA5. Over 50 per cent of that expenditure is for network asset replacement and performance. Around 34 per cent of capital expenditure is for network growth with the remaining expenditure is for information technology and structures and equipment expenditure.

ATCO's proposed rate of return is 6.03 per cent (nominal after tax) and is based on the methods and values detailed in the ERA's draft gas rate of return guidelines.⁴ The ERA is currently finalising its rate of return guidelines that apply to regulated gas networks and transmission pipelines in Western Australia (information about the guidelines is provided in Appendix 3). The updated gas rate of return guidelines will be used to determine the rate of return for the GDS. At present, the rate of return guidelines are not binding. However, this is expected to change with the Council of Australian Governments' Energy Council developing a framework for a binding rate of return instrument.

¹ The retail bill for a small use customer (B3) includes costs for the production of gas, transmission of that gas to the distribution network, distribution network charges and retail-related costs. The annual network bill is the amount that is charged to retailers for the use of the ATCO distribution network. ATCO notes that the network charges represent about 30 per cent of the retail bill for small use customers.

² The ERA has converted ATCO's nominal annual bill into real terms using ATCO's assumed inflation. The ERA has calculated the annual real changes using ATCO's proposed average B3 consumption for AA5.

³ The tariff path for the current access arrangement period was complicated as the 2013/14 tariffs continued until 1 October 2015 (15 months into the current period). This is because there was a delay in approving the access arrangement. As these tariffs were above the costs for that period, the tariffs for the remaining part of the period needed to be below the costs for that period to ensure that the allowed revenue equalled costs.

⁴ Economic Regulation Authority, *Draft Rate of Return Guidelines (2018): Meeting the requirements of the National Gas Rules*, 29 June 2018 ([online](#)) (accessed 4 September 2018).

Invitation to make submissions

Submissions are due by 4:00 pm WST, Wednesday, 14 November 2018

The ERA invites comment on this paper and encourages all interested parties to provide comment on the matters discussed in this paper and any other relevant issues or concerns not already raised in this paper.

We would prefer to receive your comments via our online submission form <https://www.erawa.com.au/consultation>

You can also send comments through:

Email: publicsubmissions@erawa.com.au
Post: PO Box 8469, PERTH BC WA 6849
Fax: 08 6557 7999

Please note that submissions provided electronically do not need to be provided separately in hard copy.

All submissions will be made available on our website unless arrangements are made in advance between the author and the ERA. This is because it is preferable that all submissions be publicly available to facilitate an informed and transparent consultative process. Parties wishing to submit confidential information are requested to contact us at records@erawa.com.au.

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Introduction

1. The purpose of an access arrangement is to provide the terms and conditions, including price, upon which an independent third party user can gain access to a regulated pipeline to transport gas.
2. On 31 August 2018, ATCO Gas Australia (ATCO) submitted its proposed access arrangement revisions,⁵ access arrangement information⁶ and access arrangement supporting information for the Mid-West and South-West Gas Distribution Systems (GDS) to the Economic Regulation Authority (ERA).⁷ ATCO's proposal covers the five year period from 1 January 2020 to 31 December 2024 (otherwise referred to as the fifth access arrangement period or AA5). ATCO's current access arrangement applies until a revised access arrangement is approved by the ERA.
3. The GDS consists of gas reticulation networks servicing Geraldton, Bunbury, Busselton, Harvey, Pinjarra, Brunswick Junction, Capel and the Perth greater metropolitan area (including Mandurah). These combined networks supply approximately 750,000 customers through more than 14,000 kilometres of pipeline.⁸
4. ATCO is the natural gas distribution business within the Pipelines and Liquids Global Business Unit of the ATCO Group of global companies. The ATCO Group is engaged in structures and logistics, electricity (generation, transmission and distribution), pipelines and liquids (natural gas transmission, distribution and infrastructure development, energy storage and industrial water solutions) and retail energy. ATCO owns and operates the GDS.⁹
5. This Issues Paper has been prepared to assist interested parties to:
 - Prepare submissions to the ERA on ATCO's proposal.
 - Understand some of the issues that will be addressed by the ERA in determining whether to approve or not approve ATCO's proposal.
6. This issues paper is not an exhaustive review of the content of ATCO's proposal or the matters that the ERA will address in making its determination. While this issues paper identifies issues for consideration, interested parties are invited to make submissions on any aspect of ATCO's proposal and on the operation of the GDS access arrangement more generally during the current access arrangement period (otherwise referred to as the fourth access arrangement period or AA4).
7. The ERA will consider all submissions received through the consultation period in making its draft decision on ATCO's access arrangement proposal.

⁵ ATCO, *Access Arrangement for the Mid-West and South-West Gas Distribution Systems*, 31 August 2018.

⁶ ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018.

⁷ These documents are published on the [ERA website](#).

⁸ ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 5.

⁹ ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 5.

Regulatory Framework

8. The requirements for an access arrangement are established by the *National Gas Law* (NGL) and *National Gas Rules* (NGR) as enacted by the *National Gas (South Australia) Act 2008* and implemented in Western Australia by the *National Gas Access (WA) Act 2009*.
9. Under rule 100 of the NGR, all provisions of an access arrangement must be consistent with the national gas objective, which is specified in section 23 of the NGL.

The objective of this Law is to promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas.
10. Sections 28(1) and (2) of the NGL specify the manner in which the ERA must perform or exercise its regulatory functions or powers.

28 Manner in which [ERA] must perform or exercise [ERA] economic regulatory functions or powers

 - (1) The [ERA] must, in performing or exercising an [ERA] economic regulatory function or power—
 - (a) perform or exercise that function or power in a manner that will or is likely to contribute to the achievement of the national gas objective; and
 - (b) ...
 - (2) In addition, the [ERA]—
 - (a) must take into account the revenue and pricing principles—
 - (i) when exercising a discretion in approving or making those parts of an access arrangement relating to a reference tariff; or
 - (ii) when making an access determination relating to a rate or charge for a pipeline service; and
 - (b) may take into account the revenue and pricing principles when performing or exercising any other [ERA] economic regulatory function or power, if the [ERA] considers it appropriate to do so.
11. Appendix 2 outlines the access arrangement review process.
12. ATCO is required to submit a “full access arrangement” for the GDS. The required content of a full access arrangement proposal is specified in rules 48 and 72 of the NGR.

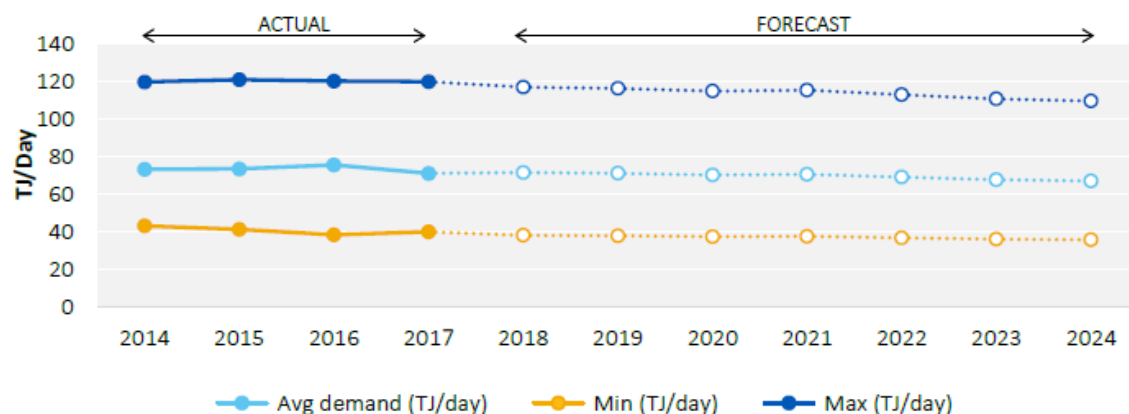
Issues for Consideration

13. The ERA has identified some important issues for consideration by interested parties. However, interested parties are also invited to make submissions on any aspect of ATCO's proposal.
14. The issues for consideration outlined in this section include:
 - demand forecasts
 - tariff variations (proposed price paths)
 - taxation
 - new incentive mechanism
 - reliability and security of supply capital expenditure.

Demand forecasts

15. The forecasts of new connections and gas demand will affect the amount of capital expenditure required to augment the network. User access prices are determined using forecast demand. If actual demand is higher or lower than forecast, ATCO will either recover more or less revenue.
16. The NGR require access arrangement information, for a full access arrangement proposal, to include information about the usage of the pipeline that shows, for a distribution pipeline:
 - minimum, maximum and average demand
 - customer numbers in total and by tariff class.
17. According to ATCO, the minimum, maximum and average demand peaked early during the AA4 period, and is forecast to continue a gradual decline over the AA5 period (Figure 1). The average utilisation of the capacity of the network is forecast to fall over AA5.

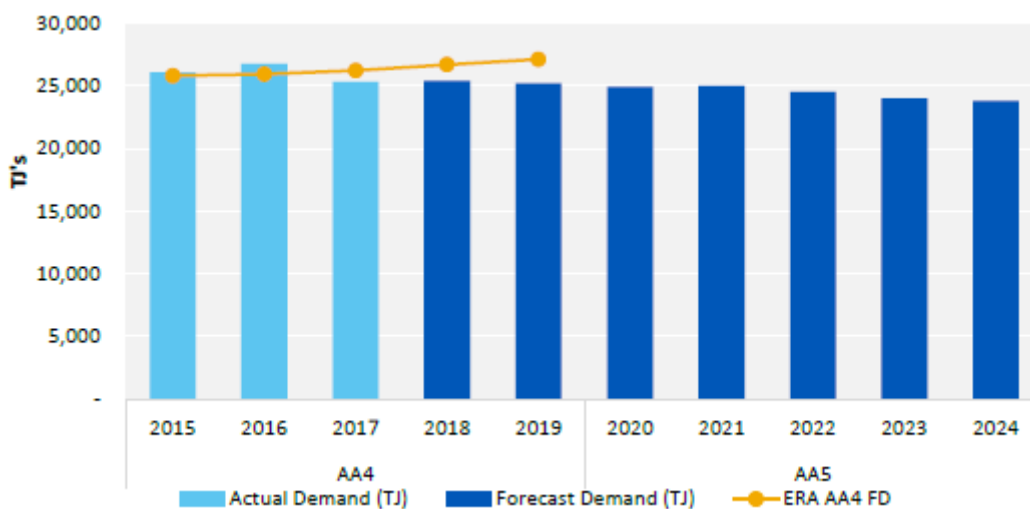
Figure 1 Actual and forecast minimum, maximum and average demand per day



Source: ATCO, Access Arrangement Information, p. 60, Figure 9.8.

18. ATCO's demand forecast for AA5 is based on expert advice from the Core Energy Group, which has implemented improvements based on the ERA's feedback on the forecast method used in AA4. These improvements include:
- Adopting a more tailored approach to forecasting consumption by surveying A1 Tariff customers.
 - Daily weather normalisation to replace annual weather normalisation.
 - The inclusion of the most recent customer consumption data for the 2017 calendar year.
19. The Core Energy Group has developed the gas demand forecast by predicting the total demand by tariff class (A1 to B3) and determining the expected average customer base in each tariff class.¹⁰
20. ATCO continues to normalise the effect of weather on demand using an effective degree day method as adopted in AA4. This method aims to increase consumption forecasting accuracy by incorporating climatic variables affecting the consumption and behaviour of gas users in Western Australia (for example, sunshine hours, wind chill, seasonality).
21. Figure 2 shows the annual forecast volume over AA4 and AA5 compared to the ERA's AA4 Final Decision. ATCO has forecast that total demand will gradually decline during AA5, reducing from 25,303 TJ in 2017 to 23,782 TJ by 2024. Total demand is forecast to decline at an annual rate of 1.1 per cent over AA5.¹¹

Figure 2 Actual and forecast demand over AA5 for all customers

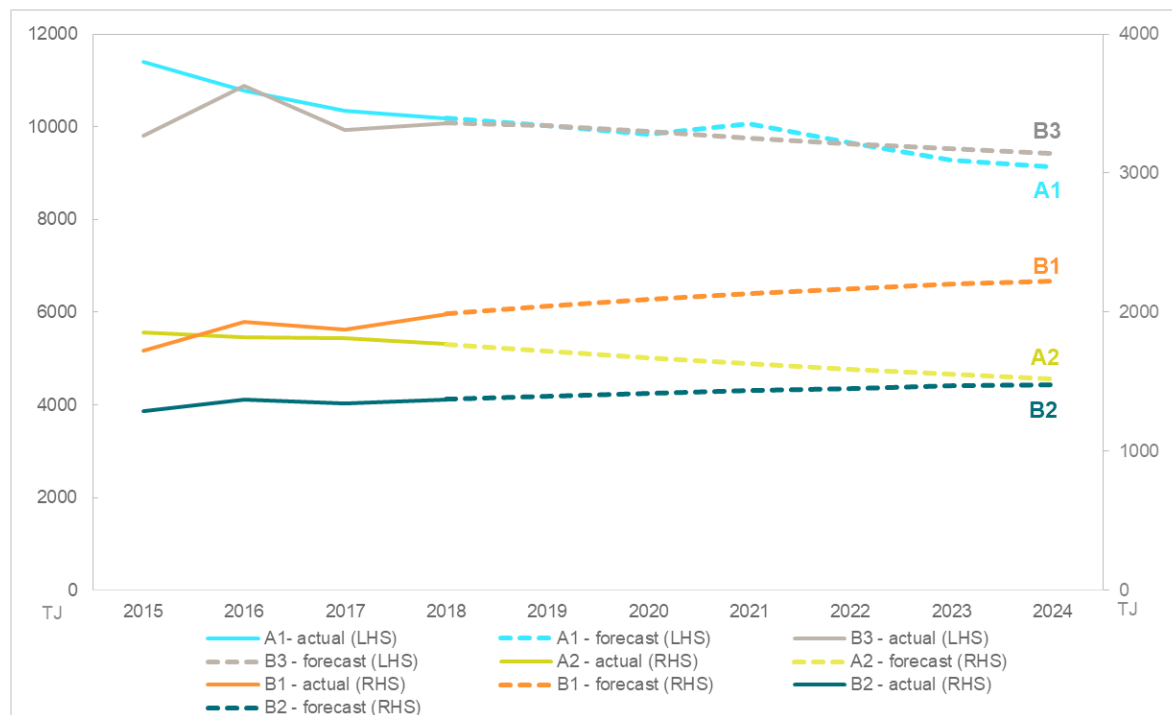


Source: ATCO Access Arrangement Information, p. 60, Figure 9.7.

22. Consumption per customer during AA5 is forecast to decrease. Figure 3 illustrates the historical and forecast total demand by tariff class, with the dashed lines representing ATCO's forecasts from 2018 to 2024. The left axis in the chart applies to Tariff Class A1 and B3, and the right axis applies to Tariff class A2, B1 and B2. The unit of measurement 'terajoule' (TJ) applies to both axes.

¹⁰ ATCO, *Access Arrangement Information*, p. 59, Table 9.7.

¹¹ ATCO, *Access Arrangement Information*, p. 59, Table 9.7.

Figure 3 Historical and Forecast Total Demand (TJ) by Tariff Class

Source: ATCO, Access Arrangement Information, Figures 9.1, 9.2, 9.3, 9.4 and 9.6.

23. ATCO has forecast the total demand of industrial (A1 and A2 Tariff) and residential (B3 Tariff) customers will decrease over AA5, but expects commercial customers (B1 and B2 Tariff) will demand more gas over AA5 for the following reasons:
- A1 and A2 demand – an average decline of 1.9 per cent per year, due to continued decline in manufacturing sector customers and the decline in volume per connection for space and water heating industrials (due to appliance and efficiency trends).¹² Although there is an average decline in demand over AA5, ATCO has forecast that A1 consumption in 2021 will increase before decreasing in each following year.
 - B1 and B2 demand - an average increase of 1.3 per cent per year, due to continued strong connections growth (which more than offsets a significant trend of decreasing volume per connection) and longer term trend to factor in a return to economic growth.¹³
 - B3 demand – a decline of 1.2 per cent per year, resulting from a decline in average usage due to increasingly efficient appliances and reducing average dwelling size.¹⁴
24. Table 1 summarises the forecast average customer base and compound annual growth rate (CAGR) by tariff class.

¹² ATCO, *Access Arrangement Information*, p. 54 (for the average growth rate) and *AA5 Demand Forecast Report*, p. 14 and p. 16 (for forecast drivers of demand).

¹³ ATCO, *Access Arrangement Information*, p. 56 (for the average growth rate) and *AA5 Demand Forecast Report*, pp. 17-18 (for forecast drivers of demand).

¹⁴ ATCO, *Access Arrangement Information*, p. 57 (for the average growth rate and forecast drivers of demand).

Table 1 Average customer base over AA5

Tariff Class	2020	2021	2022	2023	2024	CAGR
A1 (industrial)	72	72	71	70	69	-1.1%
A2 (industrial)	96	96	96	96	96	0.0%
B1 (commercial)	1,816	1,885	1,949	2,010	2,069	3.3%
B2 (commercial)	12,527	12,850	13,190	13,528	13,850	2.5%
B3 (residential)	747,479	759,437	771,652	784,165	796,954	1.6%
Total	761,990	774,341	786,958	799,867	813,038	1.6%

Source: ATCO, *Access Arrangement Information*, p. 59, Table 9.7. Some numbers may not add due to rounding.

25. ATCO has forecast the industrial customer bases will decline (A1 Tariff) or remain unchanged (A2 Tariff), but expects the commercial and residential customers will increase over AA5 for the following reasons:
- Industrial customers – customer disconnections scheduled for 2022 and 2023 as disclosed to ATCO during a customer consultation process.
 - Commercial customers - an increase of 3.3 per cent (B1 Tariff) and 2.5 per cent (B2 Tariff) per year based on historical statistical relationships between real Gross State Product (GSP), business numbers and connections.¹⁵
 - Residential customers – an increase of 1.6 per cent per year based on ATCO’s forecast population growth and dwelling completions for Perth through to 2024 and consideration of 5,500 zero-volume gas users disconnecting in the near future.¹⁶

Issue 1 Demand Forecast

Submissions are invited from interested parties on ATCO’s proposed demand forecast over AA5.

Tariff variations

26. Rule 92 of the NGR requires ATCO to include a mechanism (a “reference tariff variation mechanism”) to vary reference tariffs over the course of the access arrangement period. The mechanism must be designed to equalise (in terms of present values):
- Forecast revenue from reference services over the access arrangement period.
 - The portion of total revenue allocated to reference services for the access arrangement period.
27. Rule 97 specifies the requirements (or *mechanics*) for reference tariff variations.

¹⁵ ATCO, *Access Arrangement Information*, pp. 56-57.

¹⁶ ATCO, *Access Arrangement Information*, pp. 58-59.

- The tariff variation mechanism may vary a reference tariff in accordance with a schedule of fixed tariffs, a formula or a defined cost pass through event (or a combination of these).
 - A formula used to vary a reference tariff may, for example, provide for variable caps, tariff basket price control or revenue yield control (or a combination of these).
 - In deciding whether a particular reference tariff variation mechanism meets the requirements of the NGR, the ERA must have regard to relevant factors such as:
 - The need for efficient tariff structures.
 - The administrative costs of the reference tariff variation mechanism.
 - The regulatory arrangements (if any) applicable to the relevant reference services before the commencement of the proposed reference tariff variation mechanism.
 - The desirability of consistency between regulatory arrangements for similar services (both within and beyond the relevant jurisdiction).
28. The reference tariff variation mechanism must give the ERA adequate oversight to approve any variation of the reference tariff. A reference tariff must not vary during the course of an access arrangement period, except as provided by the reference tariff variation mechanism.
29. ATCO has proposed a 22.2 per cent real increase in haulage tariffs for A1 and A2 (industrial customers), and B1 and B2 (commercial customers) tariff classes in 2020. This is followed by an annual real tariff increase of 2.3 per cent for those customers. ATCO has proposed these price increases, and the increases for the B3 customers discussed below, to allow it to recover its cost of service in net present value terms during AA5.¹⁷
30. ATCO has proposed different tariff increases for B3 (residential) customers. The average B3 customer would incur a 24.1 per cent real increase in its annual network bill in 2020 and about a one per cent real annual increase for the remaining years of AA5.^{18 19} The B3 variable charges increase significantly in 2020 while the B3 fixed charge remains unchanged in real terms from 2019. There are two variable charges – consumption between 1.825 GJ and 9.855 GJ per year (this increases by 71.6 per cent in 2020), and consumption over 9.855 GJ per year (this increases by 195.4 per cent in 2020). The first 1.825 GJ is not charged.²⁰ As a result, the effect on a B3 customer's annual network bill will depend on its usage.
31. The B3 fixed charge in real terms does not increase throughout AA5, as ATCO considers it is at a level which recovers the fixed costs of new customer connections. The variable charges, like the tariff increases for A1, A2, B1 and B2 customers, increase by 2.3 per cent, in real terms, for the remaining years of AA5.

¹⁷ 'Real' price increases exclude inflation. The tariffs charged to customers will include actual inflation.

¹⁸ The retail bill for a small use customer (B3) includes costs for the production of gas, transmission of that gas to the distribution network, distribution network charges and retail-related costs. The annual network bill is the amount that is charged to retailers for the use of the ATCO distribution network. ATCO notes that the network charges represent about 30 per cent of the retail bill for small use customers.

¹⁹ The ERA has converted ATCO's nominal annual bill into real terms using ATCO's assumed inflation. The ERA has calculated the annual real changes using ATCO's proposed average B3 consumption for AA5.

²⁰ The ERA has converted ATCO's nominal tariffs into real tariffs using ATCO's assumed inflation.

Table 2: B3 annual percentage tariff component change (real terms)

Charging Parameters	2020	2021	2022	2023	2024
Fixed Charge (\$/year)	0.0%	0.0%	0.0%	0.0%	0.0%
First 1.825 GJ (\$/GJ)	0.0%	0.0%	0.0%	0.0%	0.0%
Volume > 1.825 GJ, < 9.855 GJ	71.6%	2.3%	2.3%	2.3%	2.3%
Volume > 9.855 GJ	195.4%	2.3%	2.4%	2.3%	2.3%

Source: ERA calculations on information request ERA01.

Note: There is currently no charge for the first 1.825 GJ used per year, which ATCO has proposed to maintain in AA5.

32. ATCO considers that its customers prefer a step increase in charges in 2020 with price stability for the remaining years. ATCO notes that retailers had concerns about the magnitude of the proposed price increase in 2020. ATCO considers that the gazetted retail tariffs should be sufficient to cover the network tariff increases proposed by ATCO in 2020. ATCO notes that the network tariffs in 2020 will be below the network tariffs in 2016 in nominal terms.
33. ATCO considers that the step change in prices in 2020 would promote price stability over the access arrangement period and minimise the potential for price shocks across later access arrangement periods. It would also allow price signals that promote efficient utilisation of, and investment in, the network.
34. ATCO notes that if it, adopted a smoothed price path for each year to avoid the step increase in charges, this would likely continue a 'see-sawing' of prices by setting prices to under-recover annual revenue early in AA5 followed by over-recovering annual revenue at the end of the AA5. ATCO noted that this may lead to the reverse situation in the sixth access arrangement period.
35. The *National Gas Access (WA) (Local Provisions) Regulations 2009* require the ERA to consider the effects on customers and retailers when determining the price path for small use customers.
36. ATCO has proposed to include B2 and B3 customers into the existing weighted average price cap for A1, A2 and B1 customers. All tariff classes were in a weighted average price cap in the third access arrangement period. However, ATCO proposed a move to a revenue-yield price control in AA4 for B2 and B3 customers. The ERA rejected this proposal and instead required B2 and B3 customers to be on separate price caps.
37. Ancillary reference services will be varied annually by the change in CPI in the same manner as in AA4.

Issue 2 Tariff variations

Submissions are invited from interested parties on ATCO's proposed:

- price path, including its effect on small use customers
- change to include B2 and B3 customers into the existing weighted average price cap for A1, A2 and B1 customers.

Taxation

38. The ERA will assess ATCO's efficient costs to determine its total revenue requirement for the fifth access arrangement period (or AA5) using the 'building block approach' (refer to paragraph 63). Efficient costs include a calculation of corporate income tax costs for a notional efficient entity.

39. ATCO's calculation of corporate income tax for AA5 is shown in Table 3. ATCO submits its calculation uses the same method applied in AA4.²¹

Our approach is first to estimate taxable income as follows:

Smoothed tariff revenue

plus Revenue from prudent discounts.

plus Ancillary reference service revenue.

minus Approved forecast opex.

minus Depreciation of the tax asset base, excluding capital contributions. Tax depreciation is applied on a straight-line basis.

minus Debt servicing costs, calculated by multiplying the debt portion of the opening RAB by the debt to equity ratio (assumed at 60%) and the nominal hybrid trailing average cost of debt (based on the trailing average estimate of the debt risk margin, annually updated, plus the 'on the day' nominal risk-free rate).

equals Estimated taxable income.

We then apply the statutory tax rate of 30% and the value of imputation credits to the estimated taxable income to determine our estimate of corporate income tax.

Table 3 ATCO's calculation of corporate income tax (\$ million nominal)

	2020	2021	2022	2023	2024
Estimated taxable income	22.4	18.3	15.1	13.3	11.4
Tax payable	6.7	5.5	4.5	4.0	3.4
Less value of imputation credits	-2.3	-1.9	-1.5	-1.4	-1.2
Estimate of corporate income tax	4.4	3.6	3.0	2.6	2.3

Source: ATCO, 2020-24 Plan (Access Arrangement Information), p. 143, Table 15.6.

²¹ ATCO, 2020-24 Plan (Access Arrangement Information), 31 August 2018, p. 143.

40. ATCO has applied tax asset lives to the tax asset base that are consistent with guidance provided by the Australian Taxation Office. For AA5, a new 'telemetry' asset category has been added with a tax asset life of 10 years. ACTO submits:²²
- The tax life of 10 years is consistent with the guidance from the Commissioner for Taxation in taxation ruling TR 2017/2 for the gas supply industry.
 - The new category is needed given its increasing investment in telemetry and monitoring systems, including SCADA.²³
41. ATCO has used a value of imputation credits (gamma) of 0.34.²⁴ Imputation credits reduce personal income tax, or in some cases provide a tax refund, to investors for company tax paid. The value of gamma is being determined as part of the rate of return guideline review. The value of gamma is important as it is multiplied by tax payable and then deducted from the amount of corporate income tax that the ERA uses to determine the total revenue to be recovered from customers.

Previous considerations

42. During the assessment of ATCO's proposed access arrangement for AA4, consideration was given to ATCO's method of tax depreciation. For AA4, ATCO used the *straight-line* method to calculate tax depreciation. In its draft decision for AA4, the ERA noted that the *diminishing value* method was an option under tax law and, in implementing the NGR requirement to move to a post-tax revenue model consistent with the requirements of rule 87A, ATCO's future tax liabilities should align with the tax liabilities of a benchmark efficient entity.²⁵ The ERA:
- Considered that a benchmark efficient entity would seek to minimise its tax liabilities. Accordingly, the draft decision required ATCO to apply the diminishing value method to calculate tax depreciation for capital expenditure incurred over AA4.
 - For the purpose of the AA4 draft decision, applied the diminishing value method to calculate tax depreciation for capital expenditure and noted that if ATCO adopted diminishing value depreciation, ATCO would incur higher tax depreciation. This would lead to lower income tax payments, which would be an expected outcome for a benchmark efficient entity.
43. In response to the AA4 draft decision, ATCO rejected the ERA's required amendment to apply diminishing value depreciation to depreciate the tax asset base in line with the behaviour of a benchmark efficient entity. In support of its position, ATCO provided a report prepared by Ernst & Young²⁶ that concluded:
- There are circumstances where a benchmark efficient entity would not choose to adopt the diminishing value method as it would not result in an overall minimisation of the income tax liabilities over the effective lives of the depreciable assets.

²² ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 141.

²³ Supervisory Control and Data Acquisition.

²⁴ ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 138.

²⁵ Economic Regulation Authority, *Draft Decision on Proposed Revisions to the Access Arrangement for the Mid-West and South-West Gas Distribution System*, 14 October 2014, p. 249.

²⁶ Ernst & Young, *Review of the regulated tax asset base for regulated revenue purposes – addendum to the report of Vaughan Lindfield*, 21 November 2014.

44. After considering ATCO's position and the Ernst & Young report, the ERA decided to accept ATCO's adoption of the straight-line method to depreciate new capital expenditure in the tax asset base. In its final decision, the ERA:²⁷
- Obtained evidence from ATCO that it had and continues to adopt straight line depreciation in its tax returns.
 - Considered that ATCO had the incentive to select the most efficient tax depreciation method.
 - Considered that a benchmark efficient entity would seek to minimise its tax liabilities over the lives of the assets, rather than over one access arrangement period only. Such an entity would select the tax depreciation method that achieves this, based on its circumstances.

Regulatory tax approach review

45. The Australian Energy Regulator (AER) is currently completing a review of its approach to estimating the tax allowance in its regulatory determinations following concerns about a material difference between the AER's regulatory forecast of tax costs for regulated electricity networks and gas pipelines and the actual tax payments made to the Australian Taxation Office by these regulated businesses.²⁸ The AER's initial report has identified a range of possible ways to address the apparent tax discrepancy, including changes to:²⁹
- The treatment of tax depreciation in regulatory models
 - Changes to the treatment of tax depreciation may address the discrepancy because different depreciation schedules will result in different annual tax expenses. Possible changes to the treatment of tax depreciation include using a diminishing value method (instead of a straight-line method), self-assessed asset lives (instead of asset class lives), low-value pools to write-off some assets and allowing refurbishments to be immediately expensed.
 - Other aspects of the tax approach that would require a change in the rules
 - Rule changes to alter the calculation of the tax allowance may address the discrepancy. Such changes could include changing the statutory tax rate to reflect ownership structures commonly used by regulated businesses and using a different debt gearing ratio for tax purposes rather than the gearing ratio used in the rate of return.
 - Adjust tax allowances to reflect actual tax payments
 - Changes that are focused on adjusting tax allowances to reflect actual tax payments may address the discrepancy. Such changes could include changes to tax allowance, tax depreciation and/or cost of debt calculations to reflect actuals (instead of forecasts).
46. Prior to determining which, if any, of the above changes best achieve the national gas objective, the AER is collecting more data on the tax practices of its regulated networks/pipelines through regulatory information notices. The AER expects to release its draft position in October 2018 for comment. A final position is expected

²⁷ Economic Regulation Authority, *Final Decision on Proposed Revisions to the Access Arrangement for the Mid-West and South-West Gas Distribution System*, 30 June 2015, p. 455.

²⁸ Australian Energy Regulator, *Review of regulatory tax approach 2018* ([online](#)) (accessed 20/8/18).

²⁹ Australian Energy Regulator, *Initial report: Review of regulatory tax approach*, June 2018, p. 2 and pp. 38-48.

in December 2018. The ERA will give consideration to the AER's final position as part of its considerations when assessing ATCO's proposal.

Issue 3 Taxation

Submissions are invited from interested parties on ATCO's proposal to:

- Introduce a new 'telemetry' asset category with a tax asset life of 10 years.
- Retain a straight-line method of depreciation to calculate its tax depreciation.

Submissions are also invited on whether any of the AER's findings from its review of the regulatory tax approach should be adopted in reviewing ATCO's proposal.

Incentive mechanisms

47. Rule 98 of the NGR provides that a full access arrangement may include "one or more incentive mechanisms to encourage efficiency in the provision of services by the service provider" provided that any such incentive mechanisms are consistent with the revenue and pricing principles set out in section 24 of the NGL.
48. ATCO is proposing to introduce a new incentive mechanism – the "Network Innovation Scheme". The proposed scheme is detailed in Part 12 of the access arrangement, with the following objective.³⁰
- The objective of the [network innovation scheme] is to provide ATCO Gas Australia with funding for projects using innovative and new technologies with the potential to deliver medium to long-term improvements in Pipeline Services that are in the long-term interests of consumers of natural gas in Western Australia.
49. The network innovation scheme will allow ATCO to recover up to \$1 million (CPI indexed each year to maintain its value in real terms) of expenditure incurred on eligible projects for each year of the next access arrangement period. Eligible projects may be funded across regulatory years, provided the total scheme allowance is not exceeded in any access arrangement period. The scheme will not provide funding for projects that have been funded from another source (for example, the Australian Renewable Energy Agency or the ERA's access arrangement decision).
50. ATCO proposes to apply eligibility criteria to ensure projects undertaken through the network innovation scheme meet the scheme's objective. These include:³¹
- It is a project or program for researching, developing, or implementing a piece of new equipment, a new arrangement or application of existing network infrastructure, a new practice directly relating to:
 - the operation or safety of the network or

³⁰ ATCO, *Access Arrangement for the Mid-West and South-West Gas Distribution Systems*, 31 August 2018, Part 12.1, p. 22.

³¹ ATCO, *2020-24 Plan (Access Arrangement Information, Attachment 17.1 Network Innovation Scheme for ATCO)*, 31 August 2018, p. 4.

- an improvement in customer service, or
 - a new commercial arrangement, or
 - a reduction to the carbon intensity of the gas distributed by the network; or
 - makes an incremental contribution to achieving any of the above changes; and
 - it is innovative, in that the project or program:
 - is based on new, novel, or original concepts;
 - involves technology or techniques that differ from those previously implemented or used in the Western Australian Energy market; or
 - facilitates the adoption of new technologies that can expand the existing range of uses for gas and/or the gas network; or
 - has the potential, if proved viable, to reduce long-term network costs and prices or improve the quality of network services; and
 - the potential benefit to gas network customers is material, considering the scale of innovation funding proposed and the level of uncertainty associated with the project or program; and
 - the project or program relates to the services provided by means of the regulated network assets.
51. The proposed network innovation scheme would be administered by the ERA on an annual basis and compliance for the scheme would be conducted as follows.
- ATCO would submit annual reports on its activities, expenditure and projects undertaken under the scheme to the ERA. ATCO's annual compliance report must be supported by certification that the report is accurate and complete.
 - The ERA would conduct ex-post reviews to determine the compliance of ATCO's trials and projects with scheme eligibility criteria. In addition, for each year of the regulatory period, ATCO would be able to apply to the ERA for an upfront, indicative approval for its planned expenditure under the scheme, although ex-ante project approval would not be a pre-condition for project eligibility (that is, scheme funding could still be granted if a project were to be deemed eligible as the outcome of ex-post review).
 - ATCO would periodically advise the ERA on whether its projects and trials remain likely to be in the long-term interests of gas consumers in Western Australia.
52. ATCO's reasoning for proposing the network innovation scheme is that it will enable ATCO to make innovation expenditures which do not, in ATCO's view, generally qualify as approved expenditure under the prudence and efficiency tests for capital and operating expenditure set out in the NGR (rules 79 and 91). ATCO considers that innovation scheme expenditures will ultimately benefit consumers, and thus contribute to the realisation of the national gas objective.
53. The ERA must assess whether ATCO's proposed network innovation scheme will contribute to the achievement of the national gas objective and whether the scheme is consistent with the revenue and pricing principles of section 24 of the NGL. ATCO has emphasised that the revenue and pricing principles include that a service provider should be provided with effective incentives so as to promote economic efficiency in the reference services it provides. In ATCO's view, the proposed scheme will enable ATCO to achieve greater operational efficiency.

54. In its proposal ATCO has addressed a recent draft decision by the AER concerning a similar incentive mechanism proposed by Australian Gas Networks for funding of small-scale operational expenditure.³² The AER rejected the proposed incentive mechanism because the AER considered the existing regulatory framework already provided sufficient opportunity for the service provider to invest in innovation while allowing the business to retain efficiency benefits, and because it was unclear that the proposed incentive mechanism would serve the long term interests of consumers.³³ ATCO considers that the AER's decision does not adequately account for the high degree of uncertainty associated with innovation projects and their potential future benefits to energy consumers.

Issue 4 Incentive mechanisms

Submissions are invited from interested parties on the following:

- ATCO's proposal to introduce a new incentive mechanism (the "Network Innovation Scheme") into the access arrangement.
- The benefits of the incentive mechanism proposed by ATCO for natural gas consumers, including how the benefits of such a mechanism might be shared between ATCO and consumers.

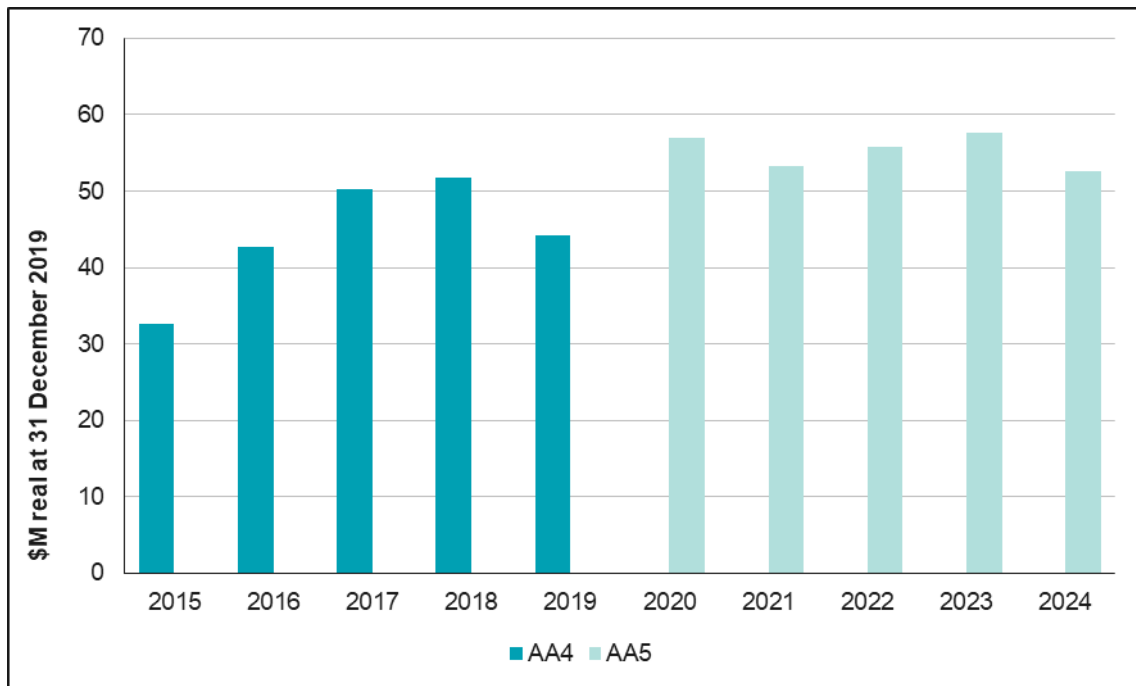
Reliability and security of supply capital expenditure

55. ATCO proposes to spend \$276.1 million during AA5 on network sustaining programs made up of asset replacement, and asset performance and safety expenditure. This is 54.2 per cent of proposed capital expenditure over the period.
56. In AA4, which was a five and a half year access arrangement period, ATCO has spent or forecast to spend \$236.2 million on network sustaining expenditure. This is 47.6 per cent of capital expenditure in the AA4 period.
57. Removing the first six months of the AA4 period to enable a comparison of access arrangement periods over a consistent five year period, ATCO has spent or forecast to spend \$221.7 million on network sustaining expenditure. This is 49.0 per cent of capital expenditure.
58. A comparison of the last five years of AA4 period and the AA5 forecast expenditure for network sustaining costs is shown below in Figure 3.

³² See: Australian Energy Regulator, *Draft Decision: Australian Gas Networks Victoria and Albury gas access arrangement 2018 to 2022*, Attachment 14 – Other incentive schemes, June 2017, pp. 14-16.

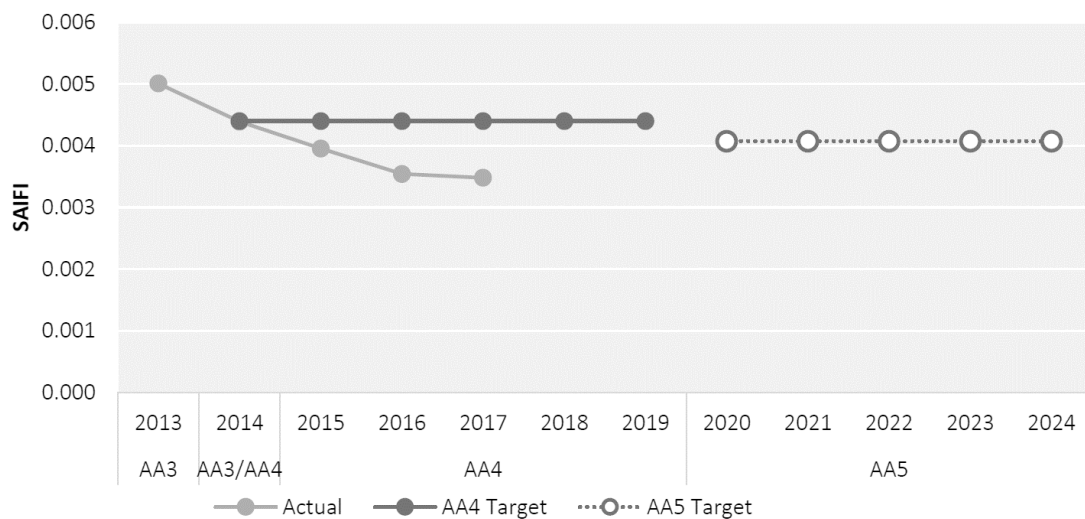
³³ Australian Energy Regulator, *Draft Decision: Australian Gas Networks Victoria and Albury gas access arrangement 2018 to 2022*, Overview, June 2017, p. 47; Australian Energy Regulator, *Draft Decision: Australian Gas Networks Victoria and Albury gas access arrangement 2018 to 2022*, Attachment 14 – Other incentive schemes, June 2017, p. 16.

Figure 3 Network Sustaining actual and forecast expenditure 2015 to 2024



59. The System Average Interruption Frequency Index (SAIFI) is a measure of the reliability of the network. It measures the average number of interruptions that a customer would experience in a year. ATCO uses this index as a key performance indicator. Current performance of its network measured against the AA4 target and its proposed AA5 target is shown in the figure below.

Figure 4 System average interruption frequency index (SAIFI) 2013-2024



Source: ATCO, 2020-24 Plan (Access Arrangement Information), p.67, Table 10.5.

60. ATCO’s current SAIFI performance is better than the target set in AA4 (a lower value is better level of reliability). Gas interruptions are infrequent and generally affect a small number of customers. ATCO has proposed a higher value (easier) for SAIFI during AA5 than current performance levels.

61. SAIFI is not the only measure of asset health. As required by the ERA in its AA4 final decision, ATCO has proposed a new key performance indicator – an asset

health index. This index measures ATCO's asset health by measuring unplanned SAIFI, total duration of interruptions, and leaks on mains, services and meters.

Issue 5 Reliability and security of supply capital expenditure

Submissions are invited from interested parties on whether the aggregate level of proposed reliability and security of supply expenditure is reasonable in the context of current and forecast service performance.

Overview of ATCO's Proposal

62. The following overview of ATCO's proposal for revisions to the GDS access arrangement is provided to assist interested parties in understanding the proposal and to make submissions. It is not an exhaustive review of ATCO's proposal or a complete list of matters that the ERA will address in making its determination.

Total revenue

63. Rule 76 of the NGR requires total revenue to be determined for each year of the access arrangement period using the building block approach, in which the building blocks are:

- operating expenditure
- return on the projected capital base
- depreciation on the projected capital base
- estimated cost of corporate income tax
- increments or decrements resulting from the operation of an incentive mechanism to encourage gains in efficiency.

64. ATCO has applied the building block approach to propose a total revenue requirement for the fifth access arrangement period (or AA5) of \$1,025 million. Table 4 details ATCO's proposed building block components. Each of these building block components is discussed below.

Table 4 ATCO's proposed total revenue requirement (\$M nominal)

Building blocks	2020	2021	2022	2023	2024	TOTAL
Operating expenditure	68.8	71.8	76.1	79.3	82.0	377.9
Return of the projected capital base	49.4	60.5	63.9	67.0	70.9	311.7
Less inflationary gain in return on assets	-24.8	-26.3	-27.6	-28.9	-30.2	-137.8
Return on the projected capital base	81.2	86.1	90.4	94.6	99.0	451.4
Return on working capital	0.1	1.5	1.5	1.6	1.6	6.3
Tax payable	6.7	5.5	4.5	4.0	3.4	24.1
Less value of imputation credits	-2.3	-1.9	-1.5	-1.4	-1.2	-8.2
Total Revenue (Unsmoothed)	179.2	197.2	207.3	216.2	225.5	1,025.5

Source: ATCO, 2020-24 Plan (Access Arrangement Information), p. 160, Table 18.3.

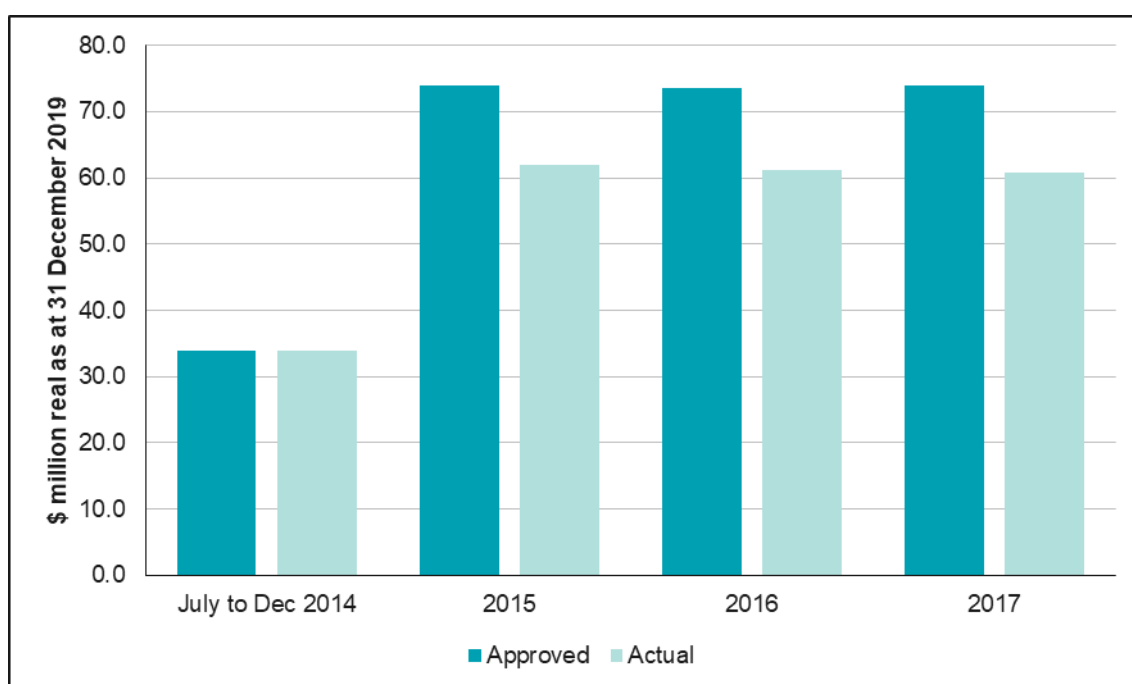
Operating expenditure

65. Rule 91 of the NGR states that "operating expenditure must be such as would be incurred by a prudent service provider acting efficiently, in accordance with accepted good industry practice, to achieve the lowest sustainable cost of delivering pipeline services". Further to rule 91, the ERA must also consider rule 71(1) of the NGR when assessing ATCO's operating expenditure.

In determining whether capital or operating expenditure is efficient and complies with other criteria prescribed by these rules, the [ERA] may, without embarking on a detailed investigation, infer compliance from the operation of an incentive mechanism or on any other basis the [ERA] considers appropriate.

66. Total operating expenditure for the current (AA4) access arrangement period is estimated at \$354.9 million.³⁴ AA4 covered a 5.5 year period, while AA5 will cover the 5 year period from 2020 – 2024 inclusive.
67. Figure 5 shows the ERA-approved operating expenditure and ATCO's actual operating expenditure for the years for which actual operating expenditure is available for AA4, i.e. 2014 (July to December) to 2017. As shown, ATCO's actual operating expenditure has generally been below approved expenditure in these years.

Figure 5 Approved operating expenditure and actual operating expenditure 2014 to 2017 (\$ million real as at 31 December 2019)



Source: ERA analysis, based on ATCO, *2020-24 Plan (Access Arrangement Information)*, p. 36, Table 5.5, and Economic Regulation Authority, *Final Decision on Proposed Revisions to the Access Arrangement for the Mid-West and South-West Gas Distribution System*, 30 June 2015 as amended on 10 September 2015, p. 112, Table 37.

68. ATCO has attributed the lower actual operating expenditure shown in Figure 5 to the implementation of safety improvements, productivity gains in corporate resourcing and activities, enabling shared costs with other agencies and higher reliability in the gas network.
69. ATCO has supplied benchmarking which shows its levels of operating expenditure was relatively efficient in comparison to a sample of benchmark entities over the 2013-2017 period.³⁵

³⁴ \$ million real as at 31 December 2019. The estimated operating expenditure for AA4 reflects actual operating expenditure for 2014 to 2017, and estimates for 2018 and 2019. ATCO Gas Australia, *Access Arrangement Information*, 31 August 2018, p. 36, Table 5.5.

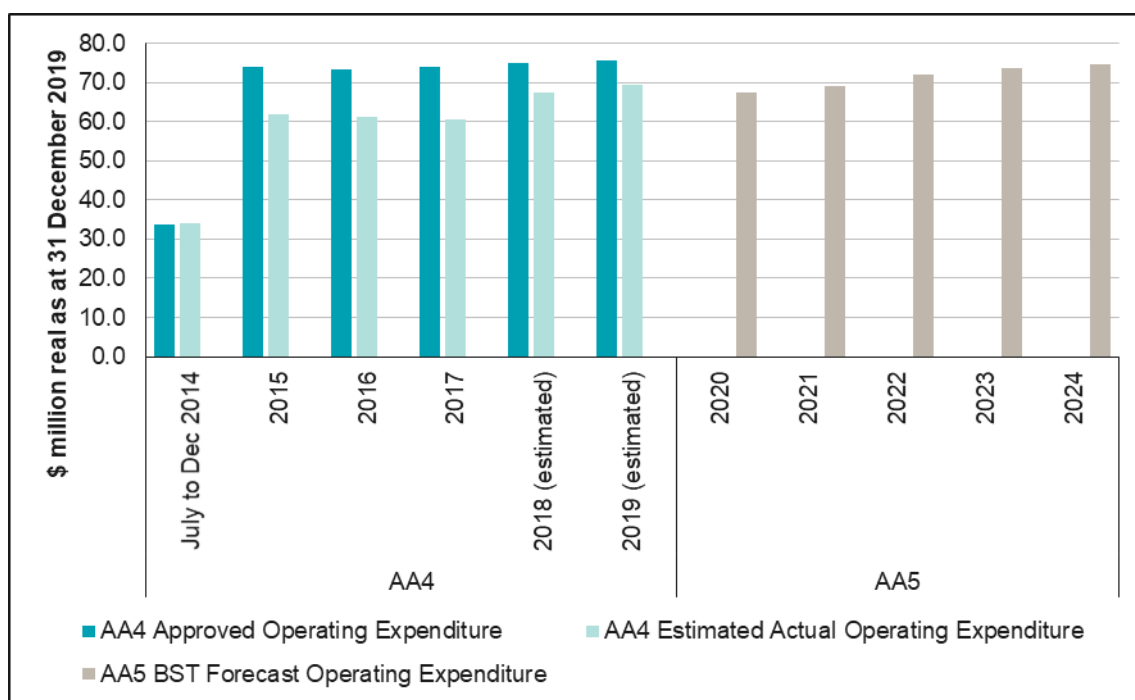
³⁵ ATCO Gas Australia, *Access Arrangement Information*, 31 August 2018, p. 37, p. 77.

70. ATCO has presented two forecasts of operating expenditure for AA5, including a forecast developed according to the 'base-step-trend' method and a bottom-up forecast. ATCO considers that the base-step-trend estimates represent the best available operating expenditure forecast, but has performed the bottom-up forecast as a cross-check to the base-step-trend forecast.
71. ATCO has derived total forecast operating expenditure for AA5 under the base-step-trend method as the sum of:
- Specific yearly forecasts for unaccounted for gas (UAFG) and ancillary services. Specific forecasts have been calculated for these cost categories because ATCO considers that the expenditure profile of these categories over AA5 is not suitably captured by the method of growth in the base-step-trend method.
 - Estimates for the other operating expenditure categories derived using the operating expenditure costs incurred in an 'efficient' base year plus adjustments to account for anticipated differences in operating expenditure between the base year and the AA5 years. ATCO considers that the benchmarking referred to at paragraph 69 indicates that ATCO is already operating efficiently, and thus using the most recent year's incurred operating expenditure (2017) as a starting point and applying appropriate adjustments to reflect future operational changes should yield a forecast which best reflects the operating expenditure of a prudent service provider operating efficiently.

The base-step-trend method results in forecast operating expenditure of \$357.4 million³⁶ for AA5. Figure 6 shows ATCO's approved operating expenditure for AA4, estimated actual operating expenditure for AA4 and forecast operating expenditure for AA5. As shown, the forecast yearly operating expenditure for AA5 is more than actual yearly operating expenditure during AA4.

³⁶ \$ million real as at 31 December 2019. ATCO Gas Australia, *Access Arrangement Information*, 31 August 2018, p. 75, Table 11.3.

Figure 6 ATCO AA4 approved operating expenditure, AA4 estimated actual operating expenditure and AA5 base-step-trend forecast operating expenditure (\$ million real as at 31 December 2019)



Source: ERA analysis, based on ATCO, *2020-24 Plan (Access Arrangement Information)*, p. 36, Table 5.5, and p. 75, Table 11.3, and Economic Regulation Authority, *Final Decision on Proposed Revisions to the Access Arrangement for the Mid-West and South-West Gas Distribution System*, 30 June 2015 as amended on 10 September 2015, p. 112, Table 37.

72. Table 5 shows the forecast operating expenditure for AA5 using the base-step-trend method and its components.

Table 5 AA5 base-step-trend forecast operating expenditure (\$ million real as at 31 December 2019)

Forecast operating expenditure	2020	2021	2022	2023	2024	TOTAL
Base year	54.8	54.8	54.8	54.8	54.8	273.8
Recurrent step changes	1.4	1.5	1.8	1.9	1.9	8.5
Non-recurrent step changes	0.9	0.9	2.1	2.3	1.9	8.1
Output growth	0.9	1.7	2.6	3.5	4.4	13.0
Input cost	0.6	1.2	1.8	2.4	3.0	9.0
Productivity growth	-	-	-	-	-	-
UAFG	6.3	6.2	6.1	5.9	5.8	30.3
Ancillary services	2.8	2.9	2.9	3.0	3.0	14.6
TOTAL	67.6	69.2	72.0	73.7	74.8	357.4

Source: ATCO, *2020-24 Plan (Access Arrangement Information)*, p. 75, Table 11.3.

73. ATCO's forecast operating expenditure for AA5 under the base-step-trend method includes total step changes of \$8.5 million³⁷ to account for anticipated increases in recurrent operating expenditure that are not reflected in the base year. These recurrent step changes are due to additional costs of safety, compliance and regulatory activities, including additional leak survey and repair activities, the addition of new offtake facilities to the Parmelia Gas Pipeline and new installations of supervisory control and data acquisition assets.
74. ATCO's forecast operating expenditure for AA5 under the base-step-trend method includes total step changes of \$8.1 million³⁸ to account for several expected non-recurrent costs that are not reflected in the base year. These include costs of hazardous areas review and remediation, pipeline inline inspections, mains reclassification, preparation costs for AA6 and a review of ATCO's asset and business management system.
75. ATCO's forecast operating expenditure under the base-step-trend method also reflects escalations for two growth factors: output growth and input cost.
76. The output growth escalation has been made to account for the additional operating expenditure incurred as the number of customers connected to ATCO's network and the physical size of the network increase. Output growth escalation is calculated as a weighted average of expected growth in number of customers and growth in network kilometres. Output growth escalation results in an increment of \$13.0 million³⁹ over the base year operating expenditure for AA5.
77. The real price growth escalation has been made to account for price increases in labour. Real price growth escalation has been based on a forecast annual rate of growth in the wage price index for Western Australian electricity, gas, water and waste water services. The average annual growth rate in labour escalation applied in the AA5 forecasts is 1.64 per cent. The real price growth escalation factor results in an increment of \$9.0 million⁴⁰ over the base year operating expenditure for AA5.
78. The UAFG cost forecast has been based on forecast UAFG volumes multiplied by the forecast unit gas price for UAFG. ATCO has forecast an overall reduction in UAFG from 2.55 per cent in 2020 to 2.46 per cent in 2024. The forecast UAFG rates for AA5 are below the AA4 approved UAFG rates. The forecast unit price for UAFG has been estimated, noting that a tender process will be conducted beginning in late 2018 which will fix the actual price of UAFG per GJ for the five years from 1 January 2020 to 31 December 2024. ATCO has indicated that the actual unit price of UAFG, as determined through the aforementioned tender, will be used as the basis for its response to the ERA's draft decision. Based on ATCO's initial calculations, UAFG costs contribute \$30.3 million to total forecast operating expenditure over the AA5 period, which is below both approved and estimated actual UAFG costs for AA4.
79. The ancillary services cost forecast has been based on anticipated ancillary service volumes, which have been forecast based on historical growth and current retailer demands. As a result of an increase in customers switching retailers, forecast ancillary services costs for AA5 include a specific forecast for special meter readings. Ancillary services contribute \$14.6 million to forecast operating expenditure over the

³⁷ \$ million real as at 31 December 2019.

³⁸ \$ million real as at 31 December 2019.

³⁹ \$ million real as at 31 December 2019.

⁴⁰ \$ million real as at 31 December 2019.

AA5 period. This amount exceeds both approved and actual ancillary services costs for AA4.

80. As stated in paragraph 70, ATCO has presented a 'bottom-up' operating expenditure forecast as a cross-check to the base-step-trend estimates. For the bottom-up forecast, total forecast operating expenditure has been derived by identifying the expected activities for each cost category over AA5 and summing the expenses ATCO expects to incur to undertake these activities. As such, ATCO's bottom-up forecasts of UAFG and ancillary services costs are the same as the specific forecasts made under the base-step-trend method. The total bottom-up operating expenditure forecast for AA5 is \$364.2 million.⁴¹ Table 6 shows ATCO's forecast operating expenditure for AA5 using the bottom-up method.

Table 6 ATCO forecast AA5 operating expenditure - Bottom-up method (\$ million real as at 31 December 2019)

	2020	2021	2022	2023	2024	TOTAL
Network Operating Expenditure	36.1	36.8	38.3	38.4	39.0	188.7
Corporate Operating Expenditure	17.5	17.5	17.7	19.4	19.4	91.4
IT Operating Expenditure	7.4	7.3	8.8	7.8	7.8	39.2
UAFG Operating Expenditure	6.3	6.2	6.1	5.9	5.8	30.3
Ancillary Service Operating Expenditure	2.8	2.9	2.9	3.0	3.0	14.6
TOTAL	70.2	70.8	73.8	74.4	75.0	364.2

Source: ATCO, 2020-24 Plan (Access Arrangement Information), p. 87, Table 11.11.

81. As shown in Table 6, ATCO has split operating expenditure for AA5 into five cost categories: ancillary service, UAFG, IT, corporate and network. While the access arrangement for AA4 uses the same categories, from 2018 ATCO has been allocating relevant IT costs for network and corporate into those categories. Thus the IT, network and corporate categories in the AA5 bottom-up forecasts shown in Table 6 are not directly comparable to the same categories within the current access arrangement.⁴²
82. Of the total bottom-up forecast operating expenditure for AA5, 51.8 per cent is attributed to network, 25.1 per cent is attributed to corporate, 10.8 per cent is attributed to IT, 8.3 per cent is attributed to UAFG and 4 per cent is attributed to ancillary services.

Opening capital base for AA5

83. Rule 77(2) of the NGR establishes the approach to determine the opening capital base for an access arrangement period that follows immediately on the conclusion of a preceding access arrangement period. The approach involves commencing

⁴¹ \$ million real as at 31 December 2019.

⁴² Note that ATCO has also supplied the bottom-up forecasts for AA5 using the historical IT allocation methodology, however the discussion in paragraph 82 reflects the forecast which uses the new allocation methodology. For the forecasts which use the historical methodology, see: ATCO, 2020-24 Plan (Access Arrangement Information), p. 88, Table 11.12.

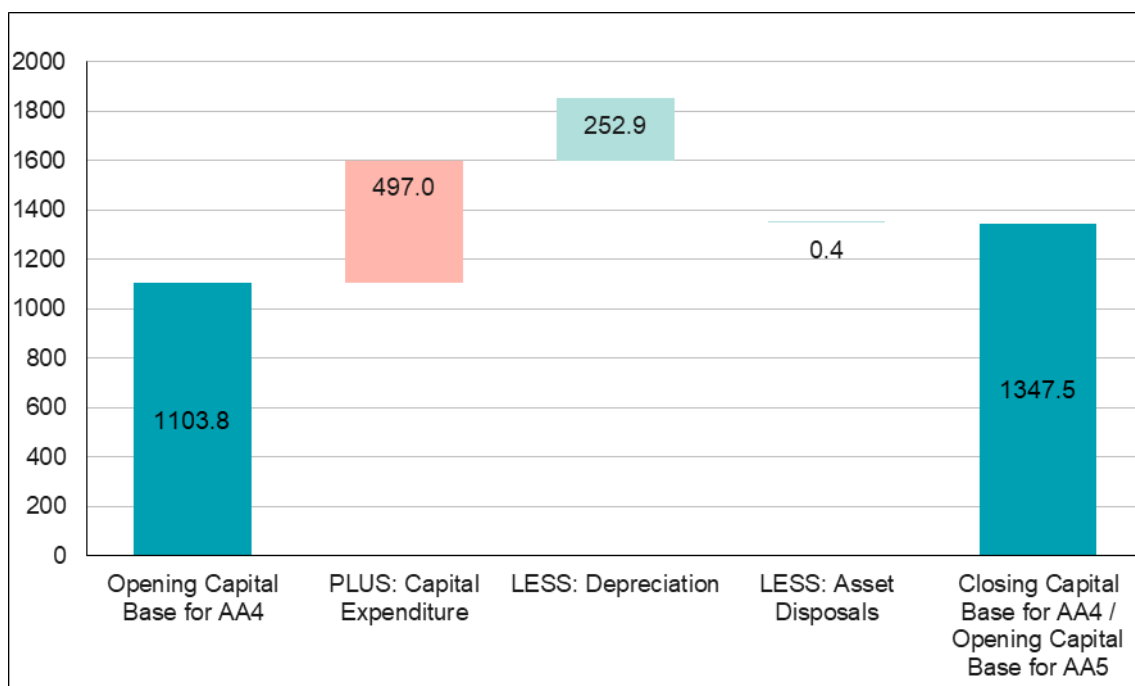
with the opening capital base of the earlier access arrangement period, adjusted for any difference between estimated and actual capital expenditure and:

- Adding conforming capital expenditure made, or to be made, during the earlier access arrangement period.
- Adding any amounts to be added to the capital base under rule 82 (capital contributions by users to new capital expenditure), rule 84 (speculative capital expenditure account) or rule 86 (re-use of redundant assets).
- Subtracting depreciation over the earlier access arrangement period.
- Subtracting redundant assets identified during the course of the earlier access arrangement period.
- Subtracting the value of pipeline assets disposed of during the earlier access arrangement period.

84. ATCO proposes an opening capital base for AA5 of \$1,347.5 million at 1 January 2020.⁴³

85. ATCO's calculated values of the capital base at the commencement of the fourth access arrangement period are shown in Figure 7 below.

Figure 7 ATCO Proposed Opening Capital Base for AA5



ATCO Gas Australia, 2020-24 Plan (Access Arrangement Information), 31 August 2018, Table 13.2, p. 121.

Past conforming capital expenditure

86. Conforming capital expenditure is expenditure that meets the criteria detailed in rule 79 of the NGR. The capital expenditure must be such as would be incurred by a prudent service provider acting efficiently, in accordance with accepted good

⁴³ ATCO, *Access Arrangement Information*, p. 120.

industry practice, to achieve the lowest sustainable cost of providing services. It must also be justifiable on at least one of the following grounds:

- The overall economic value of the capital expenditure is positive.
- The present value of the expected incremental revenue to be generated as a result of the expenditure exceeds the present value of the capital expenditure.
- The capital expenditure is necessary to:
 - maintain and improve the safety of services
 - maintain the integrity of services
 - comply with a regulatory obligation or requirement
 or
 - to maintain the service provider's capacity to meet levels of demand for services existing at the time the capital expenditure is incurred.

87. ATCO has proposed that the actual and forecast capital expenditure is capital expenditure that conforms to the criteria under rule 79 of the NGR. Under rule 77(2) of the NGR capital expenditure must be 'conforming capital expenditure' in order to be added to the capital base.

88. ATCO proposes to add \$497.1 million for the fourth access arrangement period to the opening capital base.⁴⁴ The \$497.1 million of conforming capital expenditure is \$7.0 million or 1.4 per cent more than the forecast amount approved by the ERA for the fourth access arrangement period.⁴⁵

89. The ERA's approved capital expenditure for AA4 and ATCO's proposed conforming capital expenditure for the AA4 period are shown in Table 7 below.

Table 7: ERA approved capital expenditure and ATCO proposed conforming capital expenditure for AA4 by asset class (\$M real as at 31 December 2019)

Asset Class	Total Approved Forecast AA4 (A)	Total Actual AA4 (B)	Variation (B-A)
High pressure mains – steel	28.9	19.3	- 9.6
High pressure mains – polyethylene (PE)	3.5	4.2	0.7
Medium and low pressure mains	156.7	185.4	28.7
Regulators	11.3	16.6	5.4
Secondary gate stations	20.1	7.8	-12.3
Buildings	14.6	17.3	2.7
Meter and services pipes	190.4	186.0	-4.4
Equipment and vehicles	6.9	7.2	0.3
Vehicle	16.4	14.0	-2.4

⁴⁴ ATCO, *Access Arrangement Information*, p. 94.

⁴⁵ ATCO, *Access Arrangement Information*, p. 33.

Asset Class	Total Forecast	Approved AA4 (A)	Total Actual (B)	AA4	Variation (B-A)
IT (including telemetry)	34.0		34.5		0.4
Land	6.3		3.7		-2.6
Equity raising costs	1.1		1.1		0.0
TOTAL	490.2		497.1		7.0

Source: ATCO, 2020-24 Plan (Access Arrangement Information), p. 33, Table 5.3 and includes equity raising costs approved in AA4.

90. ATCO notes that the variances between the ERA's approved forecast and the expenditure undertaken in AA4 are due to a combination of:
- Prioritisation of replacing high risk metallic mains to ensure a safe and reliable network.
 - Delay of Parmelia Gas Pipeline interconnections.
 - Deferral of demand growth project to align with a slowdown in forecast growth.
91. ATCO also notes that most of its AA4 capital expenditure was incurred in the Network sustaining and Network growth categories.

Projected capital base for AA5

92. Rule 78 of the NGR establishes the approach to determine the projected capital base for a particular period. The approach involves commencing with the opening capital base and:
- Adding forecast conforming capital expenditure for the period.
 - Subtracting forecast depreciation for the period and the forecast value of pipeline assets to be disposed of in the course of the period.
93. ATCO proposes a projected capital base for AA5 of \$1,562.5 million at 31 December 2024.⁴⁶

Table 8: ATCO's projected capital base (\$ million real as at 31 December 2019)

	2020	2021	2022	2023	2024
Opening Capital Base	1,347.5	1,402.4	1,446.2	1,486.1	1,526.0
Capex (net)	103.4	102.2	100.4	102.2	101.3
Depreciation	-48.5	-58.4	-60.5	-62.2	-64.7
Asset Disposals	-	-	-	-	-
Closing Capital Base	1,402.4	1,446.2	1,486.1	1,526.0	1,562.5

Source: ATCO, 2020-24 Plan (Access Arrangement Information), p. 122, Table 13.3.

⁴⁶ ATCO, Access Arrangement Information, p. 122.

Forecast conforming capital expenditure

94. Forecast conforming capital expenditure must conform to the criteria detailed in rule 79 of the NGR (refer to paragraph 86 above). The forecast must also meet the requirements of rule 74, which requires:
- Information that is in the nature of a forecast or estimate to be supported by a statement of the basis for the forecast or estimate.
 - A forecast or estimate to be arrived at on a reasonable basis and represent the best forecast or estimate possible in the circumstances.
95. ATCO has forecast \$509.3 million of capital expenditure over AA5, which is two per cent (or \$12.2 million) higher than the capital expenditure projected for the five and a half years of AA4.⁴⁷ ATCO's forecasts are shown in Table 9.

Table 9 Forecast AA5 capex by capex driver (\$ million real as at 31 December 2019)

Category	2020	2021	2022	2023	2024	TOTAL
Network sustaining	56.9	53.3	55.8	57.7	52.6	276.1
Asset replacement	34.6	37.7	40.4	37.3	38.1	188.0
Asset performance and safety	22.3	15.6	15.4	20.4	14.5	88.1
Network growth	33.8	34.1	34.9	35.0	36.5	174.3
Customer-initiated	32.8	34.0	34.4	35.0	36.4	172.6
Demand-related	1.0	0.1	0.5	-	0.1	1.7
Information technology	7.4	8.8	6.4	5.5	8.0	36.1
Structures and equipment	5.3	6.0	3.2	4.1	4.3	22.7
Fleet	3.6	4.7	1.9	3.0	3.2	16.3
Facilities, plant and equipment	1.7	1.3	1.3	1.1	1.1	6.5
TOTAL	103.4	102.2	100.4	102.2	101.3	509.3

Source: ATCO, *Access Arrangement Information*, p. 93, Table 12.1.

96. ATCO uses a 'bottom-up' forecasting approach for each capital expenditure driver category, which comprise 'sustaining the network', 'growing the network', 'information technology' and 'structures and equipment'.
97. Major programs account for around 75 per cent of ATCO's total capital expenditure, including network growth (\$174.3 million, 34 per cent), mains replacement (\$127.4 million, 25 per cent), security of supply (\$49 million, 10 per cent) and meter replacement (\$27.3 million, 5 per cent).⁴⁸

⁴⁷ ATCO, *Access Arrangement Information*, p. 92.

⁴⁸ ATCO, *Access Arrangement Information*, Chapter 12, p. 92, pp. 97-98, pp. 101-102.

98. Based on the demand forecast, ATCO is expecting to expand its network by connecting 81,000 new domestic customers and 2,300 new commercial meter installations over AA5.⁴⁹
99. Over AA5, ATCO's mains replacement program will continue to replace PVC mains from its networks (identified as an unacceptable risk) with polyethylene (PE) mains pursuant to rule 79(2)(c)(i) of the NGR. ATCO notes that the replacement of PVC mains with PE mains will reduce the risk of asset failure, thus reducing reactive maintenance costs and the potential for impact on customers.
100. ATCO has forecast \$49 million for three security of supply projects in Bunbury (\$7.6 million), Caversham (\$15 million) and Two Rocks (\$26.5 million) over AA5.⁵⁰ These projects will focus on maintaining the natural gas supply to ATCO's customers.
101. ATCO has forecast \$27.3 million for its meter replacement program, which comprises the replacement of around 25,000 domestic meters and 661 commercial meters in AA5 to ensure accuracy retention.⁵¹
102. ATCO has also forecast spending \$36.1 million on information technology over AA5,⁵² including:
 - \$24.9 million on 'application renewal' which comprises upgrades to the customer care and billing, geographic information system, document management, and integration systems.
 - \$2.0 million on 'asset management and service delivery excellence' which will extend the network asset management capability to fleet assets, and streamline the customer request processes through automated workflows including the Meter Identification Reference Number address verification process.

Depreciation of the capital base

103. Rules 88 (depreciation schedule), 89 (depreciation criteria) and 90 (calculation of depreciation) of the NGR specify particular requirements for the depreciation of pipeline assets in the regulatory asset base.
 - The depreciation schedule sets out the basis on which pipeline assets constituting the capital base are to be depreciated for the purpose of determining a reference tariff. Under rule 88, the depreciation schedule may consist of a number of separate schedules, each relating to a particular asset or class of assets.
 - Rule 89 specifies that the depreciation schedule should be designed so that:
 - Reference tariffs will vary in a way that promotes efficient growth in the market for reference services.
 - Each asset or asset class is depreciated over its economic life.
 - The expected economic life of a particular asset or asset class can be adjusted.

⁴⁹ ATCO, *Access Arrangement Information*, p. 110.

⁵⁰ ATCO, *Access Arrangement Information*, p. 103.

⁵¹ ATCO, *Access Arrangement Information*, p. 102.

⁵² ATCO, *Access Arrangement Information*, Table 12.14, p. 114.

- The amount by which the asset is depreciated over its economic life does not exceed the value of the asset at the time of its inclusion in the capital base.
 - The service provider's reasonable needs for cash flow to meet financing, non-capital and other costs can be allowed.
- Rule 90 specifies that a full access arrangement must contain provisions governing the calculation of depreciation for establishing the opening capital base for the next access arrangement period. The provisions must resolve whether depreciation of the capital base is to be based on forecast or actual capital expenditure.
104. Consistent with the AA4's Final Decision tariff model, ATCO uses the straight-line method (i.e. a current cost accounting approach) to forecast depreciation of all assets.
105. ATCO's projected capital base for AA5 includes total forecast depreciation of \$294.3 million (see Table 10).

Table 10 ATCO's forecast depreciation AA5 (\$ million real as at 31 December 2019)

Asset categories	2020	2021	2022	2023	2024
High pressure mains – steel	3.5	3.7	3.8	3.9	4.1
High pressure mains – PE	0.1	0.1	0.1	0.1	0.1
Medium pressure mains	6.0	6.0	6.0	6.0	6.0
Medium and low pressure mains	10.2	10.8	11.3	11.9	12.5
Low pressure mains	1.4	1.4	1.4	1.4	1.4
Regulators	1.2	1.2	1.3	1.3	1.3
Secondary gate stations	0.2	0.5	0.7	0.8	0.7
Buildings	-	0.9	0.9	0.9	0.9
Meter and services pipes	20.9	22.3	23.6	25.0	26.5
Equipment and vehicles	2.0	2.0	2.0	1.8	1.3
Vehicles	-0.1*	1.4	1.8	2.0	2.3
Information technology	3.2	7.8	6.8	6.0	6.2
Telemetry and monitoring	-	0.3	0.7	1.0	1.3
Full retail contestability	-	-	-	-	-
Land	-	-	-	-	-
Equity raising costs	-	-	-	-	-
Total depreciation	48.5	58.4	60.5	62.2	64.7

* Due to clawback of over-depreciation of \$0.9 million relating to 2015 capex.

Source: ATCO, 2020-24 Plan (Access Arrangement Information), p. 124, Table 13.5.

Return on the regulatory asset base

106. The rate of return, based on the weighted average cost of capital (WACC), provides for a return on the regulatory asset base.
107. Rule 87 of the NGR requires the ERA to make and publish rate of return guidelines. The guidelines must set out:
- The methodologies that the ERA proposes to use in estimating the allowed rate of return, including how those methodologies are proposed to result in the determination of a return on equity and a return on debt in a way that is consistent with the allowed rate of return objective.
 - The estimation methods, financial models, market data and other evidence the ERA proposes to take into account in estimating the return on equity, the return on debt and the value of imputation credits referred to in rule 87A.
108. The ERA is currently undertaking a review of the rate of return guidelines (information about the guidelines and review process is provided in Appendix 4). The updated rate of return guidelines will be used to determine the rate of return for the GDS. At present, the guidelines are not binding. However, this is expected to change with the Council of Australian Governments' Energy Council developing a framework for a binding rate of return instrument.
109. ATCO has acknowledged this position and submits:⁵³
- We expect to adopt the ERA's updated Rate of Return Guidelines to determine the rate of return for AA5 once it is finalised later in 2018. The updated guidelines are expected to be binding on both ATCO and the ERA. We anticipate that the necessary legislative changes to implement the binding Rate of Return Guidelines will be gazetted by December 2018.
110. ATCO's proposed estimate of the rate of return is 6.03 per cent (vanilla nominal after-tax) and is based on the methods and values detailed in the ERA's updated draft rate of return guidelines (with some exceptions, detailed at paragraph 111) and market data to the end of 29 March 2018. Table 11 details the individual rate of return components estimated by ATCO for AA5 compared to the existing rate of return components for AA4.

Table 11 ATCO's rate of return estimate

Component	AA4 Actual*	AA5 Proposed
Nominal risk-free rate	1.96%	2.37%
Real risk-free rate	0.06%	0.52%
Inflation rate	1.90%	1.84%
Debt proportion	60%	55%
Debt Risk Premium (DRP) (10-year average)	2.605%	2.267%
5-year interest rate swap (effective yield)	2.430%	2.590%
5-year interest rate swap spread	0.47%	0.22%
Debt issuing cost (0.100%) + hedging (0.114%)	0.24%	0.214%

⁵³ ATCO, 2020-24 Plan (Access Arrangement Information), 31 August 2018, p. 126.

Component	AA4 Actual*	AA5 Proposed
Return on debt	5.275%	5.07%
Market Risk Premium (MRP)	7.50%	6.90%
Equity beta	0.7	0.7
Corporate tax rate	30%	30%
Franking credit	0.25	0.34
Nominal after-tax return on equity	7.21%	7.20%
Nominal after-tax WACC	6.05%	6.03%
Real after-tax WACC	4.07%	4.11%

* Based on 2018 debt risk premium values

Source: ATCO, 2020-24 Plan (Access Arrangement Information), pp. 129-130, Table 14.3.

111. ATCO submits that it does not accept the ERA's draft rate of return guidelines for the following components.⁵⁴
- Debt risk premium
 - ATCO has noted that the guidelines need to be modified to include sufficient detail to allow for a mechanical calculation.
 - Market risk premium
 - ATCO has not accepted the draft guidelines and submits that the market risk premium should be determined mechanically by applying equal weight to the dividend growth model and arithmetic mean of the historical market risk premium to derive the point estimate of the market risk premium.
 - Gamma (tax imputation credits)
 - ATCO has not accepted the draft guidelines and indicates support for the adoption of the Australian Taxation Office's tax statistics as the best and most direct estimate of an upper-bound for a 'utilisation' gamma.
112. The ERA is considering ATCO's proposed submission as part of its guideline review process. The ERA expects to complete its review and issue final rate of return guidelines in December 2018. The final guidelines will be used to determine the rate of return for the GDS.

Pipeline and reference services

113. The NGR require an access arrangement proposal to describe the pipeline services the service provider proposes to offer to provide by means of the pipeline and specify the reference services.
- Section 2 of the NGL defines a "pipeline service" as a service that is provided by means of a pipeline including a haulage service, an interconnection service, or an ancillary service.

⁵⁴ ATCO, 2020-24 Plan (Access Arrangement Information), 31 August 2018, pp. 126-127.

- Rule 101 of the NGR defines a “reference service” to be a pipeline service that is likely to be sought by a significant part of the market.
114. ATCO has proposed to retain the current (AA4) reference services for AA5 with the addition of a new ‘special meter reading’ service. The reference services comprise *haulage* reference services and *ancillary* reference services and are detailed in chapter 4 of the access arrangement.
115. Haulage reference services are primarily the transportation of gas from the transmission pipeline to the customer. Haulage services also include the installation and maintenance of a standard meter, meter reading and associated data collection and reporting. ATCO’s proposed haulage services are shown in Table 12.

Table 12 ATCO’s proposed haulage reference services for AA5

Reference Service	Description
A1	<p>A1 is a pipeline service under which ATCO delivers gas to a user at a delivery point on the network, where the following preconditions were met at the time the user (then a prospective user), submitted an application for the service:</p> <ul style="list-style-type: none"> • The prospective user is reasonably expected to take delivery of 35 terajoules (TJ) or more of gas during each year of the haulage contract; and • The prospective user is reasonably expected to require a contracted peak rate of 10 GJ or more per hour; and • The prospective user requests user-specific delivery facilities.
A2	<p>A2 is a pipeline service under which ATCO delivers gas to a user at a delivery point on the network, where the following preconditions were met at the time the user (then a prospective user), submitted an application for the service:</p> <ul style="list-style-type: none"> • Either (or both): <ul style="list-style-type: none"> – The prospective user is reasonably expected to take delivery of 10 TJ or more of gas, but less than 35 TJ of gas, during each year of the haulage contract, or is reasonably expected to require a contracted peak rate of less than 10 GJ per hour; and – An Above 10 TJ Determination was, or was likely to have been, made under the Retail Market Procedures (WA); and • The prospective user requests user specific-delivery facilities.
B1	<p>B1 is a pipeline service under which ATCO delivers gas to a user at a delivery point on the network, where the following preconditions were met at the time the user (then a prospective user), submitted an application for the service:</p> <ul style="list-style-type: none"> • Either the prospective user is reasonably expected to take delivery of less than 10 TJ of gas during each year of the haulage contract, or is reasonably expected to require a contracted peak rate of less than 10 GJ per hour; and • The prospective user requests user-specific delivery facilities or standard delivery facilities that include a standard meter with a badged capacity of 18 cubic meters per hour (m³/h) or more.
B2	<p>B2 is a pipeline service under which ATCO delivers gas to a user at a delivery point on the medium pressure and low pressure parts of the network using standard delivery facilities that include a standard meter with a badged capacity of greater than or equal to 12 m³/h and less than 18 m³/h.</p>

Reference Service	Description
B3	B3 is a pipeline service under which ATCO delivers gas to an end-use customer at a delivery point on the medium pressure and low pressure parts of the network using standard delivery facilities that include a standard meter with a badged capacity of less than 12m ³ /h. End-use customers who receive B3 reference services consume less than 1 TJ of gas per year and are small use customers as defined in the <i>National Gas Access (WA) (Local Provisions) Regulations 2009</i> .

Source: ATCO, 2020-24 Plan (Access Arrangement Information), pp. 49-50, Table 8.2.

116. ATCO's proposed ancillary reference services are shown in Table 13. The ancillary services are the same as those applying in AA4, with the addition of a 'special meter reading' service.

Table 13 ATCO's proposed ancillary reference services for AA5

Reference Service	Description
Applying a meter lock	A lock is applied to a valve that comprises part of the delivery facility to prevent gas from being received at the relevant delivery point. This service is available for reference service B2 and B3 users, subject to the suitability of the meter control valve.
Removing a meter lock	A lock that was applied to a valve to prevent gas from being received at the relevant delivery point is removed. This service is available for reference service B2 and B3 users.
Deregistering a delivery point	A delivery point is permanently deregistered by removing the delivery facility permanently, removing the delivery point in accordance with the Retail Market Procedures (WA) and removing the delivery point from the delivery point register. This service is available for all reference service users.
Disconnecting a delivery point	A delivery point is physically disconnected and prevents gas from being delivered to the delivery point. This service is available in respect of delivery points at which a user is provided with reference service B2 or B3.
Reconnecting a delivery point	The delivery point is reconnected to allow gas to be delivered to the delivery point. This service is available in respect of delivery points at which a user is provided with reference services B2 or B3.
Special meter reading	An out of cycle reading of a standard meter at the relevant delivery point. This service is available in respect of delivery points at which a user is provided with reference service B1, B2 or B3 with a manually read meter.

Source: ATCO, 2020-24 Plan (Access Arrangement Information), p. 50, Table 8.3.

117. A 'special meter reading' is a gas meter reading that occurs outside of the regular reading cycle. ATCO has reclassified the special meter reading service from a non-reference service to a reference service for AA5 because the service is likely to be sought by a larger proportion of the market in AA5. ATCO submits:⁵⁵

During AA4, increased retail competition in the residential gas market has driven up the volume of special meter readings, with a tenfold increase from 12,457 in 2013 to

⁵⁵ ATCO, 2020-24 Plan (Access Arrangement Information), 31 August 2018, p. 51.

over 119,000 in 2017. We expect this volume to continue into AA5 as increasing numbers of customers change retailers.

However, the 'special meter reading at an appointed time' service will remain classified as a non-reference service due to its expected low volumes.

118. ATCO proposes continuing to offer other non-reference services. These non-reference services include: upgrading meter size, disconnecting service in the street, after-hours priority restoration of gas supply, and special meter reading at an appointed time. These services are additional services that do not form part of ATCO's reference services. ATCO proposes continuing to negotiate the price for non-reference services directly with the retailer/user. ATCO submits:⁵⁶

The forecast costs and demand associated with providing non-reference services are not included in the forecasts presented in this document. We allocate costs between reference and non-reference services in accordance with the method described in our Cost Allocation Method.

Issue 6 Pipeline Services

Submissions are invited from interested parties on ATCO's proposal to:

- Retain the current AA4 haulage reference services for AA5.
- Introduce a new 'special meter reading' ancillary reference service.

Submissions are also invited from interested parties on whether other pipeline services should be classified as reference services.

Total revenue allocation between reference services and other services

119. Rule 93 of the NGR requires total revenue to be allocated between reference services and other services on the basis of an allocation of costs. As an alternative to cost allocation, rule 93 provides for some services other than reference services to be classed as rebateable services, with part of the revenue from the sale of these services to be rebated or refunded to users of reference services.
120. Table 14 shows the forecast revenue to be received from haulage reference services, ancillary reference services and an amount of forecast revenue from customers receiving prudent discounts for each year of AA5. Prudent discounts are offered to a few customers in the circumstances where the discount is necessary due to competition from other energy sources and that the loss of the customer would lead to higher tariffs for existing customers.

⁵⁶ ATCO, 2020-24 Plan (Access Arrangement Information), 31 August 2018, p. 51.

Table 14: ATCO forecast revenue allocation between reference services and other services (\$ million nominal)

	2020	2021	2022	2023	2024	Total
Haulage services	187.9	194.7	201.1	207.8	215.2	1,006.6
Ancillary services	2.9	3.0	3.1	3.2	3.3	15.5
Revenue from customers receiving prudent discounts	0.2	0.2	0.2	0.2	0.2	0.8
Total Revenue	191.0	197.8	204.4	211.1	218.6	1,022.9

Source: ATCO, *Revenue & Pricing Model Public*, 31 August 2018. Numbers may not add due to rounding.

Reference tariffs

121. Rule 94 of the NGR sets out the requirements for determining reference tariffs for distribution pipelines. For the purpose of determining reference tariffs, customers for reference services provided by a distribution pipeline must be divided into tariff classes. For each tariff class, the revenue expected to be recovered should lie on or between:
- An upper bound representing the standalone cost of providing the reference service to customers who belong to that class.
 - A lower bound representing the avoidable cost of not providing the reference service to those customers.
122. The NGR further require that where there are two or more charging parameters, each charging parameter for a tariff class must take into account the long run marginal costs for the service, transaction costs and whether customers are able to respond to price signals.
123. The tariff variation in AA5 was discussed in the preceding chapter of this issues paper.

Reference tariffs and charging parameters

124. ATCO has retained the same haulage tariff classes (A1, A2, B1, B2 and B3) of the current access arrangement period. The charging parameters within each tariff class remain unchanged.
125. ATCO submits that the revenue to be earned from each tariff class will be between avoidable and standalone costs as required by the NGR.

Table 15: ATCO tariff revenue between avoidable and standalone costs (\$ million real as at 31 December 2019)

Tariff class	Standalone costs	Expected revenue	Avoidable costs
A1	183.5	35.3	7.1
A2	277.3	21.4	2.8
B1	433.9	51.7	9.5
B2	442.0	52.7	8.1
B3	781.9	683.6	120.8
Ancillary services	13.3	13.0	11.7
Total		857.7	

126. As noted above, ATCO has six ancillary reference services. ATCO has introduced a new charge for undertaking a special meter reading. ATCO has set the price for undertaking a special meter read at \$12.82 (\$ real as at 31 December 2019). All ancillary reference services will be amended each year based on the change in CPI.

Issue 7 Reference tariffs

Submissions are invited from interested parties on ATCO's proposal to:

- Maintain the current tariff charging parameters for haulage reference services.
- Charge users an amount of \$12.82 (\$ real as at 31 December 2019) for undertaking special meter reading. Previously this charge was a non-reference service.

Terms and conditions

127. The NGR⁵⁷ require an access arrangement proposal to detail, in addition to the reference tariff, the terms and conditions for each reference service.
128. ATCO proposes retaining its "template service agreement" to specify the terms and conditions for providing reference services. The agreement is included as Annexure F to the access arrangement. ATCO submits:⁵⁸

The template service agreement is typically adopted by retailers seeking access to the ATCO GDS and is an important part of our relationship as it governs the conditions (or terms) of access to our networks.

Based on interactions with existing and new users (retailers) and legal and regulatory developments during AA4, some limited changes are proposed to the template service agreement.

⁵⁷ NGR, rule 48(1)(d)(ii).

⁵⁸ ATCO, *2020-24 Plan (Access Arrangement Information)*, 31 August 2018, p. 188.

129. ATCO is proposing changes to the template service agreement and submits the changes fall into one (or more) of the following categories.
- Minor formatting and structural amendments: to correct and update the document for AA5.
 - New and modified legislation: to reflect changes to relevant applicable laws.
 - Institutional changes: to reflect the new role of the Australian Energy Market Operator in the Western Australian retail gas market.
 - New entrants to the market: to reflect ATCO's practical experience in the negotiation of terms of the agreement with retail market participants and stakeholders.
 - New reference service: to reflect ATCO's proposed change to reclassify a 'special meter reading' from a *non-reference* service (in AA4) to a *reference* service (in AA5).
130. The proposed changes are shown in a marked-up copy of the template service agreement and detailed in ATCO's access arrangement information. In summary, the changes comprise:
- Minor formatting and typographical corrections throughout the agreement.
 - The deletion of all footnotes.
 - Amendments to the drafting of specific clauses (outlined in Table 16).
 - Amendments to some defined terms (outlined in Table 16).

Table 16 Summary of ATCO's proposed amendments to the template service agreement

Clause	Description of and reason for amendment
10.1	Invoicing Amendment to drafting to reflect actual arrangements with retailers in the WA retail market and the content of payment claims.
10.3(a)	Disputing payment claims prior to payment Replace the words "10 business days" with "3 business days" to reflect the arrangement with retailers in the WA retail market.
15.1(c)	Default by a party Amendment to drafting to reflect the mutual obligations and rights of both parties.
15.2(a)	Default by <user> Amendment to reflect changes to termination rights in cases of insolvency following changes introduced from 1 July 2018 pursuant to the <i>Treasury laws Amendment (2017 Enterprise Incentives No.2) Act 2017 (Cth)</i> .
16.2(a)	Security for performance Amendment to drafting to clarify types and amounts of security for performance by replacing the terms <i>guarantee</i> or <i>bank guarantee</i> with "approved security" and "required security amount". Prospective users have requested various forms of security to meet the requirements of clause 16.2. The amendment provides clarity on the types of security that are acceptable.
16.3(a) and 16.3(d)	Insurances Replace the words "14 business days" with "15 business days" to make the time period consistent throughout the agreement.
17.1(b)	Liability for negligence and default limited to direct damage Amendment to add new clause (b) to clarify the enforcement of indemnification provisions is amongst the parties and their indemnified persons.
20(c)	Notice and addresses for notices Amendment to drafting to reflect the mutual obligations and rights of both parties.
23.1	Dictionary Amendments to the dictionary to add new terms or update existing terms (<i>approved security, charge, indemnified person, insolvency event, payment method, reference service terms and conditions, special meter reading and variation period</i>). These amendments are consequential amendments resulting from other proposed amendments to the agreement.
Schedules 3, 4 and 5	Services B1, B2 and B3 Amendments to add provisions for a 'special meter reading' reference service consistent with ATCO's proposal to reclassify a special meter reading from a non-reference service to a reference service for AA5.

Issue 8 Terms and Conditions

Submissions are invited from interested parties on:

- ATCO's proposal to make amendments to the template service agreement.
- Whether any other amendments to the template service agreement should be made.

Other policies and provisions

Application procedures

131. Rule 112 of the NGR details the requirements for requesting access to a pipeline service. In line with these requirements, Part 5 of ATCO's access arrangement details the process to be followed when a prospective user seeks access to a pipeline service that is offered by means of the GDS.
132. ATCO's application procedure and associated response times are shown in Figure 8. ATCO submits that while its procedure "remains largely unchanged from AA4", it has standardised the processes for access to both the regulated GDS and unregulated Albany and Kalgoorlie non-scheme pipelines.⁵⁹

We have taken the opportunity to standardise the processes for both access to the regulated (covered) ATCO GDS and the Albany and Kalgoorlie non-scheme pipeline, including:

- Providing prospective users with links to ATCO's contact details.
- Replicating the confidentiality provisions within the AA5 application procedure.
- Specifying an Application Form for ease of use of prospective users, which is set out in Appendix G of the Access Arrangement. The application form has the same 'look and feel' as the non-scheme pipeline form but has some modifications to meet the requirements of NGR 112 and the Access Arrangement.
- Information on where the non-scheme pipeline user guide can be found. While not strictly required, this information may be useful to prospective users that are not familiar with the Western Australian gas market.

We have also amended the drafting of one of the pre-conditions to, and restrictions on, the provision of pipeline services to clarify our intent by adopting the phrase 'in accordance with accepted good industry practice' in place of the existing drafting. This phrase is also adopted in the NGR.

⁵⁹ ATCO, 2020-24 Plan (*Access Arrangement Information*), 31 August 2018, p.192.

Figure 8 ATCO's application procedure for access requests

Source: ATCO, 2020-24 Plan (Access Arrangement Information), p.192, Figure 23.1.

Issue 9 Application Procedures

Submissions are invited from interested parties on:

- ATCO's proposal to make amendments to the application procedures for requesting access to a pipeline service.
- Whether any other amendments to the application procedures should be made.

Capacity trading

133. A full access arrangement is required to set out capacity trading requirements,⁶⁰ which must provide for the transfer of capacity in accordance with rule 105 of the NGR:

- If the service provider is registered as a participant in a particular gas market, in accordance with the rules or procedures governing the relevant gas market.
- If the service provider is not registered as a participant in a particular gas market, or if the relevant rules or procedures do not deal with capacity trading, in accordance with rule 105 of the NGR.

134. Sub-rules 105(2) and (3) of the NGR allow a user to transfer any of its contracted capacity with or without the service provider's consent, with different consequences:

- (2) A user may, without the service provider's consent, transfer, by way of subcontract, all or any of the user's contracted capacity to another (the third party) with the following consequences:
 - (a) the transferor's rights against, and obligations to, the service provider are (subject to paragraph (b)) unaffected by the transfer; but
 - (b) the transferor must immediately give notice to the service provider of:
 - (i) the subcontract and its likely duration; and
 - (ii) the identity of the third party; and
 - (iii) the amount of the contracted capacity transferred.
- (3) A user may, with the service provider's consent, transfer all or any of the user's contracted capacity to another (the third party) with the following consequences:

⁶⁰ NGR 48(1)(f).

- (a) the transferor's rights against, and obligations to, the service provider are terminated or modified in accordance with the capacity trading requirements; and
- (b) a contract arises between the service provider and the third party on terms and conditions determined by or in accordance with the capacity trading requirements.

135. Rule 105 further states that:⁶¹

- The service provider must not withhold its consent unless it has reasonable grounds, based on technical or commercial considerations, for doing so.
- An adjustment of rights and liabilities does not affect the rights or liabilities that had accrued under, or in relation to, the contract before the transfer took effect.
- The capacity trading requirements may specify in advance conditions under which consent will (or will not) be given, and the conditions to be complied with if consent is given.

136. ATCO has not proposed any changes to the capacity trading requirements for AA5. The capacity trading requirements remain unchanged from the existing (AA4) requirements and are specified in Part 6 of the access arrangement and clause 14 of the template service agreement (Annexure F of the access arrangement).

Issue 10 Capacity Trading

Submissions are invited from interested parties on whether any amendments to the capacity trading requirements should be made.

Extension and expansion requirements

137. A full access arrangement is required to set out extension and expansion requirements,⁶² which are detailed in rule 104 of the NGR.

104 Extension and expansion requirements

- (1) Extension and expansion requirements may state whether the applicable access arrangement will apply to incremental services to be provided as a result of a particular extension to, or expansion of the capacity of, the pipeline or may allow for later resolution of that question on a basis stated in the requirements.
- (2) Extension and expansion requirements included in a full access arrangement must, if they provide that an applicable access arrangement is to apply to incremental services, deal with the effect of the extension or expansion on tariffs.
- (3) The extension and expansion requirements cannot require the service provider to provide funds for work involved in making an extension or expansion unless the service provider agrees.

138. ATCO's proposed extension and expansion requirements are set out in Part 7 of the access arrangement and include a new development rebate scheme and some other minor amendments (to existing requirements).

⁶¹ Sub-rules 105(4), (5) and (6).

⁶² NGR 48(1)(g).

139. ATCO's extension and expansion requirements provide for the following.
- For *extensions* that are either a high pressure pipeline extension or a new direct connection to a transmission pipeline (that provides reticulated gas to a new development or an existing development not serviced with reticulated gas), ATCO must apply to the ERA for a decision on whether the extension will be covered by the access arrangement.
 - *Extensions* designed to operate at 1,900kPa or less are covered by the access arrangement.
 - All *expansions* to the GDS are covered by the access arrangement.
 - ATCO must annually report to the ERA the details of all extensions and expansions in progress or completed.

Development rebate scheme

140. ATCO is proposing to introduce a new development rebate scheme to form part of the extension and expansion requirements.⁶³ ATCO submits the new scheme is in response to feedback from land developers that the cost to reticulate and connect commercial subdivisions to the GDS prevents developers from including reticulated gas in the subdivision.

141. ATCO submits:⁶⁴

This scheme will overcome the barriers that developers have informed us they face when considering connecting commercial subdivisions to our network. A fixed principle has been added that supports the recovery of any rebates in future access arrangement periods. The rebate scheme is part of the extension and expansions requirements as it addresses the effect of the extension or expansion on reference tariffs. There are no other relevant provisions that relate to the establishment or operation of a rebate scheme under the NGR or the NGL.

Under the proposed scheme, a developer will receive a rebate following the connection of customers to the extension of our network for some or all the funding it originally provided ATCO to reticulate gas in the subdivision, provided the extension meets the criteria in clause 7.5 of the access arrangement.

The amount of the rebate will reflect the amount that we determine meets the conforming capex test set out in NGR 79. The effect of the scheme is that the developer will receive a rebate for the connection, which will then be treated as capital costs and form part of our RAB. The effect of the scheme is to allow us to earn a return on and return of the rebate amount in future access arrangement period over the life of the asset. We will then recover these costs through reference tariffs in future access arrangements.

142. ATCO further submits that:

- The scheme provides for an agreement to be put in place between ATCO and the developer that sets out operational rights and obligations.
- To minimise administration costs of the scheme, the scheme is limited to subdivisions where the capital funding provided by the developer is in excess of \$50,000.
- Benefits of the scheme will apply to both commercial tenants and other customers.

⁶³ New Part 7.5 of the access arrangement.

⁶⁴ ATCO, 2020-24 Plan (*Access Arrangement Information*), 31 August 2018, p. 193.

Other amendments

143. Further to the new development rebate scheme, ATCO is proposing to amend the reporting timeframes for extensions and expansions and the definition of the pressure threshold for high pressure pipelines.

Reporting timeframes for extensions and expansions:

We report annually to the ERA with the details of GDS extensions and expansions that are in-progress or completed. We have found the timeframes to prepare the reports to be administratively challenging to prepare in the 20 business days allowed for each January due to the normal summer holiday and closedown period. We have proposed for AA5 to extend the timeframe for reporting extensions and expansions to 40 business days following the expiration of the calendar year and submit that this would not have any adverse effect on relevant parties.

Definition of the pressure threshold for [high pressure] pipelines:

We have also made a minor amendment to the definition of the pressure threshold for high pressure pipelines from 1,920kPa to 1,900kPa to be consistent with definition of “distribution network” set out in s.3 of the *Energy Coordination Act (1994)* definition.

Issue 11 Extension and Expansion Requirements

Submissions are invited from interested parties on:

- ATCO’s proposal to introduce a new development rebate scheme to form part of the extension and expansion requirements.
- ATCO’s proposal to make other amendments to amend the:
 - reporting timeframes for extension and expansions
 - definition of the pressure threshold for high pressure pipelines.

Receipt and delivery points

144. A full access arrangement is required to state the terms and conditions for changing receipt and delivery points.⁶⁵ These terms and conditions must be accordance with the principles listed in rule 106(1) of the NGR:
- (a) a user may, with the service provider's consent, change the user's receipt or delivery point;
 - (b) the service provider must not withhold its consent unless it has reasonable grounds, based on technical or commercial considerations, for doing so.
145. The access arrangement may specify in advance the conditions under which consent will (or will not) be given, the conditions to be complied with if consent is given (rule 106(2)).
146. ATCO has not proposed any changes to the terms and conditions for changing receipt and delivery points for AA5. The terms and conditions remain unchanged from the existing (AA4) terms and conditions and are specified in Part 8 of the access

⁶⁵ NGR 48(1)(h).

arrangement and clause 5 of the template service agreement (Annexure F of the access arrangement).

Issue 12 Receipt and Delivery Points

Submissions are invited from interested parties on whether any amendments to the terms and conditions for changing receipt and delivery points should be made.

Review and commencement dates

147. If there is to be a review submission date, a full access arrangement must state the review submission date and the revision commencement date. The NGR define these dates to mean:

review submission date means a date on or before which an access arrangement revision proposal is required to be submitted.

revision commencement date for an applicable access arrangement means the date fixed in the access arrangement as the date on which revisions resulting from a review of an access arrangement are intended to take effect.

148. ATCO is proposing a five year AA5 period, which compares to a five-and-a-half year period for AA4 that was adopted to align the regulatory years with calendar years. The proposed:

- review submission date is 1 September 2023.
- revision commencement date is 1 January 2025.

149. ATCO submits that the review submission date:⁶⁶

Is consistent with the timing of revisions provided for under our current access arrangement and as mandated by NGR 49 and 50. Our experience is that this review submission date allows sufficient time for the consideration of the proposed revisions.

Issue 13 Review and Commencement Dates

Submissions are invited from interested parties on ATCO's proposed:

- review submission date of 1 September 2023
- revision commencement date of 1 January 2025.

⁶⁶ ATCO, 2020-24 Plan (Access Arrangement Information), 31 August 2018, p. 194.

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Appendix 1: Summary of Issues

Issue 1 Demand Forecast

Submissions are invited from interested parties on ATCO's proposed demand forecast over AA5.

Issue 2 Tariff variations

Submissions are invited from interested parties on ATCO's proposed:

- price path, including its effect on small use customers
- change to include B2 and B3 customers into the existing weighted average price cap for A1, A2 and B1 customers.

Issue 3 Taxation

Submissions are invited from interested parties on ATCO's proposal to:

- Introduce a new 'telemetry' asset category with a tax asset life of 10 years.
- Retain a straight-line method of depreciation to calculate its tax depreciation.

Submissions are also invited on whether any of the AER's findings from its review of the regulatory tax approach should be adopted in reviewing ATCO's proposal.

Issue 4 Incentive mechanisms

Submissions are invited from interested parties on the following:

- ATCO's proposal to introduce a new incentive mechanism (the "Network Innovation Scheme") into the access arrangement.
- The benefits of the incentive mechanism proposed by ATCO for natural gas consumers, including how the benefits of such a mechanism might be shared between ATCO and consumers.

Issue 5 Reliability and security of supply capital expenditure

Submissions are invited from interested parties on whether the aggregate level of proposed reliability and security of supply expenditure is reasonable in the context of current and forecast service performance.

Issue 6 Pipeline Services

Submissions are invited from interested parties on ATCO's proposal to:

- Retain the current AA4 haulage reference services for AA5.
- Introduce a new 'special meter reading' ancillary reference service.

Submissions are also invited from interested parties on whether other pipeline services should be classified as reference services.

Issue 7 Reference tariffs

Submissions are invited from interested parties on ATCO's proposal to:

- Maintain the current tariff charging parameters for haulage reference services.
- Charge users an amount of \$12.82 (\$ real as at 31 December 2019) for undertaking special meter reading. Previously this charge was a non-reference service.

Issue 8 Terms and Conditions

Submissions are invited from interested parties on:

- ATCO's proposal to make amendments to the template service agreement.
- Whether any other amendments to the template service agreement should be made.

Issue 9 Application Procedures

Submissions are invited from interested parties on:

- ATCO's proposal to make amendments to the application procedures for requesting access to a pipeline service.
- Whether any other amendments to the application procedures should be made.

Issue 10 Capacity Trading

Submissions are invited from interested parties on whether any amendments to the capacity trading requirements should be made.

Issue 11 Extension and Expansion Requirements

Submissions are invited from interested parties on:

- ATCO's proposal to introduce a new development rebate scheme to form part of the extension and expansion requirements.
- ATCO's proposal to make other amendments to amend the:
 - reporting timeframes for extension and expansions
 - definition of the pressure threshold for high pressure pipelines.

Issue 12 Receipt and Delivery Points

Submissions are invited from interested parties on whether any amendments to the terms and conditions for changing receipt and delivery points should be made.

Issue 13 Review and Commencement Dates

Submissions are invited from interested parties on ATCO's proposed:

- review submission date of 1 September 2023
- revision commencement date of 1 January 2025.

Appendix 2: Access Arrangement Review Process

The following explanation of the access arrangement review process is a summary of the process detailed in the Economic Regulation Authority's (ERA) *Gas Access Arrangement Guideline*.⁶⁷

Proposal and initial consultation

A service provider must, on or before the review submission date of an applicable access arrangement, submit an access arrangement revision proposal (proposal) to the ERA in accordance with rule 52 of the *National Gas Rules* (NGR).

The service provider must also provide access arrangement information which contains information necessary to understand the proposal as well as the basis for deriving elements of the proposal (rule 43(1)). In addition, a service provider may wish to provide further information to support its proposal (that is, access arrangement supporting information).

Upon receipt of a service provider's proposal, the ERA must as soon as practicable publish an initiating notice, along with the service provider's proposal on its website (rule 58). The initiating notice must include an invitation for written submissions on the proposal for a period of at least 20 business days.

Draft decision and further consultation

Following this initial consultation process, the ERA must make a draft decision and indicate whether the ERA is prepared to approve or not approve the service provider's proposal under rule 59 of the NGR. The draft decision represents the ERA's assessment of the proposal in light of legislative requirements, current access arrangement provisions, the service provider's proposed changes and submissions from interested parties.

Under rule 60, the service provider may, within the period allowed by the draft decision (at least 15 business days), submit additions or other amendments to its proposal to address matters raised in the draft decision. The service provider must provide any amendments to the ERA in a revised access arrangement proposal (revised proposal). The ERA must publish the revised proposal on its website as soon as practicable and invite submissions from interested parties on the revised proposal and draft decision for a period of at least 20 business days.

Final decision

After the ERA considers the service provider's revised proposal (where submitted), further submissions from interested parties and any other relevant matters, the ERA must make a final decision as required under rule 62 of the NGR. The final decision is a decision to approve or refuse to approve the (initial or revised) proposal. If the ERA approves the proposal, the access arrangement takes effect on either a date fixed in the final decision or if no date is fixed, 10 business days after the final decision is made.

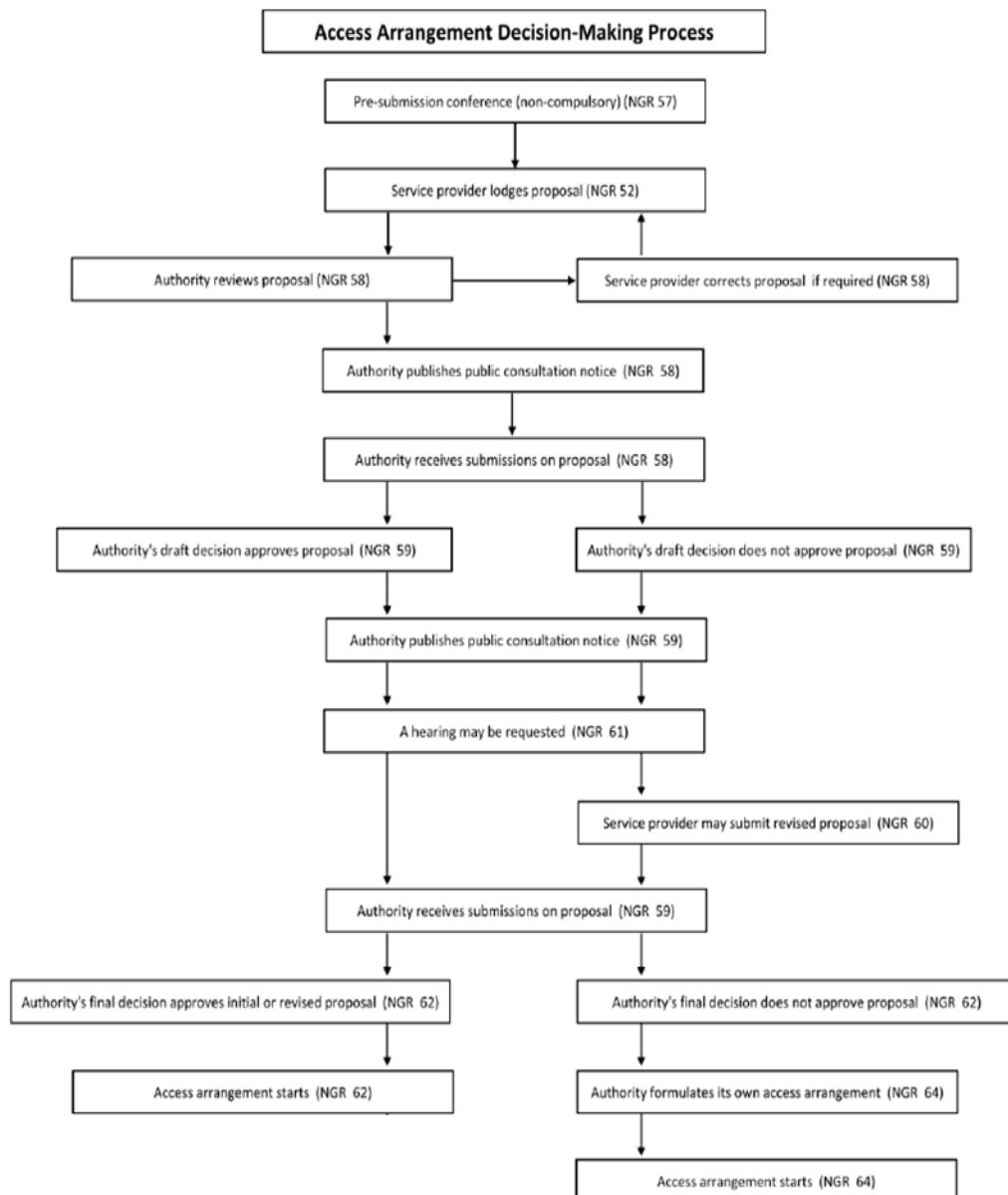
If the ERA's final decision refuses to approve the proposal (as initially submitted or as revised after the draft decision), the ERA must itself propose revisions to the access arrangement under rule 64 of the NGR. The ERA's proposal for revisions to the access arrangement must take into account:

⁶⁷ Economic Regulation Authority, *Gas Access Arrangement Guideline*, 10 March 2014 ([online](#)) (accessed 7 August 2018).

- The matters that the applicable legislation requires an access arrangement to include.
- The service provider's access arrangement proposal.
- The ERA's reasons for refusing to approve the service provider's access arrangement proposal.

The ERA may, but is not obliged to, consult on its own revisions to the access arrangement. The ERA must make a final decision to give effect to its revisions, which will take effect on a date fixed in the decision or if no date is fixed, 10 business days after the decision is made.

Figure 9 Overview of the access arrangement decision-making process



Appendix 3: Rate of Return Guidelines

The Economic Regulation Authority (ERA) is responsible for approving third party access arrangements in Western Australia for gas transmission and distribution networks, including the Mid-West and South-West Gas Distribution Systems. The ERA's responsibilities are established under the *National Gas Law* (NGL) and *National Gas Rules* (NGR) as implemented in Western Australia by the *National Gas Access (WA) Act 2009*.

Requirement to produce and review guidelines

The NGR require the ERA to produce rate of return guidelines and to review these guidelines “at intervals not exceeding five years for the first interval and three years for all subsequent intervals, with the first interval starting from the date the first rate of return guidelines are published under [the] rules”.⁶⁸ The reviews provide an opportunity to undertake a comprehensive review of approaches for determining the allowed rate of return on capital.

The ERA first published rate of return guidelines on 16 December 2013. As required by the NGR (rule 87(14)), the guidelines set out:

- The methodologies that the ERA proposes to use in estimating the allowed rate of return, including how those methodologies are intended to result in the determination of a return on equity and a return on debt in a way that is consistent with the allowed rate of return objective.
- The estimation methods, financial models, market data and other evidence that the ERA proposes to take into account in estimating the return on equity, the return on debt and the value of imputation credits referred to in rule 87A.

2018 review

The ERA is required to complete its first review of the (2013) rate of return guidelines by 16 December 2018. Draft updated guidelines and a draft explanatory statement were published on 29 June 2018 for public comment. The ERA will consider any submissions received on the draft guidelines before making and publishing final updated guidelines.

The 2018 review has allowed the ERA to assess its approach to setting the rate of return for covered gas pipeline access arrangements. The ERA's updated approach to estimating the rate of return is different to the approach in the 2013 guidelines and draws on the ERA's approach in most recent access arrangement decisions.⁶⁹ The ERA has maintained a focus on the overall methods, estimation methods, financial models, market data and other evidence for developing the rate of return. This is consistent with the requirements of the NGL and NGR.

Where relevant, as a means of illustration, the ERA has set out current indicative estimates of the rate of return and associated parameters. However, the specific values arising from the application of the ERA's approach to estimating the rate of return will be determined at each access arrangement review, by applying the approaches set out in the rate of return guidelines.

⁶⁸ National Gas Rules, rule 87(16)(a).

⁶⁹ The last gas access arrangement decision was made in June 2016 for the Dampier to Bunbury Natural Gas Pipeline.

Application of the guidelines

At present, the rate of return guidelines are not binding. The ERA and/or service providers may depart from the guidelines in reviewing an access arrangement, provided that an adequate explanation for any proposed change, in terms of the NGL and NGR, is provided.

However, the Council of Australian Governments' Energy Council is currently developing a framework for a binding rate of return instrument. This will have implications for the application of the rate of return guidelines to future determinations. The ERA expects that the updated (2018) rate of return guidelines will be adopted as a mandatory instrument if the legislative changes are made and the changes are adopted for Western Australia.

Further information

Further information about the rate of return guidelines and relevant documents can be obtained from the ERA's website.

Appendix 4: Glossary

AA4	fourth access arrangement period
AA5	fifth access arrangement period
AER	Australian Energy Regulator
ATCO	ATCO Gas Australia
CPI	Consumer Price Index
ERA	Economic Regulation Authority
GDS	Mid-West and South-West Gas Distribution Systems
NGL	National Gas Law
NGR	National Gas Rules
PE	polyethylene
PVC	polyvinyl chloride
SAIFI	System Average Interruption Frequency Index
SCADA	supervisory control and data acquisition
TJ	terajoule
UAFG	unaccounted for gas
WACC	weighted average cost of capital